ALPHA ANALYTICAL

World Class Chemistry

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L1606763

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Project Name: 450 UNION STREET
Project Number: 170301202

Lab Number: L1606763
Report Date: 03/25/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1606763-01	MW12_030916	WATER	450 UNION STREET	03/09/16 11:40	03/09/16
L1606763-02	TB04_030916	WATER	450 UNION STREET	03/09/16 00:00	03/09/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

The project location was provided by the client.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristen Walker Report Date: 03/17/16

Title: Technical Director/Representative

List of Organic Method Qualifiers

Table 1

Qualifier (Q)	Description
B	Entered if the analyte is found in the associated blank as well as the sample.
C	Applied to pesticide results when the identification has been confirmed by GC/MS.
D	Included when the all identified compounds in the analysis are at the secondary dilution factor.
E	Identified compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value, may indicate one of the following, depending on the situation: (1) The reported value is estimated and below the MDL. (2) Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the identification criteria, but the results is less than the quantitation limit, but greater than zero. (3) QC associated with this analyte is within warning limits.
N	Included for TIC that indicate presumptive evidence of a compound.
U	Entered if the analyte was analyzed for, but not detected.
P	Used for a pesticide/Aroclor target analyte when the concentration difference between 2 GC columns is greater than 25%; the lower value is flagged with a “P”.
EMPC	“Estimated Maximum Possible Concentration” – The amount of analyte cannot be accurately quantified, so a maximum concentration has been estimated for the compound.
“XYZ”	“Wildcard” or Laboratory defined qualifier.

Note: Form I allows only one character in each qualifier column. If multiple qualifiers are applicable, please assess qualifier priority in the following order: U, E, J, B, D, C, P, N. Reporting done in the EDD may include multiple qualifiers when applicable, separated by a single space.

(Information obtained from NYSDEC ASP Exhibit B, 7/2005, page 64)

List of Inorganic Method Qualifiers

Table 2

Qualifier	Column (1)	Description
Concentration qualifiers		
B	C	Entered if the reported value was less than the CRDL, but greater than the IDL.
U	C	Entered if the analyte was analyzed for, but not detected.
J	C	Entered if the reported value is estimated and below the MDL.
*	C	Duplicate precision exceeds RPD limit.
M	C	Replicate precision exceeds RPD limit.
"XYZ"	C	"Wildcard" or Laboratory defined qualifier.
Qualifier specific entries		
E	Q	Entered if the reported value is estimated because of the presence of interferences.
Method qualifiers		
A	M	Flame atomic absorption
AS	M	Semi-automated spectrophotometric
AV	M	Automated cold vapor atomic absorption
C	M	Manual spectrophotometric
F	M	Furnace atomic absorption
MS	M	Mass spectrometry (ICP-MS)
NR	M	Analyte is not required to be analyzed
P	M	Inductively coupled plasma (ICP)
" "	M	No data have been entered

(1) The term "Column" is used to indicate under which column heading in the reporting forms that the qualifier will be found under.
Note: Form I allows only one character in each qualifier column. If multiple qualifiers are applicable to column C, please assess qualifier priority in the following order: U, J, B. Reporting done in the EDD may include multiple qualifiers when applicable, separated by a single space.

(Information obtained from NYSDEC ASP Exhibit B, 7/2005, page 65)

Volatile Organics Instruments

Volatile Organics: Jack

Instrument: Agilent 5975MSD	Column Type: RTX-VMS
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 20 Meters
Concentrator: EST Encon	df: 1.00um
Autosampler: EST Centurion	ID: 0.18mm
Purge time: 11 min	Desorb: 2 min

Volatile Organics: Quimby

Instrument: Agilent 5973MSD	Column Type: RTX-VMS
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 20 Meters
Concentrator: EST Encon	df: 1.00um
Autosampler: EST Centurion	ID: 0.18mm
Purge time: 11 min	Desorb: 2 min

Volatile Organics: Curly

Instrument: Agilent 5972 MSD	Column Type: Restek RTX-502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 40 Meters
Concentrator: Tekmar 3000	df: 1.00 um
Autosampler: Archon	ID: 0.18 mm
Purge time: 11 min	Desorb: 2 min

Volatile Organics: Elaine

Instrument: Agilent 5973 MSD	Column Type: Restek RTX-502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 40 Meters
Concentrator: Teledyne Velocity	df: 1.00 um
Autosampler: Teledyne Solatek	ID: 0.18 mm
Purge time: 11 min	Desorb: 2 min

Volatile Organics: Gonzo

Instrument: Agilent 5973 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Teledyne Velocity
Autosampler: Teledyne Solatek
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: VOA101

Instrument: Agilent 5975C inert XL MSD
Trap: EST K Trap (VOACARB 3000)
Concentrator: Encon Evolution
Autosampler: EST Centurion
Purge time: 11 min

Column Type: Restek RTX-VMS
Column Length: 30 Meters
df: 1.40 um
ID: 0.25 mm
Desorb: 1 min

Volatile Organics: Charlie/Voa100/Voa104

Instrument: Agilent 5975C MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Encon Evolution
Autosampler: EST Centurion
Purge time: 11 min

Column Type: Agilent DB-624
Column Length: 25 Meters
df: 1.12 um
ID: 0.20 mm
Desorb: 2 min

Volatile Organics: M

Instrument: Agilent 6890

Concentrator: Tekmar 2016
Autosampler: Tekmar 3100

Column Type: Restek RTX 502.2
Column Length: 105 Meters
df: 3.00 um
ID: 0.53 mm

Volatile Organics: L/N

Instrument: Agilent 6890

Concentrator: Encon Evolution
Autosampler: EST Centurion

Column Type: Restek RTX 502.2
Column Length: 105 Meters
df: 3.00 um
ID: 0.53 mm

Volatile Organics: O/P

Instrument: Agilent 7890A

Concentrator: Encon Evolution
Autosampler: EST Centurion

Column Type: Restek RTX 502.2
Column Length: 105 Meters
df: 3.00 um
ID: 0.53 mm

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instrument: Agilent 6890 GC / 5975 MSD	Column Type: Restek RTX-1
	Column Length: 60 Meters
Concentrator: Entech 7100A	df: 1.00 um
Autosampler: Entech 7016CA	ID: 0.52 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments

Semivolatile Organics (Acid/Base/Neutral Extractables): Buffy

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (Acid/Base/Neutral Extractables): Juliet/GCMS5/GCMS7

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SIL MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM: Dakota/Mork

Instrument: Agilent 5973 MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM: Mindy

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SIL MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Pesticides/PCB : Pest 11/Pest2/Pest7/Pest12

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek RTX-CLP (Channel A)	df: 0.32 um
Column: Restek RTX-CLPPesticide II (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Pesticides/PCB: Pest 10/ Pest9

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek STX-CLP (Channel A)	df: 0.32 um
Column: Restek STX-CLPPesticide II (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Herbicides

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek RTX-1701 (Channel A)	df: 0.25 um
Column Type: Restek RTX-5 (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Petro9

Instrument: Agilent 6890 w/FID	Injection Volume: 1uL
Column: Restek RTX-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

EPH Petro10/ Petro11

Instrument: Agilent 6890N w/FID	Injection Volume: 1uL
Column: Restek RTX-5-MS	df: 0.25um
Column Length: 30 Meters	ID: 0.32 mm

Explosives

Instrument: Dionex ICS-3000, AS50 Autosampler and PDA-100 detectors.
Injection Volume: 100uL
Column: Phenomenex Synergi 4u Hydro-RP and Luna 5u Phenyl-Hexyl.

GC/MS Forensic Semivolatile Organic Instruments

Semivolatile Organics (ALK-PAH extractables): PAH1/PAH2/PAH3/PAH4

Instrument: Agilent 5973C MSD	Injection volume: 1 ul
Column Type: Phenomenex ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (ALK-PAH extractables): PAH8/PAH9/PAH10/PAH11/PAH12/PAH13/PAH14

Instrument: Agilent 5975C MSD	Injection volume: 1 ul
Column Type: Phenomenex ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (ALK-PAH extractables): PAH17/PAH18/PAH19

Instrument: Agilent 5975C MSD	Injection volume: 1 ul
Column Type: Phenomenex ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

GC/FID Forensic Semivolatile Organic Instruments

Semivolatile Organics (SHC extractables):PAH1/PAH2/PAH3/PAH4/PAH8

Instrument: Agilent 6890N w/FID	Injection Volume: 1uL
Column: Restek RTX-5	df: 0.25um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (SHC extractables): FID6 (dual column)/ FID9 (dual column)/ FID17 (dual column)

Instrument: Agilent 6890N w/FID	Injection Volume: 1uL
Column: Restek RTX-5	df: 0.25um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (SHC extractables):FID7 (dual column)

Instrument: Agilent 7890N w/FID	Injection Volume: 1uL
Column: Restek RTX-5	df: 0.25um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Form

Laboratory Job number: L1606763
Project Manager: Ben Rao **Review Date:** 03/11/2016
Project Number: 170301202
Project Name: 450 UNION STREET **Received:** 03/09/2016 16:30
Client Account: Langan Engineering & Environmental **Received by:** RM/LT

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt <2, 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? Yes
Aqueous: Do Vials Contain Head Space? No
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	Yes	No	2.9 - IR Gun	No	No

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Mar 25 2016, 10:56 am

Login Number: L1606763
Account: LANGAN-NYC Langan Engineering & EnvironmentalProject: 170301202
Received: 09MAR16 Due Date: 16MAR16

Sample #	Client ID	Mat	PR	Collected	Container
L1606763-01	MW12_030916	S0	1	09MAR16 11:40	2-Amber-A.5,4-Amber-A1,2-Plastic-C.5,3-Vial-B

| ASP-B Package Due Date: 03/23/16

ASP-B,NYTCL-8081,NYTCL-8082-1200ML,NYTCL-8260,NYTCL-8270/8270SIM,NYTCL-8270,NYTCL-8270-SIM,TAL-6020S,AG-6020S,AL-6020S,AS-6020S,BA-6020S,BE-6020S,CA-6020S,CD-6020S,CO-6020S,CR-6020S,CU-6020S,FE-6020S,HG-S,K-6020S,MG-6020S,MN-6020S,NA-6020S,NI-6020S,PB-6020S,PREPS,SB-6020S,SE-6020S,TL-6020S,V-6020S,ZN-6020S,TAL-6020T,AG-6020T,AL-6020T,AS-6020T,BA-6020T,BE-6020T,CA-6020T,CD-6020T,CO-6020T,CR-6020T,CU-6020T,FE-6020T,HG-T,K-6020T,MG-6020T,MN-6020T,NA-6020T,NI-6020T,PB-6020T,PREPT,SB-6020T,SE-6020T,TL-6020T,V-6020T,ZN-6020T

Sample #	Client ID	Mat	PR	Collected	Container
L1606763-02	TB04_030916	S0	1	09MAR16 00:00	2-Vial-B

| Package Due Date: 03/23/16

NYTCL-8260

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 3/9/16

ALPHA Job #: L1606763

Client Information

Client: Langan Engineering
Address: 360 W. 31st St
NY NY 10001
Phone: (212) 479 5536
Fax:
Email: nr.ce@langan.com

Project Information

Project Name: 430 Union Street
Project Location:
Project #: 170302702
(Use Project name as Project #)
Project Manager: N. Rice / A. Tadini
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☑ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☑ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☑ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☑ NY
☐ Other:

☐ These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

Dissolved metals were field filtered

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☑ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL metals (field filtered)	Sample Specific Comments	Total Bottle
06763-01	MW12_030916	3/9/16	1140	GW	RC	X	X	X	X	field filtered	11
02	TB01_030916	3/9/16	—	W	RC	X				—	2

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type										
Preservative										

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/9/16 1630	Daniel Fischer AAI	3/9/16 16:30
Daniel Fischer AAI	3/9/16 1810	Tom Tadini	3-9-16 1810
Tom Tadini	3/9/16 2235	[signature]	3/9/16 22:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Form 2
Surrogate Recovery
Volatile Organics

Client: Langan Engineering & Environmental
Project Name: 450 UNION STREET

Lab Number: L1606763
Project Number: 170301202
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 TOL	SMC2 BFB	SMC3 DCA	SMC4 DBFM	TOT OUT
WG873931-2LCSD	97	98	100	98	0
WG873931-1LCS	97	98	100	101	0
WG873931-3BLANK	98	101	100	96	0
MW12_030916 (L1606763-01)	97	100	102	98	0
TB04_030916 (L1606763-02)	98	100	105	99	0

	QC LIMITS
TOL = TOLUENE-D8	(70-130)
BFB = 4-BROMOFLUOROBENZENE	(70-130)
DCA = 1,2-DICHLOROETHANE-D4	(70-130)
DBFM = DIBROMOFLUOROMETHANE)	(70-130)

*** Values outside of QC limits**

FORM II NYTCL-8260

3A

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873931-1LCS Injected: 03/15/16 08:28 Lab File ID: 0315A01.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
Methylene chloride	10	NA	10.	101	70-130
1,1-Dichloroethane	10	NA	10.	104	70-130
Chloroform	10	NA	10.	106	70-130
2-chloroethylvinylether	10	NA	6.7	67*	70-130
Carbontetrachloride	10	NA	10.	105	63-132
1,2-Dichloropropane	10	NA	10.	106	70-130
Chlorodibromomethane	10	NA	10.	101	63-130
1,1,2-Trichloroethane	10	NA	10.	101	70-130
Tetrachloroethene	10	NA	10.	106	70-130
Chlorobenzene	10	NA	10.	100	75-130
Trichlorofluoromethane	10	NA	10.	101	62-150
1,2-Dichloroethane	10	NA	10.	104	70-130
1,1,1-Trichloroethane	10	NA	11.	111	67-130
Bromodichloromethane	10	NA	11.	110	67-130
trans-1,3-Dichloropropen	10	NA	11.	112	70-130
cis-1,3-Dichloropropene	10	NA	11.	110	70-130
1,1-Dichloropropene	10	NA	10.	105	70-130
Bromoform	10	NA	11.	112	54-136
1,1,2,2,-Tetrachloroetha	10	NA	9.7	97	67-130
Benzene	10	NA	10.	105	70-130
Toluene	10	NA	11.	106	70-130
Ethyl benzene	10	NA	10.	105	70-130
Chloromethane	10	NA	9.4	94	64-130
Bromomethane	10	NA	9.0	90	39-139
Vinyl chloride	10	NA	12.	115	55-140
Chloroethane	10	NA	11.	109	55-138
1,1,-Dichloroethene	10	NA	10.	105	61-145
trans-1,2-Dichloroethene	10	NA	10.	106	70-130
Trichloroethene	10	NA	10.	103	70-130
1,2-Dichlorobenzene	10	NA	9.8	98	70-130
1,3-Dichlorobenzene	10	NA	9.9	99	70-130
1,4-Dichlorobenzene	10	NA	9.7	97	70-130
Methyl tert butyl ether	10	NA	8.6	86	63-130
p/m xylene	20	NA	21.	104	70-130
o Xylene	20	NA	20.	102	70-130
cis-1,2-Dichloroethene	10	NA	10.	105	70-130
Dibromomethane	10	NA	10.	103	70-130
1,2,3-Trichloropropane	10	NA	9.4	94	64-130
Acrylonitrile	10	NA	10.	101	70-130
Diisopropyl Ether	10	NA	11.	106	70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NYTCL-8260

3A

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873931-1LCS Injected: 03/15/16 08:28 Lab File ID: 0315A01.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
tert-Butyl Alcohol	50	NA	46.	93	70-130
Styrene	20	NA	21.	105	70-130
Dichlorodifluoromethane	10	NA	9.5	95	36-147
Acetone	10	NA	9.7	97	58-148
Carbon disulfide	10	NA	9.8	98	51-130
2-Butanone	10	NA	9.7	97	63-138
Vinyl acetate	10	NA	12.	123	70-130
4-Methyl-2-pentanone	10	NA	9.6	96	59-130
2-Hexanone	10	NA	9.8	98	57-130
Acrolien	10	NA	10.	105	40-160
Bromochloromethane	10	NA	12.	117	70-130
2,2-Dichloropropane	10	NA	11.	110	63-133
1,2-Dibromoethane	10	NA	9.8	98	70-130
1,3-Dichloropropane	10	NA	9.9	100	70-130
1,1,1,2-Tetrachloroethan	10	NA	11.	110	64-130
Bromobenzene	10	NA	10.	101	70-130
n-Butylbenzene	10	NA	11.	110	53-136
sec-Butylbenzene	10	NA	11.	108	70-130
tert-Butylbenzene	10	NA	10.	104	70-130
2-Chlorotoluene	10	NA	10.	102	70-130
4-Chorotoluene	10	NA	10.	100	70-130
1,2-Dibromo-3-chloroprop	10	NA	10.	105	41-144
Hexachlorobutadiene	10	NA	10.	105	63-130
Isopropylbenzene	10	NA	10.	104	70-130
p-Isopropyltoluene	10	NA	10.	106	70-130
Naphthalene	10	NA	8.8	88	70-130
n-Propylbenzene	10	NA	11.	109	69-130
1,2,3-Trichlorobenzene	10	NA	9.8	98	70-130
1,2,4-Trichlorobenzene	10	NA	10.	101	70-130
1,3,5-Trimethybenzene	10	NA	10.	104	64-130
1,2,4-Trimethylbenzene	10	NA	10.	103	70-130
Methyl Acetate	10	NA	9.8	98	70-130
Ethyl Acetate	10	NA	9.7	97	70-130
Cyclohexane	10	NA	11.	106	70-130
Ethyl-Tert-Butyl-Ether	10	NA	8.9	89	70-130
Tertiary-Amyl Methyl Eth	10	NA	8.6	86	66-130
1,4-Dioxane	500	NA	500	101	56-162
Freon 113	10	NA	10.	101	70-130
p-Diethylbenzene	10	NA	9.6	96	70-130
4-Ethyltoluene	10	NA	10.	105	70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NYTCL-8260

3A

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873931-1LCS Injected: 03/15/16 08:28 Lab File ID: 0315A01.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
1,2,4,5-tetramathylbenze	10	NA	11.	107	70-130
Ethyl ether	10	NA	10.	104	59-134
trans-1,4-Dichloro-2-but	10	NA	11.	111	70-130
Iodomethane	10	NA	3.8	38*	70-130
Methyl cyclohexane	10	NA	10.	104	70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NYTCL-8260

3A

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873931-1LCS Injected: 03/15/16 08:28 Lab File ID: 0315A01.D

Lab Control Dup : WG873931-2LCSD Injected: 03/15/16 09:00 Lab File ID: 0315A02.D

COMPOUND	SPIKE ADDED (ug/l)	LCSD CONCENTRATION (ug/l)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Methylene chloride	10	9.4	94	7	20	70-130
1,1-Dichloroethane	10	9.5	95	9	20	70-130
Chloroform	10	9.6	96	10	20	70-130
2-chloroethylvinylether	10	6.6	66 *	2	20	70-130
Carbontetrachloride	10	9.3	93	12	20	63-132
1,2-Dichloropropane	10	9.5	95	11	20	70-130
Chlorodibromomethane	10	9.2	92	9	20	63-130
1,1,2-Trichloroethane	10	9.0	90	12	20	70-130
Tetrachloroethene	10	9.5	95	11	20	70-130
Chlorobenzene	10	9.1	91	9	20	75-130
Trichlorofluoromethane	10	9.2	92	9	20	62-150
1,2-Dichloroethane	10	9.4	94	10	20	70-130
1,1,1-Trichloroethane	10	10.	101	9	20	67-130
Bromodichloromethane	10	10.	102	8	20	67-130
trans-1,3-Dichloropropen	10	10.	100	11	20	70-130
cis-1,3-Dichloropropene	10	10.	100	10	20	70-130
1,1-Dichloropropene	10	9.4	94	11	20	70-130
Bromoform	10	9.9	99	12	20	54-136
1,1,2,2,-Tetrachloroetha	10	8.5	85	13	20	67-130
Benzene	10	9.6	96	9	20	70-130
Toluene	10	9.6	96	10	20	70-130
Ethyl benzene	10	9.5	95	10	20	70-130
Chloromethane	10	9.5	95	1	20	64-130
Bromomethane	10	7.4	74	20	20	39-139
Vinyl chloride	10	10.	104	10	20	55-140
Chloroethane	10	9.9	99	10	20	55-138
1,1,-Dichloroethene	10	9.5	95	10	20	61-145
trans-1,2-Dichloroethene	10	9.4	94	12	20	70-130
Trichloroethene	10	9.3	93	10	20	70-130
1,2-Dichlorobenzene	10	9.0	90	9	20	70-130
1,3-Dichlorobenzene	10	9.0	90	10	20	70-130
1,4-Dichlorobenzene	10	8.8	88	10	20	70-130
Methyl tert butyl ether	10	7.7	77	11	20	63-130
p/m xylene	20	19.	95	9	20	70-130
o Xylene	20	19.	94	8	20	70-130
cis-1,2-Dichloroethene	10	9.6	96	9	20	70-130
Dibromomethane	10	9.0	90	13	20	70-130
1,2,3-Trichloropropane	10	8.4	84	11	20	64-130
Acrylonitrile	10	8.7	87	15	20	70-130
Diisopropyl Ether	10	9.6	96	10	20	70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NYTCL-8260

3A

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873931-1LCS Injected: 03/15/16 08:28 Lab File ID: 0315A01.D

Lab Control Dup : WG873931-2LCSD Injected: 03/15/16 09:00 Lab File ID: 0315A02.D

COMPOUND	SPIKE ADDED (ug/l)	LCSD CONCENTRATION (ug/l)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
tert-Butyl Alcohol	50	41.	83	11	20	70-130
Styrene	20	20.	98	7	20	70-130
Dichlorodifluoromethane	10	8.7	87	9	20	36-147
Acetone	10	8.0	80	19	20	58-148
Carbon disulfide	10	8.6	86	13	20	51-130
2-Butanone	10	8.6	86	12	20	63-138
Vinyl acetate	10	11.	108	13	20	70-130
4-Methyl-2-pentanone	10	8.5	85	12	20	59-130
2-Hexanone	10	8.9	89	10	20	57-130
Acrolien	10	10.	102	3	20	40-160
Bromochloromethane	10	10.	104	12	20	70-130
2,2-Dichloropropane	10	9.7	97	13	20	63-133
1,2-Dibromoethane	10	8.9	89	10	20	70-130
1,3-Dichloropropane	10	9.0	90	11	20	70-130
1,1,1,2-Tetrachloroethan	10	9.9	99	11	20	64-130
Bromobenzene	10	8.9	89	13	20	70-130
n-Butylbenzene	10	9.5	95	15	20	53-136
sec-Butylbenzene	10	9.4	94	14	20	70-130
tert-Butylbenzene	10	9.0	90	14	20	70-130
2-Chlorotoluene	10	9.1	91	11	20	70-130
4-Chorotoluene	10	9.0	90	11	20	70-130
1,2-Dibromo-3-chloroprop	10	9.6	96	9	20	41-144
Hexachlorobutadiene	10	9.1	91	14	20	63-130
Isopropylbenzene	10	9.4	94	10	20	70-130
p-Isopropyltoluene	10	9.2	92	14	20	70-130
Naphthalene	10	8.2	82	7	20	70-130
n-Propylbenzene	10	9.4	95	14	20	69-130
1,2,3-Trichlorobenzene	10	8.8	88	11	20	70-130
1,2,4-Trichlorobenzene	10	9.1	91	10	20	70-130
1,3,5-Trimethybenzene	10	9.1	91	13	20	64-130
1,2,4-Trimethylbenzene	10	9.2	92	11	20	70-130
Methyl Acetate	10	9.0	90	9	20	70-130
Ethyl Acetate	10	8.7	87	11	20	70-130
Cyclohexane	10	9.4	94	12	20	70-130
Ethyl-Tert-Butyl-Ether	10	8.1	81	9	20	70-130
Tertiary-Amyl Methyl Eth	10	7.7	77	11	20	66-130
1,4-Dioxane	500	430	87	15	20	56-162
Freon 113	10	9.1	91	10	20	70-130
p-Diethylbenzene	10	8.6	86	11	20	70-130
4-Ethyltoluene	10	9.3	93	12	20	70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NYTCL-8260

3A

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873931-1LCS Injected: 03/15/16 08:28 Lab File ID: 0315A01.D

Lab Control Dup : WG873931-2LCSD Injected: 03/15/16 09:00 Lab File ID: 0315A02.D

COMPOUND	SPIKE ADDED (ug/l)	LCSD CONCENTRATION (ug/l)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
1,2,4,5-tetramathylbenze	10	9.4	94	13	20	70-130
Ethyl ether	10	9.6	96	8	20	59-134
trans-1,4-Dichloro-2-but	10	9.6	96	14	20	70-130
Iodomethane	10	4.7	47 *	21 *	20	70-130
Methyl cyclohexane	10	9.1	91	13	20	70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NYTCL-8260

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG873931-3BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: 0315A04 Lab Sample ID: WG873931-3

Date Analyzed: 03/15/16 Time Analyzed: 10:05

Instrument ID: GONZO.I

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG873931-1LCS	WG873931-1	0315A01	03/15/16 08:28
02	WG873931-2LCSD	WG873931-2	0315A02	03/15/16 09:00
03	TB04_030916	L1606763-02	0315A09	03/15/16 12:47
04	MW12_030916	L1606763-01	0315A10	03/15/16 13:19

COMMENTS: _____

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FORM IV NYTCL-8260 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: BFB0227A_tune BFB Injection Date: 02/27/16

Instrument ID: Gonzo.i BFB Injection Time: 14:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
95	Base Peak, 100% relative abundance	100
50	15.0 - 40.0% of mass 95	18.3
75	30.0 - 60.0% of mass 95	47.8
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0.00)1
174	Greater than 50.0 of mass 95	77.7
175	5.0 - 9.0% of mass 174	5.6 (7.16)1
176	95.0 - 101% of mass 174	74.3 (95.6)1
177	5.0 - 9.0% of mass 176	5.1 (6.82)2

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

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	ICAL L11	ICAL L11	0227A03	02/27/16	15:54
02	ICAL L1	ICAL L1	0227A04	02/27/16	16:27
03	ICAL L2	ICAL L2	0227A05	02/27/16	16:59
04	ICAL L3	ICAL L3	0227A06	02/27/16	17:33
05	ICAL L4	ICAL L4	0227A07	02/27/16	18:05
06	ICAL L6	ICAL L6	0227A08	02/27/16	18:38
07	ICAL L8	ICAL L8	0227A09	02/27/16	19:10
08	ICV Quant Report	ICV Quant Repo	0227A17	02/27/16	23:27
09	ICV Summary Form	ICV Summary Fo	ccal	02/27/16	23:27

FORM V NYTCL-8260

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: BFB0315A_tune BFB Injection Date: 03/15/16

Instrument ID: Gonzo.i BFB Injection Time: 08:14

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
95	Base Peak, 100% relative abundance	100
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	47.2
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0.00)1
174	Greater than 50.0 of mass 95	80.4
175	5.0 - 9.0% of mass 174	5.8 (7.27)1
176	95.0 - 101% of mass 174	77.4 (96.3)1
177	5.0 - 9.0% of mass 176	5.1 (6.63)2

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

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	WG873931-1LCS	WG873931-1	0315A01	03/15/16	08:28
02	wg874-1,31,10	wg874-1,31,10	0315A01	03/15/16	08:28
03	WG873931-2LCSD	WG873931-2	0315A02	03/15/16	09:00
04	WG873931-3BLANK	WG873931-3	0315A04	03/15/16	10:05
05	TB04_030916	L1606763-02	0315A09	03/15/16	12:47
06	MW12_030916	L1606763-01	0315A10	03/15/16	13:19

FORM V NYTCL-8260

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): 0315A01_ccal Date Analyzed: 15-MAR-2016

Instrument ID : Gonzo.i Time Analyzed: 08:28

		IS1(FLB) AREA	RT	IS2(CBZ) AREA	RT	IS3(DCB) AREA	RT
	12 HOUR STD	1599434	9.03	1088580	13.49	495711	17.30
	UPPER LIMIT	3198868	9.53	2177160	13.99	991422	17.80
	LOWER LIMIT	799717	8.53	544290	12.99	247856	16.80
	EPA SAMPLE NO.						
01	WG873931-1LCS	1599434	9.03	1088580	13.49	495711	17.30
02	WG873931-2LCSD	1613937	9.03	1102186	13.49	517174	17.30
03	WG873931-3BLANK	1559203	9.03	1037862	13.49	453710	17.30
04	TB04_030916	1554076	9.04	1052786	13.50	467656	17.31
05	MW12_030916	1564843	9.04	1058093	13.50	463433	17.31

IS1(FLB) = FLUOROBENZENE
IS2(CBZ) = CHLOROBENZENE-D5
IS3(DCB) = 1,4-DICHLOROBENZENE-D4

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

* Values outside of QC limits.

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 3	
Analyst:	MM
Date:	7/23, 7/27-29/2009
Instrument ID:	Gonzo
Column ID:	Rtx- 502.2

Method: EPA 8260B 2009

GC/MS Volatile Organic Compounds Liquid

Table (MDL)		Data File	mdl01	mdl02	mdl03	mdl04	mdl05	mdl06	mdl07	mdl08	mdl09	T value used for calculating MDL: 2.896					
		Date Analy.	7/23/2009	7/23/2009	7/23/2009	7/23/2009	7/27/2009	7/27/2009	7/27/2009	7/27/2009	7/28/2009						
No.	Analytes	Target Conc. (ug/L)	Rep-1 (ug/L)	Rep-2 (ug/L)	Rep-3 (ug/L)	Rep-4 (ug/L)	Rep-5 (ug/L)	Rep-6 (ug/L)	Rep-7 (ug/L)	Rep-8 (ug/L)	Rep-9 (ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc.MDL (ug/L)	Current RL (ug/L)	Comment
1	Chloromethane	0.50	0.49	0.52	0.46	0.53	0.46	0.41	0.46	0.43	0.50	0.47	95%	0.040	0.116	2.50	
2	Vinyl chloride	0.50	0.53	0.52	0.48	0.60	0.62	0.61	0.52	0.59	0.56	0.56	112%	0.049	0.141	1.00	
3	Bromomethane	0.50	0.53	0.51	0.54	0.45	0.62	0.60	0.51	0.55	0.58	0.54	109%	0.052	0.150	1.00	
4	Chloroethane	0.50	0.52	0.53	0.53	0.54	0.58	0.57	0.53	0.60	0.56	0.55	110%	0.028	0.080	1.00	
5	Trichlorofluoromethane	0.50	0.51	0.49	0.47	0.57	0.63	0.61	0.58	0.58	0.59	0.56	112%	0.056	0.161	2.50	
6	Ethyl Ether	0.50	0.53	0.57	0.51	0.52	0.64	0.60	0.63	0.63	0.62	0.58	117%	0.052	0.150	2.50	
7	1,1-Dichloroethene	0.50	0.47	0.48	0.42	0.50	0.54	0.49	0.49	0.51	0.51	0.49	98%	0.033	0.096	0.50	
8	Tert-Butyl Alcohol	2.50	2.49	2.74	3.25	3.02	3.26	3.31	3.19	3.39	2.78	3.05	122%	0.310	0.899	50.00	
9	Methyl-tert-butyl ether	0.50	0.50	0.51	0.48	0.48	0.54	0.51	0.52	0.56	0.53	0.51	103%	0.027	0.077	1.00	
10	Halothane	0.50	0.45	0.45	0.39	0.42	0.38	0.36	0.35	0.36	0.50	0.41	81%	0.051	0.149	2.00	
11	trans-1,2-Dichloroethene	0.50	0.53	0.49	0.48	0.49	0.55	0.53	0.51	0.50	0.50	0.51	102%	0.023	0.067	0.75	
12	1,1-Dichloroethane	0.50	0.51	0.49	0.47	0.51	0.52	0.50	0.51	0.50	0.53	0.50	101%	0.017	0.050	0.75	
13	2,2-Dichloropropene	0.50	0.48	0.44	0.43	0.46	0.42	0.42	0.40	0.41	0.44	0.43	87%	0.025	0.072	2.50	
14	cis-1,2-Dichloroethene	0.50	0.51	0.51	0.47	0.46	0.53	0.50	0.52	0.50	0.55	0.51	101%	0.028	0.081	0.50	
15	Chloroform	0.50	0.52	0.51	0.47	0.51	0.53	0.53	0.54	0.51	0.54	0.52	104%	0.022	0.063	0.75	
16	Bromochloromethane	0.50	0.50	0.48	0.49	0.53	0.50	0.49	0.54	0.55	0.55	0.51	103%	0.028	0.081	1.00	
17	1,1,1-Trichloroethane	0.50	0.49	0.47	0.43	0.48	0.52	0.50	0.50	0.46	0.50	0.48	97%	0.027	0.078	0.50	
18	1,1-Dichloropropene	0.50	0.49	0.46	0.42	0.47	0.48	0.47	0.48	0.46	0.48	0.47	94%	0.020	0.059	2.50	
19	Carbon tetrachloride	0.50	0.43	0.44	0.40	0.46	0.47	0.44	0.42	0.43	0.45	0.44	88%	0.021	0.061	0.50	
20	1,2-Dichloroethane	0.50	0.54	0.57	0.53	0.56	0.61	0.59	0.62	0.63	0.62	0.59	117%	0.037	0.107	0.50	
21	Benzene	0.50	0.50	0.50	0.48	0.51	0.54	0.51	0.50	0.51	0.54	0.51	102%	0.019	0.056	0.50	
22	Trichloroethene	0.50	0.52	0.52	0.48	0.53	0.59	0.55	0.52	0.56	0.57	0.54	108%	0.033	0.096	0.50	
23	1,2-Dichloropropane	0.50	0.51	0.52	0.46	0.52	0.52	0.50	0.51	0.51	0.55	0.51	102%	0.024	0.069	2.50	
24	Bromodichloromethane	0.50	0.47	0.48	0.46	0.48	0.49	0.47	0.49	0.51	0.51	0.48	97%	0.017	0.050	0.50	
25	cis-1,3-Dichloropropene	0.50	0.47	0.44	0.40	0.45	0.44	0.43	0.42	0.43	0.44	0.44	87%	0.019	0.056	0.50	
26	Toluene	0.50	0.50	0.48	0.44	0.48	0.48	0.47	0.45	0.45	0.47	0.47	94%	0.019	0.055	0.75	
27	trans-1,3-Dichloropropene	0.50	0.40	0.43	0.43	0.44	0.38	0.38	0.38	0.39	0.41	0.40	81%	0.024	0.070	0.50	
28	1,1,2-Trichloroethane	0.50	0.50	0.50	0.48	0.50	0.46	0.50	0.49	0.51	0.49	0.49	98%	0.015	0.043	0.75	
29	Tetrachloroethene	0.50	0.48	0.49	0.44	0.48	0.48	0.47	0.45	0.47	0.43	0.47	93%	0.021	0.060	0.50	
30	Chlorodibromomethane	0.50	0.40	0.42	0.40	0.44	0.37	0.39	0.41	0.42	0.40	0.41	81%	0.020	0.058	0.50	
31	1,2-Dibromoethane	0.50	0.48	0.46	0.44	0.48	0.45	0.46	0.44	0.49	0.45	0.46	92%	0.018	0.053	0.50	
32	Chlorobenzene	0.50	0.50	0.50	0.47	0.50	0.49	0.49	0.48	0.48	0.46	0.49	97%	0.014	0.041	0.50	
33	1,1,1,2-Tetrachloroethane	0.50	0.49	0.43	0.42	0.45	0.40	0.42	0.40	0.43	0.43	0.43	86%	0.027	0.079	0.50	
34	Ethyl benzene	0.50	0.50	0.47	0.44	0.49	0.46	0.44	0.44	0.45	0.44	0.46	92%	0.023	0.067	0.50	
35	p/m-Xylene	1.00	0.98	0.96	0.91	0.96	0.91	0.91	0.91	0.88	0.89	0.92	92%	0.035	0.100	1.00	
36	o-Xylene	1.00	0.96	0.95	0.87	0.93	0.88	0.87	0.83	0.86	0.84	0.89	89%	0.047	0.137	1.00	
37	Styrene	1.00	0.88	0.90	0.84	0.88	0.84	0.82	0.81	0.84	0.83	0.85	85%	0.031	0.089	1.00	
38	Isopropylbenzene	0.50	0.44	0.43	0.39	0.43	0.39	0.38	0.37	0.37	0.37	0.40	79%	0.029	0.083	0.50	
39	Bromoform	0.50	0.36	0.36	0.38	0.37	0.31	0.36	0.35	0.35	0.35	0.35	71%	0.019	0.056	1.00	
40	1,1,2,2-Tetrachloroethane	0.50	0.44	0.48	0.46	0.48	0.40	0.43	0.43	0.45	0.45	0.45	89%	0.025	0.074	0.50	

Comments: _____

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 2 of 3	
Analyst:	MM
Date:	7/23, 7/27-29/2009
Instrument ID:	Gonzo
Column ID:	Rtx- 502.2

Method: EPA 8260B 2009

GC/MS Volatile Organic Compounds Liquid

Table (MDL)		Data File	mdl01	mdl02	mdl03	mdl04	mdl05	mdl06	mdl07	mdl08	mdl09	T value used for calculating MDL: 2.896					
		Date Analy.	7/23/2009	7/23/2009	7/23/2009	7/23/2009	7/27/2009	7/27/2009	7/27/2009	7/27/2009	7/28/2009						
No.	Analytes	Target Conc. (ug/L)	Rep-1 (ug/L)	Rep-2 (ug/L)	Rep-3 (ug/L)	Rep-4 (ug/L)	Rep-5 (ug/L)	Rep-6 (ug/L)	Rep-7 (ug/L)	Rep-8 (ug/L)	Rep-9 (ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc.MDL (ug/L)	Current RL (ug/L)	Comment
41	1,2,3-Trichloropropane	0.50	0.53	0.45	0.51	0.55	0.45	0.56	0.42	0.58	0.58	0.51	103%	0.061	0.176	5.00	
42	trans-1,4-Dichloro-2-butene	0.50	0.47	0.39	0.42	0.47	0.36	0.35	0.36	0.35	0.37	0.39	79%	0.049	0.141	2.50	
43	n-Propylbenzene	0.50	0.45	0.44	0.41	0.46	0.40	0.39	0.37	0.38	0.39	0.41	82%	0.032	0.094	0.50	
44	Bromobenzene	0.50	0.49	0.48	0.48	0.51	0.47	0.46	0.45	0.44	0.45	0.47	94%	0.022	0.065	2.50	
45	4-Ethyltoluene	0.50	0.45	0.41	0.39	0.44	0.41	0.37	0.38	0.37	0.41	0.40	81%	0.029	0.083	2.00	
46	1,3,5-Trimethylbenzene	0.50	0.45	0.45	0.42	0.46	0.40	0.40	0.38	0.38	0.40	0.42	83%	0.031	0.089	2.50	
47	2-Chlorotoluene	0.50	0.49	0.49	0.47	0.50	0.44	0.43	0.42	0.42	0.44	0.46	91%	0.032	0.093	2.50	
48	4-Chlorotoluene	0.50	0.49	0.49	0.46	0.50	0.46	0.43	0.42	0.43	0.43	0.46	91%	0.031	0.089	2.50	
49	tert-Butylbenzene	0.50	0.47	0.45	0.43	0.47	0.40	0.38	0.39	0.40	0.38	0.42	84%	0.037	0.107	2.50	
50	1,2,4-Trimethylbenzene	0.50	0.43	0.42	0.40	0.43	0.37	0.36	0.40	0.35	0.37	0.39	78%	0.031	0.089	2.50	
51	sec-Butylbenzene	0.50	0.41	0.41	0.37	0.44	0.37	0.37	0.34	0.33	0.35	0.38	75%	0.036	0.105	0.50	
52	p-Isopropyltoluene	0.50	0.50	0.48	0.46	0.51	0.45	0.42	0.42	0.41	0.43	0.45	91%	0.037	0.106	0.50	
53	1,3-Dichlorobenzene	0.50	0.49	0.49	0.49	0.50	0.49	0.47	0.46	0.46	0.45	0.48	96%	0.018	0.052	2.50	
54	1,4-Dichlorobenzene	0.50	0.51	0.51	0.48	0.52	0.50	0.48	0.48	0.48	0.49	0.49	99%	0.016	0.046	2.50	
55	n-Butylbenzene	0.50	0.40	0.40	0.36	0.42	0.33	0.31	0.31	0.29	0.34	0.35	70%	0.046	0.135	0.50	
56	1,2,4,5-Tetramethylbenzene	0.50	0.64	0.62	0.60	0.66	0.58	0.58	0.57	0.56	0.60	0.60	120%	0.033	0.097	2.00	
57	1,2-Dichlorobenzene	0.50	0.49	0.49	0.46	0.49	0.46	0.45	0.45	0.46	0.44	0.47	93%	0.019	0.056	2.50	
58	p-Diethylbenzene	0.50	0.64	0.64	0.61	0.68	0.59	0.57	0.57	0.58	0.61	0.61	122%	0.037	0.108	2.00	
59	1,2,4-Trichlorobenzene	0.50	0.45	0.48	0.45	0.50	0.41	0.40	0.40	0.35	0.40	0.43	85%	0.047	0.136	2.50	
60	Hexachlorobutadiene	0.50	0.46	0.47	0.46	0.56	0.47	0.45	0.41	0.39	0.43	0.46	91%	0.048	0.139	0.50	
61	Naphthalene	0.50	1.13	1.11	1.11	1.14	1.06	1.03	1.02	1.06	1.06	1.08	216%	0.044	0.126	2.50	
62	1,2,3-Trichlorobenzene	0.50	0.46	0.48	0.43	0.53	0.43	0.40	0.40	0.40	0.45	0.44	88%	0.044	0.126	2.500	
	MCP Compounds																
63	1,4-Dioxane	100.00	84.78	94.57	96.15	99.67	99.00	103.73	105.18	113.33	115.78	101.35	101%	9.539	27.626	250.00	
	Additional Compounds																
64	Freon-113	0.50	0.47	0.46	0.43	0.49	0.52	0.50	0.47	0.46	0.48	0.48	95%	0.026	0.075	10.00	
	Surrogates																
1	dibromofluoromethane	10	10.10	10.35	10.18	10.30	10.69	10.77	10.75	10.75	10.87	10.53	105%				
2	1,2-dichloroethane-d4	10	10.78	10.87	11.10	11.11	11.63	11.71	11.77	11.98	12.18	11.46	115%				
3	toluene-d8	10	10.02	9.89	9.85	9.87	9.38	9.42	9.53	9.26	9.30	9.61	96%				
4	4-bromofluorobenzene	10	10.21	10.14	10.23	10.09	9.94	10.16	9.97	9.91	10.09	10.08	101%				

Comments: _____

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 3 of 3	
Analyst:	MM
Date:	7/23, 7/27-29/2009
Instrument ID:	Gonzo
Column ID:	Rtx- 502.2

Method: EPA 8260B 2009

GC/MS Volatile Organic Compounds Liquid

Table (MDL)		Data File	mdl01	mdl02	mdl03	mdl04	mdl05	mdl06	mdl07	mdl08	mdl09	T value used for calculating MDL: 2.896					
		Date Analy.	7/23/2009	7/23/2009	7/23/2009	7/23/2009	7/27/2009	7/27/2009	7/27/2009	7/27/2009	7/29/2009						
No.	Analytes	Target Conc. (ug/L)	Rep-1 (ug/L)	Rep-2 (ug/L)	Rep-3 (ug/L)	Rep-4 (ug/L)	Rep-5 (ug/L)	Rep-6 (ug/L)	Rep-7 (ug/L)	Rep-8 (ug/L)	Rep-9 (ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc.MDL (ug/L)	Current RL (ug/L)	Comment
65	Dichlorodifluoromethane	2.00	1.79	1.87	1.81	1.88	1.71	1.82	1.77	1.81	2.01	1.83	92%	0.084	0.244	5.00	
66	Acetone	2.00	2.35	2.48	2.78	2.33	2.30	2.37	2.39	2.31	2.53	2.43	121%	0.153	0.444	5.00	
67	Methylene chloride	2.00	2.04	2.11	2.12	2.14	2.02	2.06	2.15	2.16	2.36	2.13	106%	0.100	0.289	5.00	
68	Carbon disulfide	2.00	1.98	2.08	2.03	1.80	1.95	2.02	2.03	2.12	2.15	2.02	101%	0.103	0.299	5.00	
69	Acrylonitrile	2.00	1.92	1.99	2.15	1.89	2.16	2.19	2.04	2.34	1.96	2.07	104%	0.148	0.430	5.00	
70	Vinyl Acetate	2.00	2.11	2.18	2.29	2.27	2.30	2.47	2.34	2.27	2.38	2.29	115%	0.105	0.304	5.00	
71	2-Butanone	2.00	1.82	2.11	2.21	2.33	2.28	2.34	2.44	2.25	1.89	2.19	109%	0.209	0.606	5.00	
72	Ethyl Acetate	2.00	2.15	2.25	2.32	2.13	2.61	2.70	2.68	2.76	2.51	2.46	123%	0.247	0.716	10.00	
73	Tetrahydrofuran	2.00	2.14	2.35	2.48	2.49	2.34	2.19	2.36	2.32	2.15	2.31	116%	0.130	0.376	10.00	
74	Cyclohexane	2.00	2.07	2.12	2.15	2.01	1.90	1.95	1.98	2.04	1.94	2.02	101%	0.085	0.245	10.00	
75	Methyl Cyclohexane	2.00	2.01	2.09	2.05	1.87	1.76	1.92	1.90	1.96	1.94	1.94	97%	0.099	0.288	10.00	
76	Dibromomethane	2.00	2.11	2.15	2.18	2.28	2.38	2.32	2.31	2.28	2.52	2.28	114%	0.125	0.363	5.00	
77	2-Chloroethylvinylether	2.00	1.83	1.91	1.95	1.98	2.06	1.98	2.13	2.00	1.65	1.94	97%	0.139	0.402	10.00	
78	4-methyl-2-pentanone	2.00	2.03	1.97	2.09	2.03	2.00	2.24	2.29	2.20	1.84	2.08	104%	0.144	0.416	5.00	
79	Ethyl-methacrylate	2.00	1.75	1.78	1.83	1.84	1.65	1.65	1.63	1.74	1.15	1.67	83%	0.209	0.606	5.00	
80	2-Hexanone	2.00	1.86	1.99	1.95	2.10	2.01	2.06	2.06	2.14	1.55	1.97	98%	0.178	0.515	5.00	
81	1,3-Dichloropropane	2.00	2.00	2.05	2.05	2.17	1.95	2.02	1.95	1.99	1.93	2.01	101%	0.073	0.212	2.50	
82	1,4-Dichloro-2-butane	2.00	1.96	2.04	2.05	2.08	1.93	1.88	1.96	1.95	1.54	1.93	97%	0.160	0.464	5.00	
83	1,2-Dibromo-3-chloropropane	2.00	2.01	2.20	2.13	2.32	2.09	2.12	2.11	2.24	1.95	2.13	107%	0.113	0.327	2.50	
	MCP Compounds																
84	Diisopropyl ether	2.00	2.05	2.11	2.08	2.00	2.03	2.04	2.09	2.12	2.04	2.06	103%	0.040	0.116	2.00	
85	Ethyl-tert-butyl ether	2.00	1.96	1.97	2.02	1.92	1.94	1.96	1.98	2.03	1.82	1.96	98%	0.062	0.179	2.0	
86	Tertiary-amyl methyl ether	2.00	1.94	2.01	2.07	1.95	1.92	1.94	2.01	2.06	1.75	1.96	98%	0.096	0.278	2.00	
	Surrogates																
1	dibromofluoromethane	10	10.28	10.42	10.53	10.38	10.92	11.01	10.85	10.96	11.01	10.71	107%				
2	1,2-dichloroethane-d4	10	11.01	11.19	11.31	11.20	12.22	12.16	12.19	12.30	11.53	11.68	117%				
3	toluene-d8	10	9.91	9.94	9.77	9.81	9.32	9.48	9.41	9.36	9.42	9.60	96%				
4	4-bromofluorobenzene	10	10.02	10.01	10.06	10.06	10.17	9.92	10.00	9.83	10.07	10.02	100%				

Comments: _____

Volatiles Sample Data

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 13:19
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A10	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.13	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.14	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.14	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 13:19
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A10	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 13:19
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A10	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	41.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.65	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-02	Date Collected	: 03/09/16 00:00
Client ID	: TB04_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 12:47
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A09	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.13	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.14	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.14	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-02	Date Collected	: 03/09/16 00:00
Client ID	: TB04_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 12:47
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A09	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-02	Date Collected	: 03/09/16 00:00
Client ID	: TB04_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 12:47
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A09	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	41.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.65	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873931-3	Date Collected	: NA
Client ID	: WG873931-3BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/15/16 10:05
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A04	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.13	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.14	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.14	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873931-3	Date Collected	: NA
Client ID	: WG873931-3BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/15/16 10:05
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A04	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873931-3	Date Collected	: NA
Client ID	: WG873931-3BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/15/16 10:05
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: 0315A04	Instrument ID	: GONZO.I
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	41.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.65	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Tentatively Identified Compounds
Volatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: WG873931-3	**Date Collected**	: NA
Client ID	: WG873931-3BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 03/15/16 10:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260C	**Analyst**	: PD
Lab File ID	: 0315A04	**Instrument ID**	: GONZO.I
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

Number TICS found: 0 **Concentration Units: ug/L**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A09.D
Lab Smp Id:
Inj Date : 15-MAR-2016 12:47
Operator : PD Inst ID: Gonzo.i
Smp Info : l1606763-02,31,10,,a
Misc Info : wg873931,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 12:57 pduczmalew Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260NY.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
	1 dichlorodifluoromethane	85	Compound Not Detected.						
	2 chloromethane	50	3.183	3.176	(0.352)	5132	1.75625	1.756	
	3 vinyl chloride	62	Compound Not Detected.						
	4 bromomethane	94	Compound Not Detected.						
	5 chloroethane	64	Compound Not Detected.						
	6 trichlorofluoromethane	101	Compound Not Detected.						
	7 ethyl ether	74	Compound Not Detected.						
	10 acetone	43	Compound Not Detected.						
	11 1,1,-dichloroethene	96	Compound Not Detected.						
	15 methylene chloride	84	Compound Not Detected.						
	16 carbon disulfide	76	Compound Not Detected.						
	17 acrylonitrile	53	Compound Not Detected.						
	20 methyl tert butyl ether	73	Compound Not Detected.						
	22 trans-1,2-dichloroethene	96	Compound Not Detected.						
	26 vinyl acetate	43	Compound Not Detected.						
	24 1,1-dichloroethane	63	Compound Not Detected.						
	27 2-butanone	43	Compound Not Detected.						
	28 2,2-dichloropropane	77	Compound Not Detected.						
	30 cis-1,2-dichloroethene	96	Compound Not Detected.						
	31 chloroform	83	Compound Not Detected.						
	32 bromochloromethane	128	Compound Not Detected.						
$	34 dibromofluoromethane	113	7.978	7.971	(0.883)	342013	98.6418	98.641	
	35 1,1,1-trichloroethane	97	Compound Not Detected.						
	37 1,1-dichloropropene	75	Compound Not Detected.						
	38 carbontetrachloride	117	Compound Not Detected.						
$	40 1,2-dichloroethane-d4	65	8.620	8.613	(0.954)	381472	104.687	104.686	
	41 1,2-dichloroethane	62	Compound Not Detected.						
	42 benzene	78	Compound Not Detected.						
*	43 fluorobenzene	96	9.040	9.033	(1.000)	1554076	100.000		

								CONCENTRATIONS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	44 trichloroethene	95	Compound Not Detected.							
	47 1,2-dichloropropane	63	Compound Not Detected.							
	49 1,4-dioxane	88	Compound Not Detected.							
	48 bromodichloromethane	83	Compound Not Detected.							
	50 dibromomethane	93	Compound Not Detected.							
	52 4-methyl-2-pentanone	58	Compound Not Detected.							
	53 cis-1,3-dichloropropene	75	Compound Not Detected.							
$	55 toluene-d8	98	11.237	11.230	(0.833)	1488566		98.3516	98.351	
	56 toluene	92	Compound Not Detected.							
	58 trans-1,3-dichloropropene	75	Compound Not Detected.							
	60 2-hexanone	43	Compound Not Detected.							
	59 1,1,2-trichloroethane	83	Compound Not Detected.							
	61 1,3-dichloropropane	76	Compound Not Detected.							
	62 tetrachloroethene	166	Compound Not Detected.							
	63 chlorodibromomethane	129	Compound Not Detected.							
	64 1,2-dibromoethane	107	Compound Not Detected.							
*	65 chlorobenzene-d5	117	13.496	13.489	(1.000)	1052786		100.000		
	66 chlorobenzene	112	Compound Not Detected.							
	67 1,1,1,2-tetrachloroethane	131	Compound Not Detected.							
	68 ethyl benzene	91	Compound Not Detected.							
	69 p/m xylene	106	Compound Not Detected.							
	70 o xylene	106	Compound Not Detected.							
	71 styrene	104	Compound Not Detected.							
	72 isopropylbenzene	105	Compound Not Detected.							
	73 bromoform	173	Compound Not Detected.							
	75 1,1,2,2,-tetrachloroethane	83	Compound Not Detected.							
$	76 4-bromofluorobenzene	95	15.383	15.376	(0.889)	477660		100.468	100.467	
	77 1,2,3-trichloropropane	75	Compound Not Detected.							
	78 trans-1,4-dichloro-2-butene	53	Compound Not Detected.							
	79 n-propylbenzene	91	Compound Not Detected.							
	80 bromobenzene	156	Compound Not Detected.							
	81 4-ethyltoluene	105	Compound Not Detected.							
	82 1,3,5-trimethybenzene	105	Compound Not Detected.							
	83 2-chlorotoluene	91	Compound Not Detected.							
	84 4-chorotoluene	91	Compound Not Detected.							
	85 tert-butylbenzene	119	Compound Not Detected.							
	86 1,2,4-trimethylbenzene	105	Compound Not Detected.							
	87 sec-butylbenzene	105	Compound Not Detected.							
	88 p-isopropyltoluene	119	Compound Not Detected.							
	89 1,3-dichlorobenzene	146	Compound Not Detected.							
*	90 1,4-dichlorobenzene-d4	152	17.310	17.303	(1.000)	467656		100.000		
	91 1,4-dichlorobenzene	146	Compound Not Detected.							
	92 n-butylbenzene	91	Compound Not Detected.							
	93 1,2,4,5-tetramathylbenzene	119	Compound Not Detected.							
	94 1,2-dichlorobenzene	146	Compound Not Detected.							
	95 p-Diethylbenzene	119	Compound Not Detected.							
	96 1,2-dibromo-3-chloropropane	75	Compound Not Detected.							
	98 1,2,4-trichlorobenzene	180	Compound Not Detected.							
	99 hexachlorobutadiene	225	Compound Not Detected.							
	100 naphthalene	128	21.192	21.185	(1.224)	6827		1.01694	1.016	
	101 1,2,3-trichlorobenzene	180	Compound Not Detected.							

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0315A09.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

Calibration Date: 15-MAR-2016
Calibration Time: 08:28
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
43 fluorobenzene	1599434	799717	3198868	1554076	-2.84
65 chlorobenzene-d5	1088580	544290	2177160	1052786	-3.29
90 1,4-dichlorobenze	495711	247856	991422	467656	-5.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.08
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.

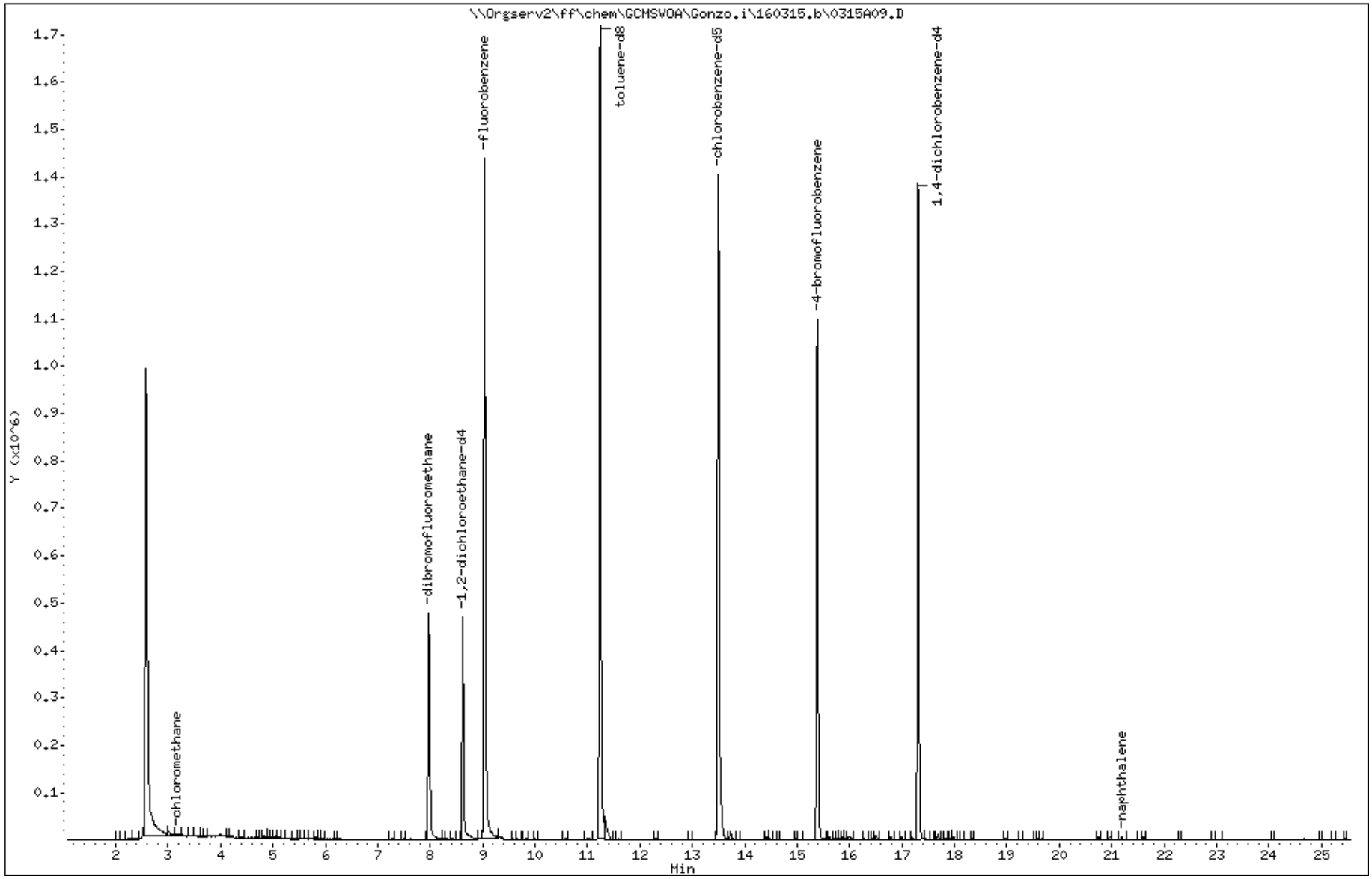
Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: 8260NY.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 34 dibromofluorometha	100.000	98.641	98.64	70-130
$ 40 1,2-dichloroethane	100.000	104.686	104.69	70-130
$ 55 toluene-d8	100.000	98.351	98.35	70-130
$ 76 4-bromofluorobenze	100.000	100.467	100.47	70-130

Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A09.D
Date : 15-MAR-2016 12:47
Client ID:
Instrument: Gonzo.i
Sample Info: 11606763-02,31,10,,a
Purge Volume: 10.0
Operator: PD
Column phase: Rtx-502.2
Column diameter: 0.18



Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A09.D

Date : 15-MAR-2016 12:47

Client ID:

Instrument: Gonzo.i

Sample Info: 11606763-02,31,10,,a

Purge Volume: 10.0

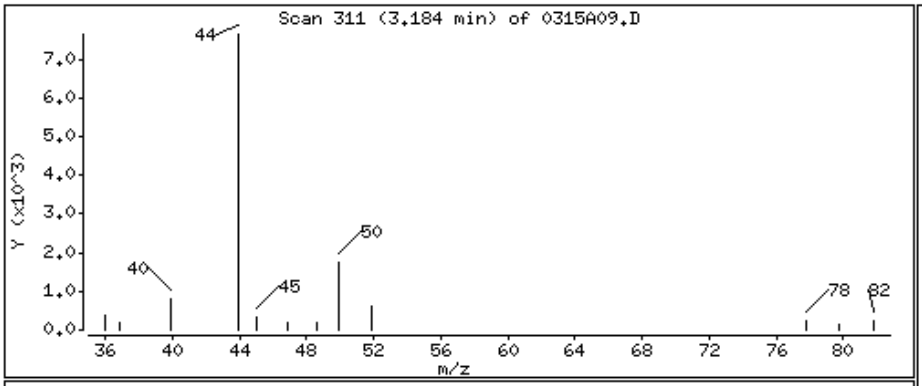
Operator: PD

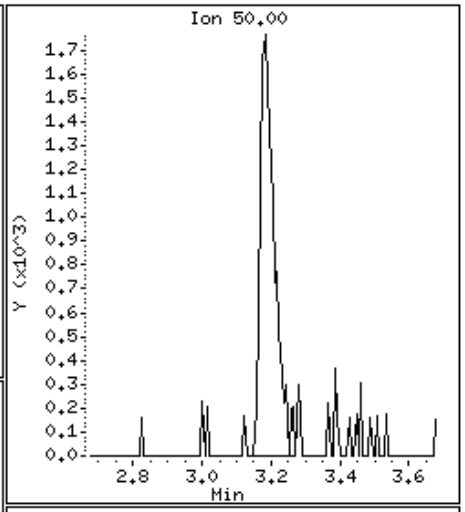
Column phase: Rtx-502.2

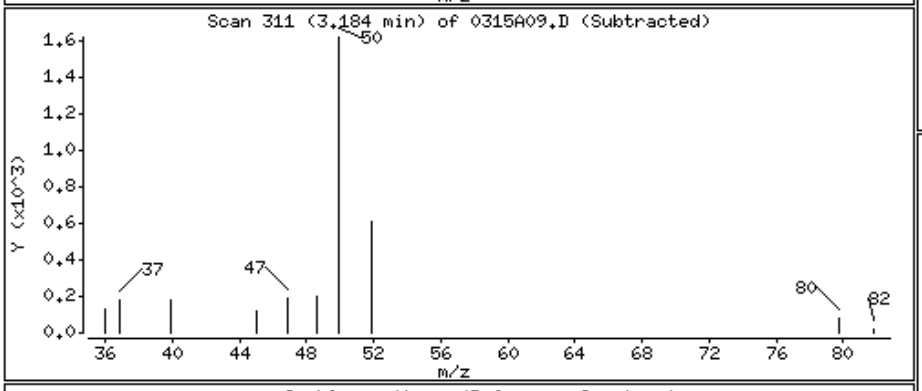
Column diameter: 0.18

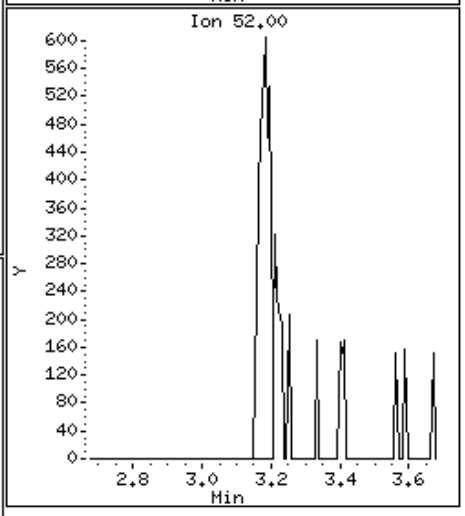
2 chloromethane

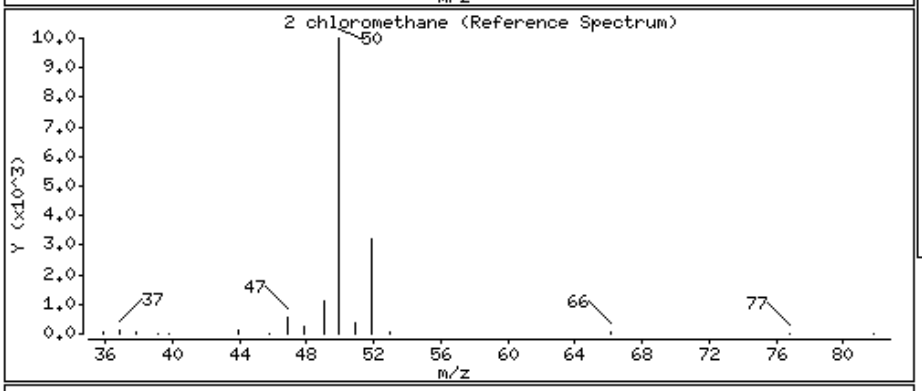
Concentration: 1.756 ngs

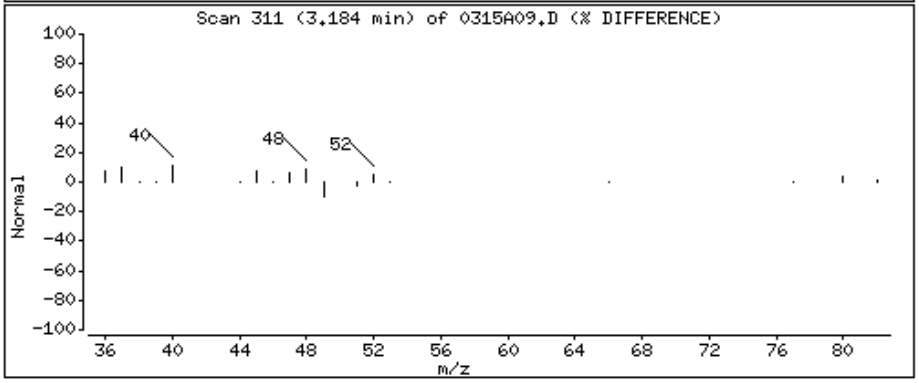












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A09.D

Date : 15-MAR-2016 12:47

Client ID:

Instrument: Gonzo.i

Sample Info: 11606763-02,31,10,,a

Purge Volume: 10.0

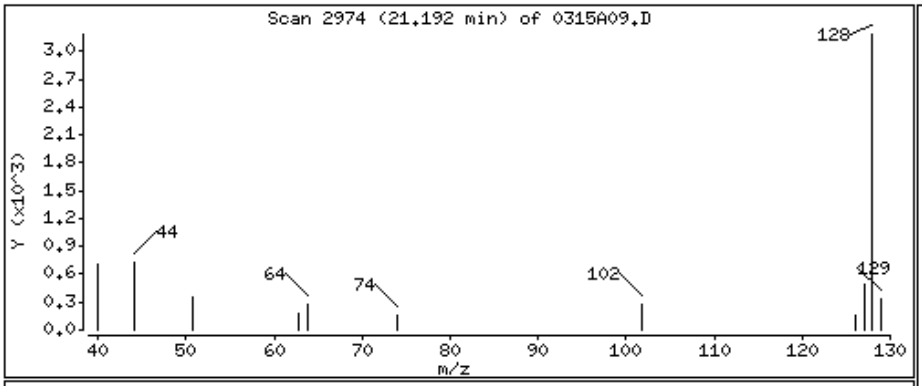
Operator: PD

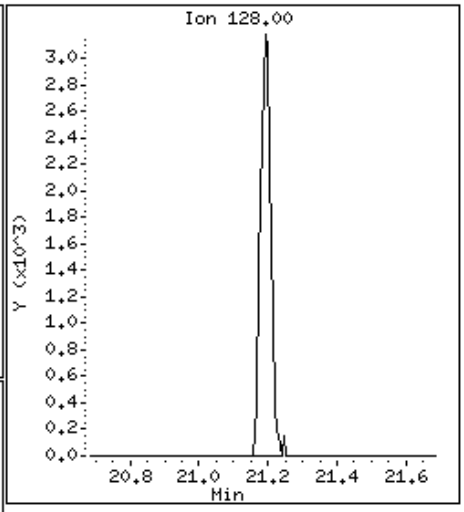
Column phase: Rtx-502.2

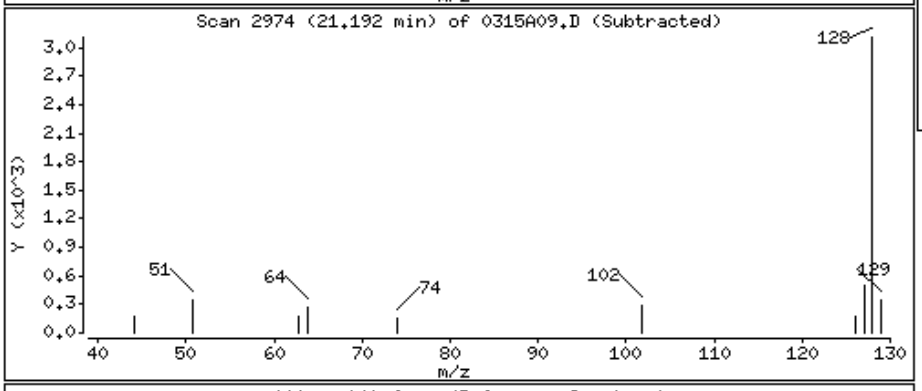
Column diameter: 0.18

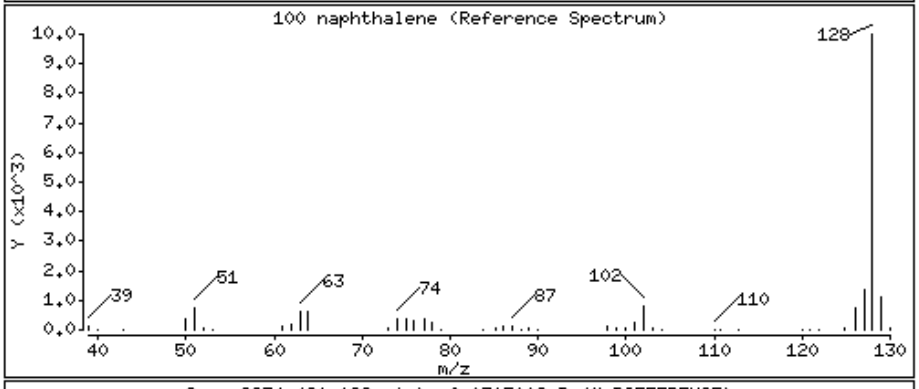
100 naphthalene

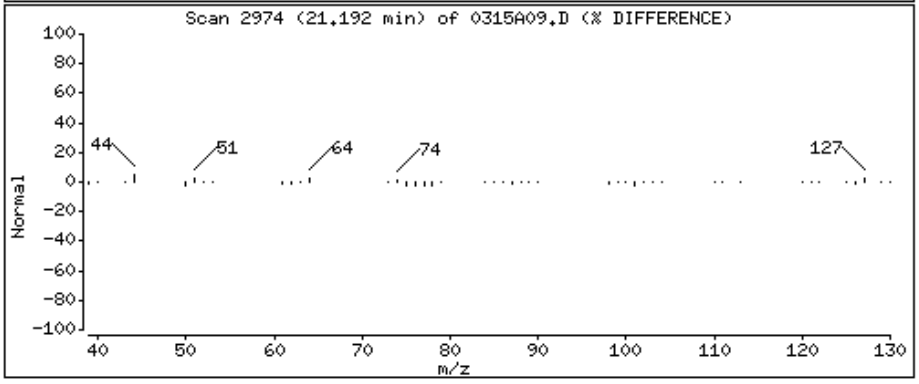
Concentration: 1.016 ngs











Manual Integration

Sample Info : l1606763-02,31,10,,a
wg873931,ical12094

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0315A09.D
Injection Date : 15-MAR-2016 12:47
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A10.D
Lab Smp Id:
Inj Date : 15-MAR-2016 13:19
Operator : PD Inst ID: Gonzo.i
Smp Info : l1606763-01,31,10,,a
Misc Info : wg873931,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 12:57 pduczmalew Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260NY.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
	1 dichlorodifluoromethane	85	Compound Not Detected.						
	2 chloromethane	50	3.190	3.176	(0.353)	3921	1.33259	1.332	
	3 vinyl chloride	62	Compound Not Detected.						
	4 bromomethane	94	Compound Not Detected.						
	5 chloroethane	64	Compound Not Detected.						
	6 trichlorofluoromethane	101	Compound Not Detected.						
	7 ethyl ether	74	Compound Not Detected.						
	10 acetone	43	Compound Not Detected.						
	11 1,1,-dichloroethene	96	Compound Not Detected.						
	15 methylene chloride	84	Compound Not Detected.						
	16 carbon disulfide	76	Compound Not Detected.						
	17 acrylonitrile	53	Compound Not Detected.						
	20 methyl tert butyl ether	73	Compound Not Detected.						
	22 trans-1,2-dichloroethene	96	Compound Not Detected.						
	26 vinyl acetate	43	Compound Not Detected.						
	24 1,1-dichloroethane	63	Compound Not Detected.						
	27 2-butanone	43	Compound Not Detected.						
	28 2,2-dichloropropane	77	Compound Not Detected.						
	30 cis-1,2-dichloroethene	96	Compound Not Detected.						
	31 chloroform	83	Compound Not Detected.						
	32 bromochloromethane	128	Compound Not Detected.						
$	34 dibromofluoromethane	113	7.978	7.971	(0.883)	341816	97.9067	97.906	
	35 1,1,1-trichloroethane	97	Compound Not Detected.						
	37 1,1-dichloropropene	75	Compound Not Detected.						
	38 carbontetrachloride	117	Compound Not Detected.						
$	40 1,2-dichloroethane-d4	65	8.620	8.613	(0.954)	375816	102.425	102.424	
	41 1,2-dichloroethane	62	Compound Not Detected.						
	42 benzene	78	Compound Not Detected.						
*	43 fluorobenzene	96	9.039	9.033	(1.000)	1564843	100.000		

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
	44 trichloroethene	95	Compound Not Detected.						
	47 1,2-dichloropropane	63	Compound Not Detected.						
	49 1,4-dioxane	88	Compound Not Detected.						
	48 bromodichloromethane	83	Compound Not Detected.						
	50 dibromomethane	93	Compound Not Detected.						
	52 4-methyl-2-pentanone	58	Compound Not Detected.						
	53 cis-1,3-dichloropropene	75	Compound Not Detected.						
$	55 toluene-d8	98	11.237	11.230	(0.833)	1467993	96.5058	96.505	
	56 toluene	92	Compound Not Detected.						
	58 trans-1,3-dichloropropene	75	Compound Not Detected.						
	60 2-hexanone	43	Compound Not Detected.						
	59 1,1,2-trichloroethane	83	Compound Not Detected.						
	61 1,3-dichloropropane	76	Compound Not Detected.						
	62 tetrachloroethene	166	Compound Not Detected.						
	63 chlorodibromomethane	129	Compound Not Detected.						
	64 1,2-dibromoethane	107	Compound Not Detected.						
*	65 chlorobenzene-d5	117	13.496	13.489	(1.000)	1058093	100.000		
	66 chlorobenzene	112	13.557	13.550	(1.004)	50178	4.81615	4.816	
	67 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	68 ethyl benzene	91	Compound Not Detected.						
	69 p/m xylene	106	13.733	13.719	(1.018)	6884	1.02011	1.020(Q)	
	70 o xylene	106	Compound Not Detected.						
	71 styrene	104	Compound Not Detected.						
	72 isopropylbenzene	105	Compound Not Detected.						
	73 bromoform	173	Compound Not Detected.						
	75 1,1,2,2,-tetrachloroethane	83	Compound Not Detected.						
$	76 4-bromofluorobenzene	95	15.383	15.376	(0.889)	471991	100.180	100.179	
	77 1,2,3-trichloropropane	75	Compound Not Detected.						
	78 trans-1,4-dichloro-2-butene	53	Compound Not Detected.						
	79 n-propylbenzene	91	Compound Not Detected.						
	80 bromobenzene	156	Compound Not Detected.						
	81 4-ethyltoluene	105	Compound Not Detected.						
	82 1,3,5-trimethybenzene	105	Compound Not Detected.						
	83 2-chlorotoluene	91	Compound Not Detected.						
	84 4-chorotoluene	91	Compound Not Detected.						
	85 tert-butylbenzene	119	Compound Not Detected.						
	86 1,2,4-trimethylbenzene	105	Compound Not Detected.						
	87 sec-butylbenzene	105	Compound Not Detected.						
	88 p-isopropyltoluene	119	Compound Not Detected.						
	89 1,3-dichlorobenzene	146	Compound Not Detected.						
*	90 1,4-dichlorobenzene-d4	152	17.310	17.303	(1.000)	463433	100.000		
	91 1,4-dichlorobenzene	146	Compound Not Detected.						
	92 n-butylbenzene	91	Compound Not Detected.						
	93 1,2,4,5-tetramathylbenzene	119	Compound Not Detected.						
	94 1,2-dichlorobenzene	146	Compound Not Detected.						
	95 p-Diethylbenzene	119	Compound Not Detected.						
	96 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	98 1,2,4-trichlorobenzene	180	Compound Not Detected.						
	99 hexachlorobutadiene	225	Compound Not Detected.						
	100 naphthalene	128	21.185	21.185	(1.224)	7305	1.09806	1.098	
	101 1,2,3-trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0315A10.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

Calibration Date: 15-MAR-2016
Calibration Time: 08:28
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
43 fluorobenzene	1599434	799717	3198868	1564843	-2.16
65 chlorobenzene-d5	1088580	544290	2177160	1058093	-2.80
90 1,4-dichlorobenze	495711	247856	991422	463433	-6.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.08
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.

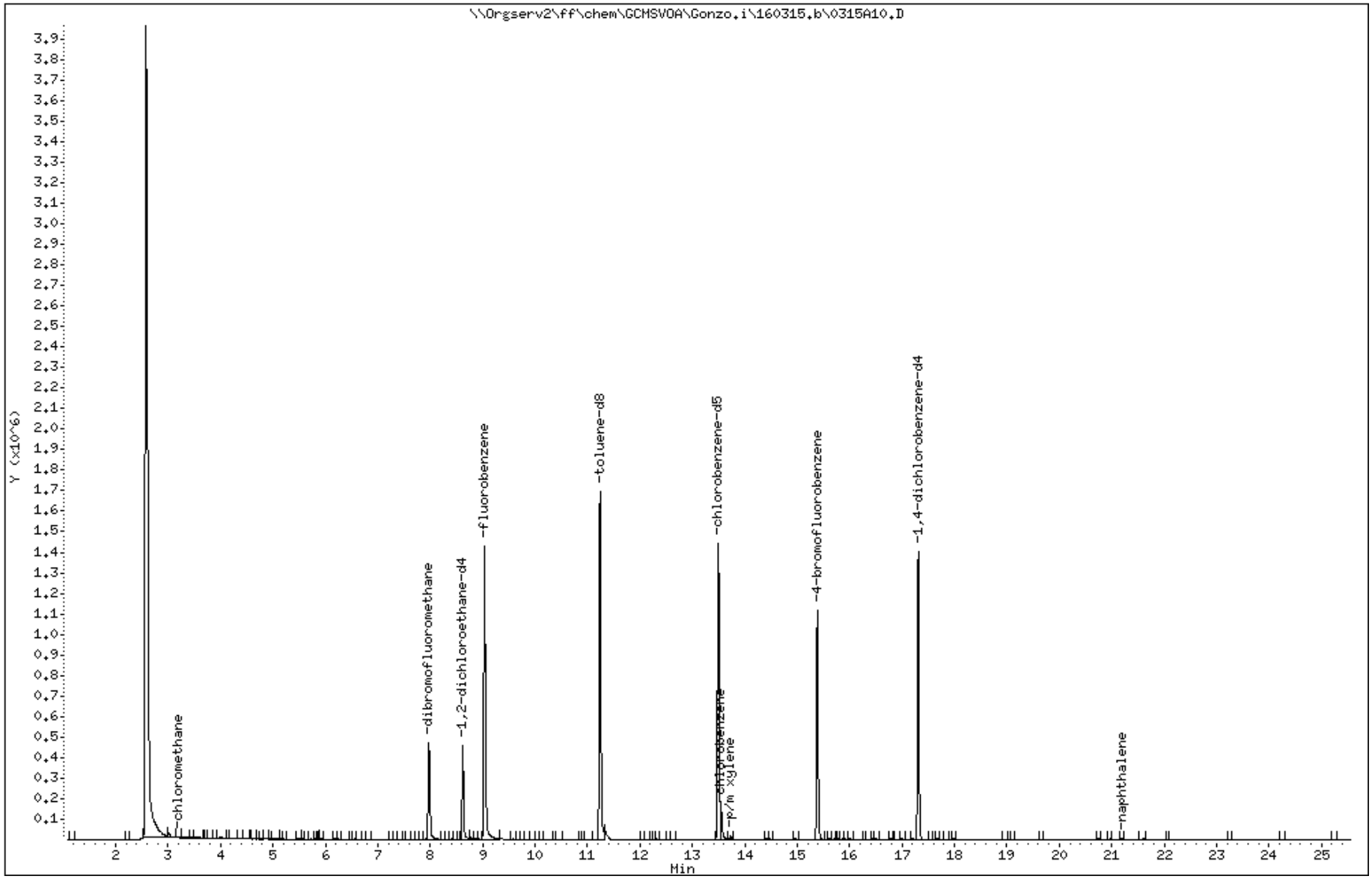
Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: 8260NY.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 34 dibromofluorometha	100.000	97.906	97.91	70-130
$ 40 1,2-dichloroethane	100.000	102.424	102.42	70-130
$ 55 toluene-d8	100.000	96.505	96.51	70-130
$ 76 4-bromofluorobenze	100.000	100.179	100.18	70-130

Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A10.D
Date : 15-MAR-2016 13:19
Client ID:
Instrument: Gonzo.i
Sample Info: 11606763-01,31,10,,a
Purge Volume: 10.0
Operator: PD
Column phase: Rtx-502.2
Column diameter: 0.18



Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A10.D

Date : 15-MAR-2016 13:19

Client ID:

Instrument: Gonzo.i

Sample Info: 11606763-01,31,10,,a

Purge Volume: 10.0

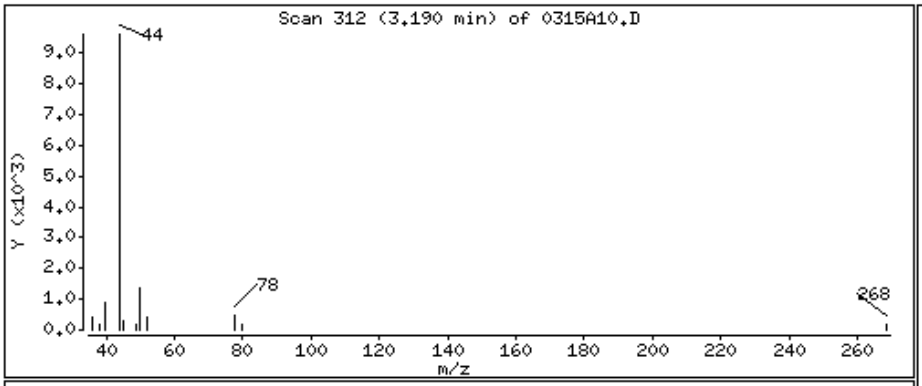
Operator: PD

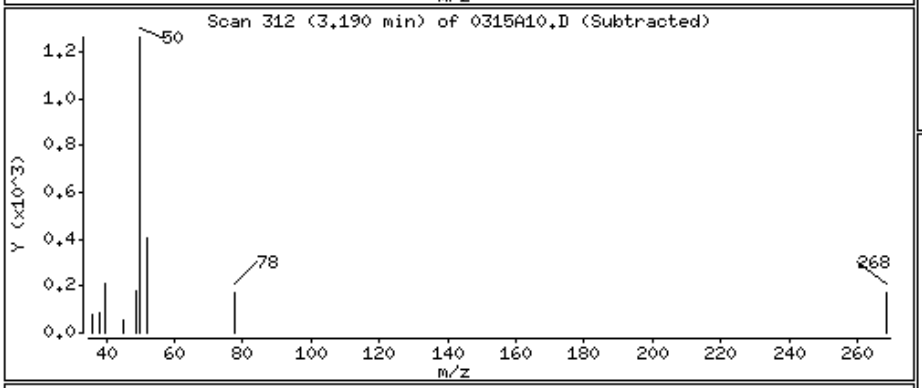
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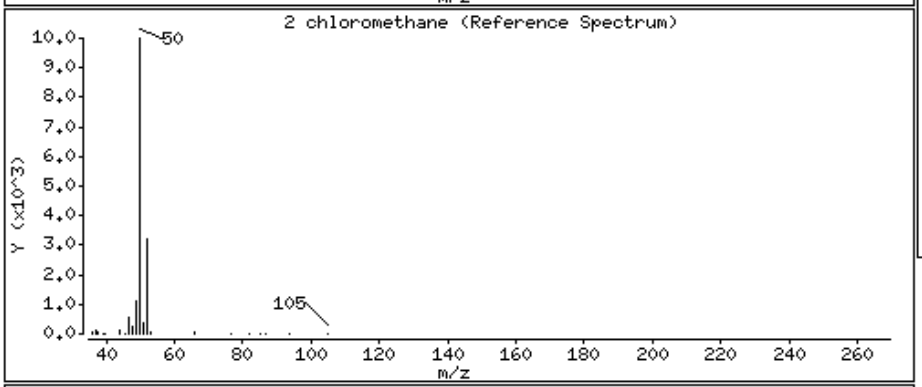
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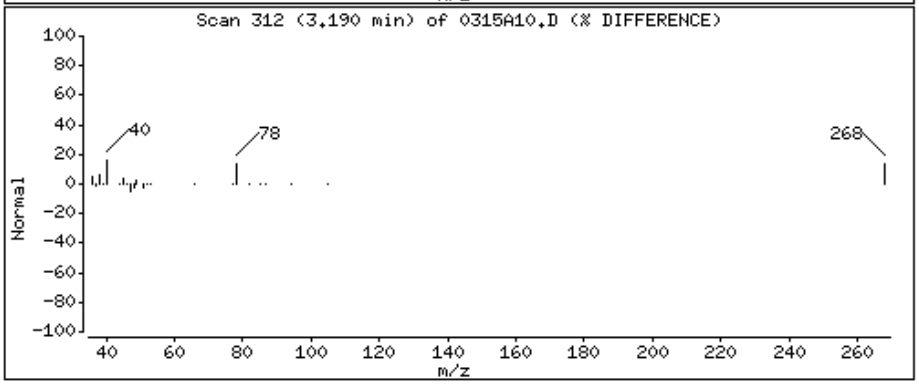
2 chloromethane

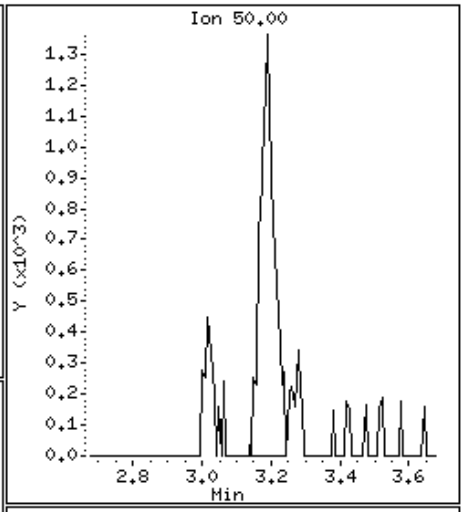
Concentration: 1.332 ngs

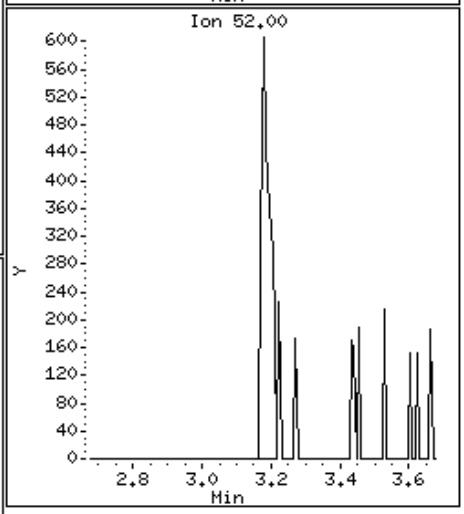












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A10.D

Date : 15-MAR-2016 13:19

Client ID:

Instrument: Gonzo.i

Sample Info: 11606763-01,31,10,,a

Purge Volume: 10.0

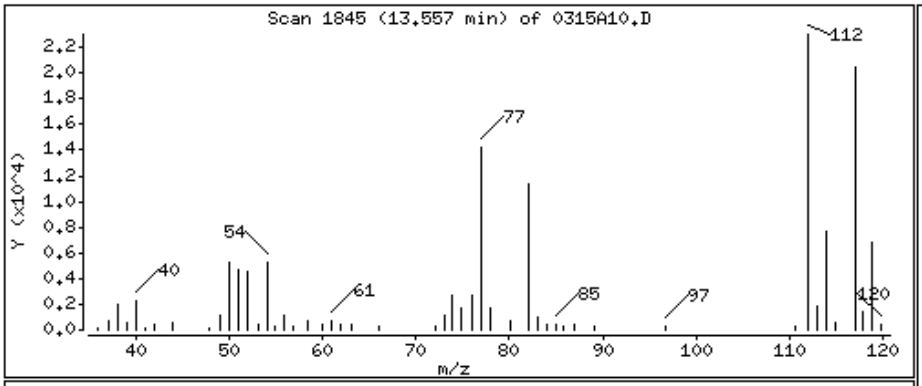
Operator: PD

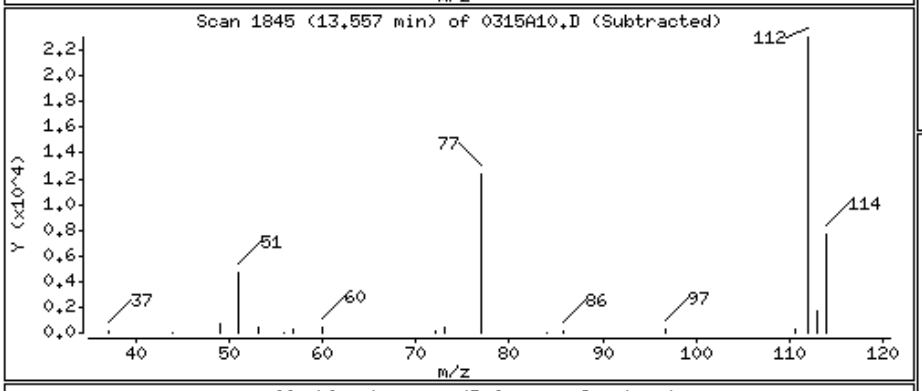
Column phase: Rtx-502.2

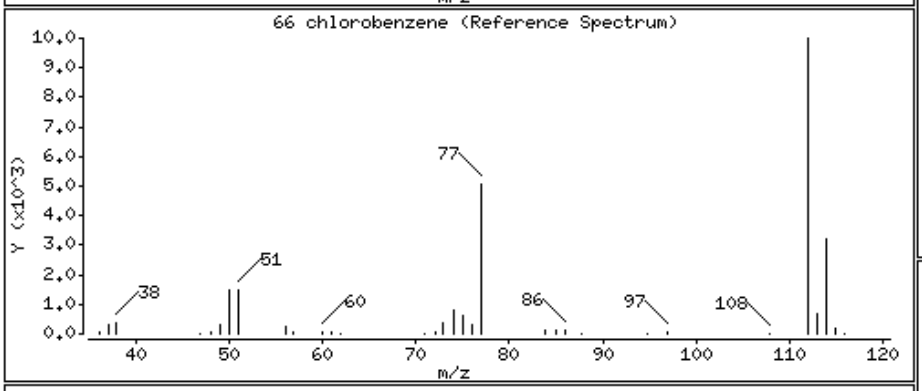
Column diameter: 0.18

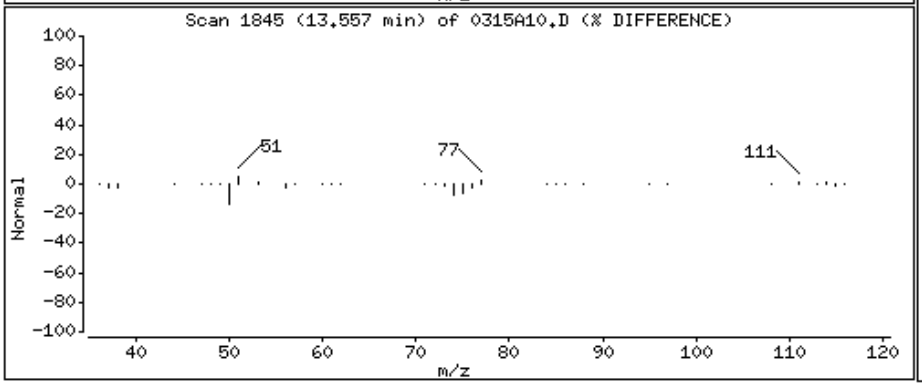
66 chlorobenzene

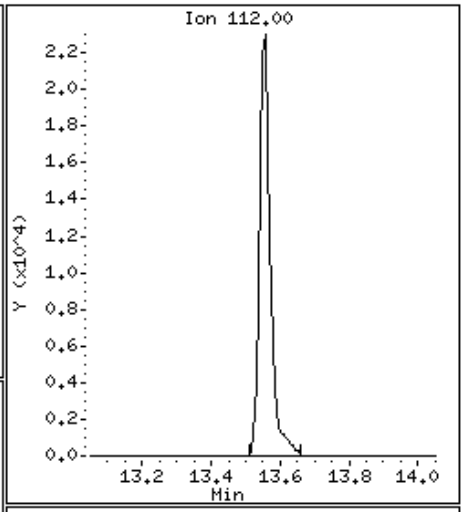
Concentration: 4.816 ngs

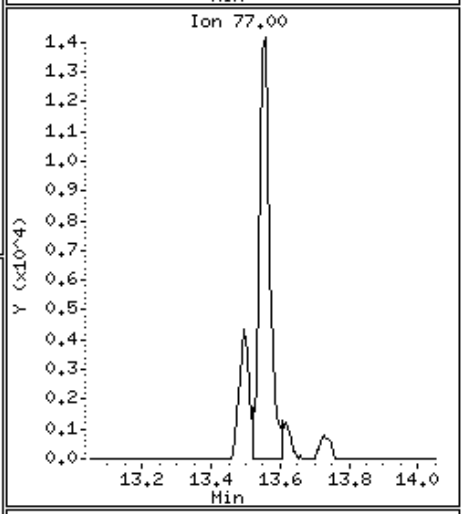


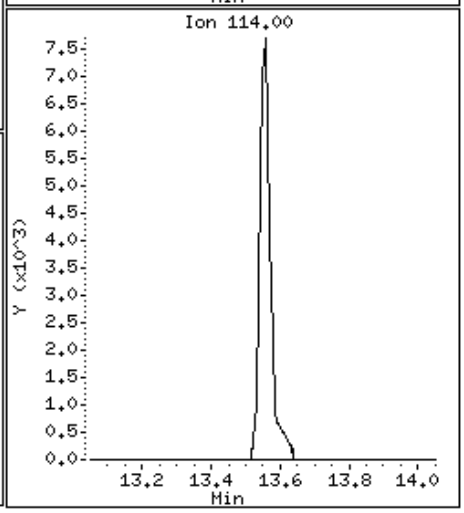












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A10.D

Date : 15-MAR-2016 13:19

Client ID:

Instrument: Gonzo.i

Sample Info: 11606763-01,31,10,,a

Purge Volume: 10.0

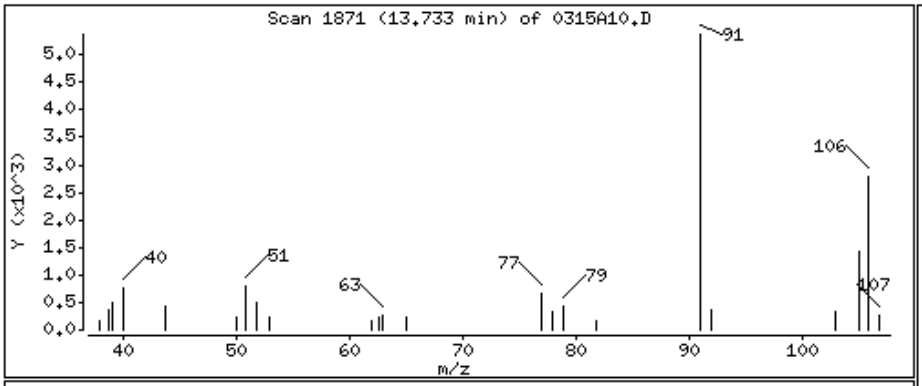
Operator: PD

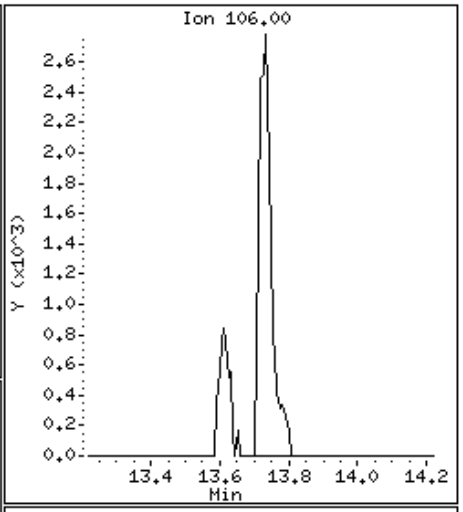
Column phase: Rtx-502.2

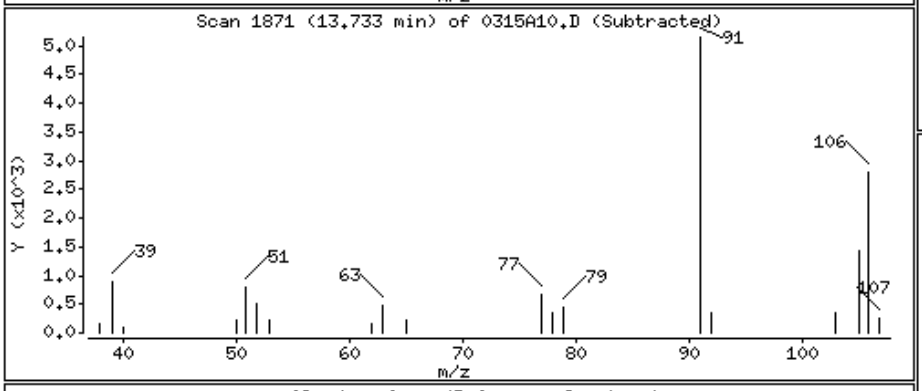
Column diameter: 0.18

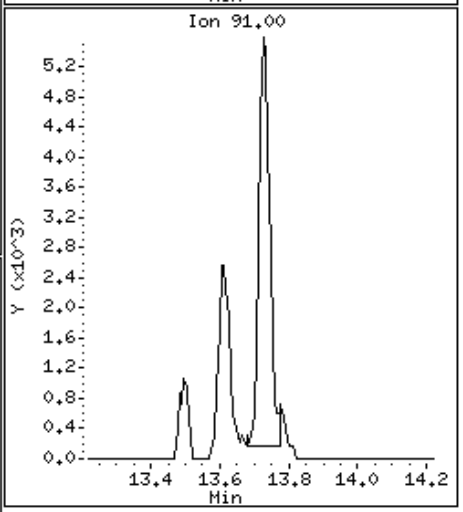
69 p/m xylene

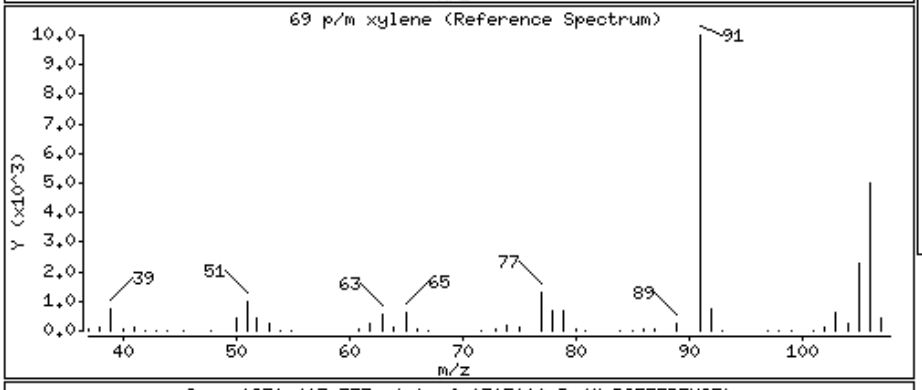
Concentration: 1.020 ngs

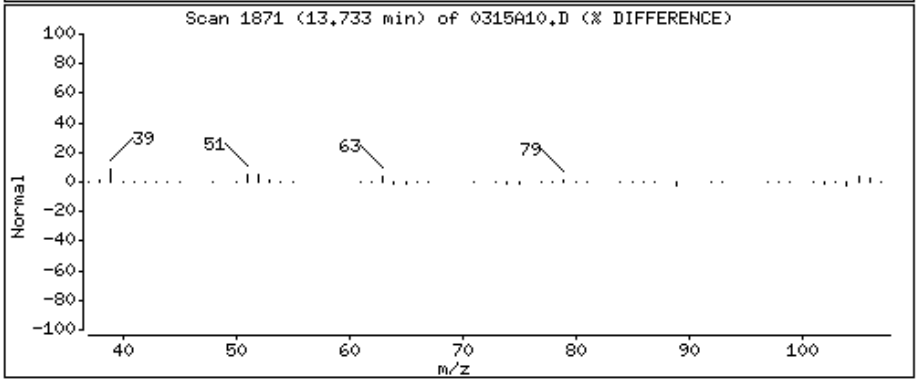












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A10.D

Date : 15-MAR-2016 13:19

Client ID:

Instrument: Gonzo.i

Sample Info: 11606763-01,31,10,,a

Purge Volume: 10.0

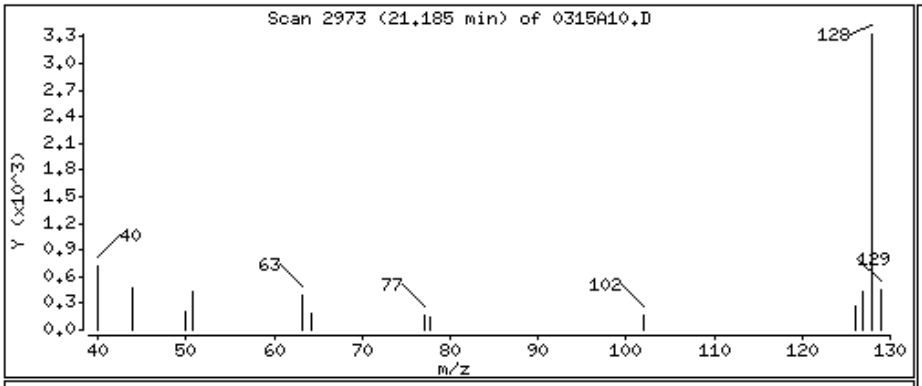
Operator: PD

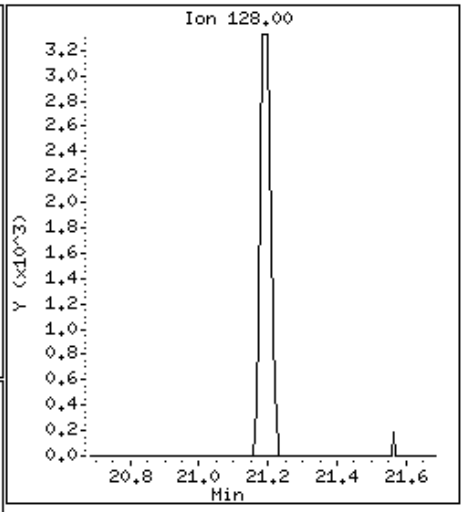
Column phase: Rtx-502.2

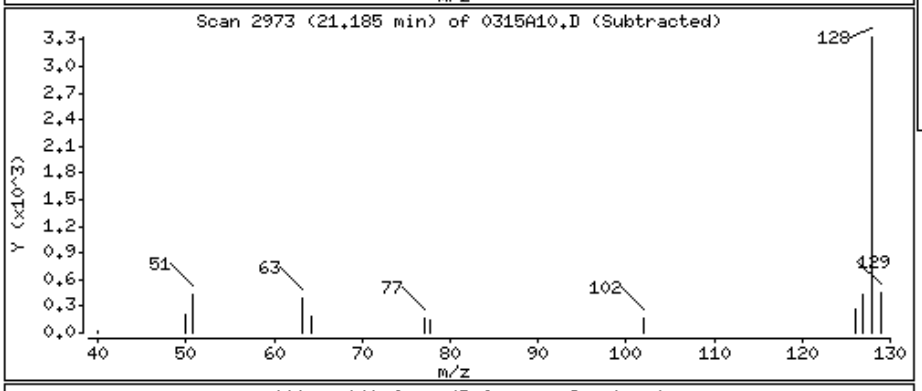
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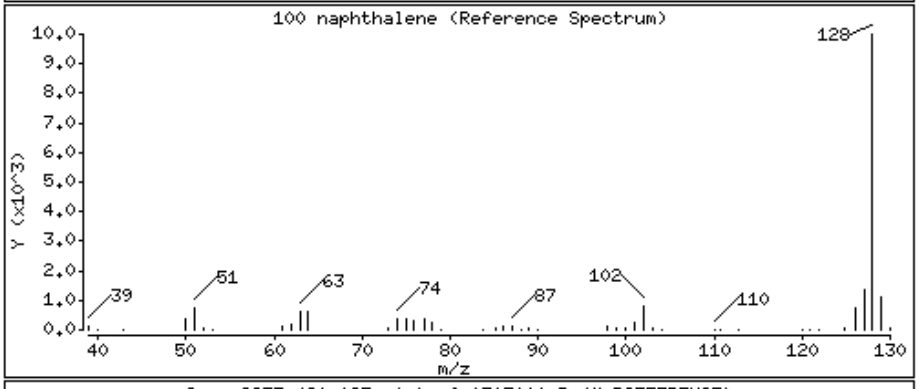
100 naphthalene

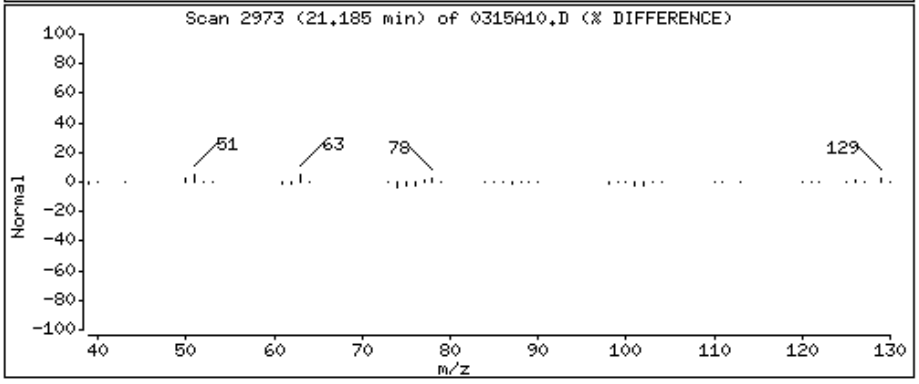
Concentration: 1.098 ngs











Manual Integration

Sample Info : l1606763-01,31,10,,a
wg873931,ical12094

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0315A10.D
Injection Date : 15-MAR-2016 13:19
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

There are no manual integrations in this file.

Volatiles Standards Data

Initial Calibration

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Calibration File Names:

Level 1: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A04.D
Level 2: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A05.D
Level 3: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A06.D
Level 4: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A07.D
Level 6: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A08.D
Level 8: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A09.D
Level 11: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A03.D

Compound	5.0000 Level 1 / 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
1 dichlorodifluoromethane	10211	46429	408023	1257785	3460310	5228976					
	+++++						WLINR	0.03849	0.25941		0.99923
2 chloromethane	0.18614	0.18093	0.18388	0.18585	0.19945	0.19193					
	+++++						AVRG		0.18803		3.54095
3 vinyl chloride	0.14338	0.15809	0.18917	0.18783	0.18208	0.17435					
	0.15458						AVRG		0.16993		10.57758
4 bromomethane	0.16667	0.15080	0.15179	0.14058	0.14808	0.15145					
	+++++						AVRG		0.15156		5.61118

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	2.0000 Level 11											
5 chloroethane	0.11074	0.12608	0.13751	0.13340	0.13383	0.12625						
	+++++						AVRG		0.12797		7.48210	
6 trichlorofluoromethane	13350	61100	502682	1533921	4114669	6030880						
	+++++						WLINR	0.03117	0.30501		0.99886	
18 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
19 Hexane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
7 ethyl ether	0.10185	0.10444	0.10974	0.11007	0.10697	0.10479						
	+++++						AVRG		0.10631		3.03388	
8 acrolien	0.01972	0.01914	0.02182	0.01827	0.01963	0.01915						
	+++++						AVRG		0.01962		6.07860	<-
9 Freon 113	7405	32964	312813	941279	2591375	3904834						
	+++++						WLINR	0.03930	0.19419		0.99906	

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	2.0000 Level 11											
10 acetone	+++++	0.04819	0.04015	0.03185	0.03536	0.03476						
	+++++						AVRG		0.03806		16.80768	<-
11 1,1,-dichloroethene	0.16391	0.17438	0.21795	0.21406	0.21950	0.21474						
	+++++						AVRG		0.20075		12.34840	
12 Tert-Butyl Alcohol	0.01204	0.01281	0.01275	0.01272	0.01393	0.01379						
	+++++						AVRG		0.01300		5.53149	<-
14 Methyl Acetate	0.11640	0.10227	0.11219	0.10872	0.10515	0.09767						
	+++++						AVRG		0.10707		6.34990	
13 iodomethane	+++++	27270	179280	1080116	3405366	4828208						
	+++++						WLINR	0.20350	0.24725		0.99123	<-
15 methylene chloride	0.24534	0.23655	0.24604	0.24037	0.23852	0.23580						
	+++++						AVRG		0.24044		1.81985	
16 carbon disulfide	0.76132	0.65421	0.71225	0.68936	0.72000	0.71326						
	+++++						AVRG		0.70840		4.99969	

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
17 acrylonitrile	0.05854	0.05895	0.06566	0.06223	0.06295	0.06146					
	+++++						AVRG		0.06163		4.29775
20 methyl tert butyl ether	0.55134	0.58405	0.63099	0.61589	0.61496	0.60466					
	+++++						AVRG		0.60032		4.75818
21 halothane	0.13325	0.14042	0.17701	0.17747	0.17971	0.17867					
	+++++						AVRG		0.16442		13.08290
22 trans-1,2-dichloroethene	0.19259	0.20796	0.22667	0.22851	0.23080	0.22904					
	+++++						AVRG		0.21926		7.09006
23 Diisopropyl Ether	0.72780	0.79770	0.85122	0.82177	0.79897	0.79583					
	+++++						AVRG		0.79888		5.10806
26 vinyl acetate	0.27160	0.24714	0.30599	0.33768	0.36108	0.36616					
	+++++						AVRG		0.31494		15.44158
24 1,1-dichloroethane	0.38845	0.43074	0.46643	0.45635	0.44966	0.44238					
	+++++						AVRG		0.43900		6.28116

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
25 Ethyl-Tert-Butyl-Ether	0.69158	0.72748	0.79034	0.77188	0.77147	0.76028					
	+++++						AVRG		0.75217		4.81739
27 2-butanone	0.08953	0.06150	0.06904	0.06649	0.06528	0.06323					
	+++++						AVRG		0.06918		14.89894
29 Ethyl Acetate	+++++	0.17249	0.16400	0.14985	0.14439	0.13671					
	+++++						AVRG		0.15349		9.49177
28 2,2-dichloropropane	0.21325	0.23403	0.28886	0.31241	0.33488	0.33811					
	+++++						AVRG		0.28692		18.30949
30 cis-1,2-dichloroethene	0.22588	0.24158	0.25387	0.25533	0.25884	0.25514					
	+++++						AVRG		0.24844		5.04730
31 chloroform	0.35943	0.39630	0.42856	0.42776	0.43118	0.43013					
	+++++						AVRG		0.41223		7.05517
32 bromochloromethane	0.09138	0.09950	0.10854	0.10451	0.08988	0.08518					
	+++++						AVRG		0.09650		9.45578

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VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2	
33 tetrahydrofuran	0.05028	0.04663	0.04858	0.04533	0.04484	0.04410	+++++	AVRG		0.04662		5.11885	<-
45 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
35 1,1,1-trichloroethane	0.22716	0.26115	0.32666	0.34132	0.36017	0.35981	+++++	AVRG		0.31271		17.78259	
36 Cyclohexane	16231	73336	695737	2081895	5578716	8245295	+++++	WLINR	0.03583	0.41594		0.99863	
37 1,1-dichloropropene	0.25798	0.26966	0.33065	0.31959	0.33216	0.33042	+++++	AVRG		0.30674		11.00362	
39 Tertiary-Amyl Methyl Ether	0.55930	0.59530	0.65650	0.65549	0.65412	0.64449	+++++	AVRG		0.62753		6.49689	
38 carbontetrachloride	9284	44160	337825	1214833	3811303	5891825	+++++	WLINR	0.05620	0.28394		0.99499	<-

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VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2	
41 1,2-dichloroethane	0.27200	0.27164	0.30559	0.30201	0.30281	0.29942	+++++	AVRG		0.29224		5.45567	
42 benzene	0.85639	0.98326	1.05004	1.04627	1.05410	1.01520	+++++	AVRG		1.00088		7.56994	
54 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
44 trichloroethene	0.21424	0.22230	0.24637	0.25005	0.25267	0.25130	+++++	AVRG		0.23949		6.99994	
46 methyl cyclohexane	14719	60562	655197	1968450	5362438	8050928	+++++	WLINR	0.04152	0.40201		0.99867	
47 1,2-dichloropropane	0.21832	0.24416	0.26501	0.26236	0.25759	0.25423	+++++	AVRG		0.25028		6.89991	
48 bromodichloromethane	0.21923	0.23932	0.28013	0.30479	0.32238	0.32321	+++++	AVRG		0.28151		15.57481	

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	2.0000 Level 11											
49 1,4-dioxane	0.00176	0.00173	0.00183	0.00176	0.00172	0.00175						
	+++++						AVRG		0.00176		2.25087	<-
176 methy;-methylacrlate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
50 dibromomethane	0.10886	0.11669	0.12009	0.12119	0.12133	0.12041						
	+++++						AVRG		0.11810		4.08856	
51 2-chloroethylvinylether	0.06100	0.06830	0.08606	0.09266	0.09312	0.08317						
	+++++						AVRG		0.08072		16.37693	
52 4-methyl-2-pentanone	0.05776	0.06055	0.06992	0.06846	0.06820	0.06657						
	+++++						AVRG		0.06524		7.53129	
53 cis-1,3-dichloropropene	0.24173	0.25562	0.32295	0.35310	0.37544	0.38106						
	+++++						AVRG		0.32165		18.73676	
56 toluene	0.85977	0.91739	0.98714	0.96094	0.94419	0.91092						
	+++++						AVRG		0.93006		4.77904	

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2
57 ethyl-methacrylate	0.29062	0.29192	0.37334	0.37610	0.36949	0.35551	+++++	AVRG		0.34283		11.83267
58 trans-1,3-dichloropropene	0.27843	0.28299	0.35253	0.39390	0.42475	0.42427	+++++	AVRG		0.35948		18.49881
60 2-hexanone	0.14971	0.13842	0.15740	0.15427	0.15037	0.14299	+++++	AVRG		0.14886		4.73979
59 1,1,2-trichloroethane	0.20714	0.23383	0.24315	0.23581	0.22720	0.21757	+++++	AVRG		0.22745		5.79109
61 1,3-dichloropropane	0.43831	0.46260	0.49408	0.47932	0.47196	0.45729	+++++	AVRG		0.46726		4.11188
62 tetrachloroethene	0.31609	0.31914	0.37824	0.36930	0.36376	0.35279	+++++	AVRG		0.34989		7.52866
63 chlorodibromomethane	9491	41461	273292	958448	2911173	4448952	+++++	WLINR	0.03912	0.31094		0.99788

FORM VI-NYTCL-8260

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2
64 1,2-dibromoethane	0.22766	0.22570	0.25278	0.25320	0.25562	0.25061	+++++	AVRG		0.24426		5.61943
66 chlorobenzene	0.90590	0.96735	1.00672	1.00590	1.02059	1.00155	+++++	AVRG		0.98467		4.31298
67 1,1,1,2-tetrachloroethane	9436	44916	291807	998045	2881676	4308666	+++++	WLINR	0.03254	0.30642		0.99909
68 ethyl benzene	1.52703	1.68590	1.78806	1.77035	1.74600	1.44371	+++++	AVRG		1.66017		8.56550
69 p/m xylene	0.59213	0.65020	0.68210	0.66598	0.63908	0.59717	+++++	AVRG		0.63778		5.71712
70 o xylene	0.59795	0.65170	0.67403	0.65287	0.62101	0.58089	+++++	AVRG		0.62974		5.70419
71 styrene	0.88506	0.97807	1.04116	1.03945	0.97175	0.76900	+++++	AVRG		0.94742		11.02075

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2
72 isopropylbenzene	1.40220	1.55952	1.70517	1.67468	1.67903	1.44321	+++++	AVRG		1.57730		8.27298
73 bromoform	3935	18085	122468	463785	1474319	2240647	+++++	WLINR	0.04410	0.31965		0.99692
74 1,4-dichloro-2-butane	1.00062	0.96330	1.00347	0.96534	0.93842	0.91538	+++++	AVRG		0.96442		3.56751
75 1,1,2,2,-tetrachloroethane	0.67205	0.67267	0.69402	0.65404	0.63128	0.61030	+++++	AVRG		0.65573		4.66783
175 cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
77 1,2,3-trichloropropane	0.52652	0.51271	0.50923	0.47647	0.46888	0.45440	+++++	AVRG		0.49137		5.83094
78 trans-1,4-dichloro-2-butene	0.12633	0.10941	0.13445	0.15182	0.17091	0.17088	+++++	AVRG		0.14397		17.31674

FORM VI-NYTCL-8260

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2
79 n-propylbenzene	3.68197	3.79172	4.12198	4.02262	3.87737	3.11567	+++++	AVRG		3.76856		9.46086
80 bromobenzene	0.82667	0.80988	0.82966	0.81273	0.79436	0.77664	+++++	AVRG		0.80832		2.48200
81 4-ethyltoluene	3.12564	3.32600	3.58941	3.47442	3.41851	2.96666	+++++	AVRG		3.31678		6.98970
82 1,3,5-trimethybenzene	2.73642	2.84596	2.91806	2.84451	2.73439	2.55792	+++++	AVRG		2.77288		4.57789
83 2-chlorotoluene	2.35720	2.44525	2.45191	2.38624	2.29208	2.20416	+++++	AVRG		2.35614		4.03624
84 4-chorotoluene	2.37500	2.39481	2.43869	2.39324	2.36392	2.30186	+++++	AVRG		2.37792		1.89957
85 tert-butylbenzene	2.23247	2.30720	2.47659	2.34706	2.29141	2.23716	+++++	AVRG		2.31531		3.89330

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2
86 1,2,4-trimethylbenzene	2.60480	2.81132	2.90318	2.80496	2.74316	2.52905	+++++	AVRG		2.73275		5.13374
87 sec-butylbenzene	3.05706	3.20232	3.62785	3.48033	3.42213	2.93442	+++++	AVRG		3.28735		8.11888
88 p-isopropyltoluene	2.60436	2.73428	3.01499	2.89415	2.84092	2.60410	+++++	AVRG		2.78214		5.92389
89 1,3-dichlorobenzene	1.47082	1.45661	1.49618	1.48353	1.48734	1.46023	+++++	AVRG		1.47579		1.06874
91 1,4-dichlorobenzene	1.51259	1.43020	1.45727	1.45732	1.47766	1.45244	+++++	AVRG		1.46458		1.90971
92 n-butylbenzene	2.50762	2.63103	3.09251	3.06413	3.00183	2.82998	+++++	AVRG		2.85451		8.48276
93 1,2,4,5-tetramathylbenzene	1.40380	1.53337	1.70377	1.66370	1.59235	1.52205	+++++	AVRG		1.56984		6.88672

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
94 1,2-dichlorobenzene	1.37815	1.36596	1.41135	1.37721	1.35996	1.33145					
	+++++						AVRG		1.37068		1.91048
95 p-Diethylbenzene	2.48067	2.37041	2.55434	2.55883	2.64844	2.52479					
	+++++						AVRG		2.52291		3.67914
96 1,2-dibromo-3-chloropropane	0.06499	0.06064	0.06932	0.07749	0.08773	0.08562					
	+++++						AVRG		0.07430		14.94950
97 1,3,5-trichlorobenzene	1.01414	0.94874	1.01405	1.01071	1.03154	1.00079					
	+++++						AVRG		1.00333		2.84303
98 1,2,4-trichlorobenzene	0.74223	0.65667	0.75098	0.77449	0.82000	0.80724					
	+++++						AVRG		0.75860		7.71000
99 hexachlorobutadiene	0.37757	0.35193	0.39084	0.37846	0.38628	0.37038					
	+++++						AVRG		0.37591		3.65782
100 naphthalene	1.60859	1.21006	1.34479	1.39578	1.53036	1.52351					
	+++++						AVRG		1.43552		10.20642

FORM VI-NYTCL-8260

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
101 1,2,3-trichlorobenzene	0.69393	0.59941	0.65338	0.66050	0.68376	0.66782					
	+++++						AVRG		0.65980		5.02278
177 Isopropyl Alcohol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
$ 34 dibromofluoromethane	0.22124	0.22197	0.22576	0.22239	0.22367	0.22651					
	0.22018						AVRG		0.22311		1.04735
$ 40 1,2-dichloroethane-d4	0.24644	0.22912	0.23313	0.23352	0.23128	0.23427					
	0.23357						AVRG		0.23448		2.37122
$ 55 toluene-d8	1.46334	1.45890	1.45335	1.42297	1.40947	1.39384					
	1.46154						AVRG		1.43763		1.97932
$ 76 4-bromofluorobenzene	1.04684	1.01183	1.01153	0.99497	0.98932	0.99719					
	1.06478						AVRG		1.01664		2.80329

FORM VI-NYTCL-8260

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: GONZO.I Calibration Date(s): 27-FEB-2016 27-FEB-2016

Calibration Times: 15:54 19:10

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response

FORM VI-NYTCL-8260

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Calibration File Names:
Level 1: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A04.D
Level 2: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A05.D
Level 3: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A06.D
Level 4: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A07.D
Level 6: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A08.D
Level 8: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A09.D
Level 11: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A03.D

Compound	5.0000 Level 1 / 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
1 dichlorodifluoromethane	10211 +++++	46429	408023	1257785	3460310	5228976	WLINR	0.03849	0.25941		0.99923
2 chloromethane	0.18614 +++++	0.18093	0.18388	0.18585	0.19945	0.19193	AVRG		0.18803		3.54095
3 vinyl chloride	0.14338 0.15458	0.15809	0.18917	0.18783	0.18208	0.17435	AVRG		0.16993		10.57758
4 bromomethane	0.16667 +++++	0.15080	0.15179	0.14058	0.14808	0.15145	AVRG		0.15156		5.61118

Alpha Analytical Labs

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Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	2.0000 Level 11											
5 chloroethane	0.11074	0.12608	0.13751	0.13340	0.13383	0.12625						
	+++++						AVRG		0.12797		7.48210	
6 trichlorofluoromethane	13350	61100	502682	1533921	4114669	6030880						
	+++++						WLINR	0.03117	0.30501		0.99886	
18 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
19 Hexane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
7 ethyl ether	0.10185	0.10444	0.10974	0.11007	0.10697	0.10479						
	+++++						AVRG		0.10631		3.03388	
8 acrolien	0.01972	0.01914	0.02182	0.01827	0.01963	0.01915						
	+++++						AVRG		0.01962		6.07860	<-
9 Freon 113	7405	32964	312813	941279	2591375	3904834						
	+++++						WLINR	0.03930	0.19419		0.99906	

Alpha Analytical Labs

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Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2	
10 acetone	+++++	0.04819	0.04015	0.03185	0.03536	0.03476	+++++	AVRG		0.03806		16.80768	<-
11 1,1,-dichloroethene	0.16391	0.17438	0.21795	0.21406	0.21950	0.21474	+++++	AVRG		0.20075		12.34840	
12 Tert-Butyl Alcohol	0.01204	0.01281	0.01275	0.01272	0.01393	0.01379	+++++	AVRG		0.01300		5.53149	<-
14 Methyl Acetate	0.11640	0.10227	0.11219	0.10872	0.10515	0.09767	+++++	AVRG		0.10707		6.34990	
13 iodomethane	+++++	27270	179280	1080116	3405366	4828208	+++++	WLINR	0.20350	0.24725		0.99123	<-
15 methylene chloride	0.24534	0.23655	0.24604	0.24037	0.23852	0.23580	+++++	AVRG		0.24044		1.81985	
16 carbon disulfide	0.76132	0.65421	0.71225	0.68936	0.72000	0.71326	+++++	AVRG		0.70840		4.99969	

Alpha Analytical Labs

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Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
17 acrylonitrile	0.05854	0.05895	0.06566	0.06223	0.06295	0.06146					
	+++++						AVRG		0.06163		4.29775
20 methyl tert butyl ether	0.55134	0.58405	0.63099	0.61589	0.61496	0.60466					
	+++++						AVRG		0.60032		4.75818
21 halothane	0.13325	0.14042	0.17701	0.17747	0.17971	0.17867					
	+++++						AVRG		0.16442		13.08290
22 trans-1,2-dichloroethene	0.19259	0.20796	0.22667	0.22851	0.23080	0.22904					
	+++++						AVRG		0.21926		7.09006
23 Diisopropyl Ether	0.72780	0.79770	0.85122	0.82177	0.79897	0.79583					
	+++++						AVRG		0.79888		5.10806
26 vinyl acetate	0.27160	0.24714	0.30599	0.33768	0.36108	0.36616					
	+++++						AVRG		0.31494		15.44158
24 1,1-dichloroethane	0.38845	0.43074	0.46643	0.45635	0.44966	0.44238					
	+++++						AVRG		0.43900		6.28116

Alpha Analytical Labs

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Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
25 Ethyl-Tert-Butyl-Ether	0.69158	0.72748	0.79034	0.77188	0.77147	0.76028					
	+++++						AVRG		0.75217		4.81739
27 2-butanone	0.08953	0.06150	0.06904	0.06649	0.06528	0.06323					
	+++++						AVRG		0.06918		14.89894
29 Ethyl Acetate	+++++	0.17249	0.16400	0.14985	0.14439	0.13671					
	+++++						AVRG		0.15349		9.49177
28 2,2-dichloropropane	0.21325	0.23403	0.28886	0.31241	0.33488	0.33811					
	+++++						AVRG		0.28692		18.30949
30 cis-1,2-dichloroethene	0.22588	0.24158	0.25387	0.25533	0.25884	0.25514					
	+++++						AVRG		0.24844		5.04730
31 chloroform	0.35943	0.39630	0.42856	0.42776	0.43118	0.43013					
	+++++						AVRG		0.41223		7.05517
32 bromochloromethane	0.09138	0.09950	0.10854	0.10451	0.08988	0.08518					
	+++++						AVRG		0.09650		9.45578

Alpha Analytical Labs

INITIAL CALIBRATION DATA

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Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1 / 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
33 tetrahydrofuran	0.05028	0.04663	0.04858	0.04533	0.04484	0.04410						
	+++++					AVRG			0.04662		5.11885	<-
45 Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++					AVRG			0.000e+000		0.000e+000	<-
35 1,1,1-trichloroethane	0.22716	0.26115	0.32666	0.34132	0.36017	0.35981						
	+++++					AVRG			0.31271		17.78259	
36 Cyclohexane	16231	73336	695737	2081895	5578716	8245295						
	+++++					WLINR		0.03583	0.41594		0.99863	
37 1,1-dichloropropene	0.25798	0.26966	0.33065	0.31959	0.33216	0.33042						
	+++++					AVRG			0.30674		11.00362	
39 Tertiary-Amyl Methyl Ether	0.55930	0.59530	0.65650	0.65549	0.65412	0.64449						
	+++++					AVRG			0.62753		6.49689	
38 carbontetrachloride	9284	44160	337825	1214833	3811303	5891825						
	+++++					WLINR		0.05620	0.28394		0.99499	<-

Alpha Analytical Labs

INITIAL CALIBRATION DATA

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Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
41 1,2-dichloroethane	0.27200	0.27164	0.30559	0.30201	0.30281	0.29942						
	+++++						AVRG		0.29224		5.45567	
42 benzene	0.85639	0.98326	1.05004	1.04627	1.05410	1.01520						
	+++++						AVRG		1.00088		7.56994	
54 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
44 trichloroethene	0.21424	0.22230	0.24637	0.25005	0.25267	0.25130						
	+++++						AVRG		0.23949		6.99994	
46 methyl cyclohexane	14719	60562	655197	1968450	5362438	8050928						
	+++++						WLINR	0.04152	0.40201		0.99867	
47 1,2-dichloropropane	0.21832	0.24416	0.26501	0.26236	0.25759	0.25423						
	+++++						AVRG		0.25028		6.89991	
48 bromodichloromethane	0.21923	0.23932	0.28013	0.30479	0.32238	0.32321						
	+++++						AVRG		0.28151		15.57481	

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
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Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
49 1,4-dioxane	0.00176	0.00173	0.00183	0.00176	0.00172	0.00175						
	+++++						AVRG		0.00176		2.25087	<-
176 methy;-methylacrlate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
50 dibromomethane	0.10886	0.11669	0.12009	0.12119	0.12133	0.12041						
	+++++						AVRG		0.11810		4.08856	
51 2-chloroethylvinylether	0.06100	0.06830	0.08606	0.09266	0.09312	0.08317						
	+++++						AVRG		0.08072		16.37693	
52 4-methyl-2-pentanone	0.05776	0.06055	0.06992	0.06846	0.06820	0.06657						
	+++++						AVRG		0.06524		7.53129	
53 cis-1,3-dichloropropene	0.24173	0.25562	0.32295	0.35310	0.37544	0.38106						
	+++++						AVRG		0.32165		18.73676	
56 toluene	0.85977	0.91739	0.98714	0.96094	0.94419	0.91092						
	+++++						AVRG		0.93006		4.77904	

Alpha Analytical Labs

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Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1 / 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
57 ethyl-methacrylate	0.29062 +++++	0.29192	0.37334	0.37610	0.36949	0.35551	AVRG		0.34283		11.83267
58 trans-1,3-dichloropropene	0.27843 +++++	0.28299	0.35253	0.39390	0.42475	0.42427	AVRG		0.35948		18.49881
60 2-hexanone	0.14971 +++++	0.13842	0.15740	0.15427	0.15037	0.14299	AVRG		0.14886		4.73979
59 1,1,2-trichloroethane	0.20714 +++++	0.23383	0.24315	0.23581	0.22720	0.21757	AVRG		0.22745		5.79109
61 1,3-dichloropropane	0.43831 +++++	0.46260	0.49408	0.47932	0.47196	0.45729	AVRG		0.46726		4.11188
62 tetrachloroethene	0.31609 +++++	0.31914	0.37824	0.36930	0.36376	0.35279	AVRG		0.34989		7.52866
63 chlorodibromomethane	9491 +++++	41461	273292	958448	2911173	4448952	WLINR	0.03912	0.31094		0.99788

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
64 1,2-dibromoethane	0.22766	0.22570	0.25278	0.25320	0.25562	0.25061					
	+++++						AVRG		0.24426		5.61943
66 chlorobenzene	0.90590	0.96735	1.00672	1.00590	1.02059	1.00155					
	+++++						AVRG		0.98467		4.31298
67 1,1,1,2-tetrachloroethane	9436	44916	291807	998045	2881676	4308666					
	+++++						WLINR	0.03254	0.30642		0.99909
68 ethyl benzene	1.52703	1.68590	1.78806	1.77035	1.74600	1.44371					
	+++++						AVRG		1.66017		8.56550
69 p/m xylene	0.59213	0.65020	0.68210	0.66598	0.63908	0.59717					
	+++++						AVRG		0.63778		5.71712
70 o xylene	0.59795	0.65170	0.67403	0.65287	0.62101	0.58089					
	+++++						AVRG		0.62974		5.70419
71 styrene	0.88506	0.97807	1.04116	1.03945	0.97175	0.76900					
	+++++						AVRG		0.94742		11.02075

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
72 isopropylbenzene	1.40220 +++++	1.55952	1.70517	1.67468	1.67903	1.44321	AVRG		1.57730		8.27298
73 bromoform	3935 +++++	18085	122468	463785	1474319	2240647	WLINR	0.04410	0.31965		0.99692
74 1,4-dichloro-2-butane	1.00062 +++++	0.96330	1.00347	0.96534	0.93842	0.91538	AVRG		0.96442		3.56751
75 1,1,2,2,-tetrachloroethane	0.67205 +++++	0.67267	0.69402	0.65404	0.63128	0.61030	AVRG		0.65573		4.66783
175 cyclohexanone	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
77 1,2,3-trichloropropane	0.52652 +++++	0.51271	0.50923	0.47647	0.46888	0.45440	AVRG		0.49137		5.83094
78 trans-1,4-dichloro-2-butene	0.12633 +++++	0.10941	0.13445	0.15182	0.17091	0.17088	AVRG		0.14397		17.31674

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	2.0000 Level 11	Curve	Coefficients b	m1	m2	%RSD or R^2
79 n-propylbenzene	3.68197	3.79172	4.12198	4.02262	3.87737	3.11567	+++++	AVRG		3.76856		9.46086
80 bromobenzene	0.82667	0.80988	0.82966	0.81273	0.79436	0.77664	+++++	AVRG		0.80832		2.48200
81 4-ethyltoluene	3.12564	3.32600	3.58941	3.47442	3.41851	2.96666	+++++	AVRG		3.31678		6.98970
82 1,3,5-trimethybenzene	2.73642	2.84596	2.91806	2.84451	2.73439	2.55792	+++++	AVRG		2.77288		4.57789
83 2-chlorotoluene	2.35720	2.44525	2.45191	2.38624	2.29208	2.20416	+++++	AVRG		2.35614		4.03624
84 4-chorotoluene	2.37500	2.39481	2.43869	2.39324	2.36392	2.30186	+++++	AVRG		2.37792		1.89957
85 tert-butylbenzene	2.23247	2.30720	2.47659	2.34706	2.29141	2.23716	+++++	AVRG		2.31531		3.89330

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1 2.0000 Level 11	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
86 1,2,4-trimethylbenzene	2.60480 +++++	2.81132	2.90318	2.80496	2.74316	2.52905	AVRG		2.73275		5.13374
87 sec-butylbenzene	3.05706 +++++	3.20232	3.62785	3.48033	3.42213	2.93442	AVRG		3.28735		8.11888
88 p-isopropyltoluene	2.60436 +++++	2.73428	3.01499	2.89415	2.84092	2.60410	AVRG		2.78214		5.92389
89 1,3-dichlorobenzene	1.47082 +++++	1.45661	1.49618	1.48353	1.48734	1.46023	AVRG		1.47579		1.06874
91 1,4-dichlorobenzene	1.51259 +++++	1.43020	1.45727	1.45732	1.47766	1.45244	AVRG		1.46458		1.90971
92 n-butylbenzene	2.50762 +++++	2.63103	3.09251	3.06413	3.00183	2.82998	AVRG		2.85451		8.48276
93 1,2,4,5-tetramathylbenzene	1.40380 +++++	1.53337	1.70377	1.66370	1.59235	1.52205	AVRG		1.56984		6.88672

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
94 1,2-dichlorobenzene	1.37815	1.36596	1.41135	1.37721	1.35996	1.33145					
	+++++						AVRG		1.37068		1.91048
95 p-Diethylbenzene	2.48067	2.37041	2.55434	2.55883	2.64844	2.52479					
	+++++						AVRG		2.52291		3.67914
96 1,2-dibromo-3-chloropropane	0.06499	0.06064	0.06932	0.07749	0.08773	0.08562					
	+++++						AVRG		0.07430		14.94950
97 1,3,5-trichlorobenzene	1.01414	0.94874	1.01405	1.01071	1.03154	1.00079					
	+++++						AVRG		1.00333		2.84303
98 1,2,4-trichlorobenzene	0.74223	0.65667	0.75098	0.77449	0.82000	0.80724					
	+++++						AVRG		0.75860		7.71000
99 hexachlorobutadiene	0.37757	0.35193	0.39084	0.37846	0.38628	0.37038					
	+++++						AVRG		0.37591		3.65782
100 naphthalene	1.60859	1.21006	1.34479	1.39578	1.53036	1.52351					
	+++++						AVRG		1.43552		10.20642

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Compound	5.0000 Level 1	20.0000 Level 2	100.0000 Level 3	300.0000 Level 4	800.0000 Level 6	1200.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	2.0000 Level 11										
101 1,2,3-trichlorobenzene	0.69393	0.59941	0.65338	0.66050	0.68376	0.66782					
	+++++						AVRG		0.65980		5.02278
177 Isopropyl Alcohol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
$ 34 dibromofluoromethane	0.22124	0.22197	0.22576	0.22239	0.22367	0.22651					
	0.22018						AVRG		0.22311		1.04735
$ 40 1,2-dichloroethane-d4	0.24644	0.22912	0.23313	0.23352	0.23128	0.23427					
	0.23357						AVRG		0.23448		2.37122
$ 55 toluene-d8	1.46334	1.45890	1.45335	1.42297	1.40947	1.39384					
	1.46154						AVRG		1.43763		1.97932
$ 76 4-bromofluorobenzene	1.04684	1.01183	1.01153	0.99497	0.98932	0.99719					
	1.06478						AVRG		1.01664		2.80329

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 27-FEB-2016 15:54
End Cal Date : 27-FEB-2016 19:10
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Cal Date : 28-Feb-2016 17:53 Gonzo.i

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response

Alpha Analytical Labs

BFB method - Elaine

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\BFB0227A.D
Lab Smp Id: BFB TUNE Client Smp ID: BFB TUNE
Inj Date : 27-FEB-2016 14:25
Operator : PD Inst ID: Gonzo.i
Smp Info : BFB TUNE
Misc Info : 50ng Direct Injection
Comment   :
Method   : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\bfb.m
Meth Date : 11-Apr-2014 09:38 Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: A1-002228-XPM

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 BFB						CAS #: 460-00-4		
4.927	5.048	(0.000)	95	109096			100.00- 100.00	100.00
4.927	5.048	(0.000)	50	19944			15.00- 40.00	18.28
4.927	5.048	(0.000)	75	52120			30.00- 60.00	47.77
4.927	5.048	(0.000)	96	7289			5.00- 9.00	6.68
4.927	5.048	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
4.927	5.048	(0.000)	174	84792			50.00- 100.00	77.72
4.927	5.048	(0.000)	175	6069			5.00- 9.00	7.16
4.927	5.048	(0.000)	176	81064			95.00- 101.00	95.60
4.927	5.048	(0.000)	177	5531			5.00- 9.00	6.82

Data File: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\BFB0227A.D

Date : 27-FEB-2016 14:25

Client ID: BFB TUNE

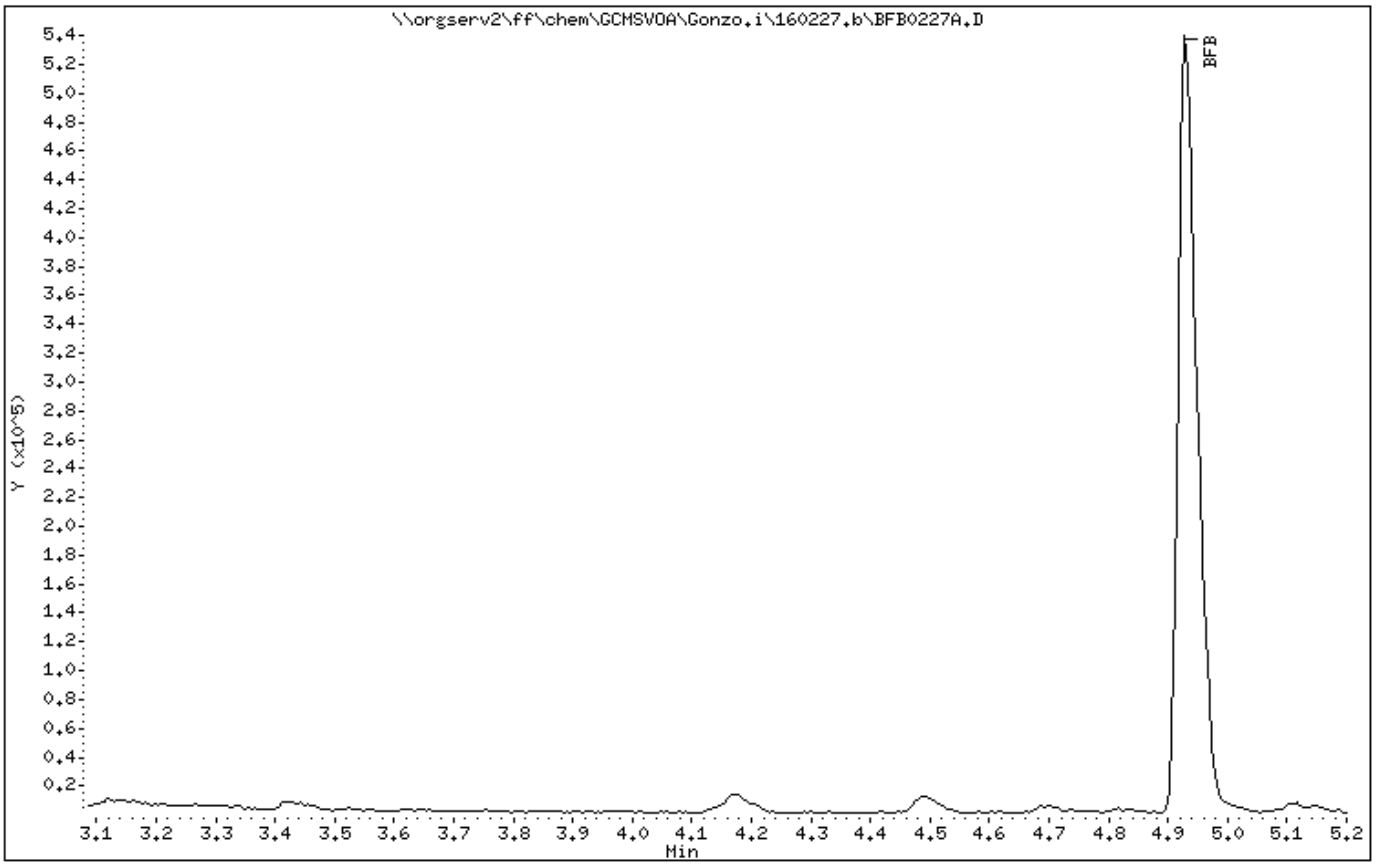
Instrument: Gonzo.i

Sample Info: BFB TUNE

Operator: PD

Column phase:

Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\BFB0227A.D

Date : 27-FEB-2016 14:25

Client ID: BFB TUNE

Instrument: Gonzo.i

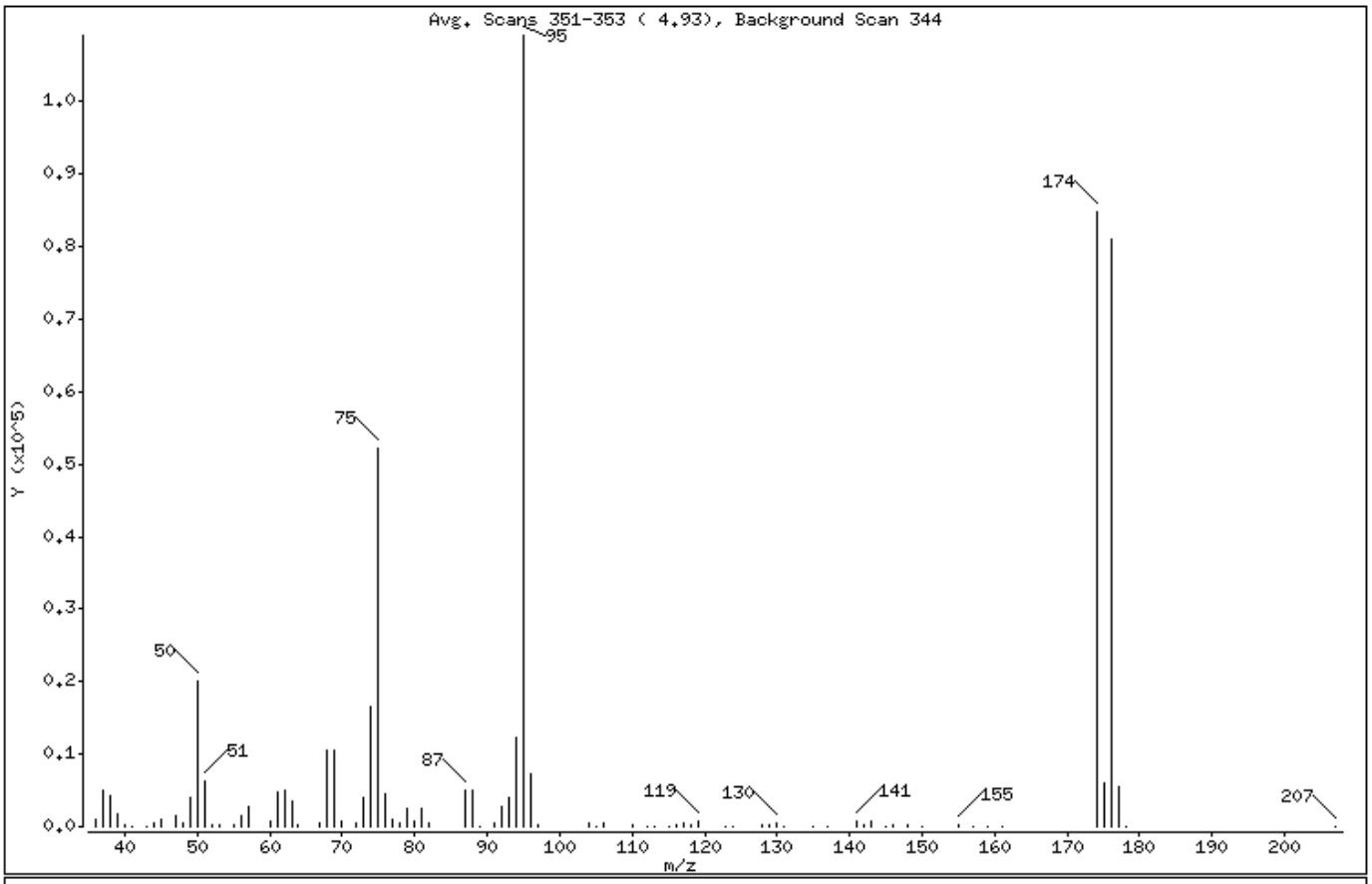
Sample Info: BFB TUNE

Operator: PD

Column phase:

Column diameter: 0.18

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.28
75	30.00 - 60.00% of mass 95	47.77
96	5.00 - 9.00% of mass 95	6.68
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	77.72
175	5.00 - 9.00% of mass 174	5.56 (7.16)
176	95.00 - 101.00% of mass 174	74.31 (95.60)
177	5.00 - 9.00% of mass 176	5.07 (6.82)

Date : 27-FEB-2016 14:25

Client ID: BFB TUNE Instrument: Gonzo.i

Sample Info: BFB TUNE

Operator: PD

Column phase: Column diameter: 0.18

Data File: BFB0227A.D
Spectrum: Avg. Scans 351-353 (4.93), Background Scan 344
Location of Maximum: 95.00
Number of points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	993	63.00	3464	93.00	4128	135.00	59
37.00	4920	64.00	317	94.00	12312	137.00	59
38.00	4298	67.00	397	95.00	109096	141.00	873
39.00	1720	68.00	10456	96.00	7289	142.00	147
40.00	222	69.00	10446	97.00	284	143.00	807
41.00	102	70.00	780	104.00	386	145.00	65
43.00	51	72.00	525	105.00	125	146.00	131
44.00	395	73.00	3910	106.00	422	148.00	324
45.00	887	74.00	16584	110.00	148	150.00	54
47.00	1484	75.00	52120	112.00	54	155.00	212
48.00	553	76.00	4530	113.00	54	157.00	58
49.00	4131	77.00	911	115.00	50	159.00	113
50.00	19944	78.00	416	116.00	333	161.00	69
51.00	6198	79.00	2463	117.00	544	174.00	84792
52.00	371	80.00	632	118.00	277	175.00	6069
53.00	217	81.00	2510	119.00	661	176.00	81064
55.00	310	82.00	532	123.00	73	177.00	5531
56.00	1450	87.00	5024	124.00	53	178.00	51
57.00	2783	88.00	4926	128.00	355	207.00	60
60.00	821	89.00	83	129.00	185		
61.00	4790	91.00	470	130.00	397		
62.00	4936	92.00	2803	131.00	110		

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A03.D
Lab Smp Id:
Inj Date : 27-FEB-2016 15:54
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L11
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 3 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: vc.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
	3 vinyl chloride	62	3.345	3.345	(0.370)	5108	2.00000	1.819	
$	34 dibromofluoromethane	113	7.978	7.978	(0.883)	363787	100.000	98.690	
$	40 1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	385910	100.000	99.614	
*	43 fluorobenzene	96	9.039	9.039	(1.000)	1652198	100.000		
$	55 toluene-d8	98	11.237	11.237	(0.833)	1560597	100.000	101.663	
*	65 chlorobenzene-d5	117	13.496	13.496	(1.000)	1067778	100.000		
$	76 4-bromofluorobenzene	95	15.383	15.383	(0.889)	487535	100.000	104.735	
*	90 1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	457875	100.000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A03.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

Calibration Date: 27-FEB-2016
Calibration Time: 23:27

Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

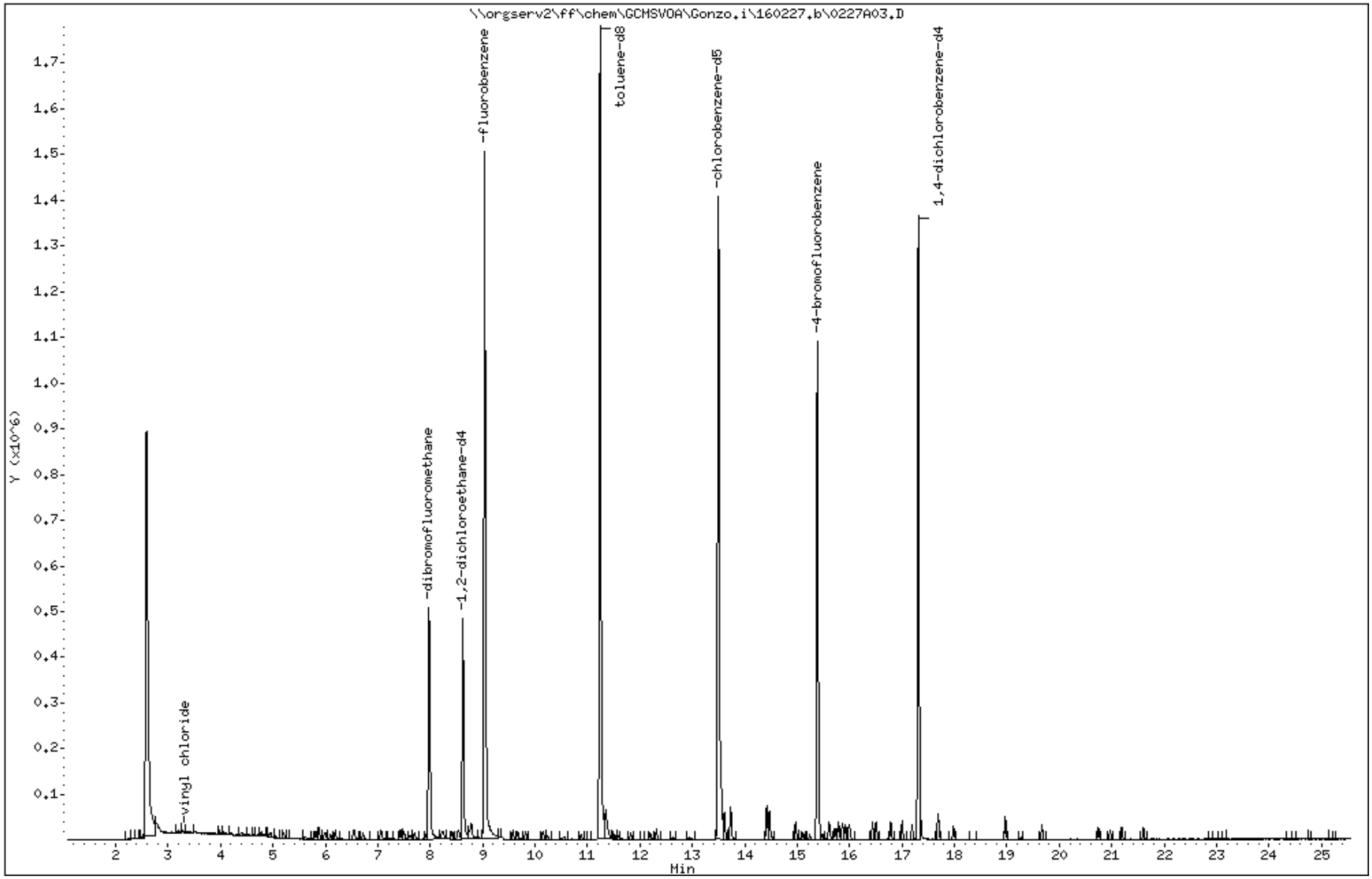
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1652198	-2.24
65 chlorobenzene-d5	1120963	560482	2241926	1067778	-4.74
90 1,4-dichlorobenze	512818	256409	1025636	457875	-10.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.07
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.

Data File: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A03.D
Date : 27-FEB-2016 15:54
Client ID:
Sample Info: ICAL L11
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18



Alpha Analytical Labs

Manual Integration

Sample Info	: ICAL L11 wg,ical		
Instrument ID	: Gonzo.i		
Method	: v10ml8260.m		
File	: 0227A03.D		
Injection Date	: 27-FEB-2016 15:54		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CALIB_11	

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A04.D
Lab Smp Id:
Inj Date : 27-FEB-2016 16:27
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L1
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 15:54 Cal File: 0227A03.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.831	2.831	(0.313)	10211	5.00000	6.256	
2	chloromethane	50	3.190	3.190	(0.353)	15214	5.00000	4.949	
3	vinyl chloride	62	3.345	3.345	(0.370)	11719	5.00000	4.218	
4	bromomethane	94	3.961	3.961	(0.438)	13623	5.00000	5.498	
5	chloroethane	64	4.069	4.069	(0.450)	9051	5.00000	4.326(QM)	M2
6	trichlorofluoromethane	101	4.400	4.400	(0.487)	13350	5.00000	5.794	
7	ethyl ether	74	4.779	4.779	(0.529)	8325	5.00000	4.790	
8	acrolien	56	4.968	4.968	(0.550)	1612	5.00000	5.025(QM)	M2
9	Freon 113	101	4.955	4.955	(0.548)	7405	5.00000	6.262	
10	acetone	43	5.043	5.043	(0.558)	8523	5.00000	13.697(QM)	M2
11	1,1,-dichloroethene	96	5.205	5.205	(0.576)	13397	5.00000	4.082	
12	Tert-Butyl Alcohol	59	5.306	5.306	(0.587)	4919	25.0000	23.138	
14	Methyl Acetate	43	5.617	5.617	(0.621)	9514	5.00000	5.435	
13	iodomethane	142	5.617	5.617	(0.621)	8155	5.00000	22.367	
15	methylene chloride	84	5.814	5.814	(0.643)	20053	5.00000	5.102	
16	carbon disulfide	76	5.874	5.874	(0.650)	62226	5.00000	5.373	
17	acrylonitrile	53	5.962	5.962	(0.660)	4785	5.00000	4.749	
20	methyl tert butyl ether	73	5.996	5.996	(0.663)	45064	5.00000	4.592	
21	halothane	117	6.098	6.098	(0.675)	10891	5.00000	4.052	
22	trans-1,2-dichloroethene	96	6.192	6.192	(0.685)	15741	5.00000	4.391	
23	Diisopropyl Ether	45	6.544	6.544	(0.724)	59487	5.00000	4.555	
26	vinyl acetate	43	6.693	6.693	(0.740)	22199	5.00000	4.311(M)	M1
24	1,1-dichloroethane	63	6.720	6.720	(0.743)	31750	5.00000	4.424(M)	M1
25	Ethyl-Tert-Butyl-Ether	59	7.058	7.058	(0.781)	56526	5.00000	4.597	
27	2-butanone	43	7.240	7.240	(0.801)	7318	5.00000	6.471	
29	Ethyl Acetate	43	7.430	7.430	(0.822)	23613	5.00000	9.411	
28	2,2-dichloropropane	77	7.437	7.437	(0.823)	17430	5.00000	3.716	
30	cis-1,2-dichloroethene	96	7.497	7.497	(0.829)	18462	5.00000	4.545	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
	31 chloroform	83	7.700	7.700	(0.852)	29378	5.00000	4.359	
	32 bromochloromethane	128	7.923	7.923	(0.877)	7469	5.00000	4.734	
	33 tetrahydrofuran	42	7.964	7.964	(0.881)	4110	5.00000	5.392	
$	34 dibromofluoromethane	113	7.978	7.978	(0.883)	361659	100.000	99.163	
	35 1,1,1-trichloroethane	97	8.221	8.221	(0.909)	18567	5.00000	3.632	
	36 Cyclohexane	56	8.248	8.248	(0.912)	16231	5.00000	5.970	
	37 1,1-dichloropropene	75	8.417	8.417	(0.931)	21086	5.00000	4.205	
	39 Tertiary-Amyl Methyl Ether	73	8.532	8.532	(0.944)	45714	5.00000	4.456	
	38 carbontetrachloride	117	8.566	8.566	(0.948)	9284	5.00000	7.620	
$	40 1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	402848	100.000	105.100	
	41 1,2-dichloroethane	62	8.742	8.742	(0.967)	22232	5.00000	4.653	
	42 benzene	78	8.782	8.782	(0.972)	69997	5.00000	4.278	
*	43 fluorobenzene	96	9.039	9.039	(1.000)	1634697	100.000		
	44 trichloroethene	95	9.580	9.580	(1.060)	17511	5.00000	4.472	
	46 methyl cyclohexane	83	9.661	9.661	(1.069)	14719	5.00000	6.392	
	47 1,2-dichloropropane	63	9.817	9.817	(1.086)	17844	5.00000	4.361	
	48 bromodichloromethane	83	10.148	10.148	(1.123)	17919	5.00000	3.893	
	49 1,4-dioxane	88	10.148	10.148	(1.123)	28808	1000.00	1001.432(M)	M1
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.229	10.229	(1.132)	8898	5.00000	4.609	
	51 2-chloroethylvinylether	63	10.507	10.507	(1.162)	4986	5.00000	3.778	
	52 4-methyl-2-pentanone	58	10.547	10.547	(1.167)	4721	5.00000	4.426	
	53 cis-1,3-dichloropropene	75	10.879	10.879	(1.203)	19758	5.00000	3.757(M)	M1
$	55 toluene-d8	98	11.237	11.237	(0.833)	1555906	100.000	101.788	
	56 toluene	92	11.352	11.352	(0.841)	45708	5.00000	4.622	
	57 ethyl-methacrylate	69	11.521	11.521	(0.854)	15450	5.00000	4.238(QM)	M1
	58 trans-1,3-dichloropropene	75	11.582	11.582	(0.858)	14802	5.00000	3.872(M)	M1
	60 2-hexanone	43	11.798	11.798	(0.874)	7959	5.00000	5.028(M)	M1
	59 1,1,2-trichloroethane	83	11.825	11.825	(0.876)	11012	5.00000	4.553	
	61 1,3-dichloropropane	76	12.191	12.191	(0.903)	23302	5.00000	4.690	
	62 tetrachloroethene	166	12.312	12.312	(0.912)	16804	5.00000	4.516	
	63 chlorodibromomethane	129	12.630	12.630	(0.936)	9491	5.00000	6.782	
	64 1,2-dibromoethane	107	12.934	12.934	(0.958)	12103	5.00000	4.660(QM)	M2
*	65 chlorobenzene-d5	117	13.496	13.496	(1.000)	1063256	100.000		
	66 chlorobenzene	112	13.557	13.557	(1.004)	48160	5.00000	4.600	
	67 1,1,1,2-tetrachloroethane	131	13.604	13.604	(1.008)	9436	5.00000	6.150(QM)	M2
	68 ethyl benzene	91	13.611	13.611	(1.009)	81181	5.00000	4.598	
	69 p/m xylene	106	13.726	13.726	(1.017)	62959	10.0000	9.284	
	70 o xylene	106	14.415	14.415	(1.068)	63577	10.0000	9.495(M)	M1
	71 styrene	104	14.470	14.470	(1.072)	94105	10.0000	9.341	
	72 isopropylbenzene	105	14.970	14.970	(1.109)	74545	5.00000	4.444	
	73 bromoform	173	15.038	15.038	(0.869)	3935	5.00000	7.076(QM)	M2
	74 1,4-dichloro-2-butane	55	15.119	15.119	(0.873)	23096	5.00000	5.187	
	75 1,1,2,2,-tetrachloroethane	83	15.247	15.247	(0.881)	15512	5.00000	5.124	
$	76 4-bromofluorobenzene	95	15.383	15.383	(0.889)	483258	100.000	102.971	
	77 1,2,3-trichloropropane	75	15.477	15.477	(0.894)	12153	5.00000	5.357	
	78 trans-1,4-dichloro-2-butene	53	15.572	15.572	(0.900)	2916	5.00000	4.387(QM)	M2
	79 n-propylbenzene	91	15.606	15.606	(0.902)	84986	5.00000	4.885	
	80 bromobenzene	156	15.721	15.721	(0.908)	19081	5.00000	5.113	
	81 4-ethyltoluene	105	15.788	15.788	(0.912)	72145	5.00000	4.711	
	82 1,3,5-trimethybenzene	105	15.856	15.856	(0.916)	63161	5.00000	4.934	
	83 2-chlorotoluene	91	15.917	15.917	(0.920)	54408	5.00000	5.002	
	84 4-chorotoluene	91	15.991	15.991	(0.924)	54819	5.00000	4.993	
	85 tert-butylbenzene	119	16.437	16.437	(0.950)	51529	5.00000	4.821	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.505	16.505	(0.954)	60123	5.00000	4.765	
87	sec-butylbenzene	105	16.782	16.782	(0.970)	70562	5.00000	4.649	
88	p-isopropyltoluene	119	17.006	17.006	(0.982)	60113	5.00000	4.680	
89	1,3-dichlorobenzene	146	17.188	17.188	(0.993)	33949	5.00000	4.983	
* 90	1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	461633	100.000		
91	1,4-dichlorobenzene	146	17.364	17.364	(1.003)	34913	5.00000	5.163	
92	n-butylbenzene	91	17.682	17.682	(1.021)	57880	5.00000	4.392	
93	1,2,4,5-tetramathylbenzene	119	17.695	17.695	(1.022)	32402	5.00000	4.471	
94	1,2-dichlorobenzene	146	17.979	17.979	(1.039)	31810	5.00000	5.027	
95	p-Diethylbenzene	119	18.967	18.967	(1.096)	57258	5.00000	4.916	
96	1,2-dibromo-3-chloropropane	75	19.278	19.278	(1.114)	1500	5.00000	4.373	
97	1,3,5-trichlorobenzene	180	19.670	19.670	(1.136)	23408	5.00000	5.053	
98	1,2,4-trichlorobenzene	180	20.745	20.745	(1.198)	17132	5.00000	4.892	
99	hexachlorobutadiene	225	20.968	20.968	(1.211)	8715	5.00000	5.022	
100	naphthalene	128	21.191	21.191	(1.224)	37129	5.00000	5.602	
101	1,2,3-trichlorobenzene	180	21.604	21.604	(1.248)	16017	5.00000	5.258	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A04.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

Calibration Date: 27-FEB-2016
Calibration Time: 23:27

Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

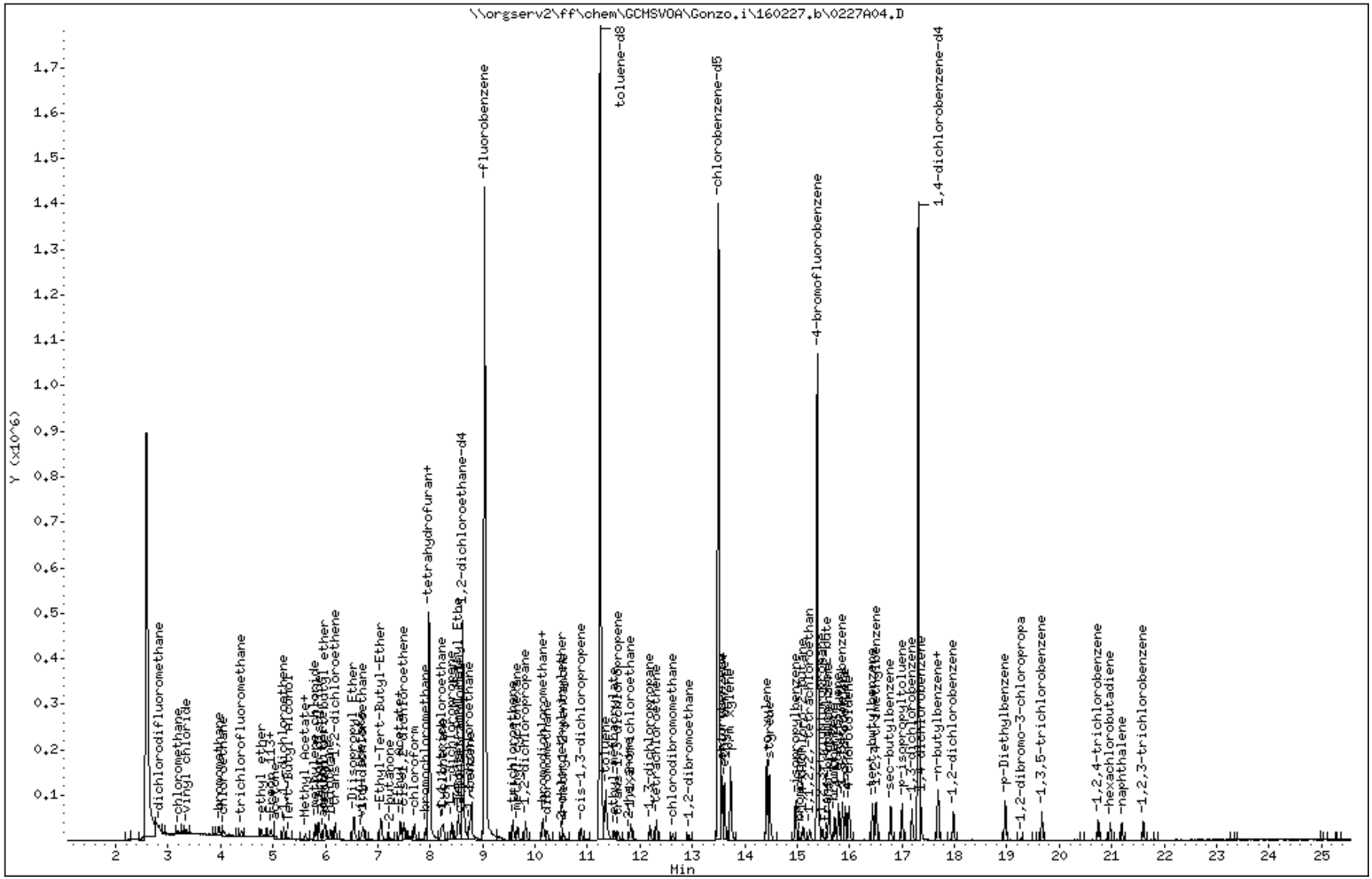
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1634697	-3.28
65 chlorobenzene-d5	1120963	560482	2241926	1063256	-5.15
90 1,4-dichlorobenze	512818	256409	1025636	461633	-9.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.07
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.

Data File: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A04.D
Date : 27-FEB-2016 16:27
Client ID:
Sample Info: ICAL L1
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18



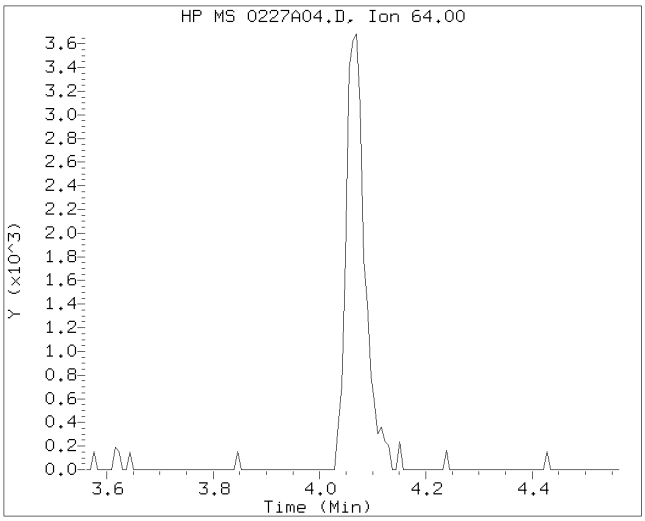
Alpha Analytical Labs

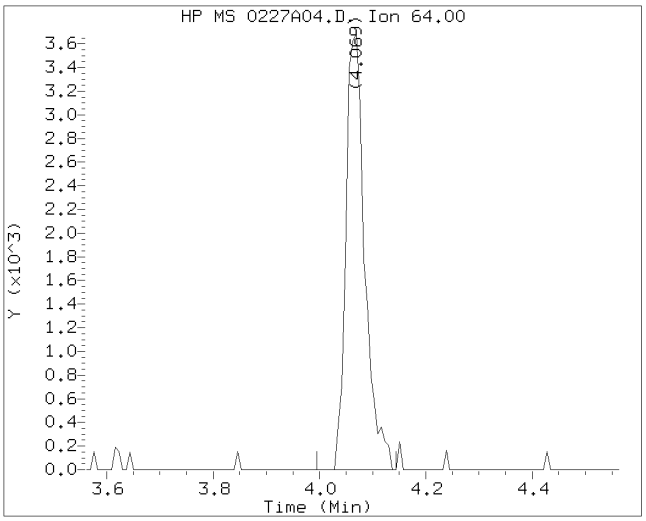
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 5: chloroethane

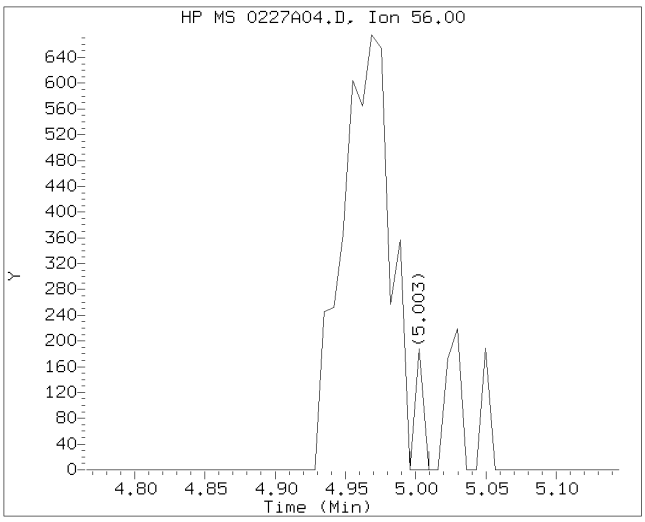


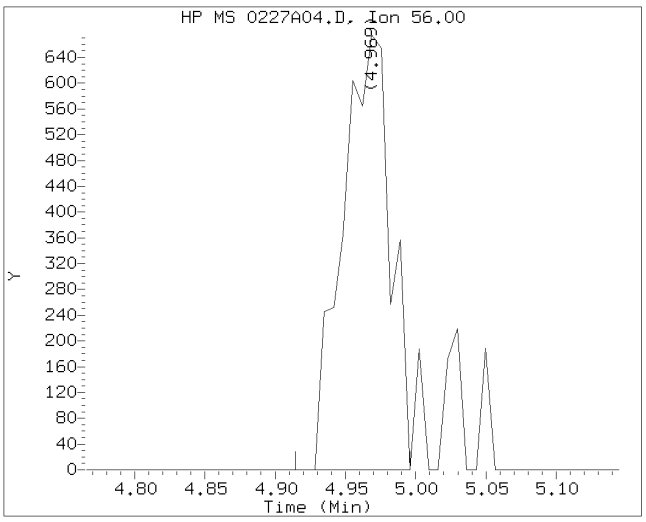


Original Peak Response = 0 Manual Peak Response = 9051 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 8: acrolien





Original Peak Response = 76 Manual Peak Response = 1612 M2

M2 = Peak not found by automatic integration algorithm.

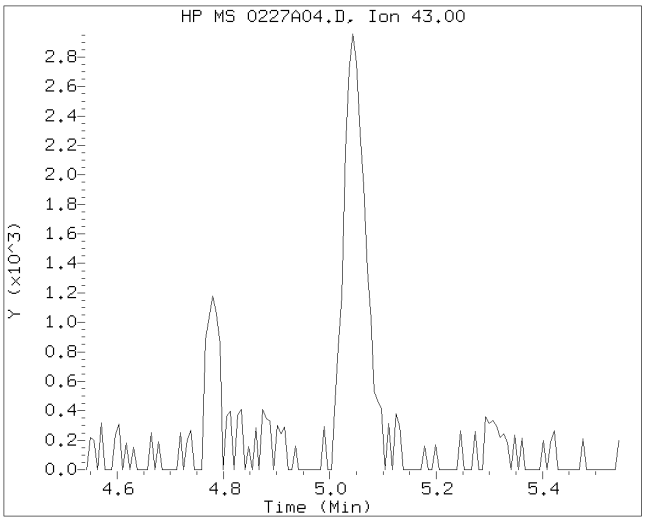
Alpha Analytical Labs

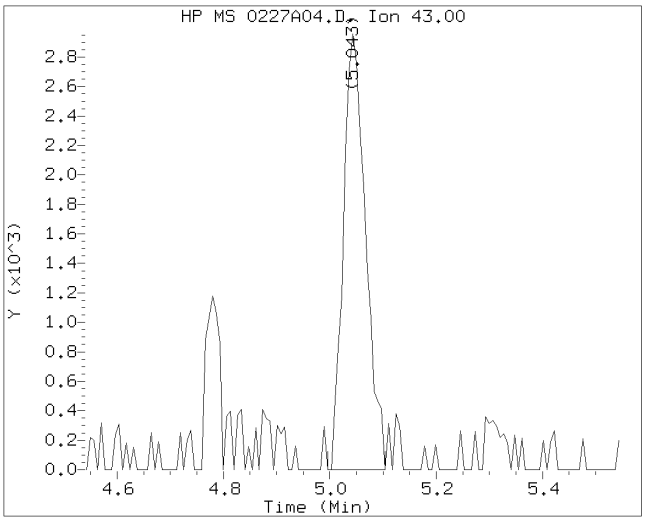
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 10: acetone

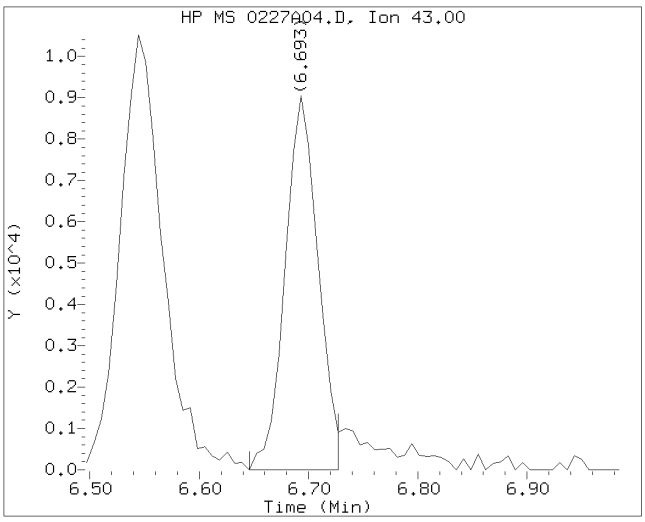


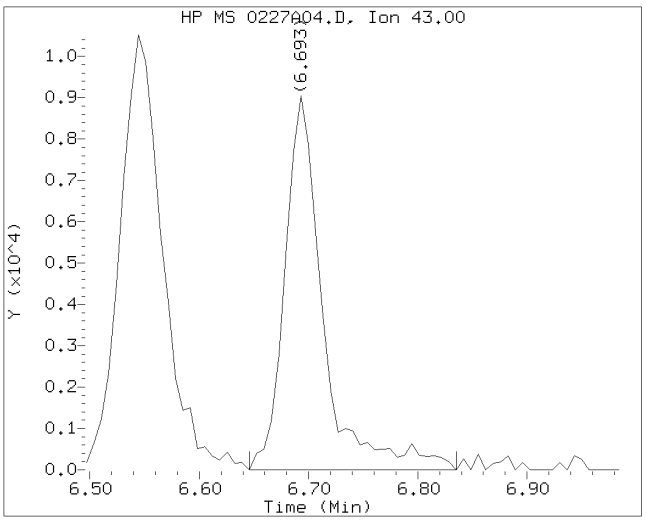


Original Peak Response = 0 Manual Peak Response = 8523 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 26: vinyl acetate





Original Peak Response = 19145 Manual Peak Response = 22199 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

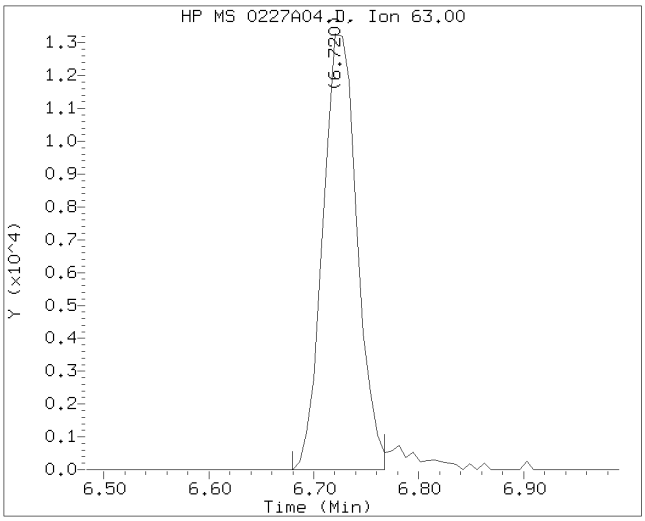
Alpha Analytical Labs

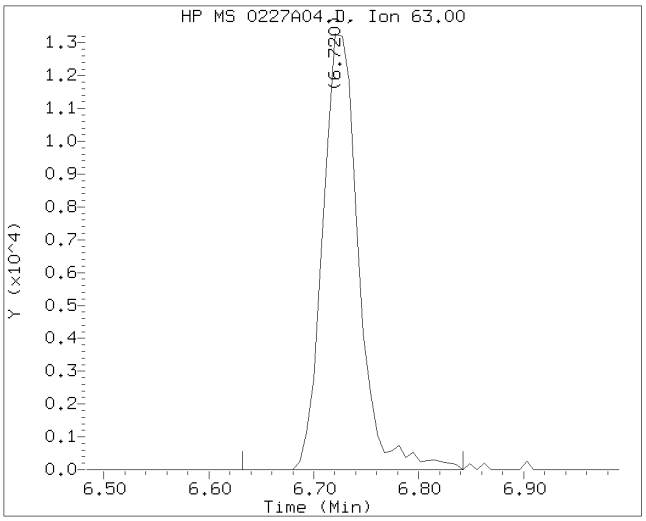
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 24: 1,1-dichloroethane

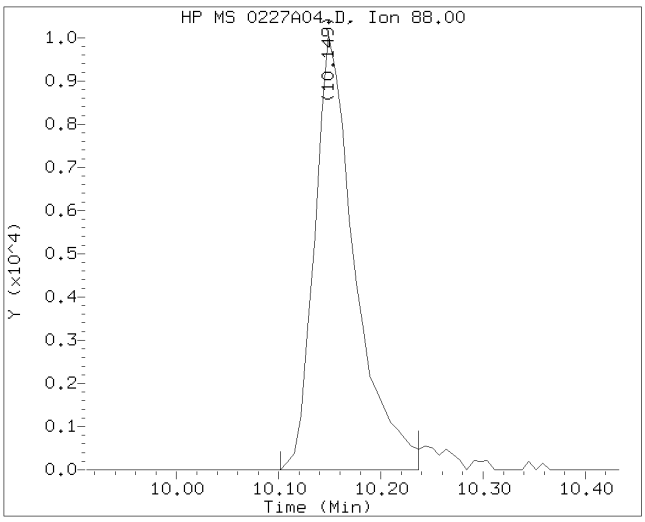


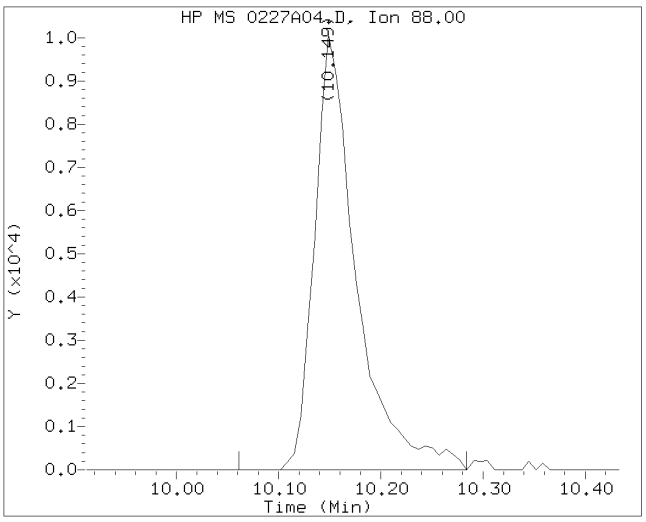


Original Peak Response = 30272 Manual Peak Response = 31750 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 49: 1,4-dioxane





Original Peak Response = 27813 Manual Peak Response = 28808 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

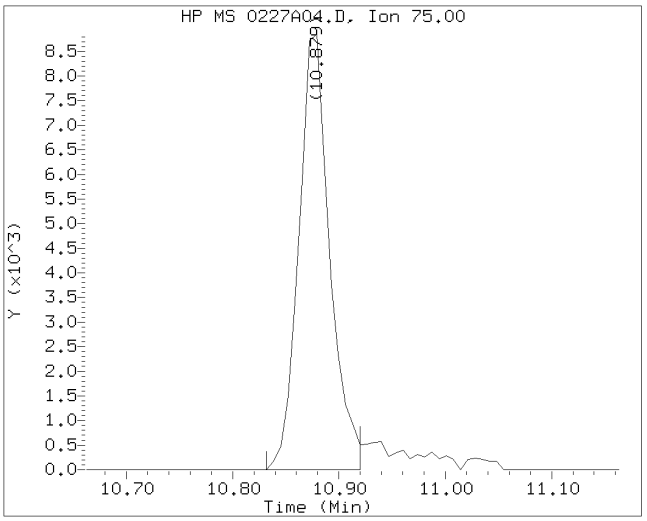
Alpha Analytical Labs

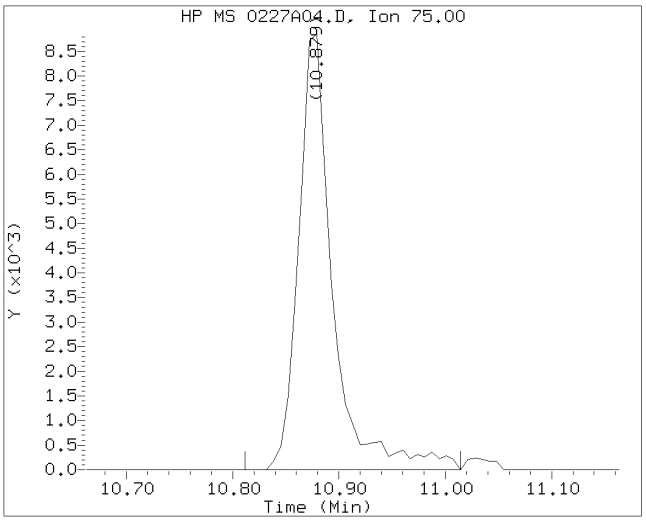
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 53: cis-1,3-dichloropropene

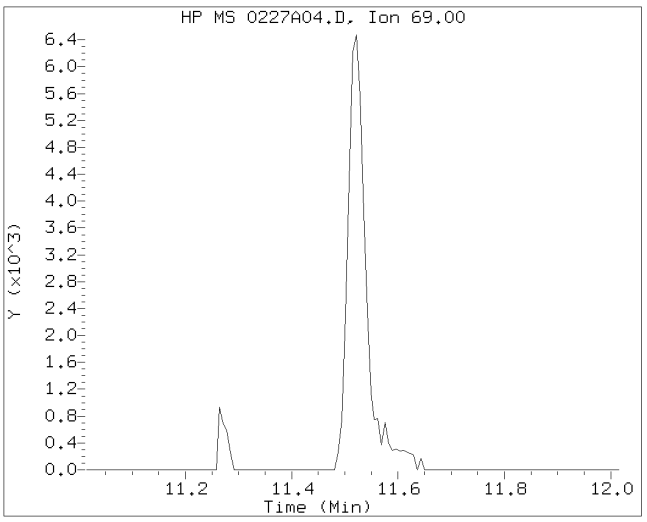


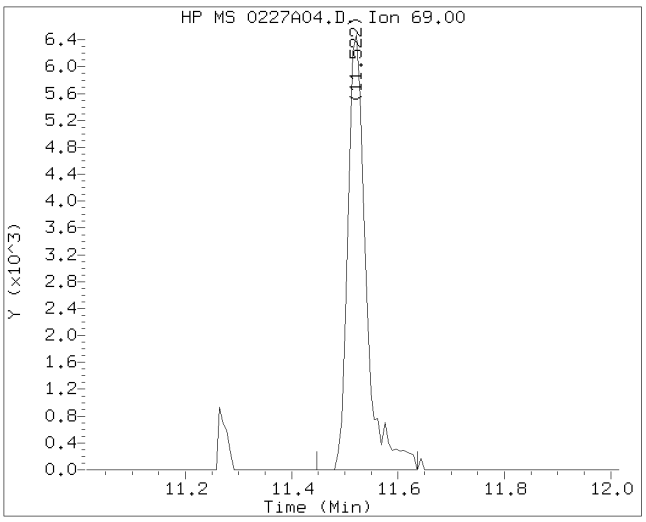


Original Peak Response = 17926 Manual Peak Response = 19758 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 57: ethyl-methacrylate





Original Peak Response = 0 Manual Peak Response = 15450 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

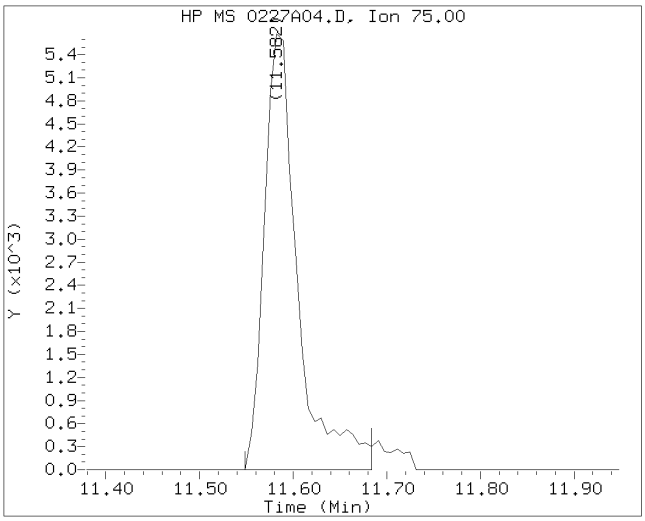
Alpha Analytical Labs

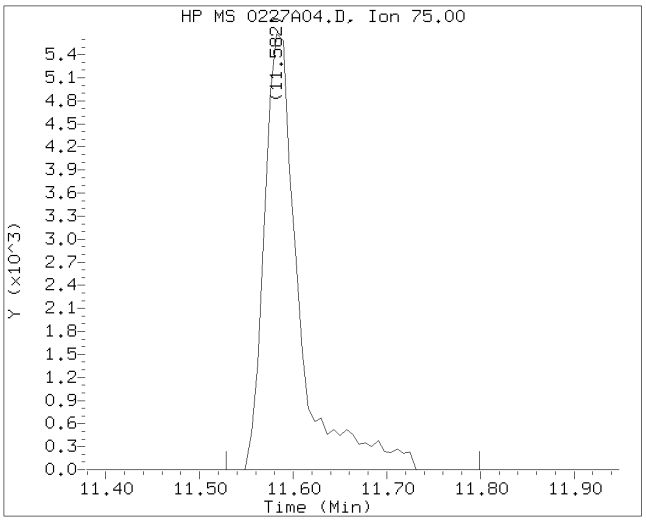
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 58: trans-1,3-dichloropropene

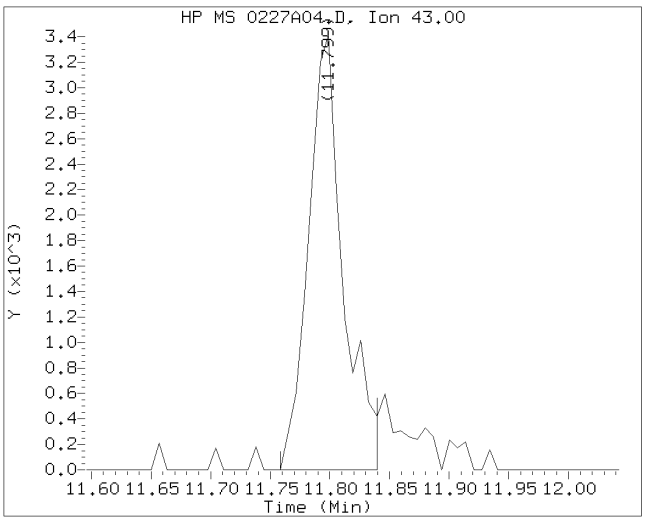


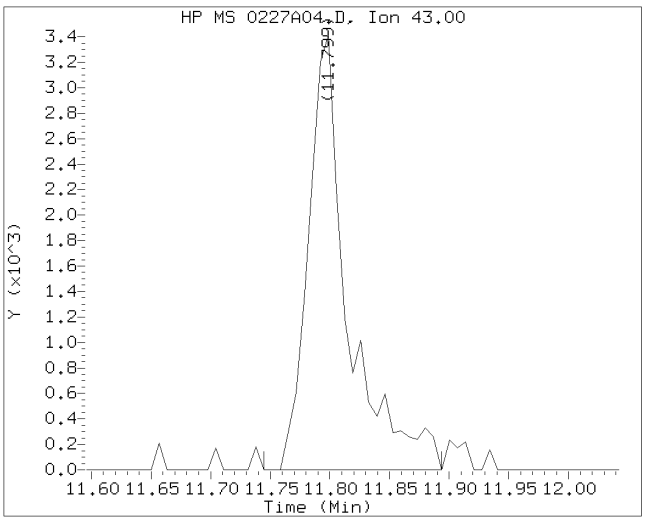


Original Peak Response = 14171 Manual Peak Response = 14802 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 60: 2-hexanone





Original Peak Response = 7031 Manual Peak Response = 7959 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

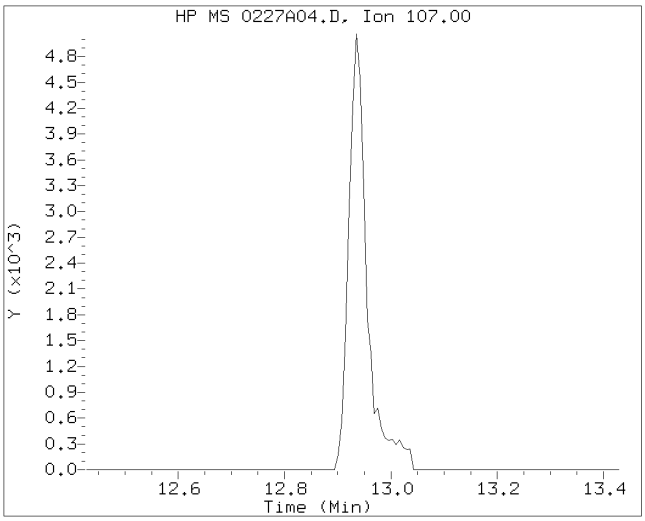
Alpha Analytical Labs

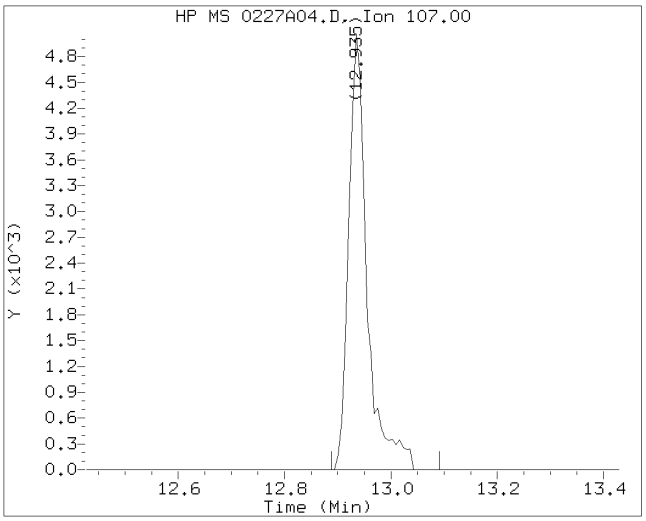
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 64: 1,2-dibromoethane

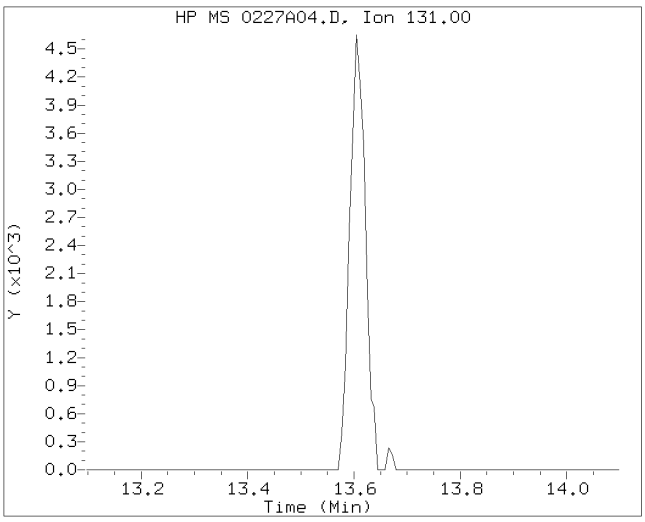


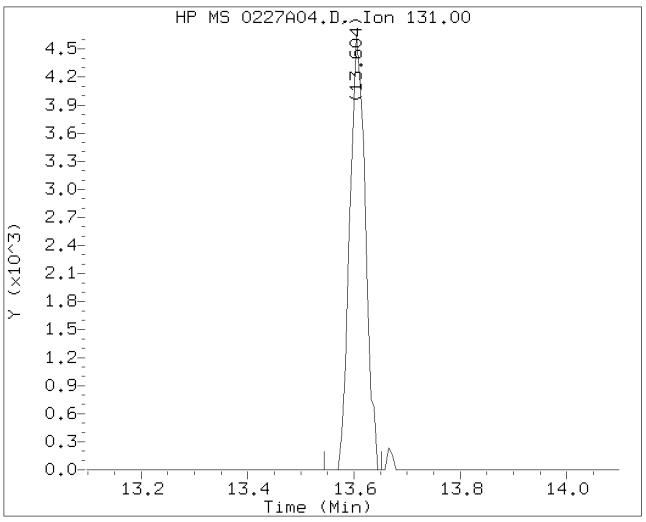


Original Peak Response = 0 Manual Peak Response = 12103 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 67: 1,1,1,2-tetrachloroethane





Original Peak Response = 0 Manual Peak Response = 9436 M2

M2 = Peak not found by automatic integration algorithm.

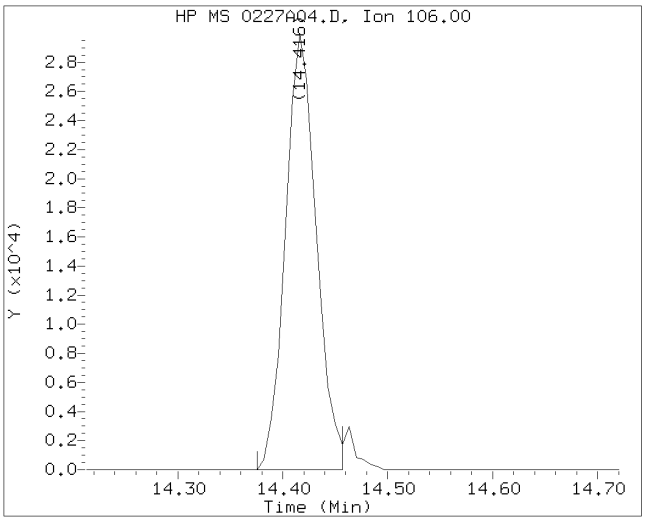
Alpha Analytical Labs

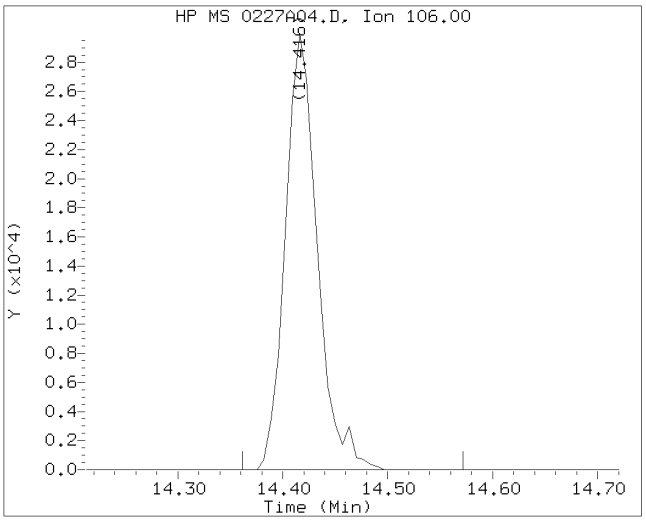
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 70: o xylene

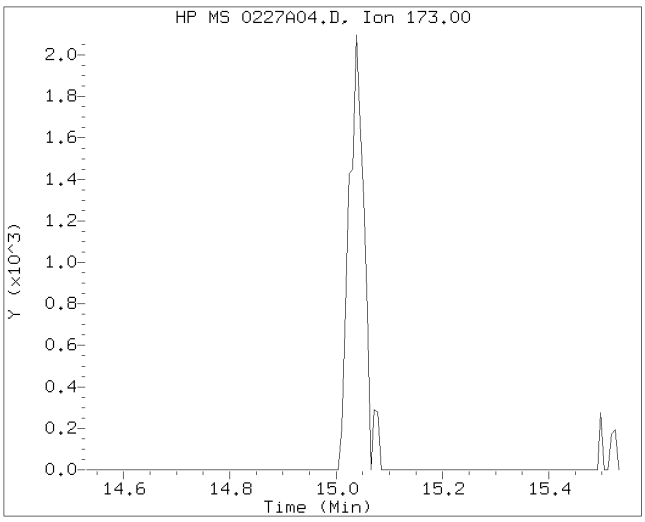


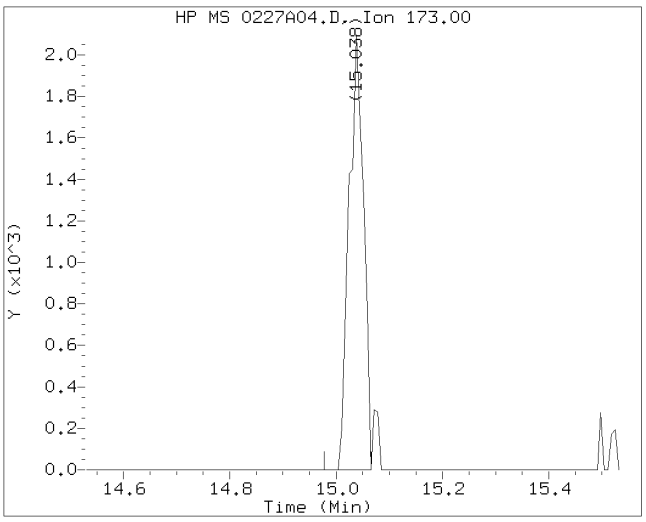


Original Peak Response = 61510 Manual Peak Response = 63577 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 73: bromoform





Original Peak Response = 0 Manual Peak Response = 3935 M2

M2 = Peak not found by automatic integration algorithm.

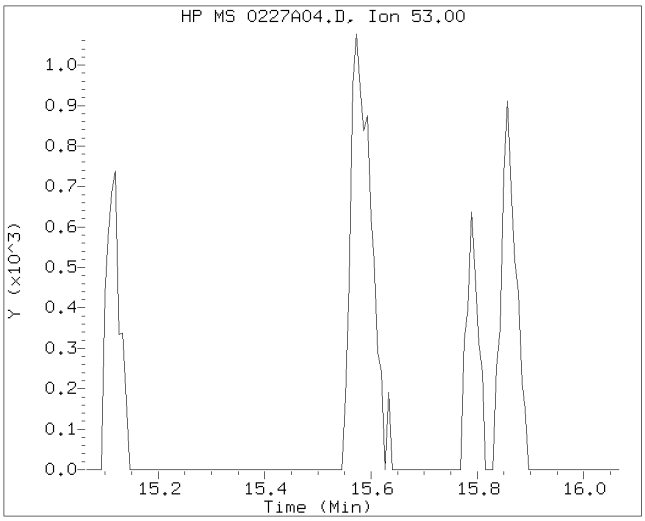
Alpha Analytical Labs

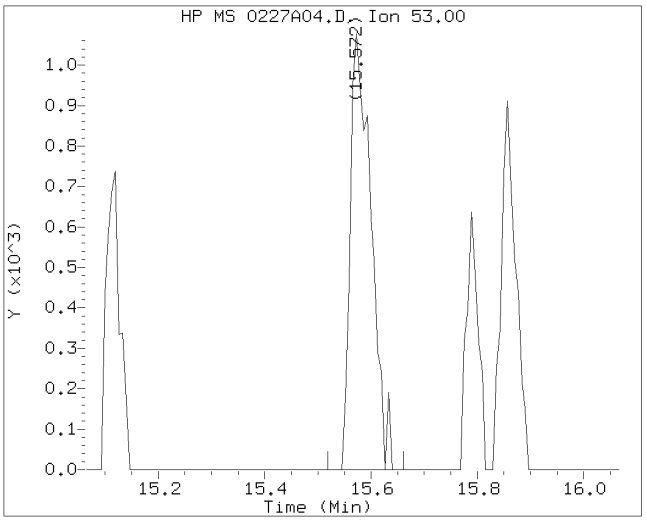
Manual Integration

Sample Info : ICAL L1
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A04.D
Injection Date : 27-FEB-2016 16:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 78: trans-1,4-dichloro-2-butene





Original Peak Response = 0 Manual Peak Response = 2916 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A05.D
Lab Smp Id:
Inj Date : 27-FEB-2016 16:59
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L2
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 16:27 Cal File: 0227A04.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.831	2.831	(0.313)	46429	20.0000	14.664	
2	chloromethane	50	3.190	3.190	(0.353)	59879	20.0000	19.244	
3	vinyl chloride	62	3.345	3.345	(0.370)	52323	20.0000	18.607	
4	bromomethane	94	3.961	3.961	(0.438)	49908	20.0000	19.899	
5	chloroethane	64	4.069	4.069	(0.450)	41727	20.0000	19.704(M)	M2
6	trichlorofluoromethane	101	4.400	4.400	(0.487)	61100	20.0000	15.222	
7	ethyl ether	74	4.779	4.779	(0.529)	34567	20.0000	19.648	
8	acrolien	56	4.962	4.962	(0.549)	6333	20.0000	19.503(QM)	M2
9	Freon 113	101	4.955	4.955	(0.548)	32964	20.0000	14.188	
10	acetone	43	5.050	5.050	(0.559)	15949	20.0000	25.320(M)	M2
11	1,1,-dichloroethene	96	5.205	5.205	(0.576)	57712	20.0000	17.372	
12	Tert-Butyl Alcohol	59	5.300	5.300	(0.586)	21194	100.000	98.484(M)	M1
14	Methyl Acetate	43	5.611	5.611	(0.621)	33846	20.0000	19.103	
13	iodomethane	142	5.611	5.611	(0.621)	27270	20.0000	27.014	
15	methylene chloride	84	5.814	5.814	(0.643)	78288	20.0000	19.676	
16	carbon disulfide	76	5.875	5.875	(0.650)	216517	20.0000	18.470	
17	acrylonitrile	53	5.969	5.969	(0.660)	19511	20.0000	19.130	
20	methyl tert butyl ether	73	5.996	5.996	(0.663)	193297	20.0000	19.458	
21	halothane	117	6.098	6.098	(0.675)	46472	20.0000	17.080	
22	trans-1,2-dichloroethene	96	6.192	6.192	(0.685)	68828	20.0000	18.969	
23	Diisopropyl Ether	45	6.544	6.544	(0.724)	264007	20.0000	19.970	
26	vinyl acetate	43	6.693	6.693	(0.740)	81792	20.0000	15.694	
24	1,1-dichloroethane	63	6.727	6.727	(0.744)	142559	20.0000	19.623	
25	Ethyl-Tert-Butyl-Ether	59	7.058	7.058	(0.781)	240766	20.0000	19.343	
27	2-butanone	43	7.241	7.241	(0.801)	20353	20.0000	17.779	
29	Ethyl Acetate	43	7.430	7.430	(0.822)	57087	20.0000	22.475	
28	2,2-dichloropropane	77	7.437	7.437	(0.823)	77453	20.0000	16.312	
30	cis-1,2-dichloroethene	96	7.498	7.498	(0.829)	79952	20.0000	19.447	

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ngs)	(ngs)	REVIEW CODE
	31 chloroform	83	7.694	7.694	(0.851)	131158	20.0000	19.227	
	32 bromochloromethane	128	7.924	7.924	(0.877)	32932	20.0000	20.623	
	33 tetrahydrofuran	42	7.964	7.964	(0.881)	15431	20.0000	20.000(M)	M1
$	34 dibromofluoromethane	113	7.978	7.978	(0.883)	367323	100.000	99.493	
	35 1,1,1-trichloroethane	97	8.214	8.214	(0.909)	86429	20.0000	16.702	
	36 Cyclohexane	56	8.248	8.248	(0.912)	73336	20.0000	14.237	
	37 1,1-dichloropropene	75	8.417	8.417	(0.931)	89246	20.0000	17.582	
	39 Tertiary-Amyl Methyl Ether	73	8.532	8.532	(0.944)	197019	20.0000	18.972	
	38 carbontetrachloride	117	8.559	8.559	(0.947)	44160	20.0000	15.018	
$	40 1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	379154	100.000	97.717	
	41 1,2-dichloroethane	62	8.749	8.749	(0.968)	89901	20.0000	18.589	
	42 benzene	78	8.782	8.782	(0.972)	325420	20.0000	19.647	
*	43 fluorobenzene	96	9.039	9.039	(1.000)	1654798	100.000		
	44 trichloroethene	95	9.580	9.580	(1.060)	73571	20.0000	18.564	
	46 methyl cyclohexane	83	9.668	9.668	(1.070)	60562	20.0000	13.256	
	47 1,2-dichloropropane	63	9.817	9.817	(1.086)	80807	20.0000	19.511	
	48 bromodichloromethane	83	10.142	10.142	(1.122)	79205	20.0000	17.002	
	49 1,4-dioxane	88	10.148	10.148	(1.123)	114616	4000.00	3935.919(M)	M1
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.236	10.236	(1.132)	38621	20.0000	19.762(M)	M1
	51 2-chloroethylvinylether	63	10.507	10.507	(1.162)	22606	20.0000	16.924	
	52 4-methyl-2-pentanone	58	10.547	10.547	(1.167)	20039	20.0000	18.561	
	53 cis-1,3-dichloropropene	75	10.872	10.872	(1.203)	84601	20.0000	15.894	
$	55 toluene-d8	98	11.237	11.237	(0.833)	1568024	100.000	101.479	
	56 toluene	92	11.352	11.352	(0.841)	197202	20.0000	19.727	
	57 ethyl-methacrylate	69	11.521	11.521	(0.854)	62750	20.0000	17.029(Q)	
	58 trans-1,3-dichloropropene	75	11.582	11.582	(0.858)	60831	20.0000	15.744(M)	M1
	60 2-hexanone	43	11.792	11.792	(0.874)	29754	20.0000	18.596(M)	M1
	59 1,1,2-trichloroethane	83	11.826	11.826	(0.876)	50264	20.0000	20.561(M)	M1
	61 1,3-dichloropropane	76	12.191	12.191	(0.903)	99441	20.0000	19.800	
	62 tetrachloroethene	166	12.312	12.312	(0.912)	68603	20.0000	18.242	
	63 chlorodibromomethane	129	12.624	12.624	(0.935)	41461	20.0000	16.317	
	64 1,2-dibromoethane	107	12.935	12.935	(0.958)	48516	20.0000	18.480(Q)	
*	65 chlorobenzene-d5	117	13.496	13.496	(1.000)	1074797	100.000		
	66 chlorobenzene	112	13.557	13.557	(1.004)	207940	20.0000	19.648	
	67 1,1,1,2-tetrachloroethane	131	13.604	13.604	(1.008)	44916	20.0000	16.892(Q)	
	68 ethyl benzene	91	13.611	13.611	(1.009)	362400	20.0000	20.309	
	69 p/m xylene	106	13.726	13.726	(1.017)	279534	40.0000	40.779	
	70 o xylene	106	14.416	14.416	(1.068)	280176	40.0000	41.394	
	71 styrene	104	14.470	14.470	(1.072)	420491	40.0000	41.294	
	72 isopropylbenzene	105	14.963	14.963	(1.109)	335233	20.0000	19.774	
	73 bromoform	173	15.038	15.038	(0.869)	18085	20.0000	16.085(Q)	
	74 1,4-dichloro-2-butane	55	15.112	15.112	(0.873)	93360	20.0000	19.976	
	75 1,1,2,2,-tetrachloroethane	83	15.241	15.241	(0.880)	65193	20.0000	20.516	
$	76 4-bromofluorobenzene	95	15.383	15.383	(0.889)	490315	100.000	99.527	
	77 1,2,3-trichloropropane	75	15.484	15.484	(0.895)	49690	20.0000	20.868	
	78 trans-1,4-dichloro-2-butene	53	15.572	15.572	(0.900)	10604	20.0000	15.199(M)	M2
	79 n-propylbenzene	91	15.606	15.606	(0.902)	367481	20.0000	20.122	
	80 bromobenzene	156	15.714	15.714	(0.908)	78491	20.0000	20.038	
	81 4-ethyltoluene	105	15.788	15.788	(0.912)	322345	20.0000	20.055	
	82 1,3,5-trimethybenzene	105	15.856	15.856	(0.916)	275821	20.0000	20.527	
	83 2-chlorotoluene	91	15.917	15.917	(0.920)	236985	20.0000	20.756	
	84 4-chorotoluene	91	15.984	15.984	(0.923)	232097	20.0000	20.142	
	85 tert-butylbenzene	119	16.438	16.438	(0.950)	223606	20.0000	19.929	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.505	16.505	(0.954)	272464	20.0000	20.575	
87	sec-butylbenzene	105	16.782	16.782	(0.970)	310358	20.0000	19.482	
88	p-isopropyltoluene	119	16.999	16.999	(0.982)	264997	20.0000	19.655	
89	1,3-dichlorobenzene	146	17.188	17.188	(0.993)	141170	20.0000	19.740	
* 90	1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	484583	100.000		
91	1,4-dichlorobenzene	146	17.364	17.364	(1.003)	138610	20.0000	19.530	
92	n-butylbenzene	91	17.675	17.675	(1.021)	254990	20.0000	18.434	
93	1,2,4,5-tetramathylbenzene	119	17.695	17.695	(1.022)	148609	20.0000	19.535	
94	1,2-dichlorobenzene	146	17.979	17.979	(1.039)	132384	20.0000	19.931	
95	p-Diethylbenzene	119	18.974	18.974	(1.096)	229732	20.0000	18.791	
96	1,2-dibromo-3-chloropropane	75	19.271	19.271	(1.113)	5877	20.0000	16.323	
97	1,3,5-trichlorobenzene	180	19.670	19.670	(1.136)	91949	20.0000	18.911	
98	1,2,4-trichlorobenzene	180	20.745	20.745	(1.198)	63642	20.0000	17.312	
99	hexachlorobutadiene	225	20.968	20.968	(1.211)	34108	20.0000	18.724	
100	naphthalene	128	21.192	21.192	(1.224)	117275	20.0000	16.858	
101	1,2,3-trichlorobenzene	180	21.604	21.604	(1.248)	58093	20.0000	18.169	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A05.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

Calibration Date: 27-FEB-2016
Calibration Time: 23:27

Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

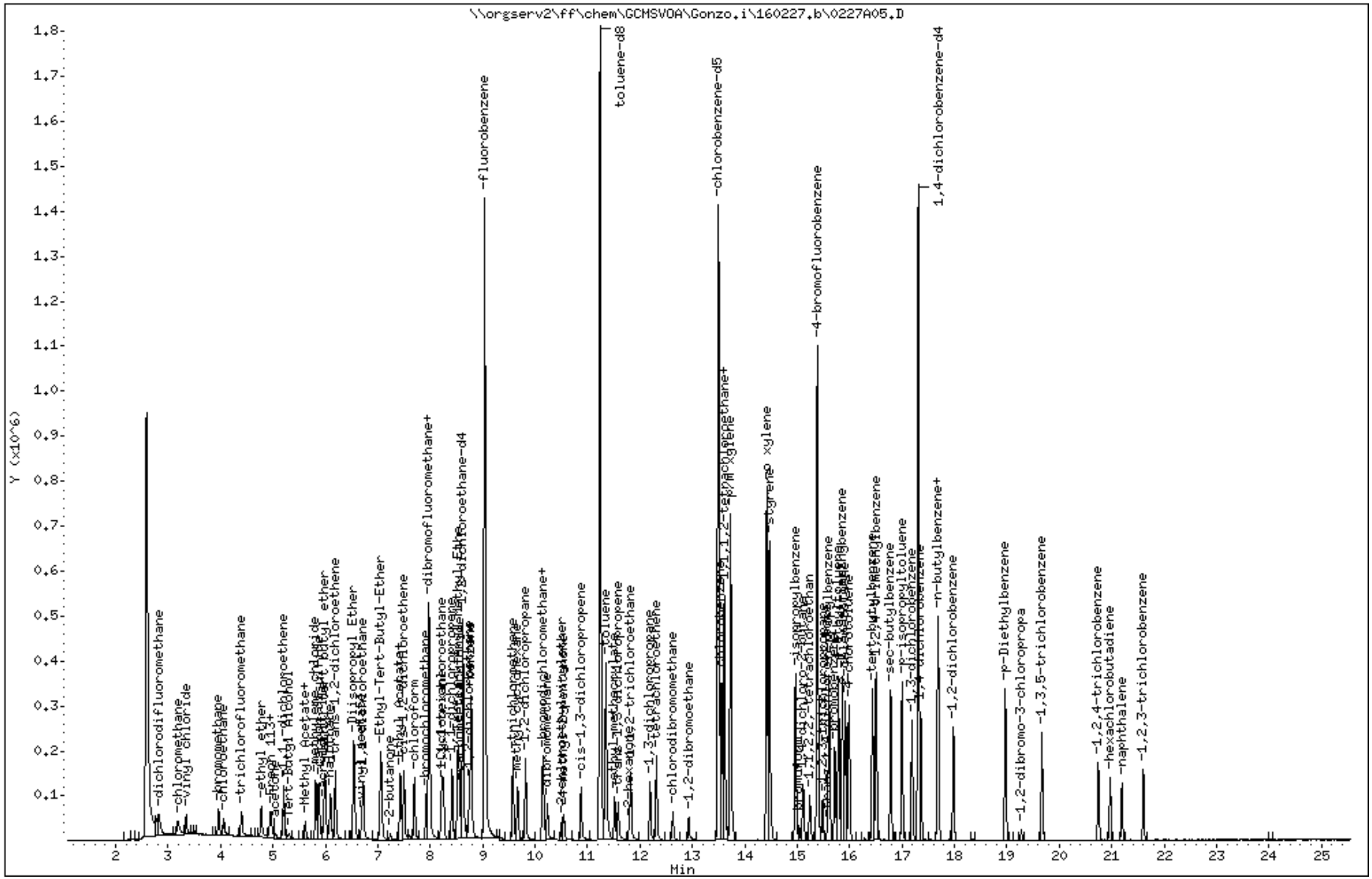
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1654798	-2.09
65 chlorobenzene-d5	1120963	560482	2241926	1074797	-4.12
90 1,4-dichlorobenze	512818	256409	1025636	484583	-5.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.07
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.

Data File: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A05.D
Date : 27-FEB-2016 16:59
Client ID:
Sample Info: ICAL L2
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18



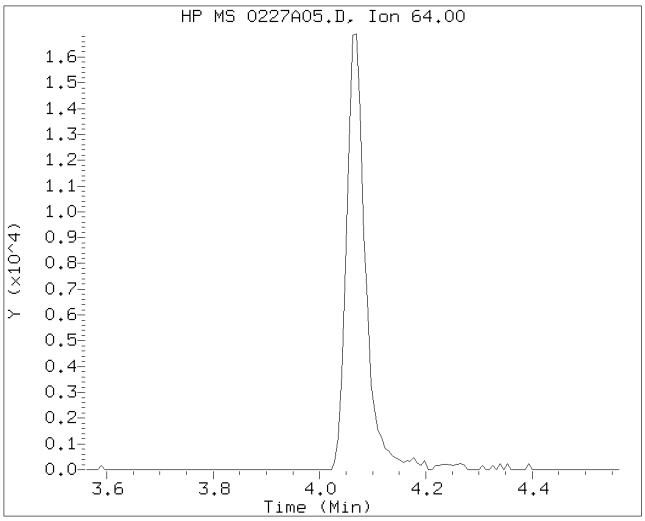
Alpha Analytical Labs

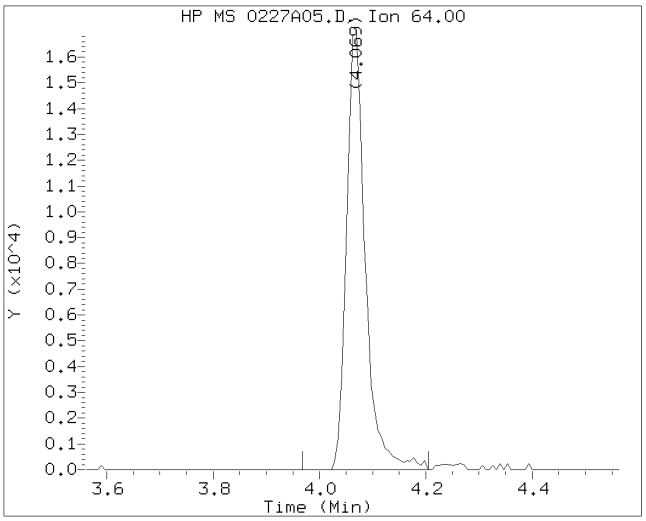
Manual Integration

Sample Info : ICAL L2
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A05.D
Injection Date : 27-FEB-2016 16:59
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 5: chloroethane

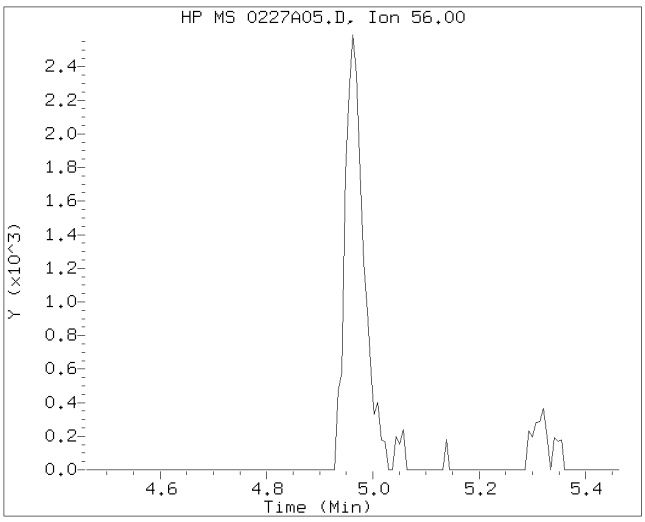


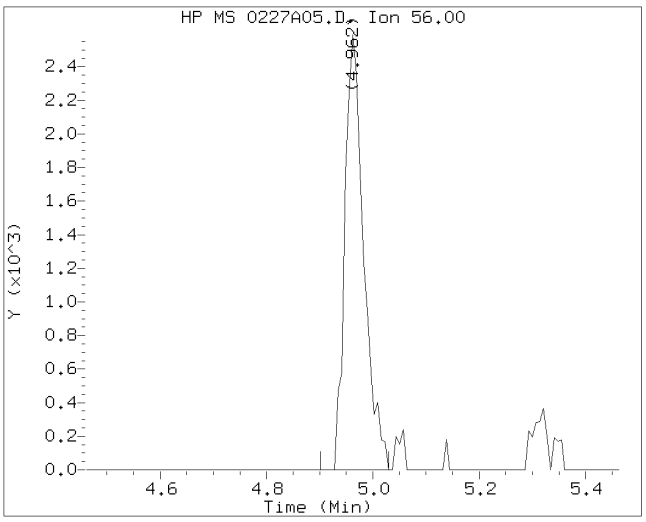


Original Peak Response = 0 Manual Peak Response = 41727 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 8: acrolien





Original Peak Response = 0 Manual Peak Response = 6333 M2

M2 = Peak not found by automatic integration algorithm.

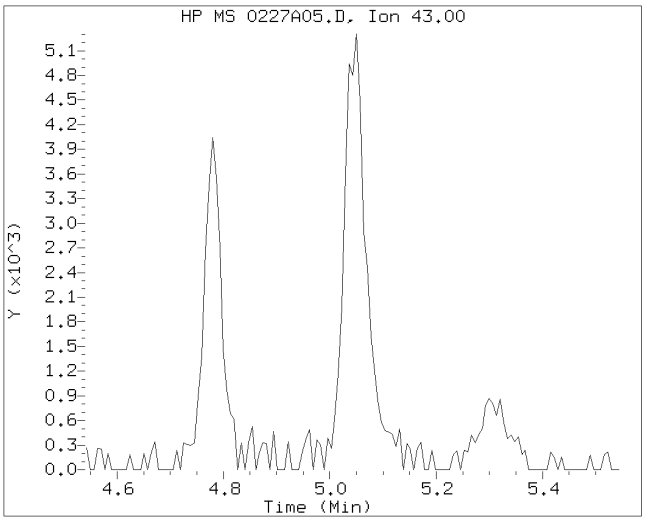
Alpha Analytical Labs

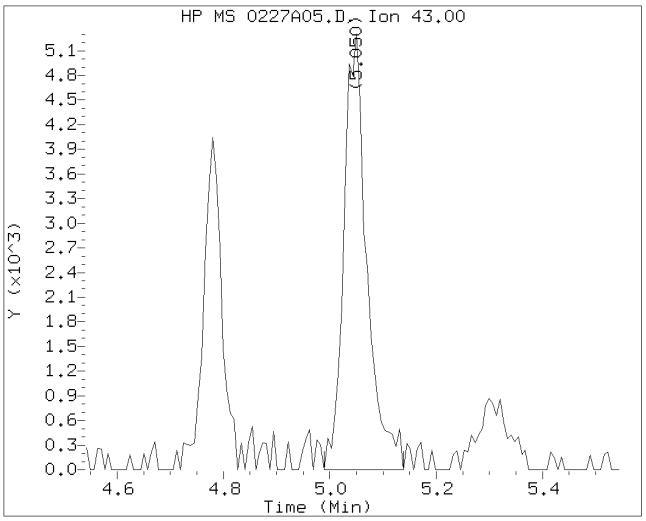
Manual Integration

Sample Info : ICAL L2
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A05.D
Injection Date : 27-FEB-2016 16:59
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 10: acetone

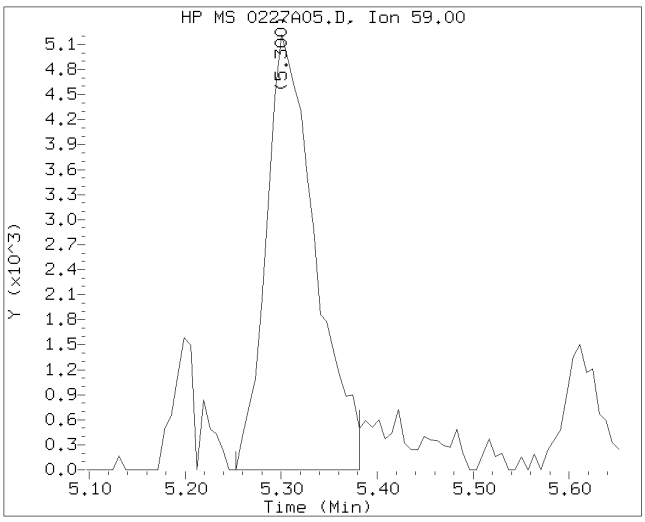


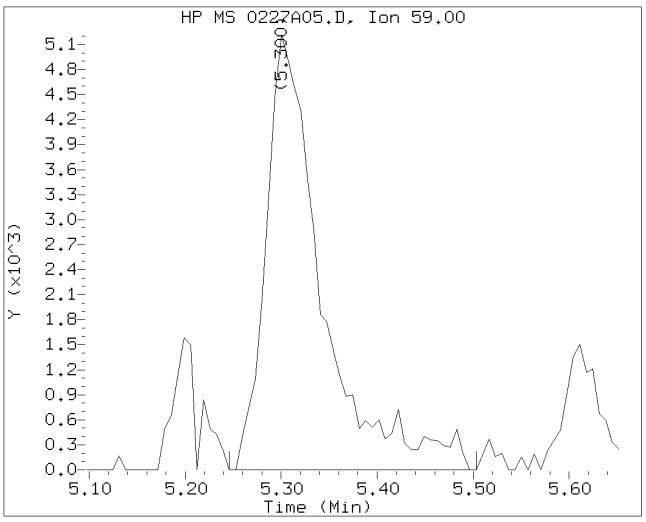


Original Peak Response = 0 Manual Peak Response = 15949 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 12: Tert-Butyl Alcohol





Original Peak Response = 18597 Manual Peak Response = 21194 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

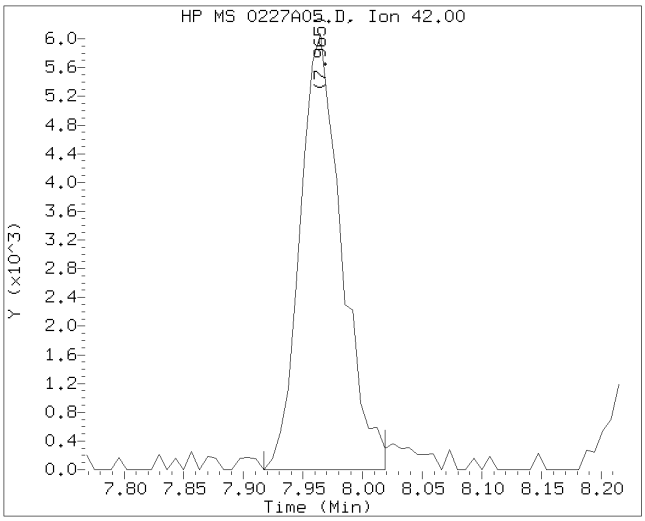
Alpha Analytical Labs

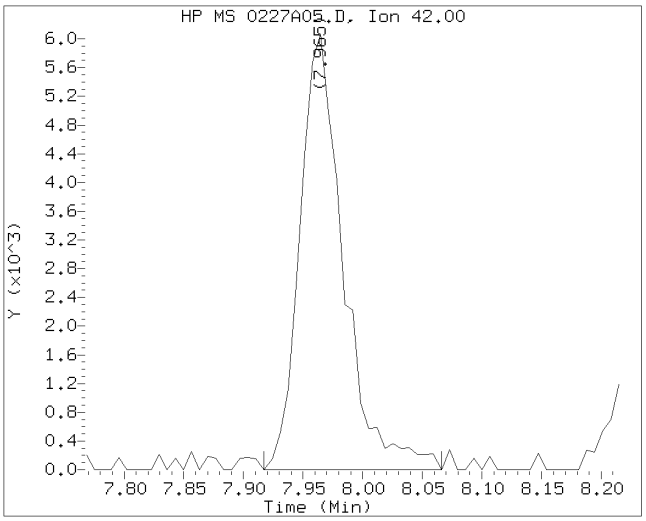
Manual Integration

Sample Info : ICAL L2
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A05.D
Injection Date : 27-FEB-2016 16:59
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 33: tetrahydrofuran

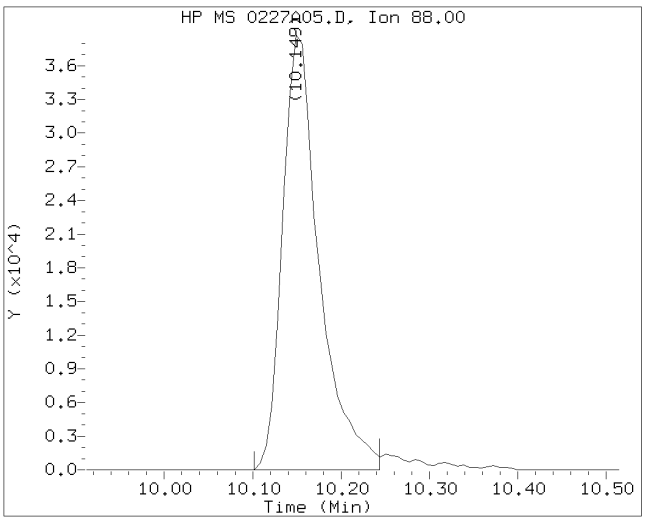


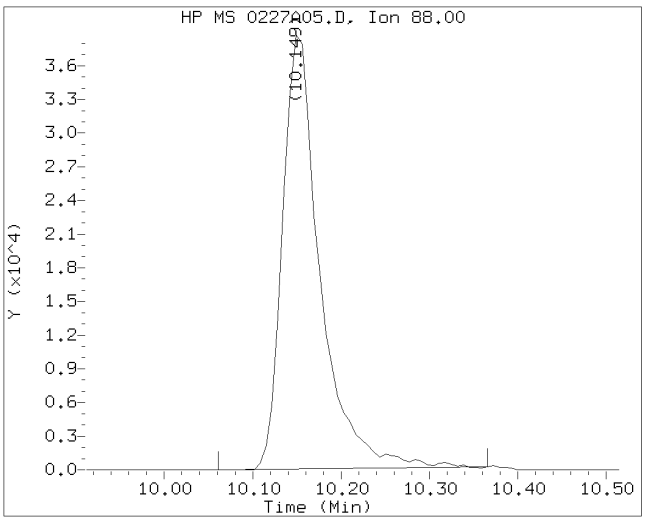


Original Peak Response = 14777 Manual Peak Response = 15431 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 49: 1,4-dioxane





Original Peak Response = 112418 Manual Peak Response = 114616 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

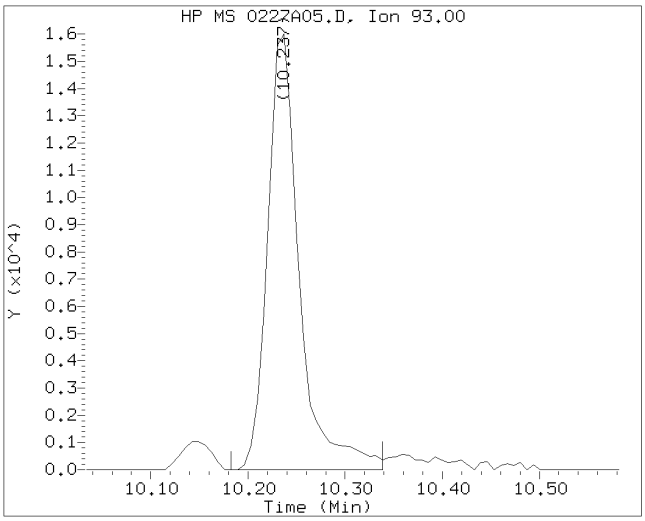
Alpha Analytical Labs

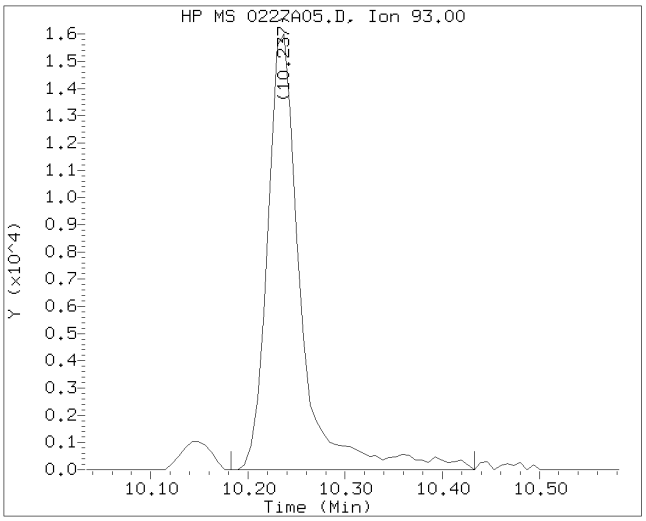
Manual Integration

Sample Info : ICAL L2
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A05.D
Injection Date : 27-FEB-2016 16:59
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 50: dibromomethane

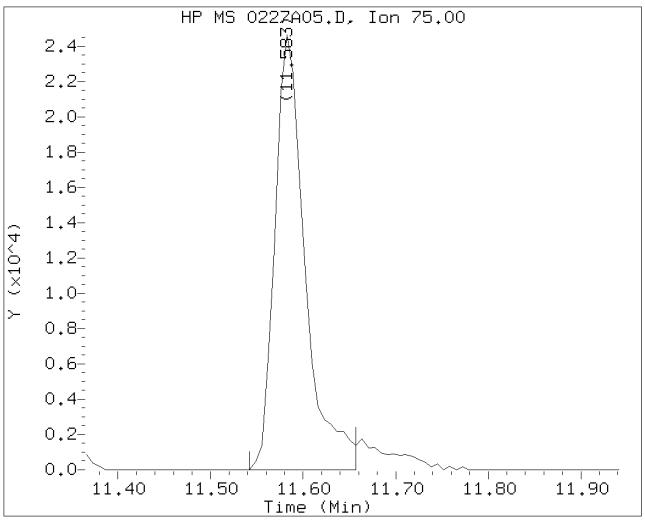


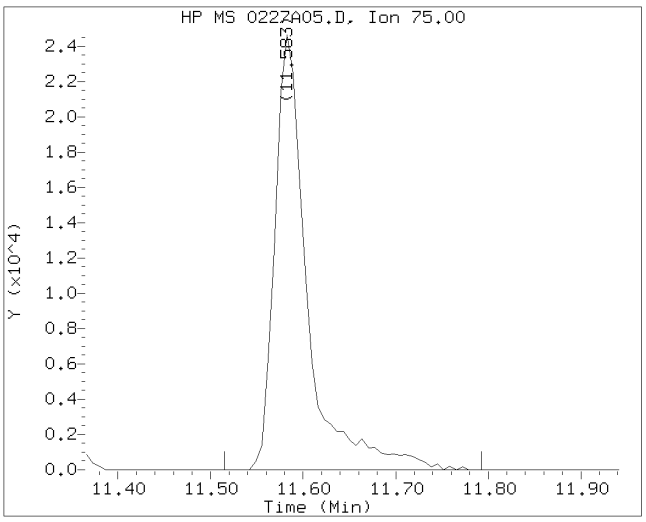


Original Peak Response = 36608 Manual Peak Response = 38621 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 58: trans-1,3-dichloropropene





Original Peak Response = 56190 Manual Peak Response = 60831 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

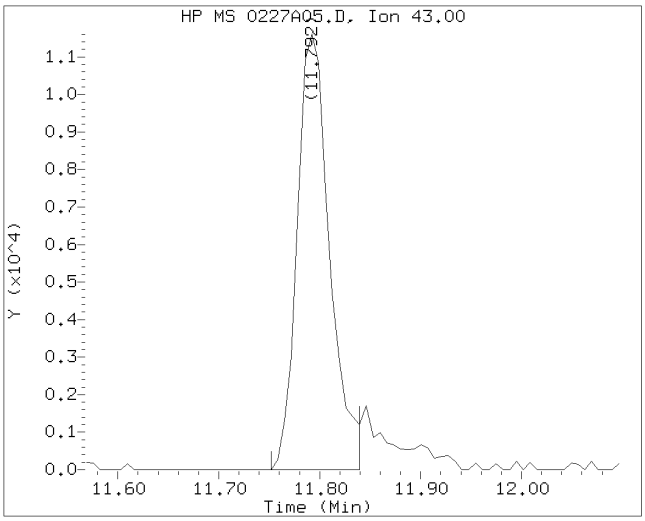
Alpha Analytical Labs

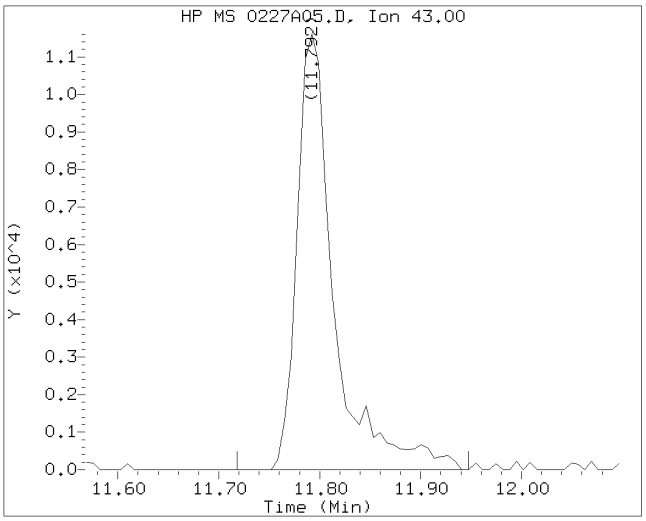
Manual Integration

Sample Info : ICAL L2
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A05.D
Injection Date : 27-FEB-2016 16:59
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 60: 2-hexanone

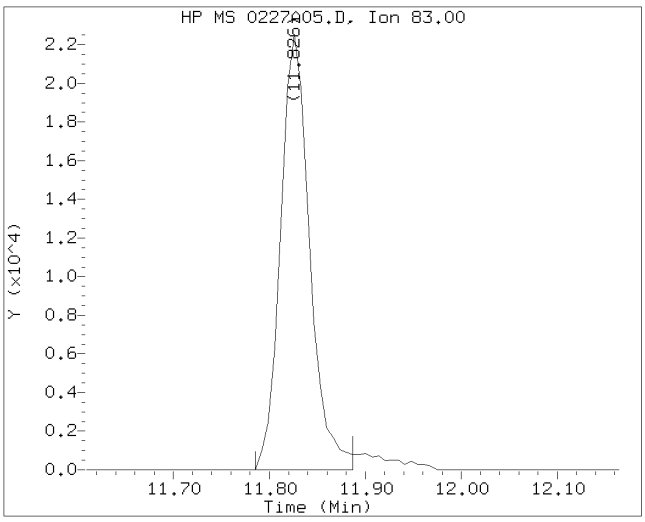


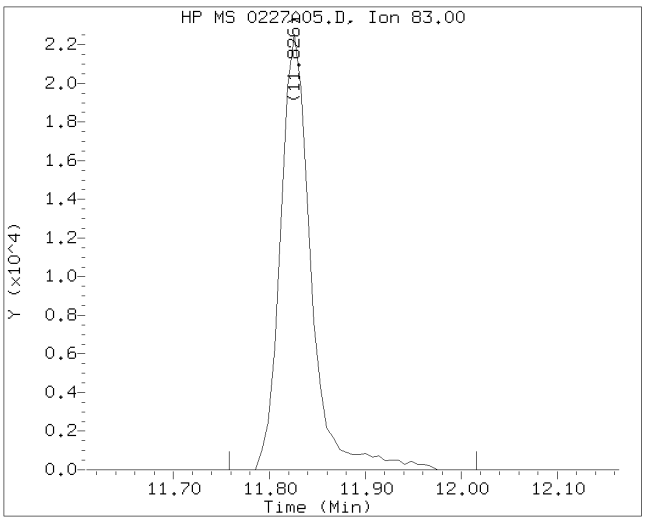


Original Peak Response = 26065 Manual Peak Response = 29754 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 59: 1,1,2-trichloroethane





Original Peak Response = 47838 Manual Peak Response = 50264 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

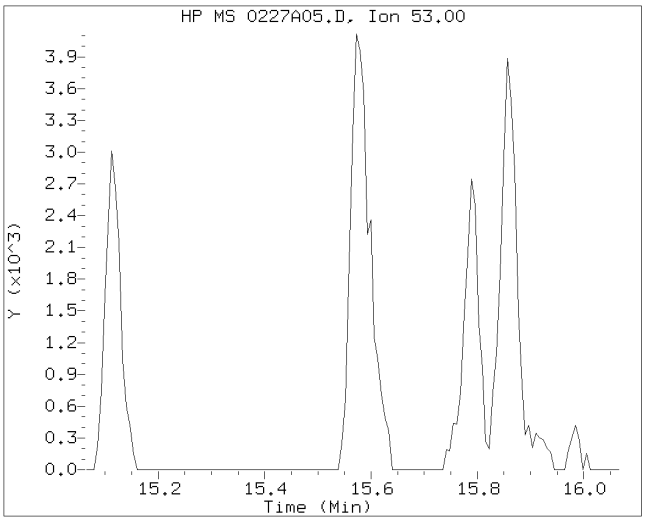
Alpha Analytical Labs

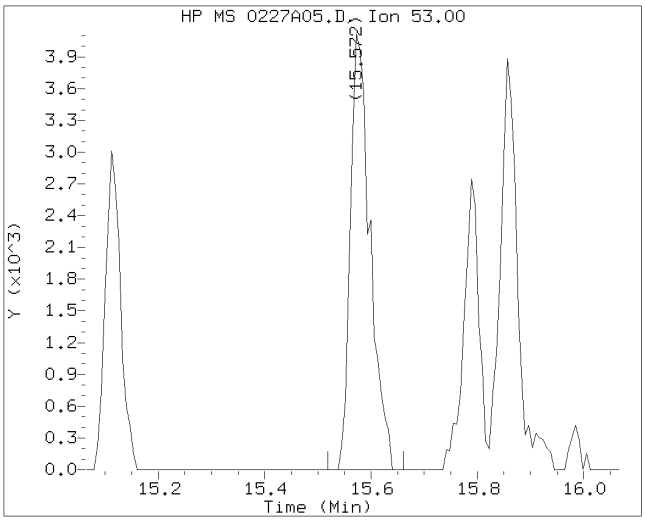
Manual Integration

Sample Info : ICAL L2
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A05.D
Injection Date : 27-FEB-2016 16:59
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 78: trans-1,4-dichloro-2-butene





Original Peak Response = 0 Manual Peak Response = 10604 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A06.D
Lab Smp Id:
Inj Date : 27-FEB-2016 17:33
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L3
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 16:59 Cal File: 0227A05.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.831	2.831	(0.313)	408023	100.000	101.010	
2	chloromethane	50	3.190	3.190	(0.353)	297672	100.000	97.794	
3	vinyl chloride	62	3.345	3.345	(0.370)	306223	100.000	111.321	
4	bromomethane	94	3.961	3.961	(0.438)	245716	100.000	100.148	
5	chloroethane	64	4.062	4.062	(0.449)	222596	100.000	107.453(Q)	
6	trichlorofluoromethane	101	4.400	4.400	(0.487)	502682	100.000	104.924	
7	ethyl ether	74	4.779	4.779	(0.529)	177655	100.000	103.228	
8	acrolien	56	4.962	4.962	(0.549)	35322	100.000	111.198(M)	M2
9	Freon 113	101	4.955	4.955	(0.548)	312813	100.000	103.440	
10	acetone	43	5.043	5.043	(0.558)	65001	100.000	105.490(Q)	
11	1,1,-dichloroethene	96	5.205	5.205	(0.576)	352815	100.000	108.564	
12	Tert-Butyl Alcohol	59	5.300	5.300	(0.586)	103176	500.000	490.099	
14	Methyl Acetate	43	5.611	5.611	(0.621)	181612	100.000	104.784	
13	iodomethane	142	5.618	5.618	(0.621)	179280	100.000	65.141	
15	methylene chloride	84	5.814	5.814	(0.643)	398286	100.000	102.329	
16	carbon disulfide	76	5.868	5.868	(0.649)	1152989	100.000	100.542	
17	acrylonitrile	53	5.969	5.969	(0.660)	106294	100.000	106.537	
20	methyl tert butyl ether	73	5.989	5.989	(0.663)	1021453	100.000	105.109	
21	halothane	117	6.091	6.091	(0.674)	286552	100.000	107.658	
22	trans-1,2-dichloroethene	96	6.192	6.192	(0.685)	366929	100.000	103.376	
23	Diisopropyl Ether	45	6.544	6.544	(0.724)	1377968	100.000	106.551	
26	vinyl acetate	43	6.693	6.693	(0.740)	495339	100.000	97.158	
24	1,1-dichloroethane	63	6.727	6.727	(0.744)	755061	100.000	106.247	
25	Ethyl-Tert-Butyl-Ether	59	7.058	7.058	(0.781)	1279405	100.000	105.073	
27	2-butanone	43	7.234	7.234	(0.800)	111767	100.000	99.803	
29	Ethyl Acetate	43	7.430	7.430	(0.822)	265484	100.000	106.848	
28	2,2-dichloropropane	77	7.437	7.437	(0.823)	467609	100.000	100.675	
30	cis-1,2-dichloroethene	96	7.498	7.498	(0.829)	410970	100.000	102.186	

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ngs)	(ngs)	REVIEW CODE
	31	chloroform	83	7.694	7.694	(0.851)	693752	100.000	103.961	
	32	bromochloromethane	128	7.924	7.924	(0.877)	175702	100.000	112.477	
	33	tetrahydrofuran	42	7.957	7.957	(0.880)	78638	100.000	104.188	
$	34	dibromofluoromethane	113	7.978	7.978	(0.883)	365463	100.000	101.190	
	35	1,1,1-trichloroethane	97	8.214	8.214	(0.909)	528799	100.000	104.460	
	36	Cyclohexane	56	8.248	8.248	(0.912)	695737	100.000	106.910	
	37	1,1-dichloropropene	75	8.417	8.417	(0.931)	535266	100.000	107.795	
	39	Tertiary-Amyl Methyl Ether	73	8.532	8.532	(0.944)	1062755	100.000	104.616	
	38	carbontetrachloride	117	8.559	8.559	(0.947)	337825	100.000	79.116	
$	40	1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	377396	100.000	99.426	
	41	1,2-dichloroethane	62	8.742	8.742	(0.967)	494694	100.000	104.566	
	42	benzene	78	8.782	8.782	(0.972)	1699819	100.000	104.912	
*	43	fluorobenzene	96	9.039	9.039	(1.000)	1618809	100.000		
	44	trichloroethene	95	9.580	9.580	(1.060)	398818	100.000	102.871	
	46	methyl cyclohexane	83	9.668	9.668	(1.070)	655197	100.000	104.832	
	47	1,2-dichloropropane	63	9.817	9.817	(1.086)	428994	100.000	105.885	
	48	bromodichloromethane	83	10.142	10.142	(1.122)	453477	100.000	99.509	
	49	1,4-dioxane	88	10.148	10.148	(1.123)	148388	5000.00	5208.937	
	176	methy;-methylacrlate	69	Compound Not Detected.						
	50	dibromomethane	93	10.230	10.230	(1.132)	194403	100.000	101.688	
	51	2-chloroethylvinylether	63	10.507	10.507	(1.162)	139312	100.000	106.614	
	52	4-methyl-2-pentanone	58	10.547	10.547	(1.167)	113180	100.000	107.163	
	53	cis-1,3-dichloropropene	75	10.872	10.872	(1.203)	522802	100.000	100.404	
$	55	toluene-d8	98	11.237	11.237	(0.833)	1572513	100.000	101.093	
	56	toluene	92	11.352	11.352	(0.841)	1068076	100.000	106.136	
	57	ethyl-methacrylate	69	11.514	11.514	(0.853)	403953	100.000	108.899	
	58	trans-1,3-dichloropropene	75	11.582	11.582	(0.858)	381431	100.000	98.066	
	60	2-hexanone	43	11.792	11.792	(0.874)	170311	100.000	105.739	
	59	1,1,2-trichloroethane	83	11.826	11.826	(0.876)	263091	100.000	106.905	
	61	1,3-dichloropropane	76	12.191	12.191	(0.903)	534587	100.000	105.738	
	62	tetrachloroethene	166	12.312	12.312	(0.912)	409258	100.000	108.104	
	63	chlorodibromomethane	129	12.623	12.623	(0.935)	273292	100.000	85.142	
	64	1,2-dibromoethane	107	12.935	12.935	(0.958)	273510	100.000	103.488	
*	65	chlorobenzene-d5	117	13.496	13.496	(1.000)	1081995	100.000		
	66	chlorobenzene	112	13.557	13.557	(1.004)	1089267	100.000	102.239	
	67	1,1,1,2-tetrachloroethane	131	13.604	13.604	(1.008)	291807	100.000	91.268	
	68	ethyl benzene	91	13.611	13.611	(1.009)	1934676	100.000	107.703	
	69	p/m xylene	106	13.726	13.726	(1.017)	1476049	200.000	213.897	
	70	o xylene	106	14.416	14.416	(1.068)	1458591	200.000	214.065	
	71	styrene	104	14.470	14.470	(1.072)	2253052	200.000	219.788	
	72	isopropylbenzene	105	14.963	14.963	(1.109)	1844982	100.000	108.106	
	73	bromoform	173	15.038	15.038	(0.869)	122468	100.000	80.982	
	74	1,4-dichloro-2-butane	55	15.112	15.112	(0.873)	502086	100.000	104.049	
	75	1,1,2,2,-tetrachloroethane	83	15.241	15.241	(0.880)	347252	100.000	105.839	
$	76	4-bromofluorobenzene	95	15.383	15.383	(0.889)	506118	100.000	99.497	
	77	1,2,3-trichloropropane	75	15.484	15.484	(0.895)	254793	100.000	103.635	
	78	trans-1,4-dichloro-2-butene	53	15.572	15.572	(0.900)	67270	100.000	93.386(Q)	
	79	n-propylbenzene	91	15.606	15.606	(0.902)	2062425	100.000	109.378	
	80	bromobenzene	156	15.714	15.714	(0.908)	415117	100.000	102.639	
	81	4-ethyltoluene	105	15.788	15.788	(0.912)	1795955	100.000	108.219(H)	
	82	1,3,5-trimethybenzene	105	15.856	15.856	(0.916)	1460046	100.000	105.235	
	83	2-chlorotoluene	91	15.917	15.917	(0.920)	1226810	100.000	104.064(H)	
	84	4-chorotoluene	91	15.991	15.991	(0.924)	1220192	100.000	102.555	
	85	tert-butylbenzene	119	16.438	16.438	(0.950)	1239159	100.000	106.965	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.505	16.505	(0.954)	1452601	100.000	106.236	
87	sec-butylbenzene	105	16.782	16.782	(0.970)	1815185	100.000	110.357	
88	p-isopropyltoluene	119	16.999	16.999	(0.982)	1508543	100.000	108.369	
89	1,3-dichlorobenzene	146	17.188	17.188	(0.993)	748613	100.000	101.382	
* 90	1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	500348	100.000		
91	1,4-dichlorobenzene	146	17.364	17.364	(1.003)	729143	100.000	99.500	
92	n-butylbenzene	91	17.675	17.675	(1.021)	1547329	100.000	108.337	
93	1,2,4,5-tetramathylbenzene	119	17.695	17.695	(1.022)	852480	100.000	108.531	
94	1,2-dichlorobenzene	146	17.979	17.979	(1.039)	706164	100.000	102.966	
95	p-Diethylbenzene	119	18.973	18.973	(1.096)	1278060	100.000	101.245	
96	1,2-dibromo-3-chloropropane	75	19.278	19.278	(1.114)	34683	100.000	93.298	
97	1,3,5-trichlorobenzene	180	19.670	19.670	(1.136)	507377	100.000	101.068	
98	1,2,4-trichlorobenzene	180	20.745	20.745	(1.198)	375753	100.000	98.995	
99	hexachlorobutadiene	225	20.968	20.968	(1.211)	195558	100.000	103.972	
100	naphthalene	128	21.192	21.192	(1.224)	672864	100.000	93.680	
101	1,2,3-trichlorobenzene	180	21.604	21.604	(1.248)	326916	100.000	99.026	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A06.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

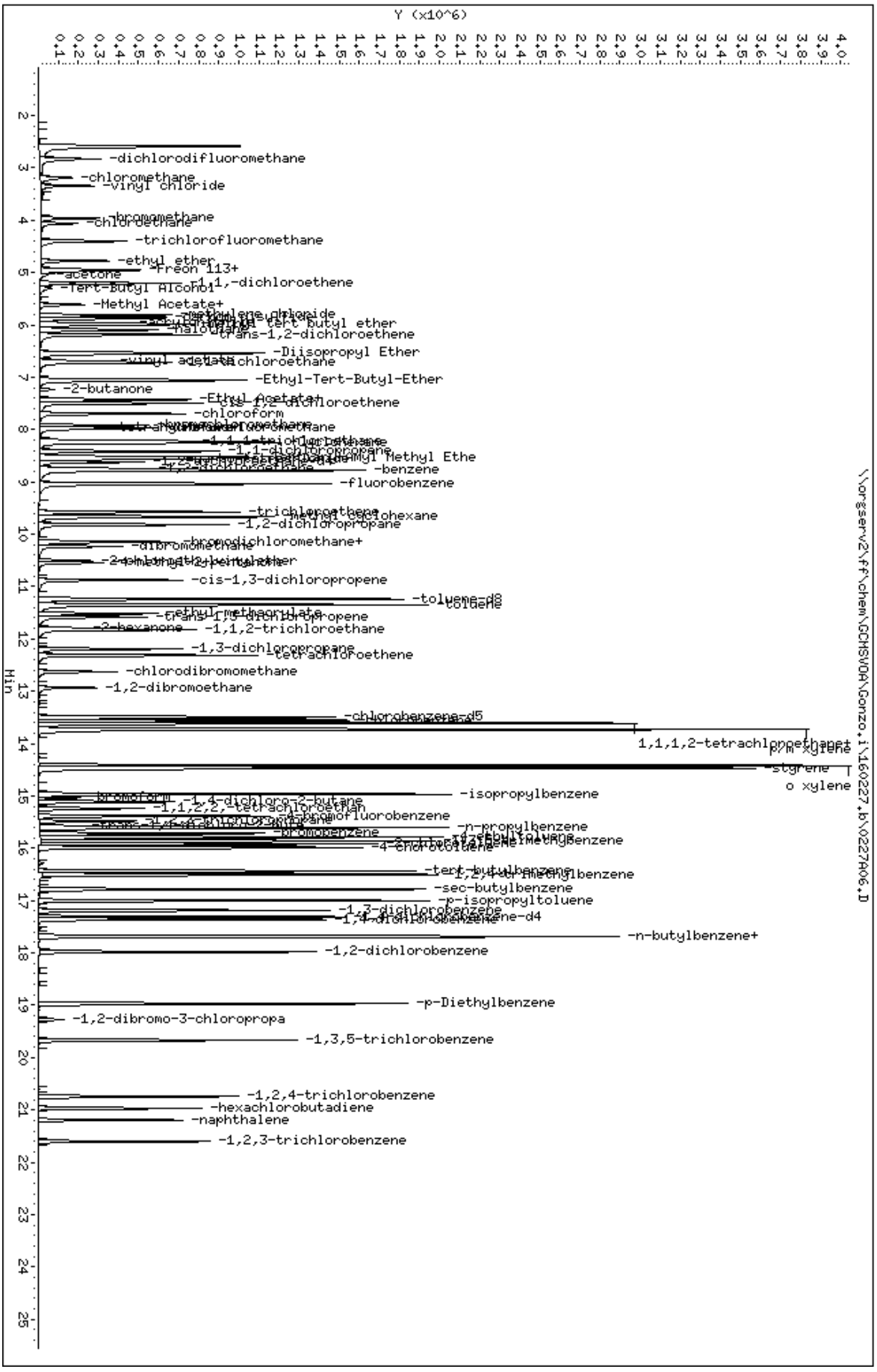
Calibration Date: 27-FEB-2016
Calibration Time: 17:33
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1618809	-4.22
65 chlorobenzene-d5	1120963	560482	2241926	1081995	-3.48
90 1,4-dichlorobenze	512818	256409	1025636	500348	-2.43

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.07
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.



Data File: \\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A06.D
Date : 27-FEB-2016 17:33
Client ID:
Sample Info: ICAL L3
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

\\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A06.D

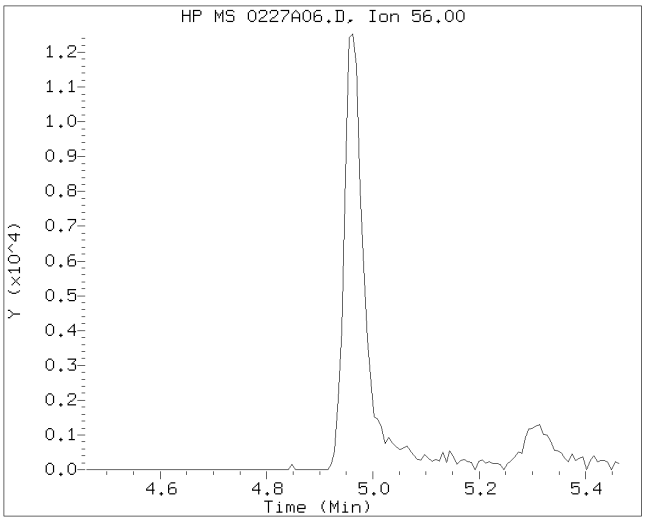
Alpha Analytical Labs

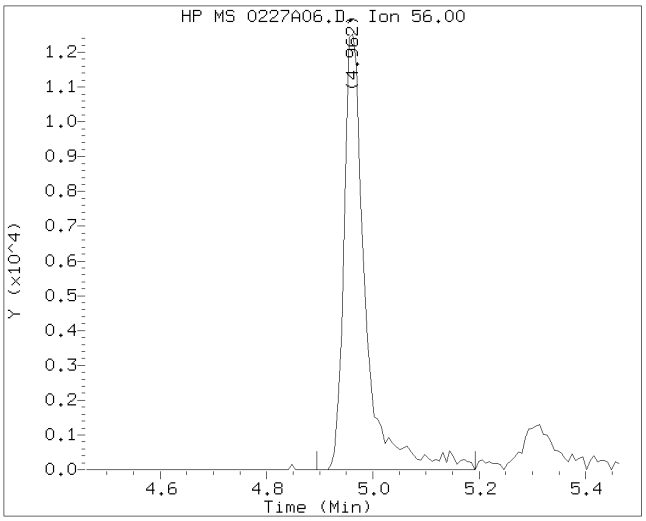
Manual Integration

Sample Info : ICAL L3
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A06.D
Injection Date : 27-FEB-2016 17:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 8: acrolien





Original Peak Response = 0 Manual Peak Response = 35322 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A07.D
Lab Smp Id:
Inj Date : 27-FEB-2016 18:05
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L4
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 17:33 Cal File: 0227A06.D
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.832	2.832	(0.313)	1257785	300.000	301.484	
2	chloromethane	50	3.190	3.190	(0.353)	908283	300.000	296.528	
3	vinyl chloride	62	3.339	3.339	(0.369)	917955	300.000	331.613	
4	bromomethane	94	3.961	3.961	(0.438)	687047	300.000	278.270	
5	chloroethane	64	4.062	4.062	(0.449)	651948	300.000	312.740	
6	trichlorofluoromethane	101	4.400	4.400	(0.487)	1533921	300.000	311.830	
7	ethyl ether	74	4.772	4.772	(0.528)	537912	300.000	310.599	
8	acrolien	56	4.962	4.962	(0.549)	89308	300.000	279.390(Q)	
9	Freon 113	101	4.955	4.955	(0.548)	941279	300.000	301.487	
10	acetone	43	5.043	5.043	(0.558)	155650	300.000	251.020	
11	1,1,-dichloroethene	96	5.198	5.198	(0.575)	1046106	300.000	319.878	
12	Tert-Butyl Alcohol	59	5.300	5.300	(0.586)	310863	1500.00	1467.382	
14	Methyl Acetate	43	5.604	5.604	(0.620)	531330	300.000	304.638	
13	iodomethane	142	5.618	5.618	(0.621)	1080116	300.000	288.515	
15	methylene chloride	84	5.814	5.814	(0.643)	1174716	300.000	299.920	
16	carbon disulfide	76	5.868	5.868	(0.649)	3368951	300.000	291.937	
17	acrylonitrile	53	5.969	5.969	(0.660)	304131	300.000	302.915	
20	methyl tert butyl ether	73	5.990	5.990	(0.663)	3009889	300.000	307.782	
21	halothane	117	6.091	6.091	(0.674)	867319	300.000	323.812	
22	trans-1,2-dichloroethene	96	6.193	6.193	(0.685)	1116754	300.000	312.656	
23	Diisopropyl Ether	45	6.544	6.544	(0.724)	4016053	300.000	308.594	
26	vinyl acetate	43	6.693	6.693	(0.740)	1650248	300.000	321.658	
24	1,1-dichloroethane	63	6.720	6.720	(0.743)	2230198	300.000	311.852	
25	Ethyl-Tert-Butyl-Ether	59	7.058	7.058	(0.781)	3772249	300.000	307.861	
27	2-butanone	43	7.234	7.234	(0.800)	324941	300.000	288.340	
29	Ethyl Acetate	43	7.423	7.423	(0.821)	732317	300.000	292.886	
28	2,2-dichloropropane	77	7.430	7.430	(0.822)	1526786	300.000	326.652	
30	cis-1,2-dichloroethene	96	7.498	7.498	(0.829)	1247826	300.000	308.324	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ngs)	(ngs)	REVIEW CODE
	31	chloroform	83	7.694	7.694	(0.851)	2090482	300.000	311.303	
	32	bromochloromethane	128	7.917	7.917	(0.876)	510732	300.000	324.900	
	33	tetrahydrofuran	42	7.958	7.958	(0.880)	221535	300.000	291.673	
$	34	dibromofluoromethane	113	7.978	7.978	(0.883)	362286	100.000	99.681	
	35	1,1,1-trichloroethane	97	8.215	8.215	(0.909)	1668068	300.000	327.448	
	36	Cyclohexane	56	8.248	8.248	(0.912)	2081895	300.000	310.838	
	37	1,1-dichloropropene	75	8.417	8.417	(0.931)	1561834	300.000	312.560	
	39	Tertiary-Amyl Methyl Ether	73	8.526	8.526	(0.943)	3203431	300.000	313.365	
	38	carbontetrachloride	117	8.559	8.559	(0.947)	1214833	300.000	268.258	
$	40	1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	380409	100.000	99.592	
	41	1,2-dichloroethane	62	8.742	8.742	(0.967)	1475941	300.000	310.023	
	42	benzene	78	8.783	8.783	(0.972)	5113199	300.000	313.605	
*	43	fluorobenzene	96	9.040	9.040	(1.000)	1629022	100.000		
	44	trichloroethene	95	9.581	9.581	(1.060)	1222005	300.000	313.229	
	46	methyl cyclohexane	83	9.668	9.668	(1.070)	1968450	300.000	304.735	
	47	1,2-dichloropropane	63	9.817	9.817	(1.086)	1282191	300.000	314.488	
	48	bromodichloromethane	83	10.142	10.142	(1.122)	1489544	300.000	324.810	
	49	1,4-dioxane	88	10.149	10.149	(1.123)	171802	6000.00	5993.040(M)	M1
	176	methy;-methylacrlate	69	Compound Not Detected.						
	50	dibromomethane	93	10.230	10.230	(1.132)	592282	300.000	307.867	
	51	2-chloroethylvinylether	63	10.507	10.507	(1.162)	452843	300.000	344.386	
	52	4-methyl-2-pentanone	58	10.541	10.541	(1.166)	334557	300.000	314.787	
	53	cis-1,3-dichloropropene	75	10.872	10.872	(1.203)	1725638	300.000	329.332	
$	55	toluene-d8	98	11.237	11.237	(0.833)	1567562	100.000	98.980	
	56	toluene	92	11.352	11.352	(0.841)	3175764	300.000	309.961	
	57	ethyl-methacrylate	69	11.515	11.515	(0.853)	1242964	300.000	329.117	
	58	trans-1,3-dichloropropene	75	11.582	11.582	(0.858)	1301764	300.000	328.725	
	60	2-hexanone	43	11.785	11.785	(0.873)	509853	300.000	310.909	
	59	1,1,2-trichloroethane	83	11.826	11.826	(0.876)	779300	300.000	311.023	
	61	1,3-dichloropropane	76	12.191	12.191	(0.903)	1584090	300.000	307.745	
	62	tetrachloroethene	166	12.313	12.313	(0.912)	1220471	300.000	316.642	
	63	chlorodibromomethane	129	12.624	12.624	(0.935)	958448	300.000	283.718	
	64	1,2-dibromoethane	107	12.935	12.935	(0.958)	836781	300.000	310.976	
*	65	chlorobenzene-d5	117	13.496	13.496	(1.000)	1101614	100.000		
	66	chlorobenzene	112	13.557	13.557	(1.004)	3324352	300.000	306.469	
	67	1,1,1,2-tetrachloroethane	131	13.604	13.604	(1.008)	998045	300.000	298.921	
	68	ethyl benzene	91	13.611	13.611	(1.009)	5850722	300.000	319.908	
	69	p/m xylene	106	13.726	13.726	(1.017)	4401906	600.000	626.530	
	70	o xylene	106	14.416	14.416	(1.068)	4315271	600.000	622.037	
	71	styrene	104	14.470	14.470	(1.072)	6870433	600.000	658.285	
	72	isopropylbenzene	105	14.963	14.963	(1.109)	5534565	300.000	318.521	
	73	bromoform	173	15.038	15.038	(0.869)	463785	300.000	280.776	
	74	1,4-dichloro-2-butane	55	15.112	15.112	(0.873)	1520387	300.000	300.286	
	75	1,1,2,2,-tetrachloroethane	83	15.241	15.241	(0.880)	1030097	300.000	299.229	
$	76	4-bromofluorobenzene	95	15.383	15.383	(0.889)	522347	100.000	97.868	
	77	1,2,3-trichloropropane	75	15.477	15.477	(0.894)	750426	300.000	290.903	
	78	trans-1,4-dichloro-2-butene	53	15.572	15.572	(0.900)	239106	300.000	316.354	
	79	n-propylbenzene	91	15.606	15.606	(0.902)	6335510	300.000	320.225	
	80	bromobenzene	156	15.714	15.714	(0.908)	1280027	300.000	301.635	
	81	4-ethyltoluene	105	15.789	15.789	(0.912)	5472112	300.000	314.259	
	82	1,3,5-trimethybenzene	105	15.863	15.863	(0.916)	4480014	300.000	307.749	
	83	2-chlorotoluene	91	15.917	15.917	(0.920)	3758254	300.000	303.832	
	84	4-chorotoluene	91	15.985	15.985	(0.923)	3769285	300.000	301.932	
	85	tert-butylbenzene	119	16.438	16.438	(0.950)	3696543	300.000	304.112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.505	16.505	(0.954)	4417730	300.000	307.927	
87	sec-butylbenzene	105	16.783	16.783	(0.970)	5481418	300.000	317.611	
88	p-isopropyltoluene	119	16.999	16.999	(0.982)	4558205	300.000	312.079	
89	1,3-dichlorobenzene	146	17.188	17.188	(0.993)	2336520	300.000	301.574	
* 90	1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	524990	100.000		
91	1,4-dichlorobenzene	146	17.357	17.357	(1.003)	2295237	300.000	298.513	
92	n-butylbenzene	91	17.675	17.675	(1.021)	4825905	300.000	322.029	
93	1,2,4,5-tetramathylbenzene	119	17.696	17.696	(1.022)	2620284	300.000	317.937	
94	1,2-dichlorobenzene	146	17.980	17.980	(1.039)	2169071	300.000	301.430	
95	p-Diethylbenzene	119	18.967	18.967	(1.096)	4030087	300.000	304.271	
96	1,2-dibromo-3-chloropropane	75	19.271	19.271	(1.113)	122039	300.000	312.880	
97	1,3,5-trichlorobenzene	180	19.670	19.670	(1.136)	1591833	300.000	302.206	
98	1,2,4-trichlorobenzene	180	20.745	20.745	(1.198)	1219795	300.000	306.282	
99	hexachlorobutadiene	225	20.969	20.969	(1.211)	596063	300.000	302.034	
100	naphthalene	128	21.192	21.192	(1.224)	2198319	300.000	291.696	
101	1,2,3-trichlorobenzene	180	21.604	21.604	(1.248)	1040261	300.000	300.317	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A07.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

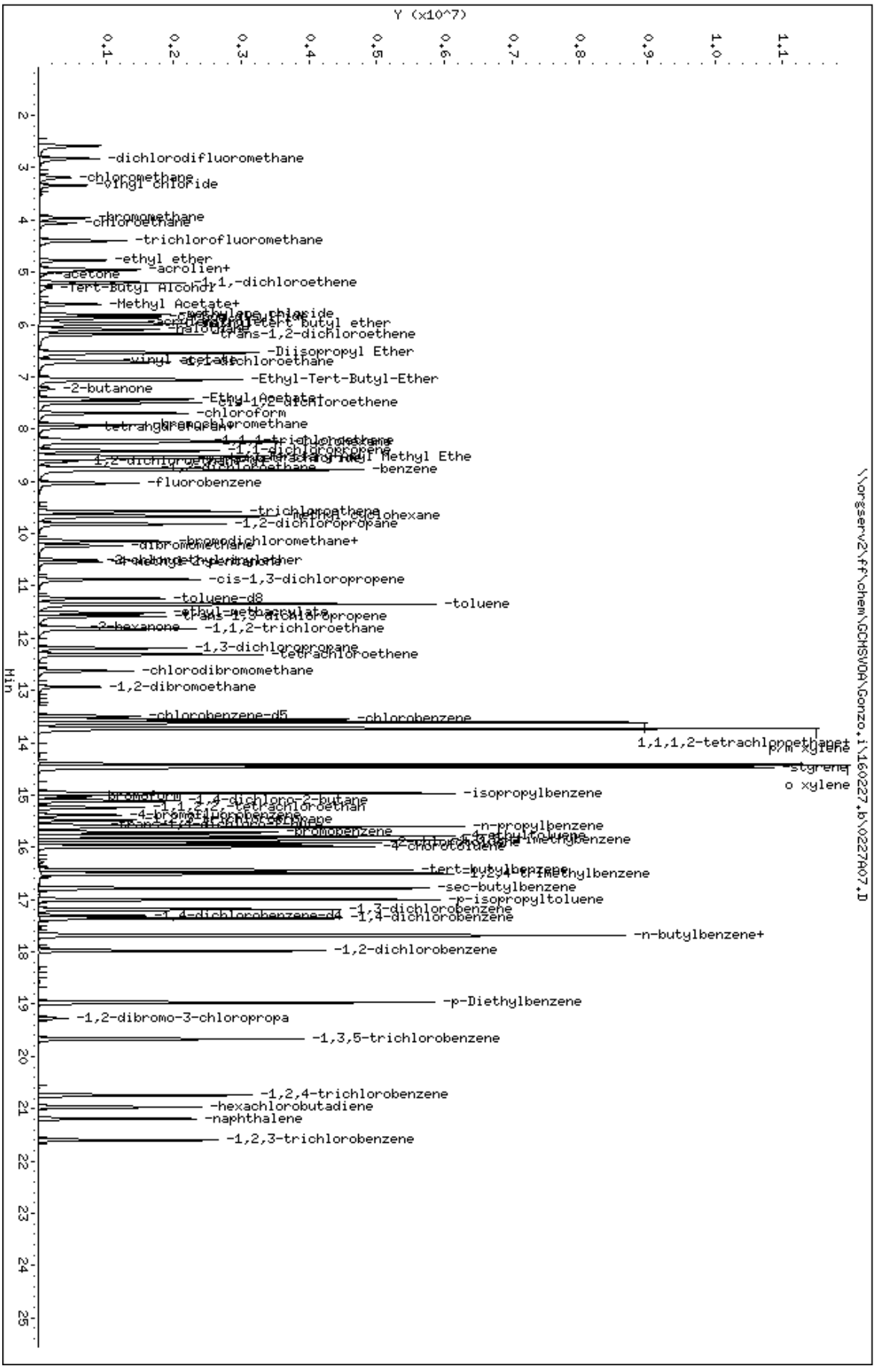
Calibration Date: 27-FEB-2016
Calibration Time: 17:33
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1629022	-3.62
65 chlorobenzene-d5	1120963	560482	2241926	1101614	-1.73
90 1,4-dichlorobenze	512818	256409	1025636	524990	2.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.08
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.



Data File: \\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A07.D
Date : 27-FEB-2016 18:05
Client ID:
Sample Info: ICAL L4
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

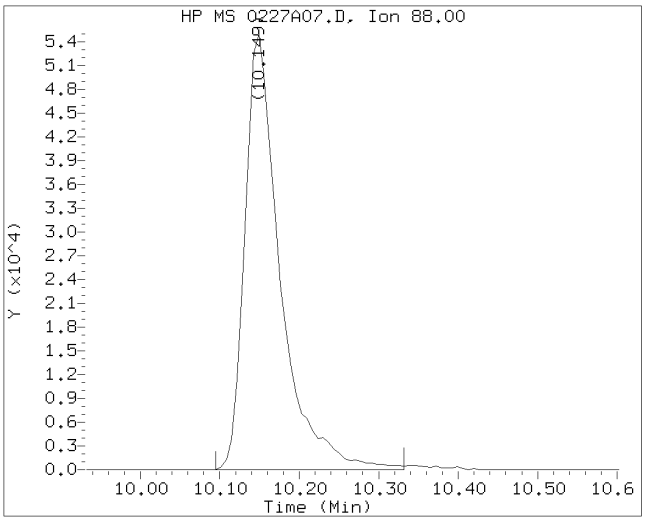
Alpha Analytical Labs

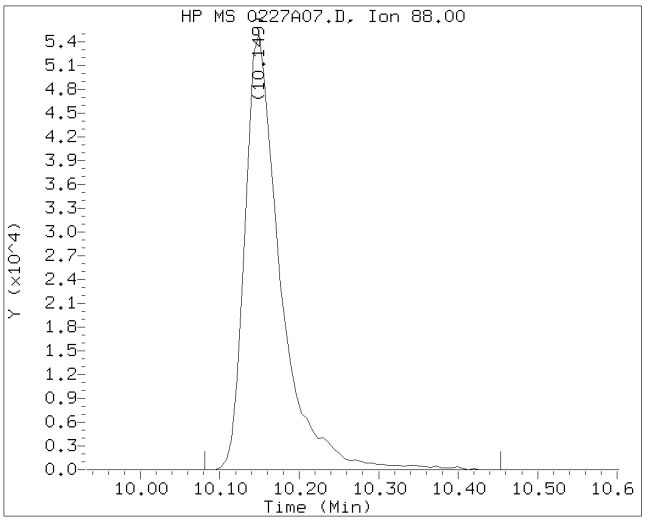
Manual Integration

Sample Info : ICAL L4
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A07.D
Injection Date : 27-FEB-2016 18:05
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

Compound # 49: 1,4-dioxane





Original Peak Response = 170171 Manual Peak Response = 171802 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A08.D
Lab Smp Id:
Inj Date : 27-FEB-2016 18:38
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L6
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 18:05 Cal File: 0227A07.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.831	2.831	(0.313)	3460310	800.000	801.370	
2	chloromethane	50	3.190	3.190	(0.353)	2668750	800.000	848.595	
3	vinyl chloride	62	3.345	3.345	(0.370)	2436340	800.000	857.227	
4	bromomethane	94	3.961	3.961	(0.438)	1981346	800.000	781.608	
5	chloroethane	64	4.062	4.062	(0.449)	1790752	800.000	836.670	
6	trichlorofluoromethane	101	4.407	4.407	(0.488)	4114669	800.000	809.674	
7	ethyl ether	74	4.779	4.779	(0.529)	1431365	800.000	804.984	
8	acrolien	56	4.962	4.962	(0.549)	262658	800.000	800.311(QM)	M2
9	Freon 113	101	4.955	4.955	(0.548)	2591375	800.000	801.796	
10	acetone	43	5.043	5.043	(0.558)	473171	800.000	743.235	
11	1,1,-dichloroethene	96	5.205	5.205	(0.576)	2936956	800.000	874.690	
12	Tert-Butyl Alcohol	59	5.300	5.300	(0.586)	931926	4000.00	4284.532	
14	Methyl Acetate	43	5.611	5.611	(0.621)	1406935	800.000	785.674	
13	iodomethane	142	5.618	5.618	(0.621)	3405366	800.000	843.812	
15	methylene chloride	84	5.814	5.814	(0.643)	3191447	800.000	793.613	
16	carbon disulfide	76	5.875	5.875	(0.650)	9633863	800.000	813.099	
17	acrylonitrile	53	5.969	5.969	(0.660)	842270	800.000	817.071	
20	methyl tert butyl ether	73	5.990	5.990	(0.663)	8228373	800.000	819.512	
21	halothane	117	6.098	6.098	(0.675)	2404573	800.000	874.381	
22	trans-1,2-dichloroethene	96	6.192	6.192	(0.685)	3088166	800.000	842.090	
23	Diisopropyl Ether	45	6.544	6.544	(0.724)	10690540	800.000	800.086	
26	vinyl acetate	43	6.693	6.693	(0.740)	4831380	800.000	917.201	
24	1,1-dichloroethane	63	6.727	6.727	(0.744)	6016637	800.000	819.421	
25	Ethyl-Tert-Butyl-Ether	59	7.058	7.058	(0.781)	10322611	800.000	820.527	
27	2-butanone	43	7.234	7.234	(0.800)	873430	800.000	754.878	
29	Ethyl Acetate	43	7.423	7.423	(0.821)	1931969	800.000	752.571	
28	2,2-dichloropropane	77	7.437	7.437	(0.823)	4480857	800.000	933.719	
30	cis-1,2-dichloroethene	96	7.498	7.498	(0.829)	3463324	800.000	833.478	

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ngs)	(ngs)	REVIEW CODE
	31 chloroform	83	7.694	7.694	(0.851)	5769416	800.000	836.790	
	32 bromochloromethane	128	7.924	7.924	(0.877)	1202565	800.000	745.098	
	33 tetrahydrofuran	42	7.957	7.957	(0.880)	599923	800.000	769.305	
$	34 dibromofluoromethane	113	7.978	7.978	(0.883)	374105	100.000	100.254	
	35 1,1,1-trichloroethane	97	8.214	8.214	(0.909)	4819176	800.000	921.403	
	36 Cyclohexane	56	8.248	8.248	(0.912)	5578716	800.000	805.487	
	37 1,1-dichloropropene	75	8.417	8.417	(0.931)	4444437	800.000	866.290	
	39 Tertiary-Amyl Methyl Ether	73	8.532	8.532	(0.944)	8752452	800.000	833.899	
	38 carbontetrachloride	117	8.559	8.559	(0.947)	3811303	800.000	808.152	
$	40 1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	386826	100.000	98.636	
	41 1,2-dichloroethane	62	8.749	8.749	(0.968)	4051708	800.000	828.918	
	42 benzene	78	8.782	8.782	(0.972)	14104273	800.000	842.539	
*	43 fluorobenzene	96	9.039	9.039	(1.000)	1672550	100.000		
	44 trichloroethene	95	9.580	9.580	(1.060)	3380831	800.000	844.036	
	46 methyl cyclohexane	83	9.668	9.668	(1.070)	5362438	800.000	801.689	
	47 1,2-dichloropropane	63	9.817	9.817	(1.086)	3446667	800.000	823.378	
	48 bromodichloromethane	83	10.142	10.142	(1.122)	4313551	800.000	916.136	
	49 1,4-dioxane	88	10.148	10.148	(1.123)	230115	8000.00	7818.290(QM)	M2
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.230	10.230	(1.132)	1623459	800.000	821.910	
	51 2-chloroethylvinylether	63	10.507	10.507	(1.162)	1245956	800.000	922.886	
	52 4-methyl-2-pentanone	58	10.541	10.541	(1.166)	912577	800.000	836.305	
	53 cis-1,3-dichloropropene	75	10.872	10.872	(1.203)	5023604	800.000	933.787	
$	55 toluene-d8	98	11.237	11.237	(0.833)	1623514	100.000	98.041	
	56 toluene	92	11.352	11.352	(0.841)	8700677	800.000	812.158	
	57 ethyl-methacrylate	69	11.521	11.521	(0.854)	3404778	800.000	862.202	
	58 trans-1,3-dichloropropene	75	11.582	11.582	(0.858)	3914012	800.000	945.260	
	60 2-hexanone	43	11.785	11.785	(0.873)	1385691	800.000	808.134	
	59 1,1,2-trichloroethane	83	11.826	11.826	(0.876)	2093587	800.000	799.110	
	61 1,3-dichloropropane	76	12.191	12.191	(0.903)	4349073	800.000	808.046	
	62 tetrachloroethene	166	12.312	12.312	(0.912)	3352016	800.000	831.717	
	63 chlorodibromomethane	129	12.624	12.624	(0.935)	2911173	800.000	816.716	
	64 1,2-dibromoethane	107	12.935	12.935	(0.958)	2355514	800.000	837.199	
*	65 chlorobenzene-d5	117	13.496	13.496	(1.000)	1151865	100.000		
	66 chlorobenzene	112	13.557	13.557	(1.004)	9404690	800.000	829.188	
	67 1,1,1,2-tetrachloroethane	131	13.604	13.604	(1.008)	2881676	800.000	819.698	
	68 ethyl benzene	91	13.618	13.618	(1.009)	16089232	800.000	841.356	
	69 p/m xylene	106	13.733	13.733	(1.018)	11778140	1600.00	1603.268(Q)	
	70 o xylene	106	14.422	14.422	(1.069)	11445197	1600.00	1577.828(Q)	
	71 styrene	104	14.470	14.470	(1.072)	17909282	1600.00	1641.103	
	72 isopropylbenzene	105	14.970	14.970	(1.109)	15472170	800.000	851.597	
	73 bromoform	173	15.038	15.038	(0.869)	1474319	800.000	817.156	
	74 1,4-dichloro-2-butane	55	15.112	15.112	(0.873)	4260338	800.000	778.430	
	75 1,1,2,2,-tetrachloroethane	83	15.241	15.241	(0.880)	2865952	800.000	770.174	
$	76 4-bromofluorobenzene	95	15.383	15.383	(0.889)	561427	100.000	97.312	
	77 1,2,3-trichloropropane	75	15.484	15.484	(0.895)	2128682	800.000	763.389	
	78 trans-1,4-dichloro-2-butene	53	15.579	15.579	(0.900)	775928	800.000	949.728	
	79 n-propylbenzene	91	15.606	15.606	(0.902)	17602903	800.000	823.099	
	80 bromobenzene	156	15.714	15.714	(0.908)	3606336	800.000	786.183	
	81 4-ethyltoluene	105	15.795	15.795	(0.912)	15519717	800.000	824.538	
	82 1,3,5-trimethybenzene	105	15.863	15.863	(0.916)	12413852	800.000	788.895	
	83 2-chlorotoluene	91	15.924	15.924	(0.920)	10405839	800.000	778.250	
	84 4-chorotoluene	91	15.991	15.991	(0.924)	10731990	800.000	795.290	
	85 tert-butylbenzene	119	16.438	16.438	(0.950)	10402790	800.000	791.741	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.505	16.505	(0.954)	12453667	800.000	803.047	
87	sec-butylbenzene	105	16.789	16.789	(0.970)	15536146	800.000	832.799	
88	p-isopropyltoluene	119	17.006	17.006	(0.982)	12897523	800.000	816.904	
89	1,3-dichlorobenzene	146	17.195	17.195	(0.993)	6752393	800.000	806.263	
* 90	1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	567488	100.000		
91	1,4-dichlorobenzene	146	17.364	17.364	(1.003)	6708452	800.000	807.146	
92	n-butylbenzene	91	17.682	17.682	(1.021)	13628010	800.000	841.285	
93	1,2,4,5-tetramathylbenzene	119	17.702	17.702	(1.023)	7229126	800.000	811.471	
94	1,2-dichlorobenzene	146	17.979	17.979	(1.039)	6174086	800.000	793.743	
95	p-Diethylbenzene	119	18.974	18.974	(1.096)	12023642	800.000	839.802	
96	1,2-dibromo-3-chloropropane	75	19.271	19.271	(1.113)	398302	800.000	944.683	
97	1,3,5-trichlorobenzene	180	19.670	19.670	(1.136)	4683113	800.000	822.498	
98	1,2,4-trichlorobenzene	180	20.745	20.745	(1.198)	3722729	800.000	864.749	
99	hexachlorobutadiene	225	20.968	20.968	(1.211)	1753663	800.000	822.061	
100	naphthalene	128	21.192	21.192	(1.224)	6947666	800.000	852.852	
101	1,2,3-trichlorobenzene	180	21.604	21.604	(1.248)	3104189	800.000	829.048	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A08.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

Calibration Date: 27-FEB-2016
Calibration Time: 17:33

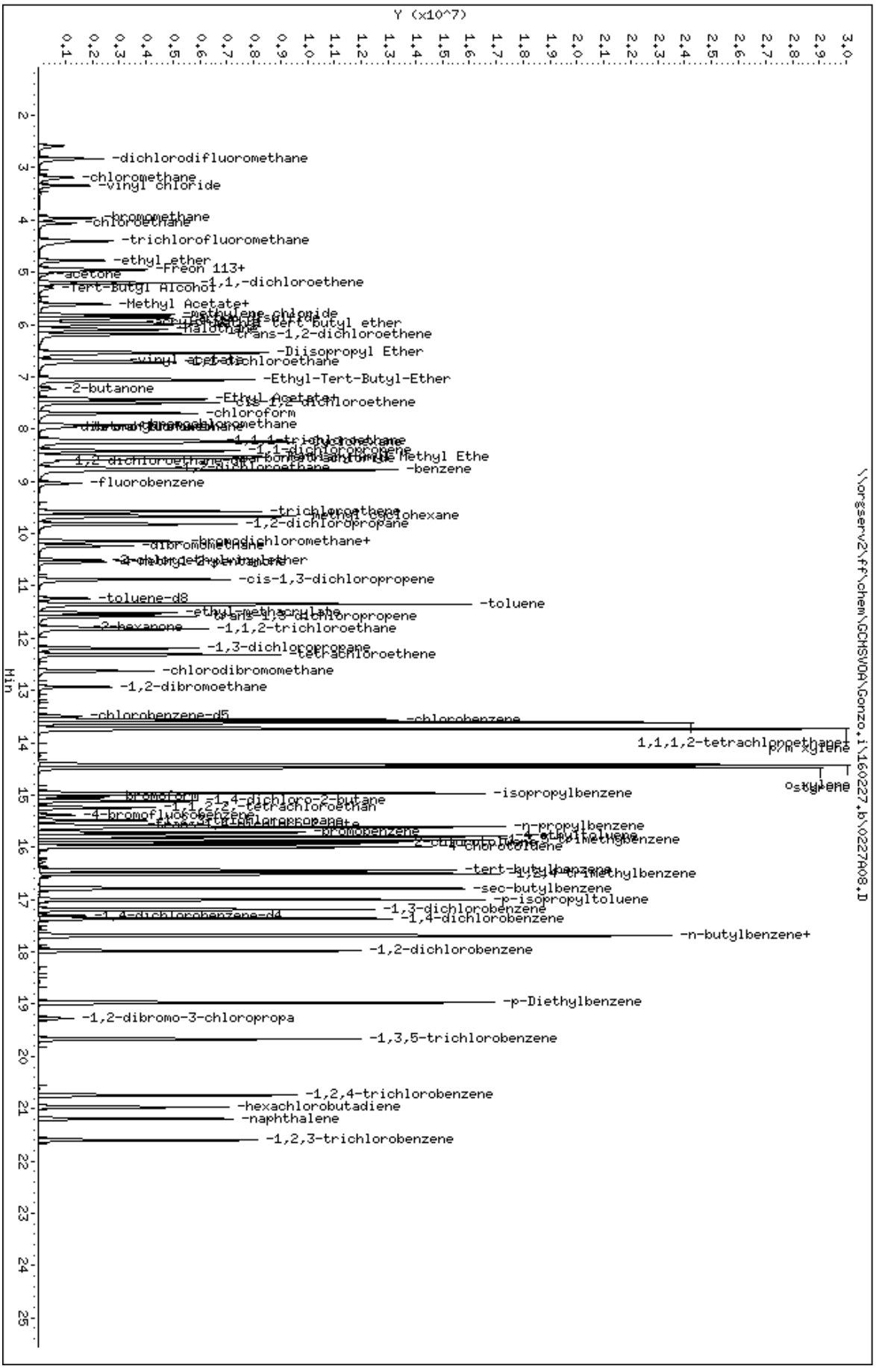
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1672550	-1.04
65 chlorobenzene-d5	1120963	560482	2241926	1151865	2.76
90 1,4-dichlorobenze	512818	256409	1025636	567488	10.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.07
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.



Data File: \\orgserv2\ff\chem\GCHSWOA\Gonzo.i\160227.b\0227A08.D
Date : 27-FEB-2016 18:38
Client ID:
Sample Info: ICAL L6
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

\\orgserv2\ff\chem\GCHSWOA\Gonzo.i\160227.b\0227A08.D

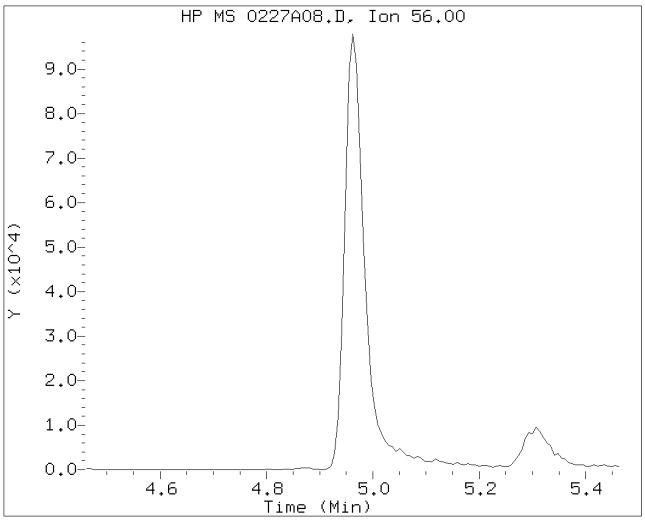
Alpha Analytical Labs

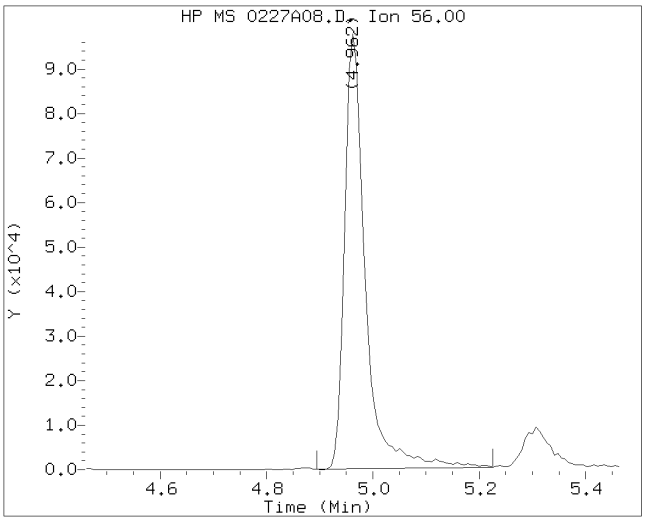
Manual Integration

Sample Info : ICAL L6
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A08.D
Injection Date : 27-FEB-2016 18:38
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

Compound # 8: acrolien

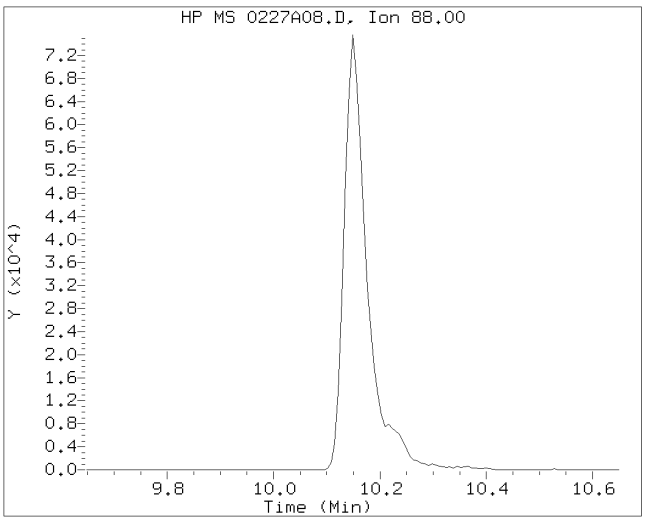


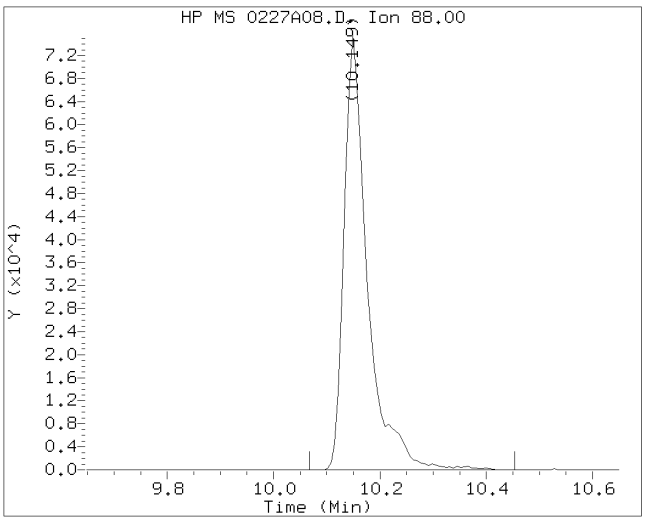


Original Peak Response = 0 Manual Peak Response = 262658 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 49: 1,4-dioxane





Original Peak Response = 0 Manual Peak Response = 230115 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A09.D
Lab Smp Id:
Inj Date : 27-FEB-2016 19:10
Operator : PD Inst ID: Gonzo.i
Smp Info : ICAL L8
Misc Info : wg,ical
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:53 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 18:38 Cal File: 0227A08.D
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.831	2.831	(0.313)	5228976	1200.00	1198.452(A)	
2	chloromethane	50	3.183	3.183	(0.352)	3886163	1200.00	1224.879(A)	
3	vinyl chloride	62	3.339	3.339	(0.369)	3530281	1200.00	1231.253(A)	
4	bromomethane	94	3.961	3.961	(0.438)	3066614	1200.00	1199.134(AQM)	M2
5	chloroethane	64	4.062	4.062	(0.449)	2556319	1200.00	1183.897(AQM)	M2
6	trichlorofluoromethane	101	4.400	4.400	(0.487)	6030880	1200.00	1174.936(AQM)	M2
7	ethyl ether	74	4.779	4.779	(0.529)	2121743	1200.00	1182.795(A)	
8	acrolien	56	4.962	4.962	(0.549)	387803	1200.00	1171.276(AM)	M2
9	Freon 113	101	4.955	4.955	(0.548)	3904834	1200.00	1195.671(A)	
10	acetone	43	5.043	5.043	(0.558)	703878	1200.00	1095.937(A)	
11	1,1,-dichloroethene	96	5.198	5.198	(0.575)	4347969	1200.00	1283.581(A)	
12	Tert-Butyl Alcohol	59	5.300	5.300	(0.586)	1395600	6000.00	6360.083(A)	
14	Methyl Acetate	43	5.611	5.611	(0.621)	1977630	1200.00	1094.695(A)	
13	iodomethane	142	5.618	5.618	(0.621)	4828208	1200.00	1177.649(A)	
15	methylene chloride	84	5.814	5.814	(0.643)	4774461	1200.00	1176.862(A)	
16	carbon disulfide	76	5.868	5.868	(0.649)	14442117	1200.00	1208.241(A)	
17	acrylonitrile	53	5.969	5.969	(0.660)	1244429	1200.00	1196.626(A)	
20	methyl tert butyl ether	73	5.989	5.989	(0.663)	12243126	1200.00	1208.686(A)	
21	halothane	117	6.091	6.091	(0.674)	3617668	1200.00	1303.981(A)	
22	trans-1,2-dichloroethene	96	6.186	6.186	(0.684)	4637652	1200.00	1253.533(A)	
23	Diisopropyl Ether	45	6.544	6.544	(0.724)	16113967	1200.00	1195.417(A)	
26	vinyl acetate	43	6.693	6.693	(0.740)	7413960	1200.00	1395.158(A)	
24	1,1-dichloroethane	63	6.720	6.720	(0.743)	8957375	1200.00	1209.244(A)	
25	Ethyl-Tert-Butyl-Ether	59	7.058	7.058	(0.781)	15394164	1200.00	1212.940(A)	
27	2-butanone	43	7.234	7.234	(0.800)	1280317	1200.00	1096.847(A)	
29	Ethyl Acetate	43	7.423	7.423	(0.821)	2768165	1200.00	1068.855(A)	
28	2,2-dichloropropane	77	7.430	7.430	(0.822)	6845967	1200.00	1414.066(A)	
30	cis-1,2-dichloroethene	96	7.498	7.498	(0.829)	5166071	1200.00	1232.370(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
	31 chloroform	83	7.694	7.694	(0.851)	8709330	1200.00	1252.129(A)	
	32 bromochloromethane	128	7.924	7.924	(0.877)	1724712	1200.00	1059.256(A)	
	33 tetrahydrofuran	42	7.957	7.957	(0.880)	892836	1200.00	1134.892(A)	
$	34 dibromofluoromethane	113	7.978	7.978	(0.883)	382195	100.000	101.525	
	35 1,1,1-trichloroethane	97	8.214	8.214	(0.909)	7285444	1200.00	1380.743(A)	
	36 Cyclohexane	56	8.248	8.248	(0.912)	8245295	1200.00	1178.411(A)	
	37 1,1-dichloropropene	75	8.417	8.417	(0.931)	6690276	1200.00	1292.618(A)	
	39 Tertiary-Amyl Methyl Ether	73	8.532	8.532	(0.944)	13049510	1200.00	1232.418(A)	
	38 carbontetrachloride	117	8.559	8.559	(0.947)	5891825	1200.00	1235.375(A)	
$	40 1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	395291	100.000	99.912	
	41 1,2-dichloroethane	62	8.749	8.749	(0.968)	6062652	1200.00	1229.465(A)	
	42 benzene	78	8.776	8.776	(0.971)	20555791	1200.00	1217.176(A)	
*	43 fluorobenzene	96	9.039	9.039	(1.000)	1687327	100.000		
	44 trichloroethene	95	9.580	9.580	(1.060)	5088376	1200.00	1259.206(A)	
	46 methyl cyclohexane	83	9.668	9.668	(1.070)	8050928	1200.00	1191.053(A)	
	47 1,2-dichloropropane	63	9.817	9.817	(1.086)	5147543	1200.00	1218.932(A)	
	48 bromodichloromethane	83	10.142	10.142	(1.122)	6544399	1200.00	1377.763(A)	
	49 1,4-dioxane	88	10.148	10.148	(1.123)	355130	12000.0	11960.079(M)	M2
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.236	10.236	(1.132)	2437986	1200.00	1223.472(A)	
	51 2-chloroethylvinylether	63	10.507	10.507	(1.162)	1683999	1200.00	1236.423(A)	
	52 4-methyl-2-pentanone	58	10.541	10.541	(1.166)	1347829	1200.00	1224.363(A)	
	53 cis-1,3-dichloropropene	75	10.872	10.872	(1.203)	7715690	1200.00	1421.633(A)	
$	55 toluene-d8	98	11.237	11.237	(0.833)	1651524	100.000	96.953	
	56 toluene	92	11.352	11.352	(0.841)	12951935	1200.00	1175.304(A)	
	57 ethyl-methacrylate	69	11.521	11.521	(0.854)	5054874	1200.00	1244.397(A)	
	58 trans-1,3-dichloropropene	75	11.582	11.582	(0.858)	6032441	1200.00	1416.285(A)	
	60 2-hexanone	43	11.792	11.792	(0.874)	2033042	1200.00	1152.635(A)	
	59 1,1,2-trichloroethane	83	11.826	11.826	(0.876)	3093479	1200.00	1147.866(A)	
	61 1,3-dichloropropane	76	12.191	12.191	(0.903)	6501925	1200.00	1174.382(A)	
	62 tetrachloroethene	166	12.312	12.312	(0.912)	5016220	1200.00	1209.970(A)	
	63 chlorodibromomethane	129	12.623	12.623	(0.935)	4448952	1200.00	1211.458(A)	
	64 1,2-dibromoethane	107	12.935	12.935	(0.958)	3563315	1200.00	1231.191(A)	
*	65 chlorobenzene-d5	117	13.496	13.496	(1.000)	1184877	100.000		
	66 chlorobenzene	112	13.557	13.557	(1.004)	14240533	1200.00	1220.571(A)	
	67 1,1,1,2-tetrachloroethane	131	13.604	13.604	(1.008)	4308666	1200.00	1189.986(A)	
	68 ethyl benzene	91	13.611	13.611	(1.009)	20527407	1200.00	1043.535(A)	
	69 p/m xylene	106	13.733	13.733	(1.018)	16981825	2400.00	2247.202(AQ)	
	70 o xylene	106	14.422	14.422	(1.069)	16518803	2400.00	2213.825(AQ)	
	71 styrene	104	14.470	14.470	(1.072)	21868080	2400.00	1948.034	
	72 isopropylbenzene	105	14.963	14.963	(1.109)	20520364	1200.00	1097.985(A)	
	73 bromoform	173	15.038	15.038	(0.869)	2240647	1200.00	1215.868(A)	
	74 1,4-dichloro-2-butane	55	15.112	15.112	(0.873)	6355761	1200.00	1138.976(A)	
	75 1,1,2,2,-tetrachloroethane	83	15.241	15.241	(0.880)	4237480	1200.00	1116.862(A)	
$	76 4-bromofluorobenzene	95	15.383	15.383	(0.889)	576983	100.000	98.087	
	77 1,2,3-trichloropropane	75	15.484	15.484	(0.895)	3155040	1200.00	1109.715(A)	
	78 trans-1,4-dichloro-2-butene	53	15.579	15.579	(0.900)	1186493	1200.00	1424.344(A)	
	79 n-propylbenzene	91	15.599	15.599	(0.901)	21633046	1200.00	992.104	
	80 bromobenzene	156	15.721	15.721	(0.908)	5392437	1200.00	1152.960(A)	
	81 4-ethyltoluene	105	15.788	15.788	(0.912)	20598427	1200.00	1073.328(A)	
	82 1,3,5-trimethybenzene	105	15.863	15.863	(0.916)	17760435	1200.00	1106.975(A)	
	83 2-chlorotoluene	91	15.924	15.924	(0.920)	15304187	1200.00	1122.597(A)	
	84 4-chorotoluene	91	15.998	15.998	(0.924)	15982541	1200.00	1161.617(A)	
	85 tert-butylbenzene	119	16.438	16.438	(0.950)	15533283	1200.00	1159.492(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.505	16.505	(0.954)	17559973	1200.00	1110.553(A)	
87	sec-butylbenzene	105	16.782	16.782	(0.970)	20374582	1200.00	1071.167(A)	
88	p-isopropyltoluene	119	17.006	17.006	(0.982)	18081095	1200.00	1123.210(A)	
89	1,3-dichlorobenzene	146	17.195	17.195	(0.993)	10138844	1200.00	1187.351(A)	
* 90	1,4-dichlorobenzene-d4	152	17.310	17.310	(1.000)	578609	100.000		
91	1,4-dichlorobenzene	146	17.364	17.364	(1.003)	10084742	1200.00	1190.053(A)	
92	n-butylbenzene	91	17.682	17.682	(1.021)	19649440	1200.00	1189.687(A)	
93	1,2,4,5-tetramathylbenzene	119	17.702	17.702	(1.023)	10568035	1200.00	1163.465(A)	
94	1,2-dichlorobenzene	146	17.979	17.979	(1.039)	9244645	1200.00	1165.652(A)	
95	p-Diethylbenzene	119	18.973	18.973	(1.096)	17530382	1200.00	1200.891(A)	
96	1,2-dibromo-3-chloropropane	75	19.271	19.271	(1.113)	594457	1200.00	1382.820(A)	
97	1,3,5-trichlorobenzene	180	19.670	19.670	(1.136)	6948763	1200.00	1196.959	
98	1,2,4-trichlorobenzene	180	20.745	20.745	(1.198)	5604909	1200.00	1276.936(A)	
99	hexachlorobutadiene	225	20.968	20.968	(1.211)	2571661	1200.00	1182.343(A)	
100	naphthalene	128	21.192	21.192	(1.224)	10578212	1200.00	1273.558(A)	
101	1,2,3-trichlorobenzene	180	21.604	21.604	(1.248)	4636889	1200.00	1214.591(A)	

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A09.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

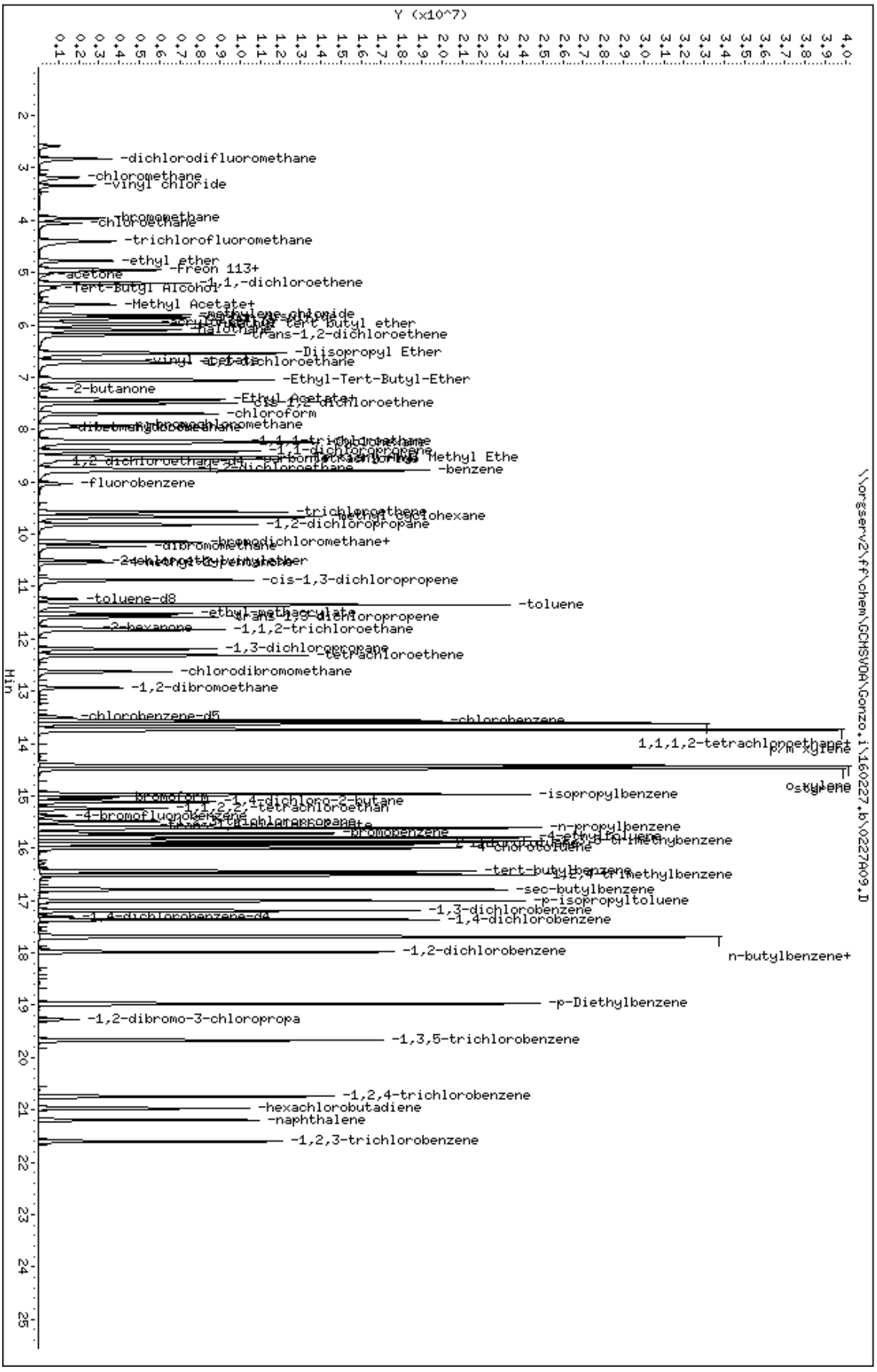
Calibration Date: 27-FEB-2016
Calibration Time: 17:33
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1690128	845064	3380256	1687327	-0.17
65 chlorobenzene-d5	1120963	560482	2241926	1184877	5.70
90 1,4-dichlorobenze	512818	256409	1025636	578609	12.83

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.04	0.07
65 chlorobenzene-d5	13.49	12.99	13.99	13.50	0.05
90 1,4-dichlorobenze	17.30	16.80	17.80	17.31	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.



Data File: \\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A09.D
Date : 27-FEB-2016 19:10
Client ID:
Sample Info: ICAL L8
Purge Volume: 10.0
Column phase: Rtx-502.2

\\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A09.D

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

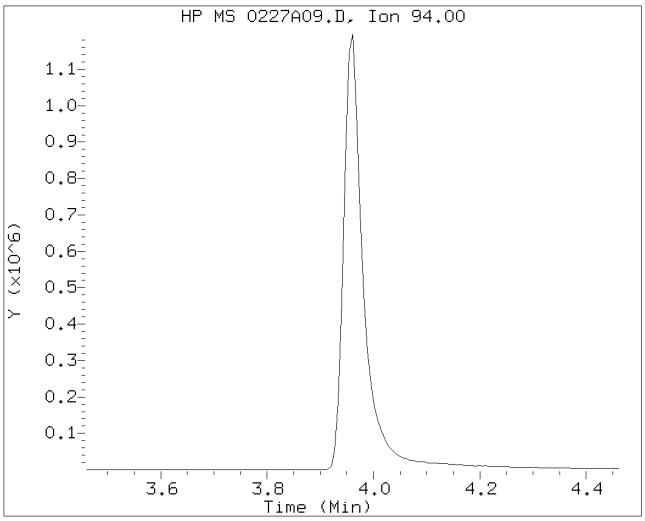
Alpha Analytical Labs

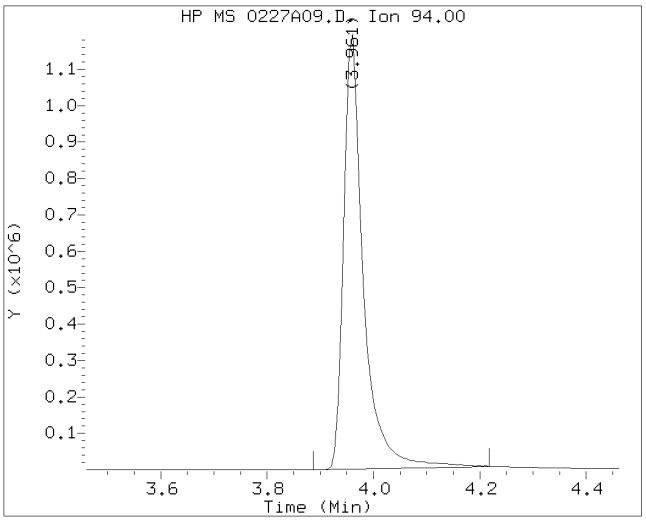
Manual Integration

Sample Info : ICAL L8
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A09.D
Injection Date : 27-FEB-2016 19:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

Compound # 4: bromomethane

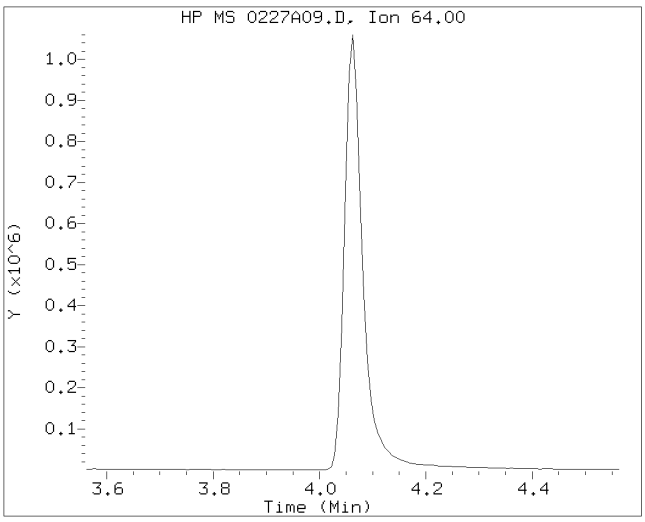


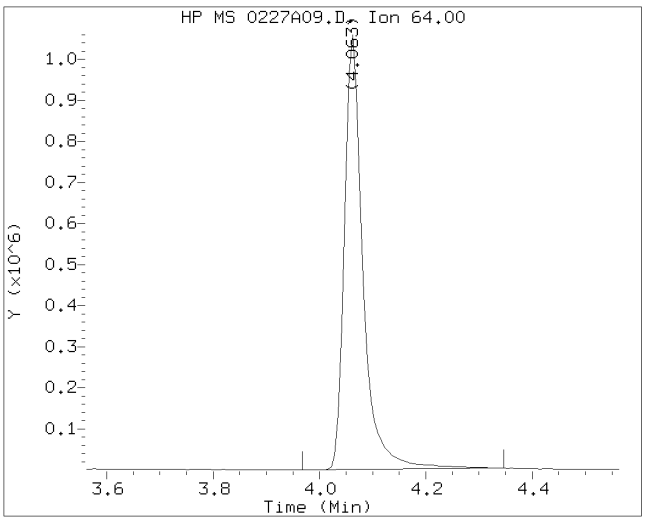


Original Peak Response = 0 Manual Peak Response = 3066614 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 5: chloroethane





Original Peak Response = 0 Manual Peak Response = 2556319 M2

M2 = Peak not found by automatic integration algorithm.

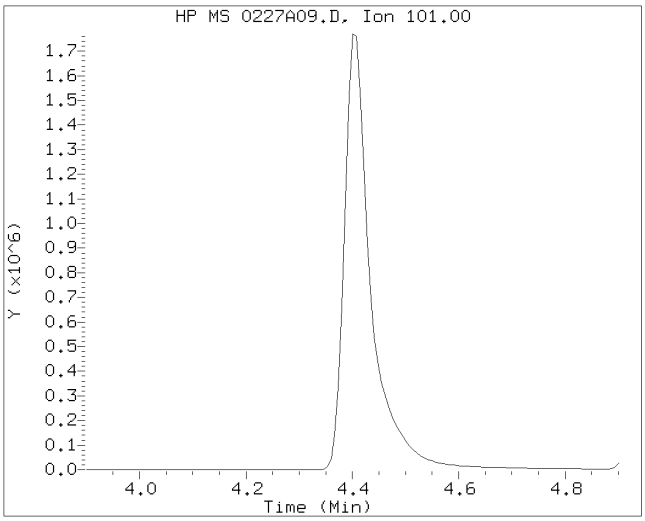
Alpha Analytical Labs

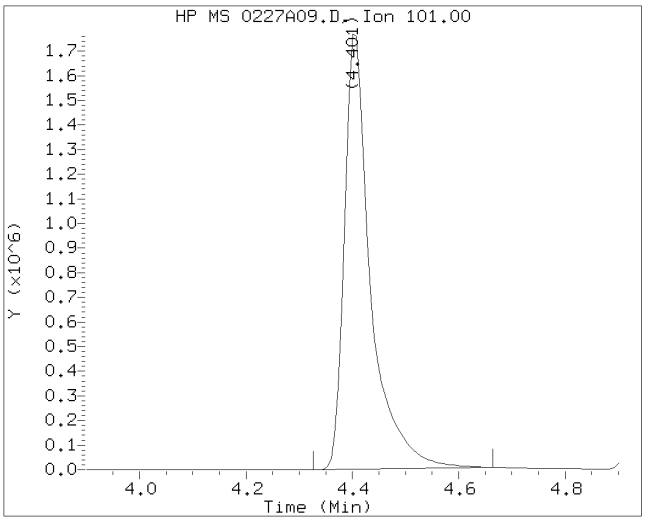
Manual Integration

Sample Info : ICAL L8
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A09.D
Injection Date : 27-FEB-2016 19:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

Compound # 6: trichlorofluoromethane

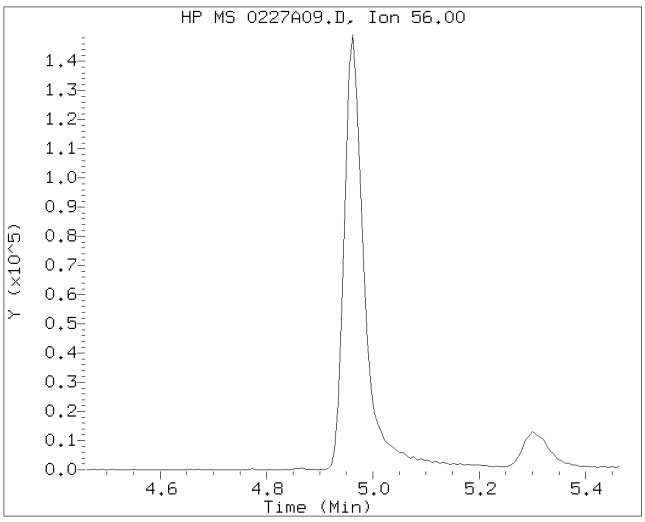


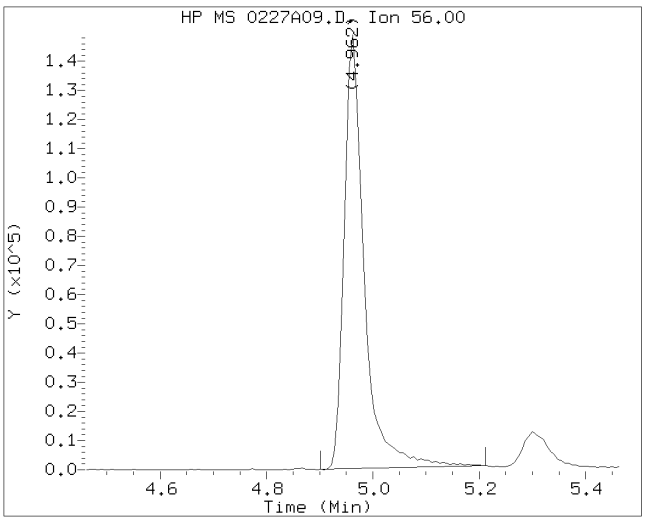


Original Peak Response = 0 Manual Peak Response = 6030880 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 8: acrolien





Original Peak Response = 0 Manual Peak Response = 387803 M2

M2 = Peak not found by automatic integration algorithm.

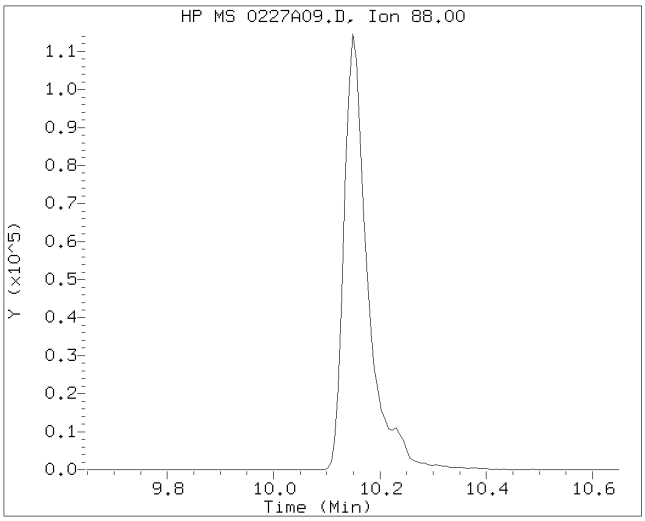
Alpha Analytical Labs

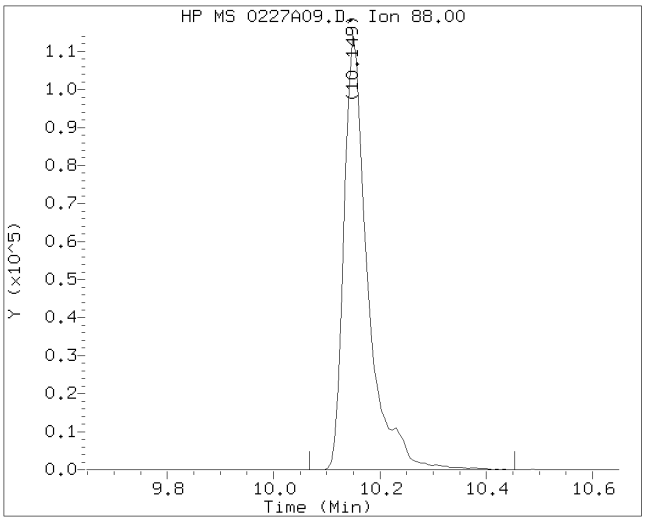
Manual Integration

Sample Info : ICAL L8
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A09.D
Injection Date : 27-FEB-2016 19:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

Compound # 49: 1,4-dioxane





Original Peak Response = 0 Manual Peak Response = 355130 M2

M2 = Peak not found by automatic integration algorithm.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Gonzo.i Injection Date: 27-FEB-2016 23:27
Lab File ID: 0227A17.D Init. Cal. Date(s): 27-FEB-2016 27-FEB-2016
Analysis Type: WATER Init. Cal. Times: 15:54 19:10
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m

COMPOUND	RRF / AMOUNT	RF100	CCAL RRF100	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 dichlorodifluoromethane	100	60.57302	0.14715	0.050	-39.42698	20.00000	Wt Linear	<-
2 chloromethane	0.18803	0.18382	0.18382	0.050	-2.23935	20.00000	Averaged	
3 vinyl chloride	0.16993	0.15252	0.15252	0.050	-10.24432	20.00000	Averaged	
4 bromomethane	0.15156	0.15993	0.15993	0.050	5.52228	20.00000	Averaged	
5 chloroethane	0.12797	0.12144	0.12144	0.050	-5.10234	20.00000	Averaged	
6 trichlorofluoromethane	100	67.62800	0.19677	0.050	-32.37200	20.00000	Wt Linear	<-
7 ethyl ether	0.10631	0.10502	0.10502	0.050	-1.21688	20.00000	Averaged	
8 acrolien	0.01962	0.02030	0.02030	0.050	3.44229	20.00000	Averaged	<-
9 Freon 113	100	97.48361	0.18167	0.050	-2.51639	20.00000	Wt Linear	
10 acetone	0.03806	0.03088	0.03088	0.050	-18.87644	20.00000	Averaged	<-
11 1,1,-dichloroethene	0.20075	0.16029	0.16029	0.050	-20.15669	20.00000	Averaged	<-
12 Tert-Butyl Alcohol	0.01300	0.01025	0.01025	0.050	-21.19942	20.00000	Averaged	<-
14 Methyl Acetate	0.10707	0.11716	0.11716	0.050	9.42411	20.00000	Averaged	
13 iodomethane	100	62.48194	0.10417	0.050	-37.51806	20.00000	Wt Linear	<-
15 methylene chloride	0.24044	0.22323	0.22323	0.050	-7.15796	20.00000	Averaged	
16 carbon disulfide	0.70840	0.48330	0.48330	0.050	-31.77613	20.00000	Averaged	<-
17 acrylonitrile	0.06163	0.05203	0.05203	0.050	-15.57915	20.00000	Averaged	
20 methyl tert butyl ether	0.60032	0.54132	0.54132	0.050	-9.82728	20.00000	Averaged	
21 halothane	0.16442	0.16157	0.16157	0.050	-1.73302	20.00000	Averaged	
22 trans-1,2-dichloroethene	0.21926	0.19452	0.19452	0.050	-11.28295	20.00000	Averaged	
23 Diisopropyl Ether	0.79888	0.74163	0.74163	0.050	-7.16703	20.00000	Averaged	
26 vinyl acetate	0.31494	0.26297	0.26297	0.050	-16.50071	20.00000	Averaged	
24 1,1-dichloroethane	0.43900	0.39567	0.39567	0.050	-9.87103	20.00000	Averaged	
25 Ethyl-Tert-Butyl-Ether	0.75217	0.68290	0.68290	0.050	-9.21006	20.00000	Averaged	
27 2-butanone	0.06918	0.05421	0.05421	0.050	-21.64181	20.00000	Averaged	<-
29 Ethyl Acetate	0.15349	0.11841	0.11841	0.050	-22.85377	20.00000	Averaged	<-
28 2,2-dichloropropane	0.28692	0.21845	0.21845	0.050	-23.86534	20.00000	Averaged	<-
30 cis-1,2-dichloroethene	0.24844	0.22919	0.22919	0.050	-7.74734	20.00000	Averaged	
31 chloroform	0.41223	0.38528	0.38528	0.050	-6.53666	20.00000	Averaged	
32 bromochloromethane	0.09650	0.09825	0.09825	0.050	1.82036	20.00000	Averaged	
33 tetrahydrofuran	0.04662	0.03948	0.03948	0.050	-15.33212	20.00000	Averaged	<-
$ 34 dibromofluoromethane	0.22311	0.22258	0.22258	0.050	-0.23710	30.00000	Averaged	
35 1,1,1-trichloroethane	0.31271	0.25064	0.25064	0.050	-19.84825	20.00000	Averaged	
36 Cyclohexane	100	103	0.41315	0.050	2.91189	20.00000	Wt Linear	
37 1,1-dichloropropene	0.30674	0.25810	0.25810	0.050	-15.85687	20.00000	Averaged	
39 Tertiary-Amyl Methyl Ether	0.62753	0.56076	0.56076	0.050	-10.64137	20.00000	Averaged	
38 carbontetrachloride	100	56.65063	0.14490	0.050	-43.34937	20.00000	Wt Linear	<-
$ 40 1,2-dichloroethane-d4	0.23448	0.22635	0.22635	0.050	-3.46641	30.00000	Averaged	
41 1,2-dichloroethane	0.29224	0.26558	0.26558	0.050	-9.12261	20.00000	Averaged	
42 benzene	1.00088	0.91431	0.91431	0.050	-8.64944	20.00000	Averaged	
44 trichloroethene	0.23949	0.20952	0.20952	0.050	-12.51286	20.00000	Averaged	
46 methyl cyclohexane	100	97.63462	0.37580	0.050	-2.36538	20.00000	Wt Linear	
47 1,2-dichloropropane	0.25028	0.23510	0.23510	0.050	-6.06292	20.00000	Averaged	

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Gonzo.i Injection Date: 27-FEB-2016 23:27
Lab File ID: 0227A17.D Init. Cal. Date(s): 27-FEB-2016 27-FEB-2016
Analysis Type: WATER Init. Cal. Times: 15:54 19:10
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m

COMPOUND	RRF / AMOUNT	RF100	CCAL RRF100	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
48 bromodichloromethane	0.28151	0.25005	0.25005	0.050	-11.17678	20.00000	Averaged	
49 1,4-dioxane	0.00176	0.00133	0.00133	0.050	-24.50669	20.00000	Averaged	<-
176 methy;-methylacrlate	++++	0.00500	0.00500	0.050	++++	20.00000	Averaged	<-
50 dibromomethane	0.11810	0.10037	0.10037	0.050	-15.01188	20.00000	Averaged	
51 2-chloroethylvinylether	0.08072	0.07528	0.07528	0.050	-6.73502	20.00000	Averaged	
52 4-methyl-2-pentanone	0.06524	0.05759	0.05759	0.050	-11.72412	20.00000	Averaged	
53 cis-1,3-dichloropropene	0.32165	0.29032	0.29032	0.050	-9.74224	20.00000	Averaged	
$ 55 toluene-d8	1.43763	1.45176	1.45176	0.050	0.98268	30.00000	Averaged	
56 toluene	0.93006	0.86063	0.86063	0.050	-7.46542	20.00000	Averaged	
57 ethyl-methacrylate	0.34283	0.31131	0.31131	0.050	-9.19361	20.00000	Averaged	
58 trans-1,3-dichloropropene	0.35948	0.31131	0.31131	0.050	-13.39752	20.00000	Averaged	
60 2-hexanone	0.14886	0.12787	0.12787	0.050	-14.09841	20.00000	Averaged	
59 1,1,2-trichloroethane	0.22745	0.20594	0.20594	0.050	-9.45633	20.00000	Averaged	
61 1,3-dichloropropane	0.46726	0.43439	0.43439	0.050	-7.03473	20.00000	Averaged	
62 tetrachloroethene	0.34989	0.29549	0.29549	0.050	-15.54650	20.00000	Averaged	
63 chlorodibromomethane	100	73.47207	0.21629	0.050	-26.52793	20.00000	Wt Linear	<-
64 1,2-dibromoethane	0.24426	0.22017	0.22017	0.050	-9.86355	20.00000	Averaged	
66 chlorobenzene	0.98467	0.90178	0.90178	0.050	-8.41778	20.00000	Averaged	
67 1,1,1,2-tetrachloroethane	100	82.79883	0.24374	0.050	-17.20117	20.00000	Wt Linear	
68 ethyl benzene	1.66017	1.56167	1.56167	0.050	-5.93349	20.00000	Averaged	
69 p/m xylene	0.63778	0.60472	0.60472	0.050	-5.18265	20.00000	Averaged	
70 o xylene	0.62974	0.61085	0.61085	0.050	-2.99948	20.00000	Averaged	
71 styrene	0.94742	0.96133	0.96133	0.050	1.46898	20.00000	Averaged	
72 isopropylbenzene	1.57730	1.41298	1.41298	0.050	-10.41817	20.00000	Averaged	
73 bromoform	100	69.28139	0.20736	0.050	-30.71861	20.00000	Wt Linear	<-
74 1,4-dichloro-2-butane	0.96442	0.89870	0.89870	0.050	-6.81490	20.00000	Averaged	
75 1,1,2,2,-tetrachloroethane	0.65573	0.56489	0.56489	0.050	-13.85217	20.00000	Averaged	
$ 76 4-bromofluorobenzene	1.01664	1.00900	1.00900	0.050	-0.75145	30.00000	Averaged	
77 1,2,3-trichloropropane	0.49137	0.42851	0.42851	0.050	-12.79173	20.00000	Averaged	
78 trans-1,4-dichloro-2-butene	0.14397	0.10572	0.10572	0.050	-26.56974	20.00000	Averaged	<-
79 n-propylbenzene	3.76856	3.55185	3.55185	0.050	-5.75048	20.00000	Averaged	
80 bromobenzene	0.80832	0.76771	0.76771	0.050	-5.02414	20.00000	Averaged	
81 4-ethyltoluene	3.31678	3.15342	3.15342	0.050	-4.92516	20.00000	Averaged	
82 1,3,5-trimethybenzene	2.77288	2.56280	2.56280	0.050	-7.57603	20.00000	Averaged	
83 2-chlorotoluene	2.35614	2.22634	2.22634	0.050	-5.50897	20.00000	Averaged	
84 4-chorotoluene	2.37792	2.24841	2.24841	0.050	-5.44660	20.00000	Averaged	
85 tert-butylbenzene	2.31531	2.06927	2.06927	0.050	-10.62682	20.00000	Averaged	
86 1,2,4-trimethylbenzene	2.73275	2.63137	2.63137	0.050	-3.70956	20.00000	Averaged	
87 sec-butylbenzene	3.28735	2.90586	2.90586	0.050	-11.60490	20.00000	Averaged	
88 p-isopropyltoluene	2.78214	2.57442	2.57442	0.050	-7.46617	20.00000	Averaged	
89 1,3-dichlorobenzene	1.47579	1.35293	1.35293	0.050	-8.32489	20.00000	Averaged	
91 1,4-dichlorobenzene	1.46458	1.30552	1.30552	0.050	-10.86077	20.00000	Averaged	

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Gonzo.i Injection Date: 27-FEB-2016 23:27
Lab File ID: 0227A17.D Init. Cal. Date(s): 27-FEB-2016 27-FEB-2016
Analysis Type: WATER Init. Cal. Times: 15:54 19:10
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m

COMPOUND	RRF / AMOUNT	RF100	CCAL RRF100	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
92 n-butylbenzene	2.85451	2.55387	2.55387	0.050	-10.53207	20.00000	Averaged	
93 1,2,4,5-tetramathylbenzene	1.56984	1.47002	1.47002	0.050	-6.35875	20.00000	Averaged	
94 1,2-dichlorobenzene	1.37068	1.24202	1.24202	0.050	-9.38684	20.00000	Averaged	
95 p-Diethylbenzene	2.52291	2.34011	2.34011	0.050	-7.24592	20.00000	Averaged	
96 1,2-dibromo-3-chloropropane	0.07430	0.05910	0.05910	0.050	-20.45549	20.00000	Averaged	<-
97 1,3,5-trichlorobenzene	1.00333	0.91292	0.91292	0.050	-9.01058	20.00000	Averaged	
98 1,2,4-trichlorobenzene	0.75860	0.67351	0.67351	0.050	-11.21726	20.00000	Averaged	
99 hexachlorobutadiene	0.37591	0.30222	0.30222	0.050	-19.60321	20.00000	Averaged	
100 naphthalene	1.43552	1.18015	1.18015	0.050	-17.78933	20.00000	Averaged	
101 1,2,3-trichlorobenzene	0.65980	0.56290	0.56290	0.050	-14.68585	20.00000	Averaged	

Alpha Analytical Labs

gc/ms voa

Data file : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\0227A17.D
Lab Smp Id:
Inj Date : 27-FEB-2016 23:27
Operator : PD Inst ID: Gonzo.i
Smp Info : 8260 ICV
Misc Info : wg,ical
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Meth Date : 28-Feb-2016 17:52 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: A1VOA1

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.832	2.832	(0.314)	248704	100.000	60.573	
2	chloromethane	50	3.183	3.183	(0.352)	310679	100.000	97.760	
3	vinyl chloride	62	3.339	3.339	(0.370)	257777	100.000	89.755	
4	bromomethane	94	3.961	3.961	(0.439)	270306	100.000	105.522	
5	chloroethane	64	4.062	4.062	(0.450)	205247	100.000	94.897	
6	trichlorofluoromethane	101	4.400	4.400	(0.487)	332561	100.000	67.627(M)	M1
7	ethyl ether	74	4.772	4.772	(0.528)	177495	100.000	98.783	
8	acrolien	56	4.962	4.962	(0.549)	34306	100.000	103.442	
9	Freon 113	101	4.955	4.955	(0.549)	307044	100.000	97.483	
10	acetone	43	5.043	5.043	(0.558)	52189	100.000	81.123(M)	M1
11	1,1,-dichloroethene	96	5.198	5.198	(0.576)	270908	100.000	79.843(M)	M1
12	Tert-Butyl Alcohol	59	5.300	5.300	(0.587)	86600	500.000	394.002	
14	Methyl Acetate	43	5.604	5.604	(0.620)	198009	100.000	109.424	
13	iodomethane	142	5.611	5.611	(0.621)	176066	100.000	62.481(M)	M1
15	methylene chloride	84	5.814	5.814	(0.644)	377280	100.000	92.842	
16	carbon disulfide	76	5.868	5.868	(0.650)	816834	100.000	68.223	
17	acrylonitrile	53	5.963	5.963	(0.660)	87939	100.000	84.420	
20	methyl tert butyl ether	73	5.990	5.990	(0.663)	914901	100.000	90.172	
21	halothane	117	6.091	6.091	(0.674)	273077	100.000	98.266	
22	trans-1,2-dichloroethene	96	6.186	6.186	(0.685)	328768	100.000	88.717	
23	Diisopropyl Ether	45	6.537	6.537	(0.724)	1253446	100.000	92.832	
26	vinyl acetate	43	6.686	6.686	(0.740)	444457	100.000	83.499	
24	1,1-dichloroethane	63	6.720	6.720	(0.744)	668731	100.000	90.128	
25	Ethyl-Tert-Butyl-Ether	59	7.051	7.051	(0.781)	1154183	100.000	90.789	
27	2-butanone	43	7.234	7.234	(0.801)	91617	100.000	78.358	
29	Ethyl Acetate	43	7.423	7.423	(0.822)	200128	100.000	77.146	
28	2,2-dichloropropane	77	7.430	7.430	(0.823)	369205	100.000	76.134	
30	cis-1,2-dichloroethene	96	7.491	7.491	(0.829)	387363	100.000	92.252	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
	31	chloroform	83	7.694	7.694	(0.852)	651174	100.000	93.463	
	32	bromochloromethane	128	7.917	7.917	(0.876)	166062	100.000	101.820	
	33	tetrahydrofuran	42	7.957	7.957	(0.881)	66720	100.000	84.667	
$	34	dibromofluoromethane	113	7.971	7.971	(0.882)	376182	100.000	99.762	
	35	1,1,1-trichloroethane	97	8.214	8.214	(0.909)	423620	100.000	80.151	
	36	Cyclohexane	56	8.242	8.242	(0.912)	698277	100.000	102.911	
	37	1,1-dichloropropene	75	8.411	8.411	(0.931)	436227	100.000	84.143	
	39	Tertiary-Amyl Methyl Ether	73	8.526	8.526	(0.944)	947748	100.000	89.358	
	38	carbontetrachloride	117	8.553	8.553	(0.947)	244896	100.000	56.650	
$	40	1,2-dichloroethane-d4	65	8.620	8.620	(0.954)	382558	100.000	96.533	
	41	1,2-dichloroethane	62	8.742	8.742	(0.968)	448872	100.000	90.877	
	42	benzene	78	8.776	8.776	(0.972)	1545298	100.000	91.350	
*	43	fluorobenzene	96	9.033	9.033	(1.000)	1690128	100.000		
	44	trichloroethene	95	9.574	9.574	(1.060)	354117	100.000	87.487	
	46	methyl cyclohexane	83	9.662	9.662	(1.070)	635157	100.000	97.634	
	47	1,2-dichloropropane	63	9.810	9.810	(1.086)	397354	100.000	93.937	
	48	bromodichloromethane	83	10.142	10.142	(1.123)	422612	100.000	88.823	
	49	1,4-dioxane	88	10.149	10.149	(1.124)	112267	5000.00	3774.665	
	176	methy;-methylacrlate	69	9.824	9.824	(1.088)	8452	100.000	(a)	
	50	dibromomethane	93	10.230	10.230	(1.133)	169635	100.000	84.988	
	51	2-chloroethylvinylether	63	10.500	10.500	(1.162)	127237	100.000	93.264	
	52	4-methyl-2-pentanone	58	10.541	10.541	(1.167)	97339	100.000	88.275	
	53	cis-1,3-dichloropropene	75	10.872	10.872	(1.204)	490673	100.000	90.257	
$	55	toluene-d8	98	11.231	11.231	(0.833)	1627364	100.000	100.982	
	56	toluene	92	11.345	11.345	(0.841)	964731	100.000	92.534	
	57	ethyl-methacrylate	69	11.515	11.515	(0.854)	348968	100.000	90.806	
	58	trans-1,3-dichloropropene	75	11.575	11.575	(0.858)	348972	100.000	86.602	
	60	2-hexanone	43	11.785	11.785	(0.874)	143342	100.000	85.901	
	59	1,1,2-trichloroethane	83	11.819	11.819	(0.876)	230851	100.000	90.543	
	61	1,3-dichloropropane	76	12.184	12.184	(0.903)	486935	100.000	92.965	
	62	tetrachloroethene	166	12.306	12.306	(0.912)	331236	100.000	84.453	
	63	chlorodibromomethane	129	12.617	12.617	(0.935)	242456	100.000	73.472	
	64	1,2-dibromoethane	107	12.928	12.928	(0.958)	246801	100.000	90.136	
*	65	chlorobenzene-d5	117	13.489	13.489	(1.000)	1120963	100.000		
	66	chlorobenzene	112	13.550	13.550	(1.004)	1010863	100.000	91.582	
	67	1,1,1,2-tetrachloroethane	131	13.597	13.597	(1.008)	273225	100.000	82.798	
	68	ethyl benzene	91	13.604	13.604	(1.009)	1750572	100.000	94.066	
	69	p/m xylene	106	13.719	13.719	(1.017)	1355745	200.000	189.634	
	70	o xylene	106	14.409	14.409	(1.068)	1369485	200.000	194.001	
	71	styrene	104	14.463	14.463	(1.072)	2155238	200.000	202.937	
	72	isopropylbenzene	105	14.957	14.957	(1.109)	1583895	100.000	89.581	
	73	bromoform	173	15.031	15.031	(0.869)	106340	100.000	69.281	
	74	1,4-dichloro-2-butane	55	15.105	15.105	(0.873)	460869	100.000	93.185	
	75	1,1,2,2,-tetrachloroethane	83	15.234	15.234	(0.880)	289688	100.000	86.147	
$	76	4-bromofluorobenzene	95	15.376	15.376	(0.889)	517432	100.000	99.248	
	77	1,2,3-trichloropropane	75	15.471	15.471	(0.894)	219750	100.000	87.208	
	78	trans-1,4-dichloro-2-butene	53	15.565	15.565	(0.900)	54213	100.000	73.430	
	79	n-propylbenzene	91	15.599	15.599	(0.902)	1821451	100.000	94.249	
	80	bromobenzene	156	15.707	15.707	(0.908)	393697	100.000	94.975	
	81	4-ethyltoluene	105	15.782	15.782	(0.912)	1617130	100.000	95.074	
	82	1,3,5-trimethybenzene	105	15.856	15.856	(0.916)	1314251	100.000	92.423	
	83	2-chlorotoluene	91	15.910	15.910	(0.919)	1141708	100.000	94.491	
	84	4-chorotoluene	91	15.985	15.985	(0.924)	1153023	100.000	94.553	
	85	tert-butylbenzene	119	16.431	16.431	(0.950)	1061159	100.000	89.373	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.499	16.499	(0.953)	1349415	100.000	96.290	
87	sec-butylbenzene	105	16.776	16.776	(0.970)	1490176	100.000	88.395	
88	p-isopropyltoluene	119	16.999	16.999	(0.982)	1320207	100.000	92.533	
89	1,3-dichlorobenzene	146	17.182	17.182	(0.993)	693807	100.000	91.675	
* 90	1,4-dichlorobenzene-d4	152	17.303	17.303	(1.000)	512818	100.000		
91	1,4-dichlorobenzene	146	17.357	17.357	(1.003)	669492	100.000	89.139	
92	n-butylbenzene	91	17.675	17.675	(1.021)	1309673	100.000	89.467	
93	1,2,4,5-tetramathylbenzene	119	17.689	17.689	(1.022)	753852	100.000	93.641	
94	1,2-dichlorobenzene	146	17.973	17.973	(1.039)	636928	100.000	90.613	
95	p-Diethylbenzene	119	18.967	18.967	(1.096)	1200048	100.000	92.754	
96	1,2-dibromo-3-chloropropane	75	19.264	19.264	(1.113)	30307	100.000	79.544	
97	1,3,5-trichlorobenzene	180	19.663	19.663	(1.136)	468163	100.000	90.989	
98	1,2,4-trichlorobenzene	180	20.739	20.739	(1.199)	345387	100.000	88.782	
99	hexachlorobutadiene	225	20.962	20.962	(1.211)	154984	100.000	80.396	
100	naphthalene	128	21.185	21.185	(1.224)	605201	100.000	82.210	
101	1,2,3-trichlorobenzene	180	21.597	21.597	(1.248)	288666	100.000	85.314	

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0227A17.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\orgserv2\ff\chem\GCMSVOA\Gonzo.i\160227.b\v10ml8260.m
Misc Info: wg,ical

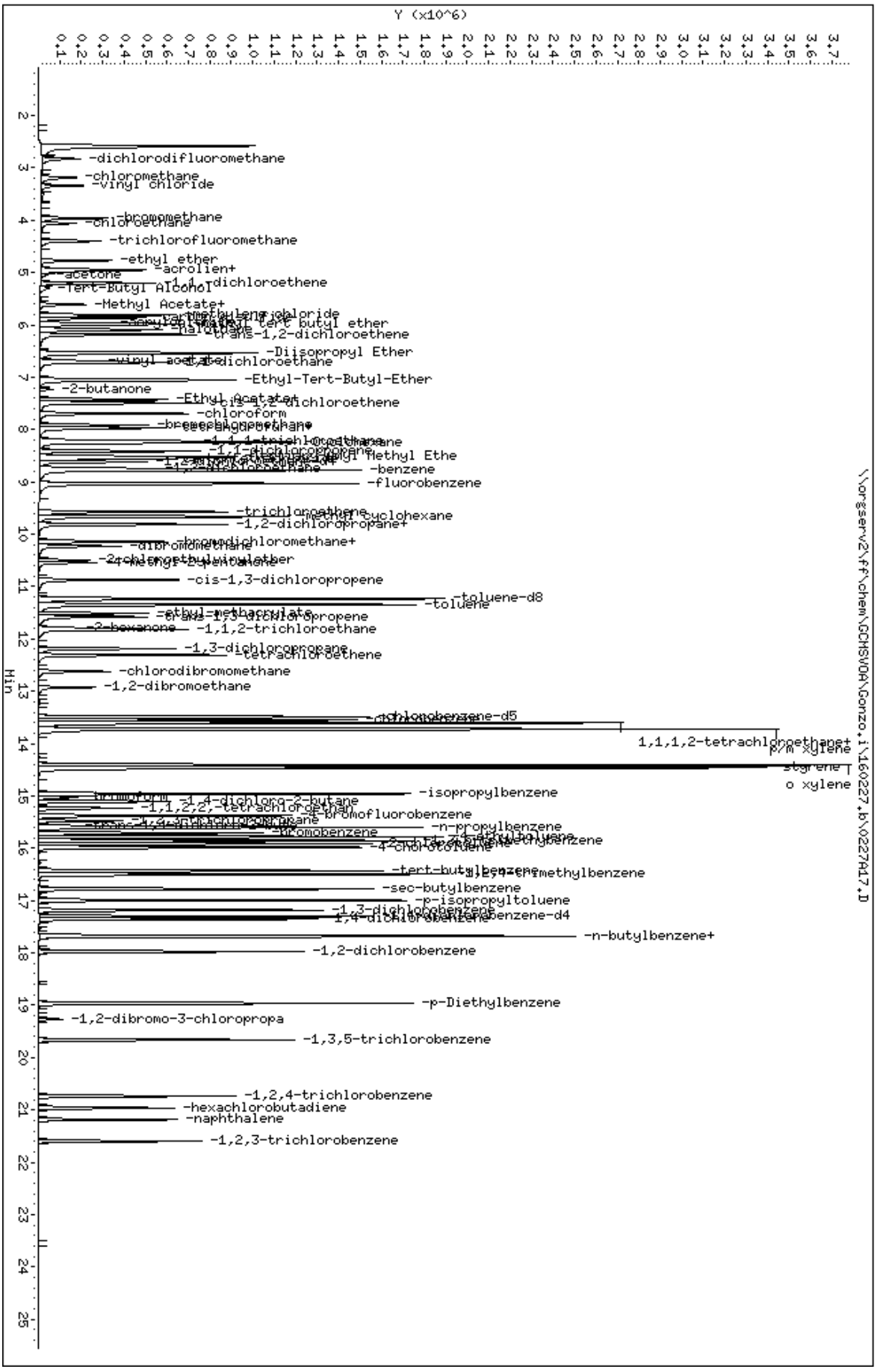
Calibration Date: 27-FEB-2016
Calibration Time: 17:33
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1618809	809405	3237618	1690128	4.41
65 chlorobenzene-d5	1081995	540998	2163990	1120963	3.60
90 1,4-dichlorobenze	500348	250174	1000696	512818	2.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.04	8.54	9.54	9.03	-0.07
65 chlorobenzene-d5	13.50	13.00	14.00	13.49	-0.05
90 1,4-dichlorobenze	17.31	16.81	17.81	17.30	-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.



Data File: \\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A17.D
Date : 27-FEB-2016 23:27
Client ID:
Sample Info: 8260 ICV
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

\\orgserv2\ff\chem\GCMSWOA\Gonzo.i\160227.b\0227A17.D

Page 5

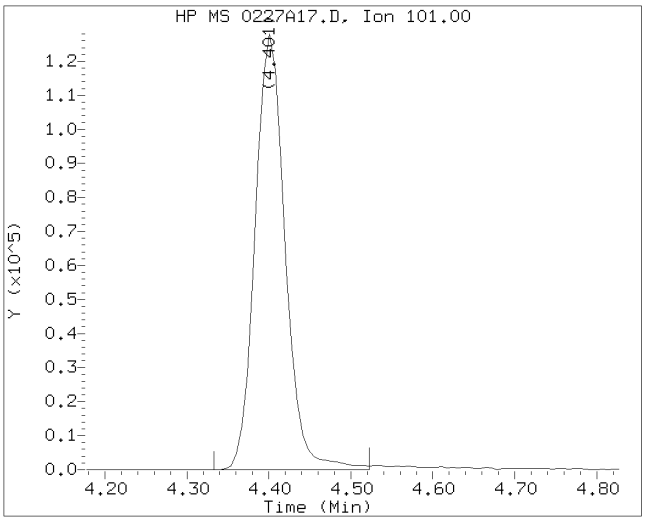
Alpha Analytical Labs

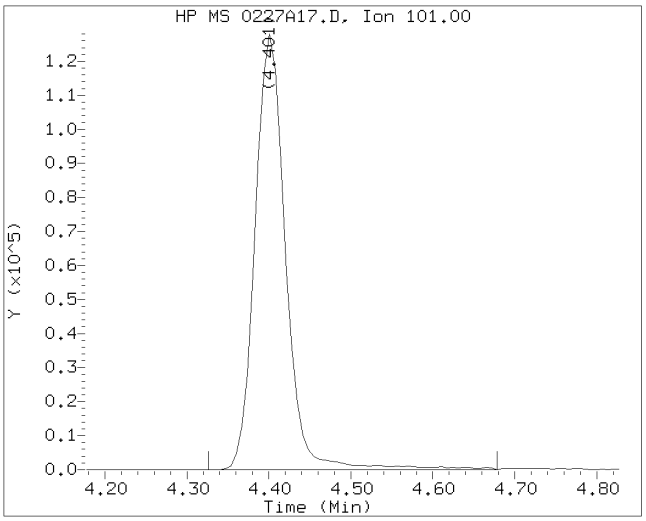
Manual Integration

Sample Info : 8260 ICV
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A17.D
Injection Date : 27-FEB-2016 23:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_3

Compound # 6: trichlorofluoromethane

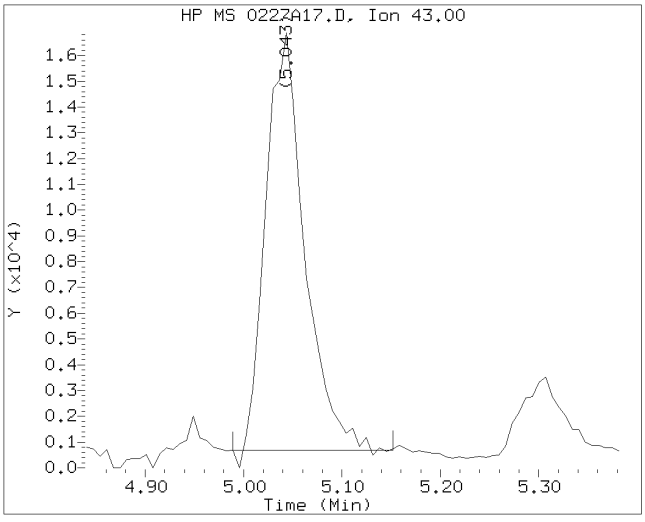


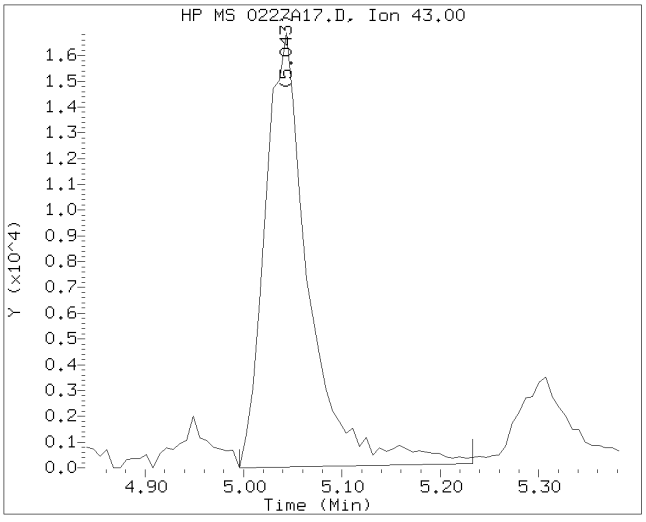


Original Peak Response = 325558 Manual Peak Response = 332561 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 10: acetone





Original Peak Response = 44093 Manual Peak Response = 52189 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

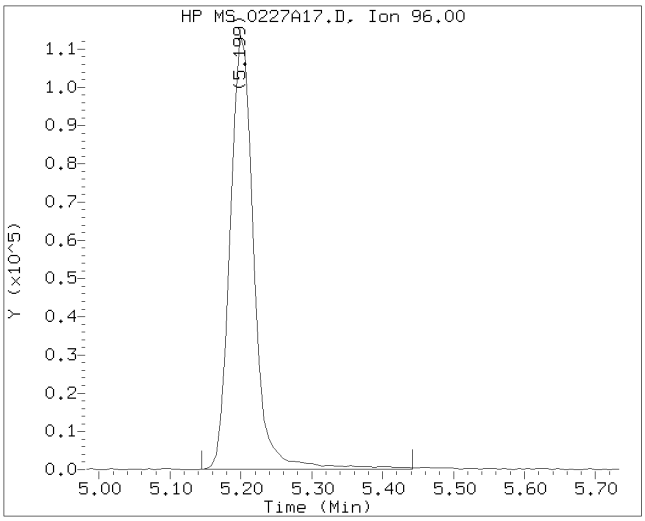
Alpha Analytical Labs

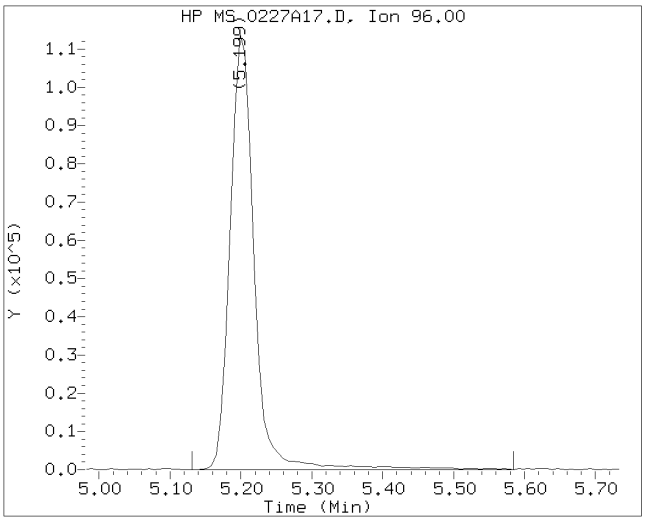
Manual Integration

Sample Info : 8260 ICV
wg,ical

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0227A17.D
Injection Date : 27-FEB-2016 23:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_3

Compound # 11: 1,1,-dichloroethene

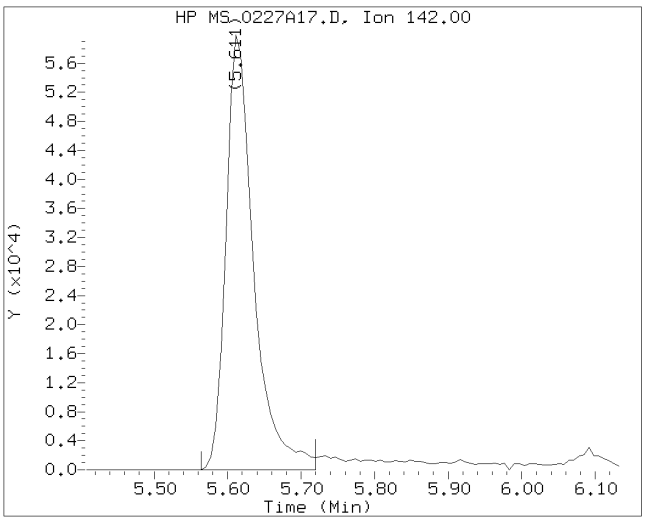


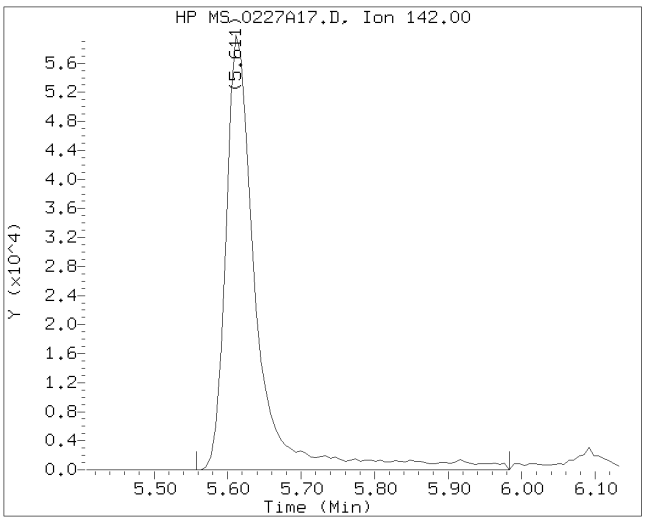


Original Peak Response = 264981 Manual Peak Response = 270908 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 13: iodomethane





Original Peak Response = 158057 Manual Peak Response = 176066 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Continuing Calibration

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: Gonzo.i Calibration Date: 15-MAR-2016 Time: 08:28

Lab File ID: 0315A01 Init. Calib. Date(s): 27-FEB-2 27-FEB-2

Sample No: wg874-1,31,10 Init. Calib. Times : 15:54 19:10

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	100	94.765	.05	-5	20	
chloromethane	.18803	.17728	.05	-6	20	
vinyl chloride	.16993	.19605	.05	15	20	
bromomethane	.15156	.13629	.05	-10	20	
chloroethane	.12797	.14008	.05	9	20	
trichlorofluoromethane	100	101	.05	1	20	
ethyl ether	.10631	.11075	.05	4	20	
acrolien	.01962	.02055	.05	5	20	F
Freon 113	100	101	.05	1	20	
acetone	.03806	.0368	.05	-3	20	F
1,1,-dichloroethene	.20075	.21036	.05	5	20	
Tert-Butyl Alcohol	.013	.0121	.05	-7	20	F
Methyl Acetate	.10707	.10518	.05	-2	20	
iodomethane	100	38.084	.05	-62	20	F
methylene chloride	.24044	.24337	.05	1	20	
carbon disulfide	.7084	.69399	.05	-2	20	
acrylonitrile	.06163	.06238	.05	1	20	
methyl tert butyl ether	.60032	.51551	.05	-14	20	
halothane	.16442	.17637	.05	7	20	
trans-1,2-dichloroethene	.21926	.23217	.05	6	20	
Diisopropyl Ether	.79888	.84812	.05	6	20	
vinyl acetate	.31494	.38674	.05	23	20	F
1,1-dichloroethane	.439	.45862	.05	4	20	
Ethyl-Tert-Butyl-Ether	.75217	.67008	.05	-11	20	
2-butanone	.06918	.06688	.05	-3	20	
Ethyl Acetate	.15349	.14935	.05	-3	20	
2,2-dichloropropane	.28692	.3156	.05	10	20	
cis-1,2-dichloroethene	.24844	.25996	.05	5	20	
chloroform	.41223	.43627	.05	6	20	
bromochloromethane	.0965	.11292	.05	17	20	
tetrahydrofuran	.04662	.04529	.05	-3	20	F
1,1,1-trichloroethane	.31271	.34625	.05	11	20	
Cyclohexane	100	106	.05	6	20	
1,1-dichloropropene	.30674	.32294	.05	5	20	
Tertiary-Amyl Methyl Ether	.62753	.54076	.05	-14	20	
carbontetrachloride	100	105	.05	5	20	
1,2-dichloroethane	.29224	.30557	.05	5	20	
benzene	1.0008	1.0511	.05	5	20	

FORM VII NYTCL-8260

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: Gonzo.i Calibration Date: 15-MAR-2016 Time: 08:28

Lab File ID: 0315A01 Init. Calib. Date(s): 27-FEB-2 27-FEB-2

Sample No: wg874-1,31,10 Init. Calib. Times : 15:54 19:10

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
trichloroethene	.23949	.24785	.05	3	20	
methyl cyclohexane	100	104	.05	4	20	
1,2-dichloropropane	.25028	.26465	.05	6	20	
bromodichloromethane	.28151	.31085	.05	10	20	
1,4-dioxane	.00176	.00178	.05	1	20	F
methy;-methylacrlate	------	------	.05	---	20	F
dibromomethane	.1181	.12162	.05	3	20	
2-chloroethylvinylether	.08072	.05383	.05	-33	20	F
4-methyl-2-pentanone	.06524	.06283	.05	-4	20	
cis-1,3-dichloropropene	.32165	.35377	.05	10	20	
toluene	.93006	.98722	.05	6	20	
ethyl-methacrylate	.34283	.34755	.05	1	20	
trans-1,3-dichloropropene	.35948	.40196	.05	12	20	
2-hexanone	.14886	.14666	.05	-1	20	
1,1,2-trichloroethane	.22745	.22947	.05	1	20	
1,3-dichloropropane	.46726	.46478	.05	-1	20	
tetrachloroethene	.34989	.37042	.05	6	20	
chlorodibromomethane	100	101	.05	1	20	
1,2-dibromoethane	.24426	.23893	.05	-2	20	
chlorobenzene	.98467	.98393	.05	0	20	
1,1,1,2-tetrachloroethane	100	110	.05	10	20	
ethyl benzene	1.6601	1.7499	.05	5	20	
p/m xylene	.63778	.66276	.05	4	20	
o xylene	.62974	.64529	.05	2	20	
styrene	.94742	.99776	.05	5	20	
isopropylbenzene	1.5773	1.6352	.05	4	20	
bromoform	100	113	.05	13	20	
1,4-dichloro-2-butane	.96442	.93595	.05	-3	20	
1,1,2,2,-tetrachloroethane	.65573	.63574	.05	-3	20	
1,2,3-trichloropropane	.49137	.46374	.05	-6	20	
trans-1,4-dichloro-2-butene	.14397	.15953	.05	11	20	
n-propylbenzene	3.7685	4.0994	.05	9	20	
bromobenzene	.80832	.81774	.05	1	20	
4-ethyltoluene	3.3167	3.4798	.05	5	20	
1,3,5-trimethybenzene	2.7728	2.8890	.05	4	20	
2-chlorotoluene	2.3561	2.4084	.05	2	20	
4-chorotoluene	2.3779	2.3861	.05	0	20	
tert-butylbenzene	2.3153	2.4163	.05	4	20	

FORM VII NYTCL-8260

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: Gonzo.i Calibration Date: 15-MAR-2016 Time: 08:28

Lab File ID: 0315A01 Init. Calib. Date(s): 27-FEB-2 27-FEB-2

Sample No: wg874-1,31,10 Init. Calib. Times : 15:54 19:10

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,2,4-trimethylbenzene	2.7327	2.8270	.05	3	20
sec-butylbenzene	3.2873	3.5690	.05	9	20
p-isopropyltoluene	2.7821	2.9393	.05	6	20
1,3-dichlorobenzene	1.4757	1.4647	.05	-1	20
1,4-dichlorobenzene	1.4645	1.4189	.05	-3	20
n-butylbenzene	2.8545	3.1354	.05	10	20
1,2,4,5-tetramathylbenzene	1.5698	1.6840	.05	7	20
1,2-dichlorobenzene	1.3706	1.3422	.05	-2	20
p-Diethylbenzene	2.5229	2.4221	.05	-4	20
1,2-dibromo-3-chloropropane	.0743	.0782	.05	5	20
1,3,5-trichlorobenzene	1.0033	.99726	.05	-1	20
1,2,4-trichlorobenzene	.7586	.76522	.05	1	20
hexachlorobutadiene	.37591	.39654	.05	5	20
naphthalene	1.4355	1.2600	.05	-12	20
1,2,3-trichlorobenzene	.6598	.64575	.05	-2	20
dibromofluoromethane	.22311	.22456	.05	1	30
1,2-dichloroethane-d4	.23448	.23355	.05	0	30
toluene-d8	1.4376	1.3927	.05	-3	30
4-bromofluorobenzene	1.0166	1	.05	-2	30

FORM VII NYTCL-8260

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Gonzo.i Injection Date: 15-MAR-2016 08:28
Lab File ID: 0315A01.D Init. Cal. Date(s): 27-FEB-2016 27-FEB-2016
Analysis Type: WATER Init. Cal. Times: 15:54 19:10
Lab Sample ID: Quant Type: ISTD
Method: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m

COMPOUND	RRF / AMOUNT	RF100	CCAL RRF100	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 dichlorodifluoromethane	100	94.76520	0.23585	0.050	-5.23480	20.00000	Wt Linear	
2 chloromethane	0.18803	0.17728	0.17728	0.050	-5.71962	20.00000	Averaged	
3 vinyl chloride	0.16993	0.19605	0.19605	0.050	15.37483	20.00000	Averaged	
4 bromomethane	0.15156	0.13629	0.13629	0.050	-10.07791	20.00000	Averaged	
5 chloroethane	0.12797	0.14008	0.14008	0.050	9.46638	20.00000	Averaged	
6 trichlorofluoromethane	100	101	0.29744	0.050	0.63327	20.00000	Wt Linear	
7 ethyl ether	0.10631	0.11075	0.11075	0.050	4.17749	20.00000	Averaged	
8 acrolien	0.01962	0.02055	0.02055	0.050	4.72920	20.00000	Averaged	<-
9 Freon 113	100	101	0.18773	0.050	0.60228	20.00000	Wt Linear	
10 acetone	0.03806	0.03680	0.03680	0.050	-3.32876	20.00000	Averaged	<-
11 1,1,-dichloroethene	0.20075	0.21036	0.21036	0.050	4.78542	20.00000	Averaged	
12 Tert-Butyl Alcohol	0.01300	0.01210	0.01210	0.050	-6.99078	20.00000	Averaged	<-
14 Methyl Acetate	0.10707	0.10518	0.10518	0.050	-1.75905	20.00000	Averaged	
13 iodomethane	100	38.08450	0.04385	0.050	-61.91550	20.00000	Wt Linear	<-
15 methylene chloride	0.24044	0.24337	0.24337	0.050	1.22047	20.00000	Averaged	
16 carbon disulfide	0.70840	0.69399	0.69399	0.050	-2.03394	20.00000	Averaged	
17 acrylonitrile	0.06163	0.06238	0.06238	0.050	1.21664	20.00000	Averaged	
20 methyl tert butyl ether	0.60032	0.51551	0.51551	0.050	-14.12669	20.00000	Averaged	
21 halothane	0.16442	0.17637	0.17637	0.050	7.27013	20.00000	Averaged	
22 trans-1,2-dichloroethene	0.21926	0.23217	0.23217	0.050	5.88784	20.00000	Averaged	
23 Diisopropyl Ether	0.79888	0.84812	0.84812	0.050	6.16340	20.00000	Averaged	
26 vinyl acetate	0.31494	0.38674	0.38674	0.050	22.79949	20.00000	Averaged	<-
24 1,1-dichloroethane	0.43900	0.45862	0.45862	0.050	4.46834	20.00000	Averaged	
25 Ethyl-Tert-Butyl-Ether	0.75217	0.67008	0.67008	0.050	-10.91367	20.00000	Averaged	
27 2-butanone	0.06918	0.06688	0.06688	0.050	-3.32291	20.00000	Averaged	
29 Ethyl Acetate	0.15349	0.14935	0.14935	0.050	-2.69393	20.00000	Averaged	
28 2,2-dichloropropane	0.28692	0.31560	0.31560	0.050	9.99540	20.00000	Averaged	
30 cis-1,2-dichloroethene	0.24844	0.25996	0.25996	0.050	4.63817	20.00000	Averaged	
31 chloroform	0.41223	0.43627	0.43627	0.050	5.83359	20.00000	Averaged	
32 bromochloromethane	0.09650	0.11292	0.11292	0.050	17.02242	20.00000	Averaged	
33 tetrahydrofuran	0.04662	0.04529	0.04529	0.050	-2.85413	20.00000	Averaged	<-
$ 34 dibromofluoromethane	0.22311	0.22456	0.22456	0.050	0.65162	30.00000	Averaged	
35 1,1,1-trichloroethane	0.31271	0.34625	0.34625	0.050	10.72385	20.00000	Averaged	
36 Cyclohexane	100	106	0.42667	0.050	6.16338	20.00000	Wt Linear	
37 1,1-dichloropropene	0.30674	0.32294	0.32294	0.050	5.28200	20.00000	Averaged	
39 Tertiary-Amyl Methyl Ether	0.62753	0.54076	0.54076	0.050	-13.82827	20.00000	Averaged	
38 carbontetrachloride	100	105	0.28110	0.050	4.62000	20.00000	Wt Linear	
$ 40 1,2-dichloroethane-d4	0.23448	0.23355	0.23355	0.050	-0.39586	30.00000	Averaged	
41 1,2-dichloroethane	0.29224	0.30557	0.30557	0.050	4.56059	20.00000	Averaged	
42 benzene	1.00088	1.05113	1.05113	0.050	5.02071	20.00000	Averaged	
44 trichloroethene	0.23949	0.24785	0.24785	0.050	3.49214	20.00000	Averaged	
46 methyl cyclohexane	100	104	0.40005	0.050	3.66468	20.00000	Wt Linear	
47 1,2-dichloropropane	0.25028	0.26465	0.26465	0.050	5.74354	20.00000	Averaged	

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Gonzo.i Injection Date: 15-MAR-2016 08:28
Lab File ID: 0315A01.D Init. Cal. Date(s): 27-FEB-2016 27-FEB-2016
Analysis Type: WATER Init. Cal. Times: 15:54 19:10
Lab Sample ID: Quant Type: ISTD
Method: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m

COMPOUND	RRF / AMOUNT	RF100	CCAL RRF100	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
48 bromodichloromethane	0.28151	0.31085	0.31085	0.050	10.42298	20.00000	Averaged	
49 1,4-dioxane	0.00176	0.00178	0.00178	0.050	1.19363	20.00000	Averaged	<-
176 methy;-methylacrlate	++++	++++	0.00000	0.050	++++	20.00000	Averaged	<-
50 dibromomethane	0.11810	0.12162	0.12162	0.050	2.98600	20.00000	Averaged	
51 2-chloroethylvinylether	0.08072	0.05383	0.05383	0.050	-33.30599	20.00000	Averaged	<-
52 4-methyl-2-pentanone	0.06524	0.06283	0.06283	0.050	-3.69889	20.00000	Averaged	
53 cis-1,3-dichloropropene	0.32165	0.35377	0.35377	0.050	9.98454	20.00000	Averaged	
$ 55 toluene-d8	1.43763	1.39274	1.39274	0.050	-3.12249	30.00000	Averaged	
56 toluene	0.93006	0.98722	0.98722	0.050	6.14587	20.00000	Averaged	
57 ethyl-methacrylate	0.34283	0.34755	0.34755	0.050	1.37645	20.00000	Averaged	
58 trans-1,3-dichloropropene	0.35948	0.40196	0.40196	0.050	11.81814	20.00000	Averaged	
60 2-hexanone	0.14886	0.14666	0.14666	0.050	-1.48113	20.00000	Averaged	
59 1,1,2-trichloroethane	0.22745	0.22947	0.22947	0.050	0.88713	20.00000	Averaged	
61 1,3-dichloropropane	0.46726	0.46478	0.46478	0.050	-0.53186	20.00000	Averaged	
62 tetrachloroethene	0.34989	0.37042	0.37042	0.050	5.86859	20.00000	Averaged	
63 chlorodibromomethane	100	101	0.30344	0.050	1.49869	20.00000	Wt Linear	
64 1,2-dibromoethane	0.24426	0.23893	0.23893	0.050	-2.18440	20.00000	Averaged	
66 chlorobenzene	0.98467	0.98393	0.98393	0.050	-0.07528	20.00000	Averaged	
67 1,1,1,2-tetrachloroethane	100	110	0.32560	0.050	9.51289	20.00000	Wt Linear	
68 ethyl benzene	1.66017	1.74995	1.74995	0.050	5.40764	20.00000	Averaged	
69 p/m xylene	0.63778	0.66276	0.66276	0.050	3.91657	20.00000	Averaged	
70 o xylene	0.62974	0.64529	0.64529	0.050	2.46915	20.00000	Averaged	
71 styrene	0.94742	0.99776	0.99776	0.050	5.31358	20.00000	Averaged	
72 isopropylbenzene	1.57730	1.63525	1.63525	0.050	3.67400	20.00000	Averaged	
73 bromoform	100	113	0.34570	0.050	12.55740	20.00000	Wt Linear	
74 1,4-dichloro-2-butane	0.96442	0.93595	0.93595	0.050	-2.95274	20.00000	Averaged	
75 1,1,2,2,-tetrachloroethane	0.65573	0.63574	0.63574	0.050	-3.04875	20.00000	Averaged	
$ 76 4-bromofluorobenzene	1.01664	1.00000	1.00000	0.050	-1.63685	30.00000	Averaged	
77 1,2,3-trichloropropane	0.49137	0.46374	0.46374	0.050	-5.62373	20.00000	Averaged	
78 trans-1,4-dichloro-2-butene	0.14397	0.15953	0.15953	0.050	10.80848	20.00000	Averaged	
79 n-propylbenzene	3.76856	4.09941	4.09941	0.050	8.77937	20.00000	Averaged	
80 bromobenzene	0.80832	0.81774	0.81774	0.050	1.16442	20.00000	Averaged	
81 4-ethyltoluene	3.31678	3.47980	3.47980	0.050	4.91514	20.00000	Averaged	
82 1,3,5-trimethybenzene	2.77288	2.88904	2.88904	0.050	4.18938	20.00000	Averaged	
83 2-chlorotoluene	2.35614	2.40841	2.40841	0.050	2.21858	20.00000	Averaged	
84 4-chorotoluene	2.37792	2.38610	2.38610	0.050	0.34383	20.00000	Averaged	
85 tert-butylbenzene	2.31531	2.41639	2.41639	0.050	4.36568	20.00000	Averaged	
86 1,2,4-trimethylbenzene	2.73275	2.82706	2.82706	0.050	3.45124	20.00000	Averaged	
87 sec-butylbenzene	3.28735	3.56908	3.56908	0.050	8.57013	20.00000	Averaged	
88 p-isopropyltoluene	2.78214	2.93936	2.93936	0.050	5.65122	20.00000	Averaged	
89 1,3-dichlorobenzene	1.47579	1.46479	1.46479	0.050	-0.74544	20.00000	Averaged	
91 1,4-dichlorobenzene	1.46458	1.41891	1.41891	0.050	-3.11823	20.00000	Averaged	

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Gonzo.i Injection Date: 15-MAR-2016 08:28
Lab File ID: 0315A01.D Init. Cal. Date(s): 27-FEB-2016 27-FEB-2016
Analysis Type: WATER Init. Cal. Times: 15:54 19:10
Lab Sample ID: Quant Type: ISTD
Method: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m

COMPOUND	RRF / AMOUNT	RF100	CCAL RRF100	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
92 n-butylbenzene	2.85451	3.13548	3.13548	0.050	9.84286	20.00000	Averaged
93 1,2,4,5-tetramathylbenzene	1.56984	1.68403	1.68403	0.050	7.27416	20.00000	Averaged
94 1,2-dichlorobenzene	1.37068	1.34220	1.34220	0.050	-2.07808	20.00000	Averaged
95 p-Diethylbenzene	2.52291	2.42211	2.42211	0.050	-3.99540	20.00000	Averaged
96 1,2-dibromo-3-chloropropane	0.07430	0.07820	0.07820	0.050	5.26019	20.00000	Averaged
97 1,3,5-trichlorobenzene	1.00333	0.99726	0.99726	0.050	-0.60433	20.00000	Averaged
98 1,2,4-trichlorobenzene	0.75860	0.76522	0.76522	0.050	0.87289	20.00000	Averaged
99 hexachlorobutadiene	0.37591	0.39654	0.39654	0.050	5.48764	20.00000	Averaged
100 naphthalene	1.43552	1.26005	1.26005	0.050	-12.22332	20.00000	Averaged
101 1,2,3-trichlorobenzene	0.65980	0.64575	0.64575	0.050	-2.12933	20.00000	Averaged

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D
Lab Smp Id:
Inj Date : 15-MAR-2016 08:28
Operator : PD Inst ID: Gonzo.i
Smp Info : wg874-1,31,10
Misc Info : wg874,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 08:59 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.825	2.825	(0.313)	377227	100.000	94.765	
2	chloromethane	50	3.176	3.176	(0.352)	283541	100.000	94.280	
3	vinyl chloride	62	3.339	3.339	(0.370)	313574	100.000	115.374	
4	bromomethane	94	3.954	3.954	(0.438)	217984	100.000	89.922	
5	chloroethane	64	4.055	4.055	(0.449)	224052	100.000	109.466	
6	trichlorofluoromethane	101	4.394	4.394	(0.486)	475732	100.000	100.633	
7	ethyl ether	74	4.772	4.772	(0.528)	177143	100.000	104.177	
8	acrolien	56	4.948	4.948	(0.548)	32869	100.000	104.729	
9	Freon 113	101	4.948	4.948	(0.548)	300254	100.000	100.602	
10	acetone	43	5.029	5.029	(0.557)	58854	100.000	96.671	
11	1,1,-dichloroethene	96	5.192	5.192	(0.575)	336458	100.000	104.785	
12	Tert-Butyl Alcohol	59	5.293	5.293	(0.586)	96730	500.000	465.046	
14	Methyl Acetate	43	5.597	5.597	(0.620)	168233	100.000	98.240	
13	iodomethane	142	5.604	5.604	(0.620)	70135	100.000	38.084	
15	methylene chloride	84	5.807	5.807	(0.643)	389255	100.000	101.220	
16	carbon disulfide	76	5.861	5.861	(0.649)	1109992	100.000	97.966	
17	acrylonitrile	53	5.956	5.956	(0.659)	99777	100.000	101.216	
20	methyl tert butyl ether	73	5.983	5.983	(0.662)	824525	100.000	85.873	
21	halothane	117	6.084	6.084	(0.674)	282100	100.000	107.270	
22	trans-1,2-dichloroethene	96	6.179	6.179	(0.684)	371343	100.000	105.887	
23	Diisopropyl Ether	45	6.530	6.530	(0.723)	1356516	100.000	106.163	
26	vinyl acetate	43	6.686	6.686	(0.740)	618572	100.000	122.799	
24	1,1-dichloroethane	63	6.713	6.713	(0.743)	733531	100.000	104.468	
25	Ethyl-Tert-Butyl-Ether	59	7.051	7.051	(0.781)	1071753	100.000	89.086	
27	2-butanone	43	7.227	7.227	(0.800)	106970	100.000	96.677	
29	Ethyl Acetate	43	7.416	7.416	(0.821)	238880	100.000	97.306	
28	2,2-dichloropropane	77	7.423	7.423	(0.822)	504785	100.000	109.995	
30	cis-1,2-dichloroethene	96	7.491	7.491	(0.829)	415792	100.000	104.638	

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
	31 chloroform	83	7.687	7.687	(0.851)	697792	100.000	105.833	
	32 bromochloromethane	128	7.910	7.910	(0.876)	180614	100.000	117.022	
	33 tetrahydrofuran	42	7.951	7.951	(0.880)	72445	100.000	97.145	
$	34 dibromofluoromethane	113	7.971	7.971	(0.882)	359167	100.000	100.651	
	35 1,1,1-trichloroethane	97	8.208	8.208	(0.909)	553798	100.000	110.723	
	36 Cyclohexane	56	8.241	8.241	(0.912)	682438	100.000	106.163	
	37 1,1-dichloropropene	75	8.410	8.410	(0.931)	516529	100.000	105.281	
	39 Tertiary-Amyl Methyl Ether	73	8.519	8.519	(0.943)	864904	100.000	86.171	
	38 carbontetrachloride	117	8.552	8.552	(0.947)	449607	100.000	104.619	
$	40 1,2-dichloroethane-d4	65	8.613	8.613	(0.954)	373545	100.000	99.604	
	41 1,2-dichloroethane	62	8.735	8.735	(0.967)	488744	100.000	104.560	
	42 benzene	78	8.769	8.769	(0.971)	1681213	100.000	105.020	
*	43 fluorobenzene	96	9.033	9.033	(1.000)	1599434	100.000		
	44 trichloroethene	95	9.574	9.574	(1.060)	396421	100.000	103.492	
	46 methyl cyclohexane	83	9.662	9.662	(1.070)	639846	100.000	103.664	
	47 1,2-dichloropropane	63	9.804	9.804	(1.085)	423293	100.000	105.743	
	48 bromodichloromethane	83	10.135	10.135	(1.122)	497189	100.000	110.422	
	49 1,4-dioxane	88	10.142	10.142	(1.123)	142411	5000.00	5059.681	
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.223	10.223	(1.132)	194528	100.000	102.985	
	51 2-chloroethylvinylether	63	10.500	10.500	(1.162)	86105	100.000	66.694	
	52 4-methyl-2-pentanone	58	10.541	10.541	(1.167)	100490	100.000	96.301	
	53 cis-1,3-dichloropropene	75	10.865	10.865	(1.203)	565830	100.000	109.984	
$	55 toluene-d8	98	11.230	11.230	(0.833)	1516107	100.000	96.877	
	56 toluene	92	11.345	11.345	(0.841)	1074668	100.000	106.145	
	57 ethyl-methacrylate	69	11.508	11.508	(0.853)	378334	100.000	101.376(M)	M1
	58 trans-1,3-dichloropropene	75	11.575	11.575	(0.858)	437564	100.000	111.818	
	60 2-hexanone	43	11.778	11.778	(0.873)	159647	100.000	98.518	
	59 1,1,2-trichloroethane	83	11.819	11.819	(0.876)	249792	100.000	100.887	
	61 1,3-dichloropropane	76	12.184	12.184	(0.903)	505945	100.000	99.468	
	62 tetrachloroethene	166	12.306	12.306	(0.912)	403233	100.000	105.868	
	63 chlorodibromomethane	129	12.617	12.617	(0.935)	330318	100.000	101.498	
	64 1,2-dibromoethane	107	12.928	12.928	(0.958)	260090	100.000	97.815	
*	65 chlorobenzene-d5	117	13.489	13.489	(1.000)	1088580	100.000		
	66 chlorobenzene	112	13.550	13.550	(1.004)	1071083	100.000	99.924	
	67 1,1,1,2-tetrachloroethane	131	13.597	13.597	(1.008)	354440	100.000	109.512	
	68 ethyl benzene	91	13.604	13.604	(1.009)	1904961	100.000	105.407	
	69 p/m xylene	106	13.719	13.719	(1.017)	1442926	200.000	207.833	
	70 o xylene	106	14.409	14.409	(1.068)	1404900	200.000	204.938	
	71 styrene	104	14.463	14.463	(1.072)	2172278	200.000	210.627	
	72 isopropylbenzene	105	14.957	14.957	(1.109)	1780104	100.000	103.674	
	73 bromoform	173	15.031	15.031	(0.869)	171366	100.000	112.557	
	74 1,4-dichloro-2-butane	55	15.105	15.105	(0.873)	463959	100.000	97.047	
	75 1,1,2,2,-tetrachloroethane	83	15.234	15.234	(0.880)	315141	100.000	96.951	
$	76 4-bromofluorobenzene	95	15.376	15.376	(0.889)	495709	100.000	98.363	
	77 1,2,3-trichloropropane	75	15.477	15.477	(0.894)	229879	100.000	94.376	
	78 trans-1,4-dichloro-2-butene	53	15.565	15.565	(0.900)	79080	100.000	110.808	
	79 n-propylbenzene	91	15.599	15.599	(0.902)	2032124	100.000	108.779	
	80 bromobenzene	156	15.707	15.707	(0.908)	405361	100.000	101.164	
	81 4-ethyltoluene	105	15.782	15.782	(0.912)	1724975	100.000	104.915	
	82 1,3,5-trimethybenzene	105	15.849	15.849	(0.916)	1432130	100.000	104.189	
	83 2-chlorotoluene	91	15.910	15.910	(0.919)	1193877	100.000	102.218	
	84 4-chorotoluene	91	15.978	15.978	(0.923)	1182815	100.000	100.343	
	85 tert-butylbenzene	119	16.431	16.431	(0.950)	1197833	100.000	104.365	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.498	16.498	(0.953)	1401404	100.000	103.451	
87	sec-butylbenzene	105	16.776	16.776	(0.970)	1769233	100.000	108.570	
88	p-isopropyltoluene	119	16.992	16.992	(0.982)	1457073	100.000	105.651	
89	1,3-dichlorobenzene	146	17.181	17.181	(0.993)	726111	100.000	99.254	
* 90	1,4-dichlorobenzene-d4	152	17.303	17.303	(1.000)	495711	100.000		
91	1,4-dichlorobenzene	146	17.357	17.357	(1.003)	703370	100.000	96.881	
92	n-butylbenzene	91	17.668	17.668	(1.021)	1554292	100.000	109.842	
93	1,2,4,5-tetramathylbenzene	119	17.689	17.689	(1.022)	834794	100.000	107.274	
94	1,2-dichlorobenzene	146	17.973	17.973	(1.039)	665341	100.000	97.921	
95	p-Diethylbenzene	119	18.960	18.960	(1.096)	1200668	100.000	96.004	
96	1,2-dibromo-3-chloropropane	75	19.264	19.264	(1.113)	38767	100.000	105.260	
97	1,3,5-trichlorobenzene	180	19.663	19.663	(1.136)	494355	100.000	99.395	
98	1,2,4-trichlorobenzene	180	20.738	20.738	(1.199)	379330	100.000	100.872	
99	hexachlorobutadiene	225	20.962	20.962	(1.211)	196569	100.000	105.487	
100	naphthalene	128	21.185	21.185	(1.224)	624620	100.000	87.776	
101	1,2,3-trichlorobenzene	180	21.597	21.597	(1.248)	320105	100.000	97.870	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0315A01.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg874,ical12094

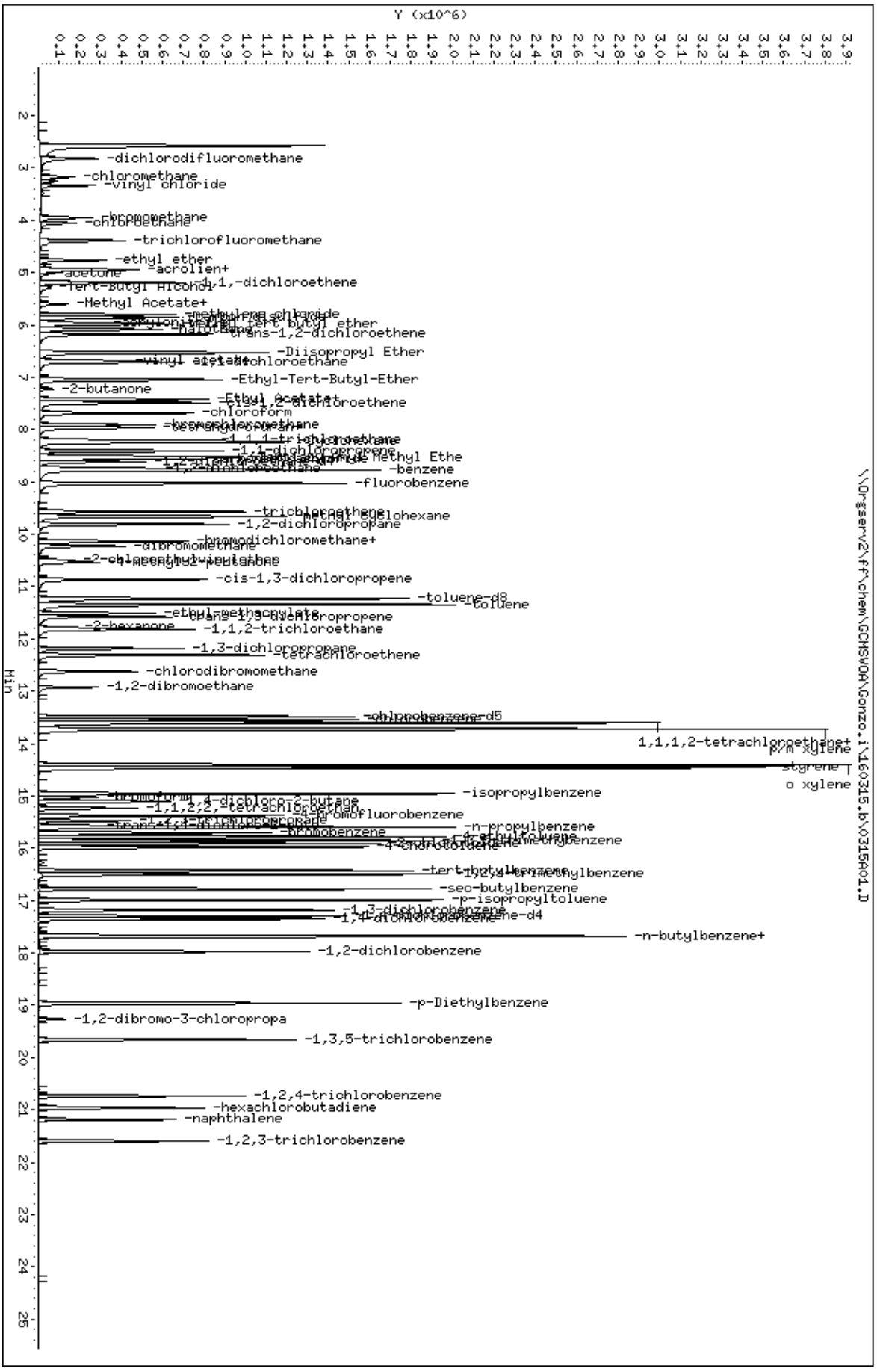
Calibration Date: 15-MAR-2016
Calibration Time: 08:28
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1618809	809405	3237618	1599434	-1.20
65 chlorobenzene-d5	1081995	540998	2163990	1088580	0.61
90 1,4-dichlorobenze	500348	250174	1000696	495711	-0.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

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: \\Orgserv2\ff\chem\GCHSWOA\Gonzo.i\160315.b\0315A01.D
Date : 15-MAR-2016 08:28
Client ID:
Sample Info: wg874-1,31,10
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

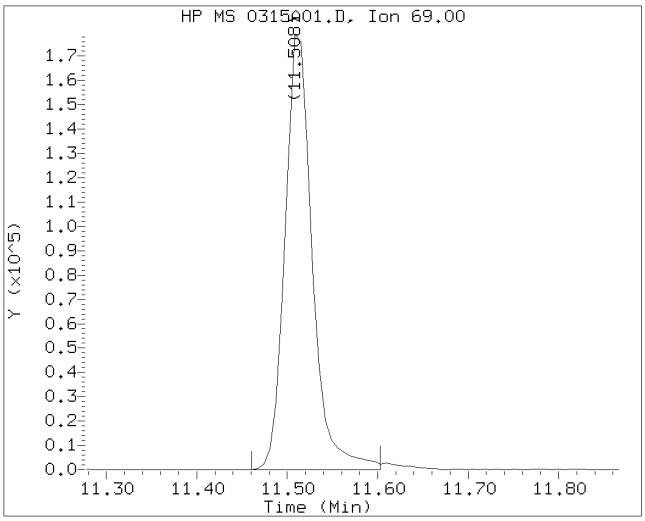
Alpha Analytical Labs

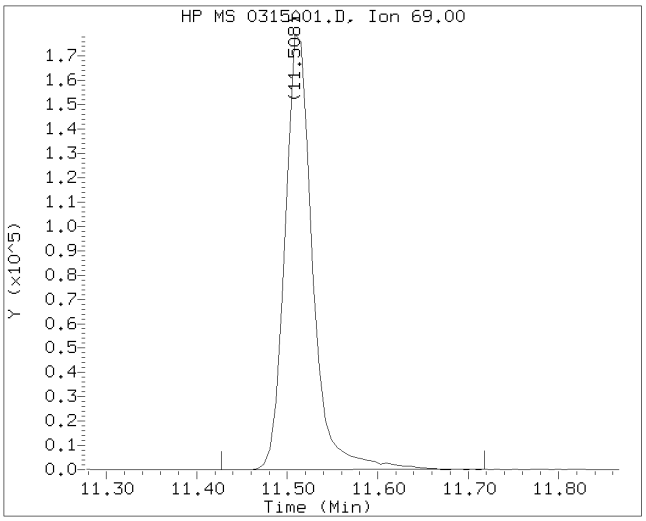
Manual Integration

Sample Info : wg874-1,31,10
wg874,ical12094

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0315A01.D
Injection Date : 15-MAR-2016 08:28
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_3

Compound # 57: ethyl-methacrylate





Original Peak Response = 374393 Manual Peak Response = 378334 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Alpha Analytical Labs

BFB method - Elaine

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\BFB0315A.D
Lab Smp Id: BFB TUNE Client Smp ID: BFB TUNE
Inj Date : 15-MAR-2016 08:14
Operator : PD Inst ID: Gonzo.i
Smp Info : BFB TUNE
Misc Info : 50ng Direct Injection
Comment   :
Method   : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\bfb.m
Meth Date : 11-Apr-2014 09:38 Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 BFB						CAS #: 460-00-4		
4.911	5.048	(0.000)	95	209088			100.00- 100.00	100.00
4.911	5.048	(0.000)	50	36992			15.00- 40.00	17.69
4.911	5.048	(0.000)	75	98608			30.00- 60.00	47.16
4.911	5.048	(0.000)	96	14046			5.00- 9.00	6.72
4.911	5.048	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
4.911	5.048	(0.000)	174	168064			50.00- 100.00	80.38
4.911	5.048	(0.000)	175	12226			5.00- 9.00	7.27
4.911	5.048	(0.000)	176	161856			95.00- 101.00	96.31
4.911	5.048	(0.000)	177	10726			5.00- 9.00	6.63

Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\BFB0315A.D

Date : 15-MAR-2016 08:14

Client ID: BFB TUNE

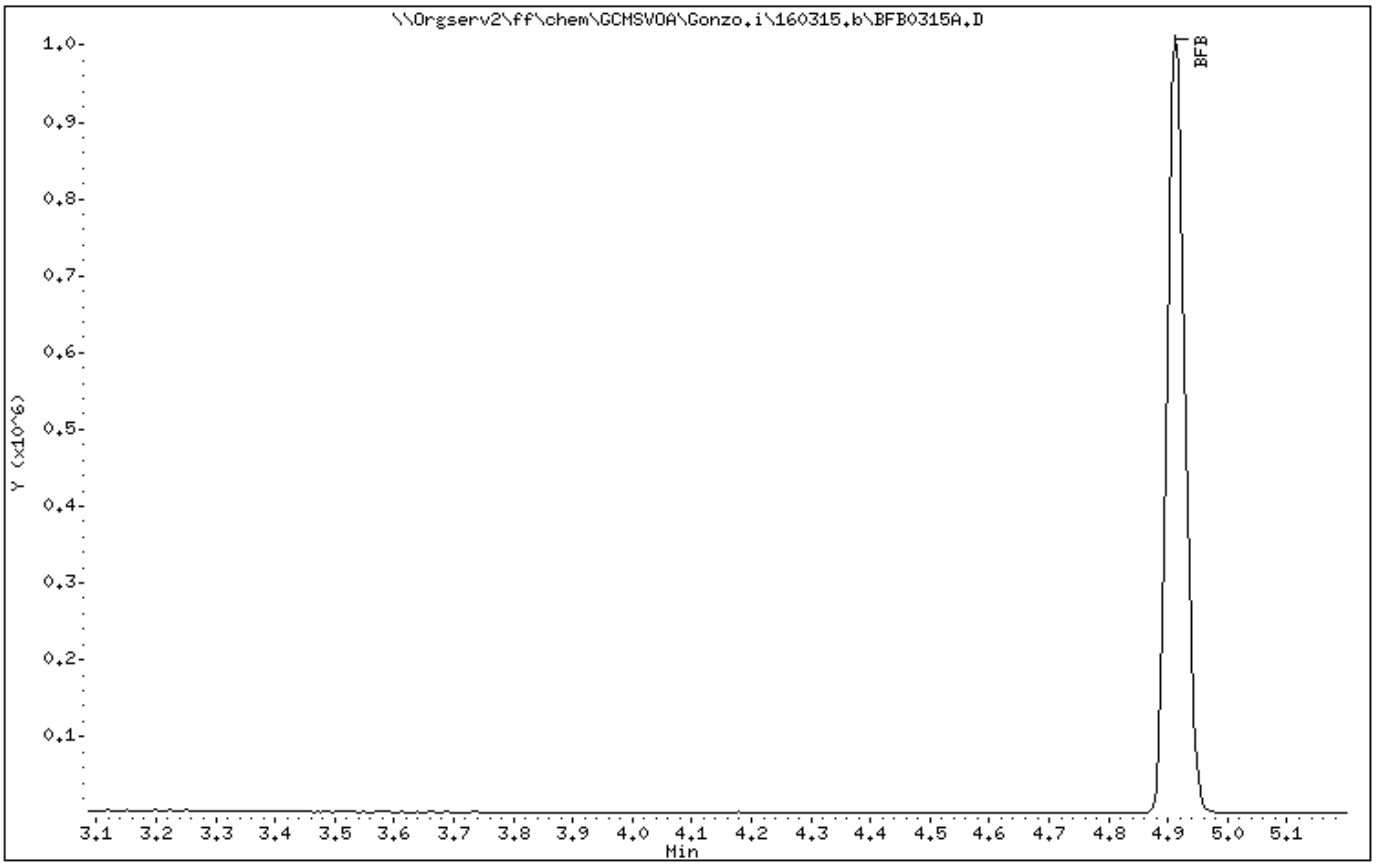
Instrument: Gonzo.i

Sample Info: BFB TUNE

Operator: PD

Column phase:

Column diameter: 0.18



Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\BFB0315A.D

Date : 15-MAR-2016 08:14

Client ID: BFB TUNE

Instrument: Gonzo.i

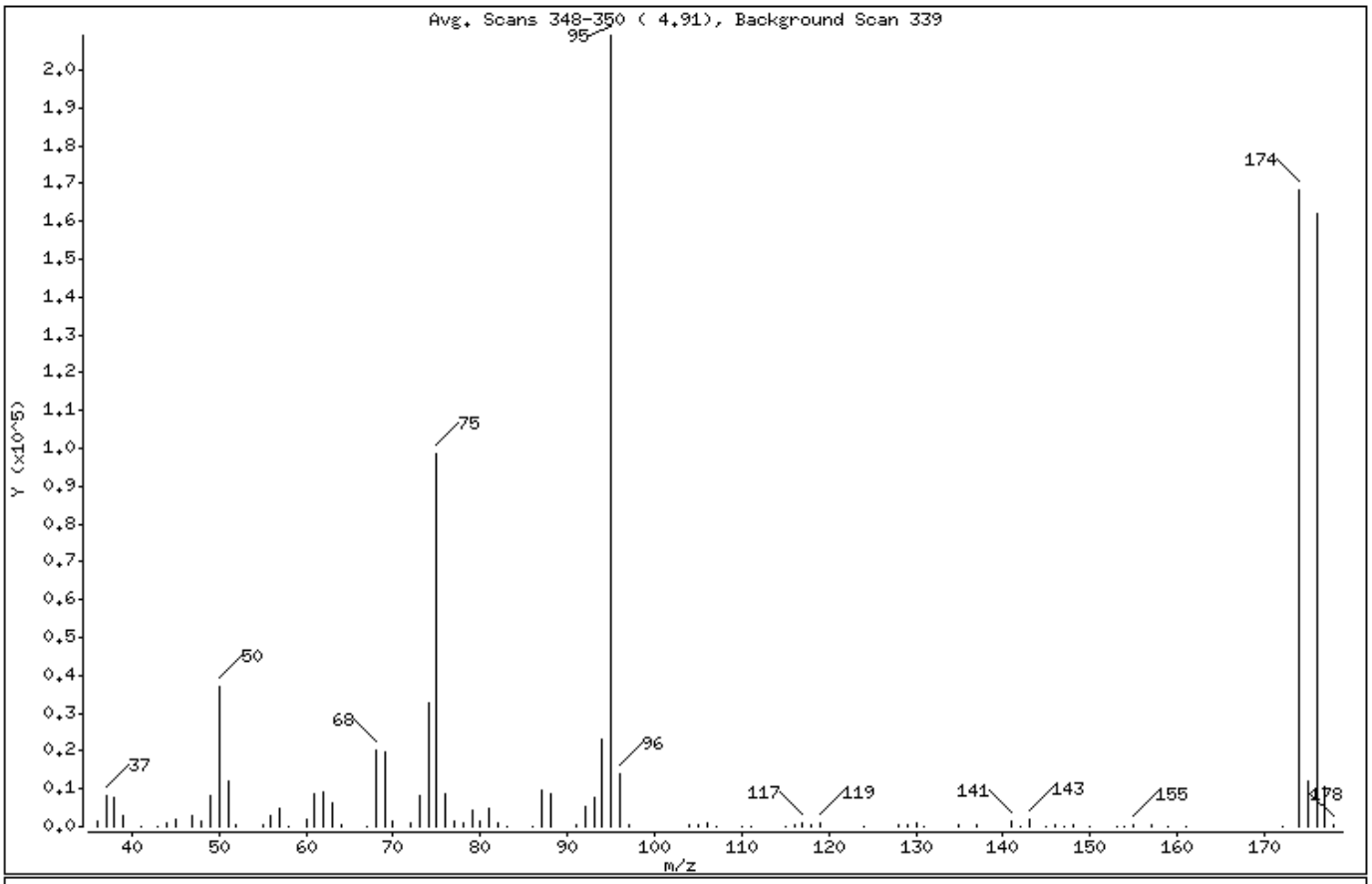
Sample Info: BFB TUNE

Operator: PD

Column phase:

Column diameter: 0.18

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.69
75	30.00 - 60.00% of mass 95	47.16
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	80.38
175	5.00 - 9.00% of mass 174	5.85 (7.27)
176	95.00 - 101.00% of mass 174	77.41 (96.31)
177	5.00 - 9.00% of mass 176	5.13 (6.63)

Date : 15-MAR-2016 08:14

Client ID: BFB TUNE Instrument: Gonzo.i

Sample Info: BFB TUNE

Operator: PD

Column phase: Column diameter: 0.18

Data File: BFB0315A.D
Spectrum: Avg. Scans 348-350 (4.91), Background Scan 339
Location of Maximum: 95.00
Number of points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1509	64.00	701	93.00	7689	137.00	305
37.00	8289	67.00	206	94.00	22976	141.00	1650
38.00	7866	68.00	20272	95.00	209088	142.00	224
39.00	2827	69.00	19480	96.00	14046	143.00	1833
41.00	55	70.00	1505	97.00	495	145.00	69
43.00	141	72.00	1120	104.00	649	146.00	280
44.00	909	73.00	8355	105.00	260	147.00	124
45.00	1711	74.00	32528	106.00	857	148.00	474
47.00	2718	75.00	98608	107.00	140	150.00	206
48.00	1205	76.00	8500	110.00	68	153.00	50
49.00	7987	77.00	1292	111.00	110	154.00	199
50.00	36992	78.00	822	115.00	172	155.00	483
51.00	11853	79.00	4508	116.00	645	157.00	326
52.00	480	80.00	1451	117.00	969	159.00	233
55.00	482	81.00	4805	118.00	716	161.00	215
56.00	2915	82.00	948	119.00	839	172.00	67
57.00	5011	83.00	80	124.00	56	174.00	168064
58.00	196	86.00	97	128.00	632	175.00	12226
60.00	1710	87.00	9387	129.00	372	176.00	161856
61.00	8868	88.00	8879	130.00	798	177.00	10726
62.00	9058	91.00	677	131.00	238	178.00	261
63.00	6216	92.00	5240	135.00	299		

Volatiles Raw QC Data

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D
Lab Smp Id:
Inj Date : 15-MAR-2016 10:05
Operator : PD Inst ID: Gonzo.i
Smp Info : wg873931-3,31,10
Misc Info : wg873931,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 08:59 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	Compound Not Detected.						
2	chloromethane	50	3.176	3.176	(0.352)	4134	1.41007	1.410	
3	vinyl chloride	62	Compound Not Detected.						
4	bromomethane	94	Compound Not Detected.						
5	chloroethane	64	Compound Not Detected.						
6	trichlorofluoromethane	101	Compound Not Detected.						
7	ethyl ether	74	Compound Not Detected.						
8	acrolien	56	Compound Not Detected.						
9	Freon 113	101	Compound Not Detected.						
10	acetone	43	Compound Not Detected.						
11	1,1,-dichloroethene	96	Compound Not Detected.						
12	Tert-Butyl Alcohol	59	Compound Not Detected.						
14	Methyl Acetate	43	Compound Not Detected.						
13	iodomethane	142	Compound Not Detected.						
15	methylene chloride	84	Compound Not Detected.						
16	carbon disulfide	76	Compound Not Detected.						
17	acrylonitrile	53	Compound Not Detected.						
20	methyl tert butyl ether	73	Compound Not Detected.						
21	halothane	117	Compound Not Detected.						
22	trans-1,2-dichloroethene	96	Compound Not Detected.						
23	Diisopropyl Ether	45	Compound Not Detected.						
26	vinyl acetate	43	Compound Not Detected.						
24	1,1-dichloroethane	63	Compound Not Detected.						
25	Ethyl-Tert-Butyl-Ether	59	Compound Not Detected.						
27	2-butanone	43	Compound Not Detected.						
29	Ethyl Acetate	43	Compound Not Detected.						
28	2,2-dichloropropane	77	Compound Not Detected.						
30	cis-1,2-dichloroethene	96	Compound Not Detected.						

							CONCENTRATIONS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	31 chloroform	83	Compound Not Detected.						
	32 bromochloromethane	128	Compound Not Detected.						
	33 tetrahydrofuran	42	Compound Not Detected.						
$	34 dibromofluoromethane	113	7.971	7.971	(0.882)	334342	96.1123	96.112	
	35 1,1,1-trichloroethane	97	Compound Not Detected.						
	36 Cyclohexane	56	Compound Not Detected.						
	37 1,1-dichloropropene	75	Compound Not Detected.						
	39 Tertiary-Amyl Methyl Ether	73	Compound Not Detected.						
	38 carbontetrachloride	117	Compound Not Detected.						
$	40 1,2-dichloroethane-d4	65	8.620	8.613	(0.954)	364180	99.6126	99.612	
	41 1,2-dichloroethane	62	Compound Not Detected.						
	42 benzene	78	Compound Not Detected.						
*	43 fluorobenzene	96	9.033	9.033	(1.000)	1559203	100.000		
	44 trichloroethene	95	Compound Not Detected.						
	46 methyl cyclohexane	83	Compound Not Detected.						
	47 1,2-dichloropropane	63	Compound Not Detected.						
	48 bromodichloromethane	83	Compound Not Detected.						
	49 1,4-dioxane	88	Compound Not Detected.						
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	Compound Not Detected.						
	51 2-chloroethylvinylether	63	Compound Not Detected.						
	52 4-methyl-2-pentanone	58	Compound Not Detected.						
	53 cis-1,3-dichloropropene	75	Compound Not Detected.						
$	55 toluene-d8	98	11.237	11.230	(0.833)	1459542	97.8206	97.820	
	56 toluene	92	11.352	11.345	(0.842)	24167	2.50364	2.503	
	57 ethyl-methacrylate	69	Compound Not Detected.						
	58 trans-1,3-dichloropropene	75	Compound Not Detected.						
	60 2-hexanone	43	Compound Not Detected.						
	59 1,1,2-trichloroethane	83	Compound Not Detected.						
	61 1,3-dichloropropane	76	Compound Not Detected.						
	62 tetrachloroethene	166	Compound Not Detected.						
	63 chlorodibromomethane	129	Compound Not Detected.						
	64 1,2-dibromoethane	107	Compound Not Detected.						
*	65 chlorobenzene-d5	117	13.489	13.489	(1.000)	1037862	100.000		
	66 chlorobenzene	112	Compound Not Detected.						
	67 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	68 ethyl benzene	91	Compound Not Detected.						
	69 p/m xylene	106	13.726	13.719	(1.018)	7496	1.13246	1.132	
	70 o xylene	106	Compound Not Detected.						
	71 styrene	104	Compound Not Detected.						
	72 isopropylbenzene	105	Compound Not Detected.						
	73 bromoform	173	Compound Not Detected.						
	74 1,4-dichloro-2-butane	55	Compound Not Detected.						
	75 1,1,2,2,-tetrachloroethane	83	Compound Not Detected.						
$	76 4-bromofluorobenzene	95	15.383	15.376	(0.889)	466914	101.226	101.226	
	77 1,2,3-trichloropropane	75	Compound Not Detected.						
	78 trans-1,4-dichloro-2-butene	53	Compound Not Detected.						
	79 n-propylbenzene	91	Compound Not Detected.						
	80 bromobenzene	156	Compound Not Detected.						
	81 4-ethyltoluene	105	Compound Not Detected.						
	82 1,3,5-trimethybenzene	105	Compound Not Detected.						
	83 2-chlorotoluene	91	Compound Not Detected.						
	84 4-chorotoluene	91	15.991	15.978	(0.924)	10954	1.01531	1.015	
	85 tert-butylbenzene	119	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	Compound Not Detected.						
87	sec-butylbenzene	105	Compound Not Detected.						
88	p-isopropyltoluene	119	Compound Not Detected.						
89	1,3-dichlorobenzene	146	17.188	17.181	(0.993)	8209	1.22599	1.225	
* 90	1,4-dichlorobenzene-d4	152	17.303	17.303	(1.000)	453710	100.000		
91	1,4-dichlorobenzene	146	17.357	17.357	(1.003)	9777	1.47134	1.471	
92	n-butylbenzene	91	17.675	17.668	(1.021)	15591	1.20383	1.203	
93	1,2,4,5-tetramathylbenzene	119	Compound Not Detected.						
94	1,2-dichlorobenzene	146	Compound Not Detected.						
95	p-Diethylbenzene	119	Compound Not Detected.						
96	1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
97	1,3,5-trichlorobenzene	180	Compound Not Detected.						
98	1,2,4-trichlorobenzene	180	20.739	20.738	(1.199)	9161	2.66165	2.661	
99	hexachlorobutadiene	225	20.969	20.962	(1.212)	3836	2.24913	2.249	
100	naphthalene	128	21.185	21.185	(1.224)	18217	2.79699	2.796	
101	1,2,3-trichlorobenzene	180	21.597	21.597	(1.248)	8048	2.68843	2.688	

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D
Lab Smp Id:
Inj Date : 15-MAR-2016 10:05
Operator : PD Inst ID: Gonzo.i
Smp Info : wg873931-3,31,10
Misc Info : wg873931,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 08:59 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0315A04.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

Calibration Date: 15-MAR-2016
Calibration Time: 08:28
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1599434	799717	3198868	1559203	-2.52
65 chlorobenzene-d5	1088580	544290	2177160	1037862	-4.66
90 1,4-dichlorobenze	495711	247856	991422	453710	-8.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.03	0.00
65 chlorobenzene-d5	13.49	12.99	13.99	13.49	0.00
90 1,4-dichlorobenze	17.30	16.80	17.80	17.30	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.

Alpha Analytical Labs

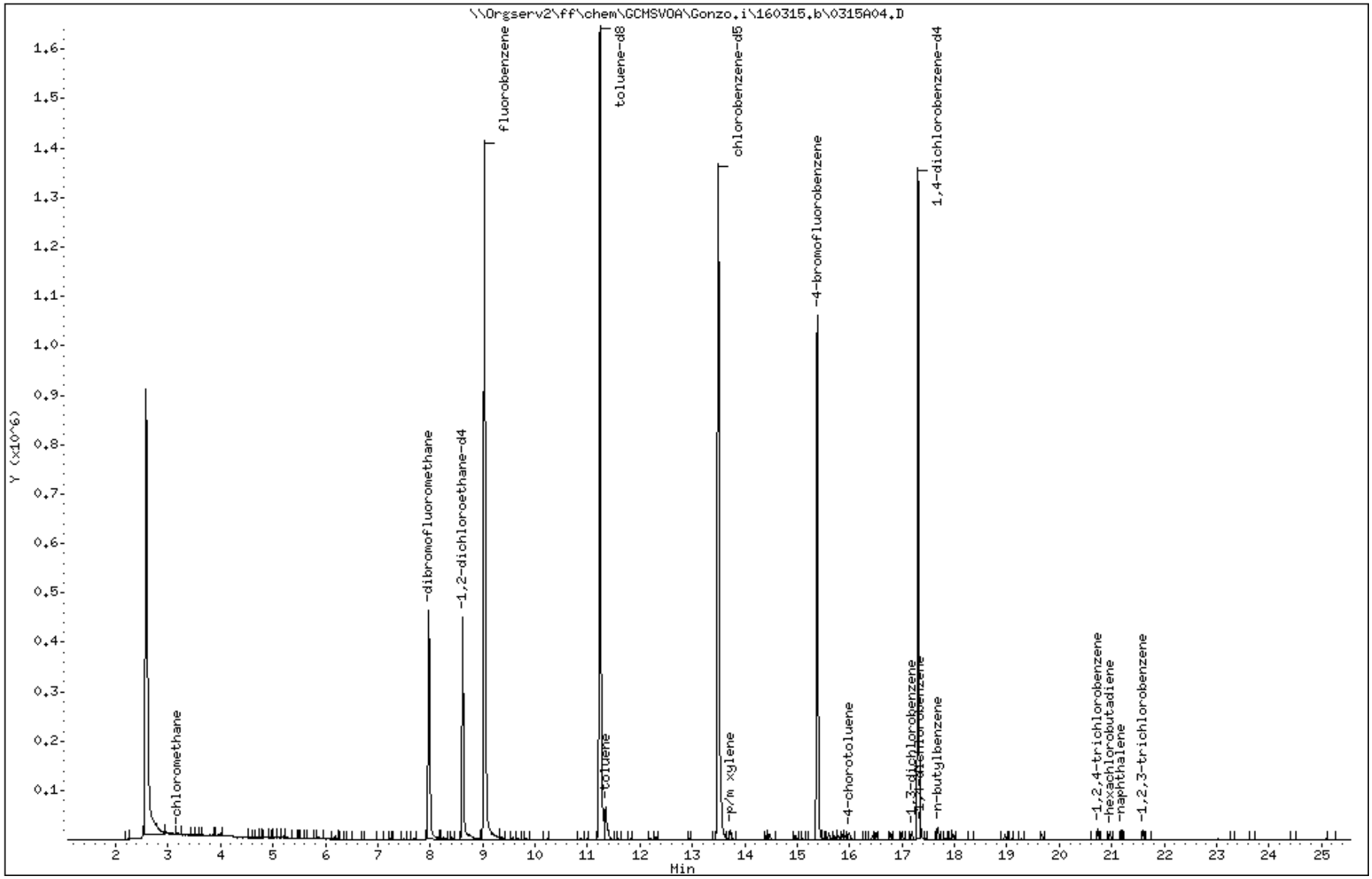
RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: curve.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 34 dibromofluorometha	100.000	96.112	96.11	70-130
$ 40 1,2-dichloroethane	100.000	99.612	99.61	70-130
$ 55 toluene-d8	100.000	97.820	97.82	70-130
$ 76 4-bromofluorobenze	100.000	101.226	101.23	70-130

Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D
Date : 15-MAR-2016 10:05
Client ID:
Sample Info: wg873931-3,31,10
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18



Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

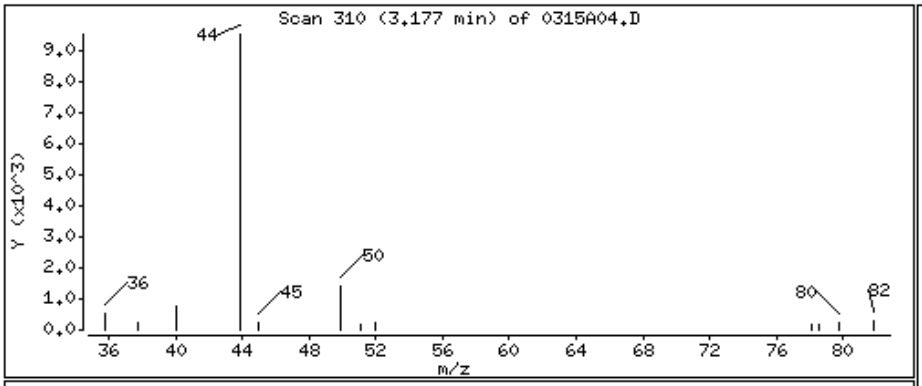
Operator: PD

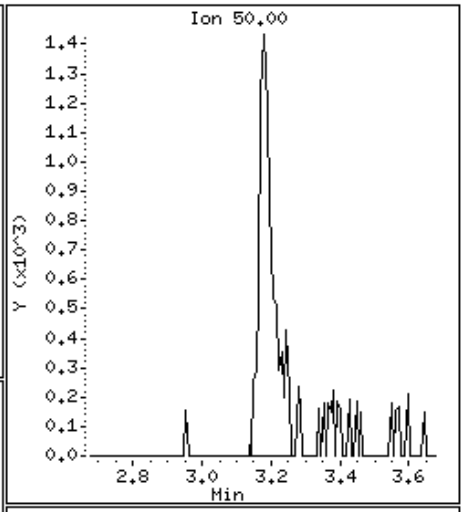
Column phase: Rtx-502.2

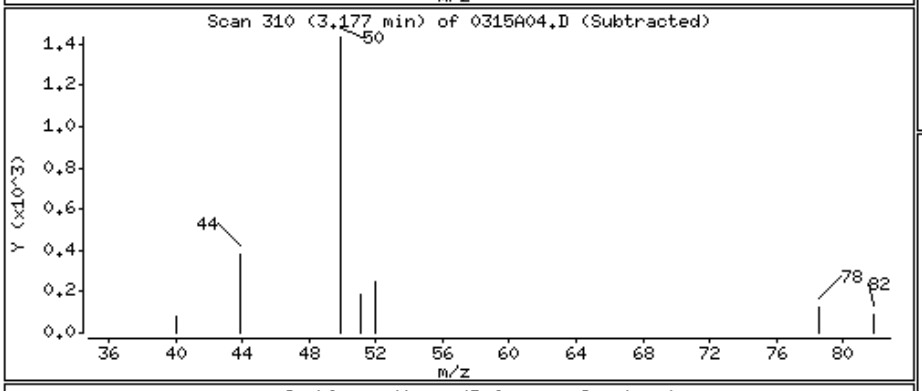
Column diameter: 0.18

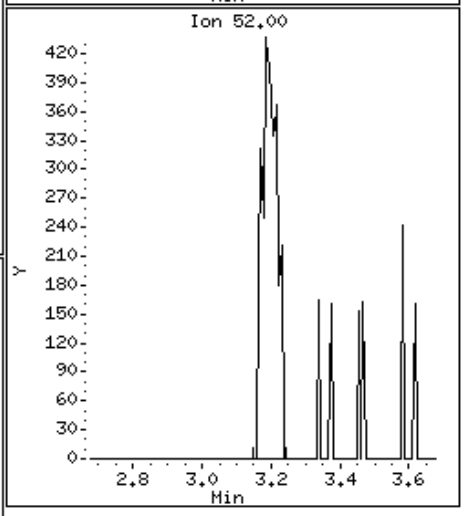
2 chloromethane

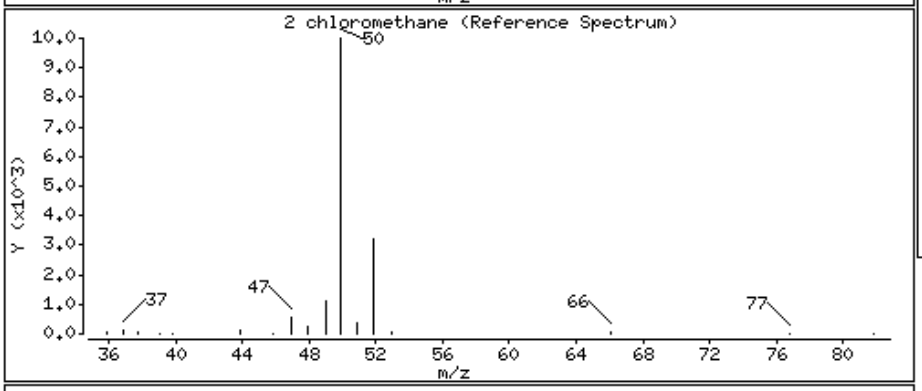
Concentration: 1.410 ngs

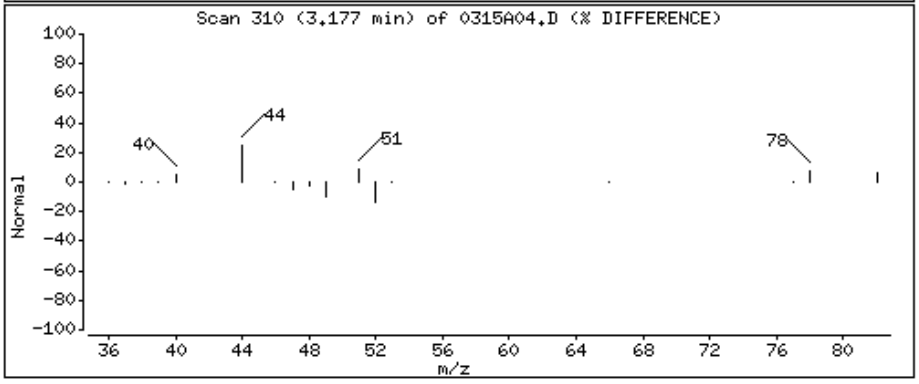












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

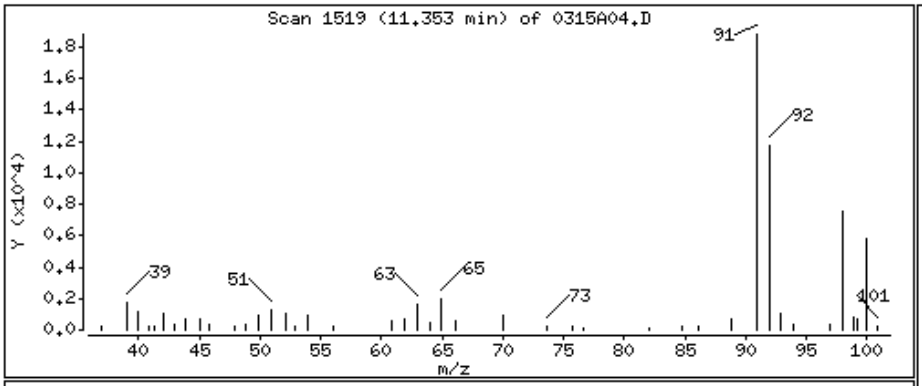
Operator: PD

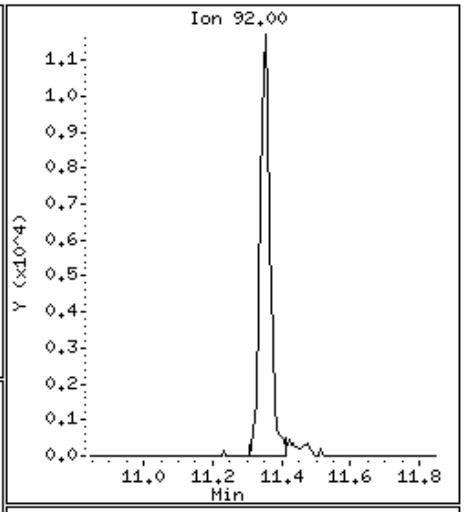
Column phase: Rtx-502.2

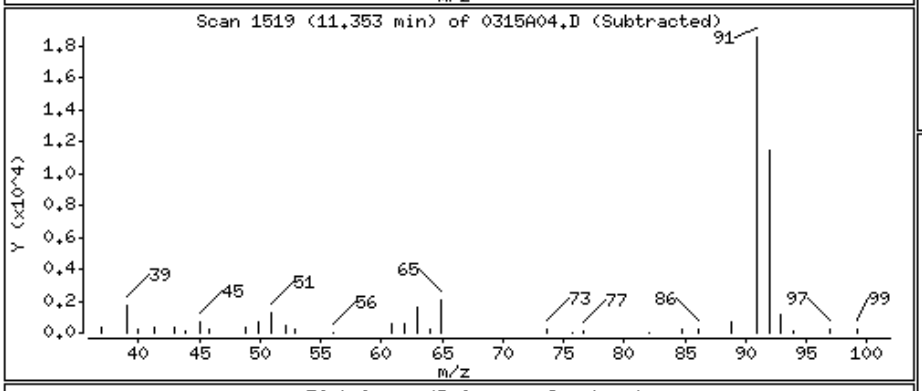
Column diameter: 0.18

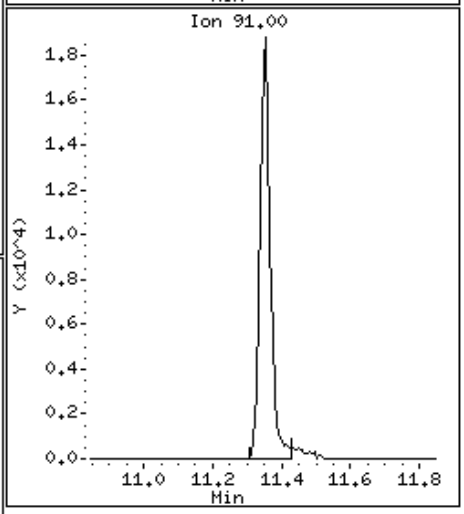
56 toluene

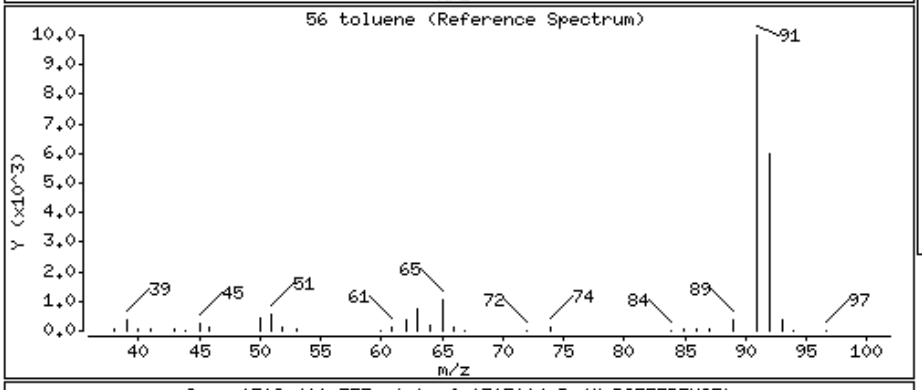
Concentration: 2.503 ngs

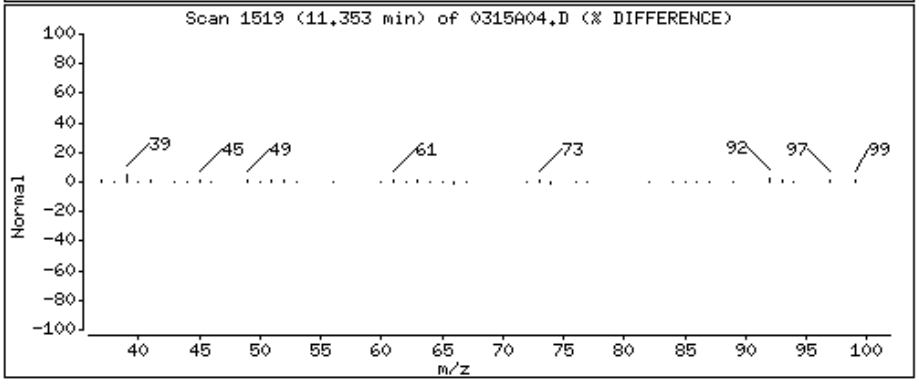












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

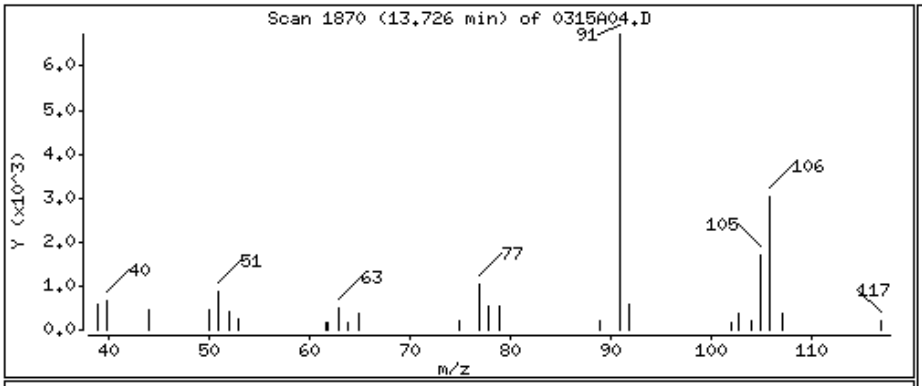
Operator: PD

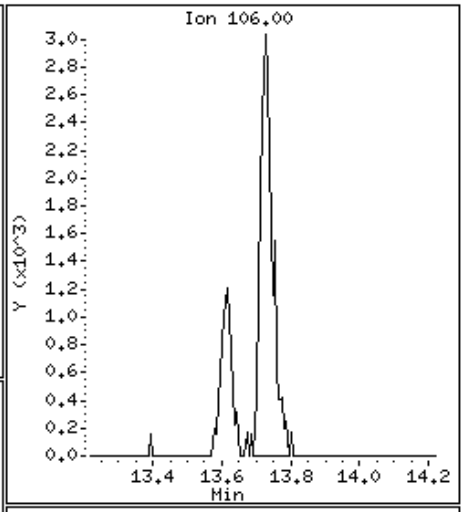
Column phase: Rtx-502.2

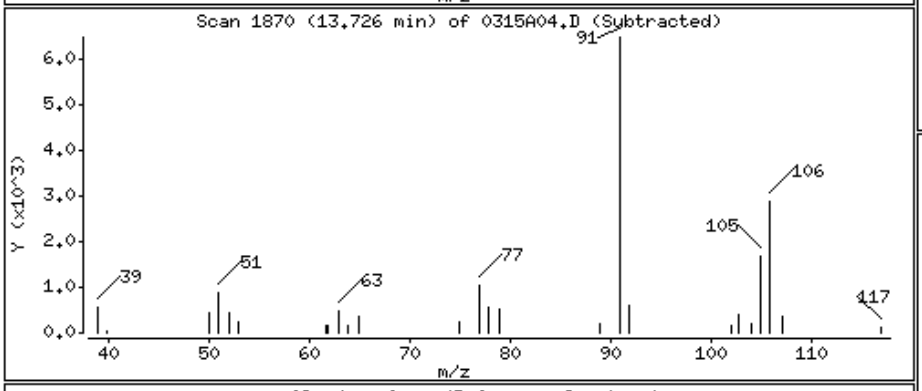
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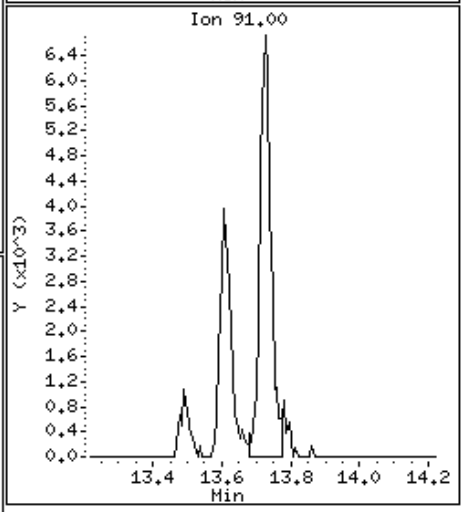
69 p/m xylene

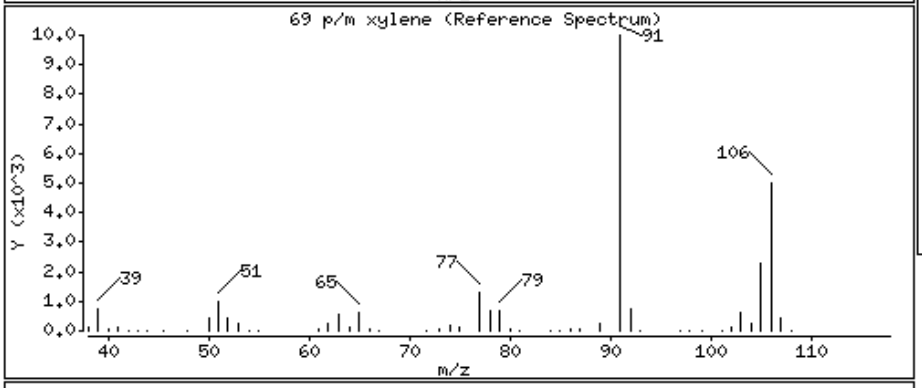
Concentration: 1.132 ngs

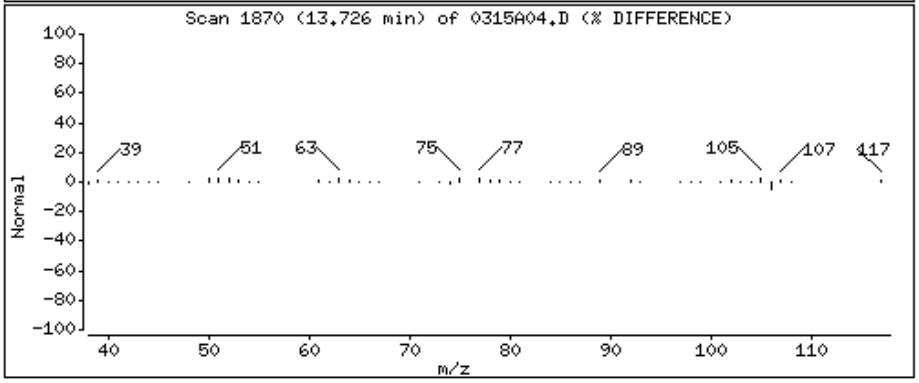












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

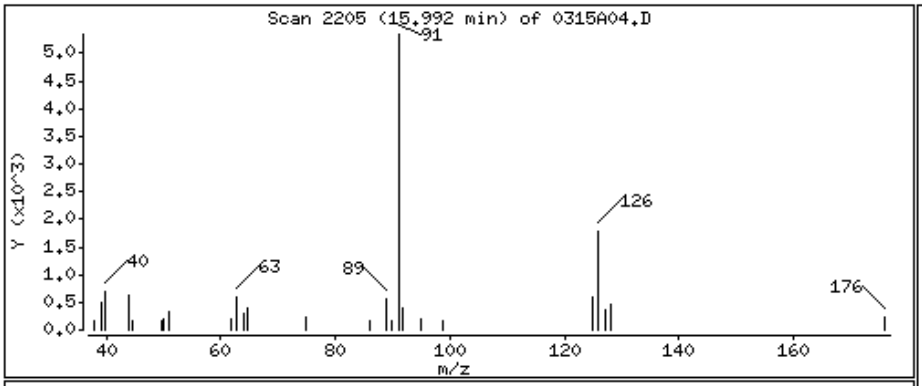
Operator: PD

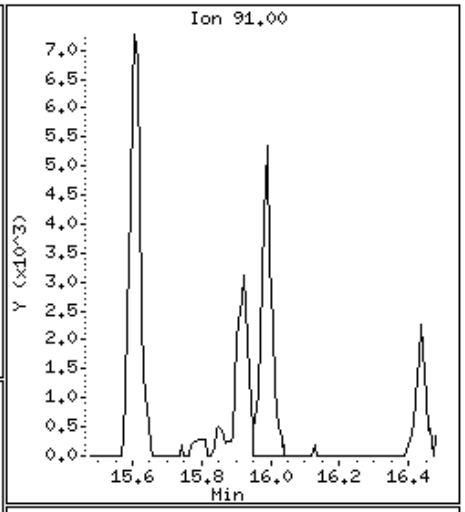
Column phase: Rtx-502.2

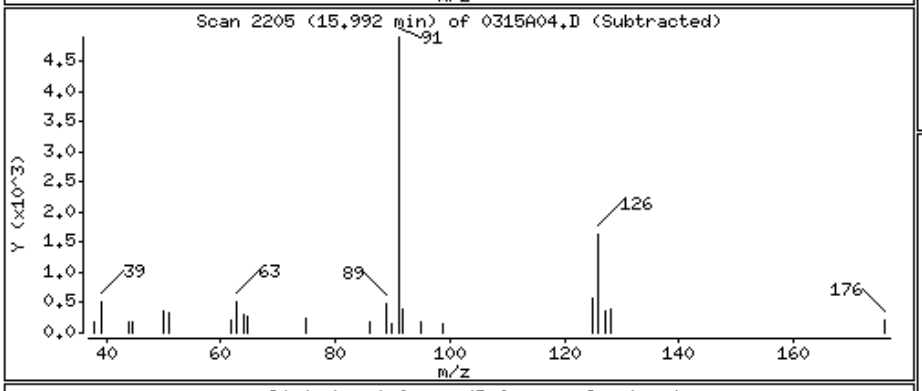
Column diameter: 0.18

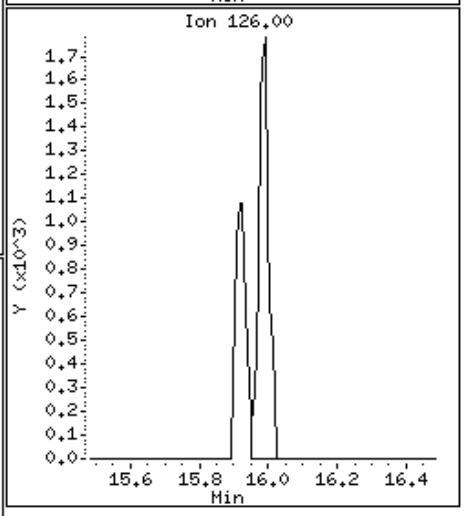
84 4-chorotoluene

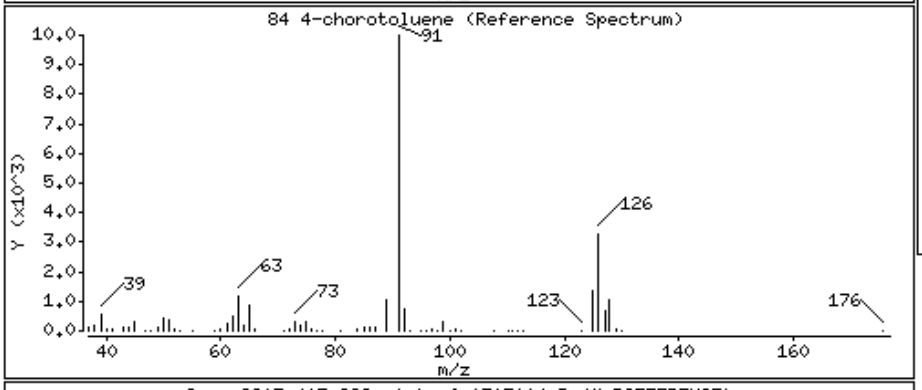
Concentration: 1.015 ngs

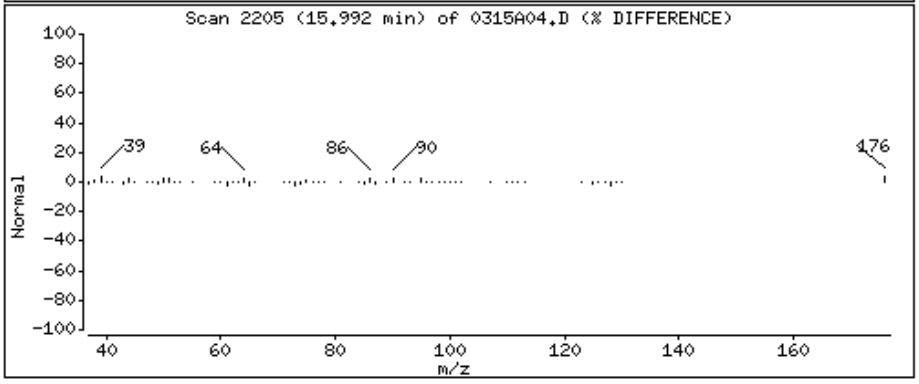












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

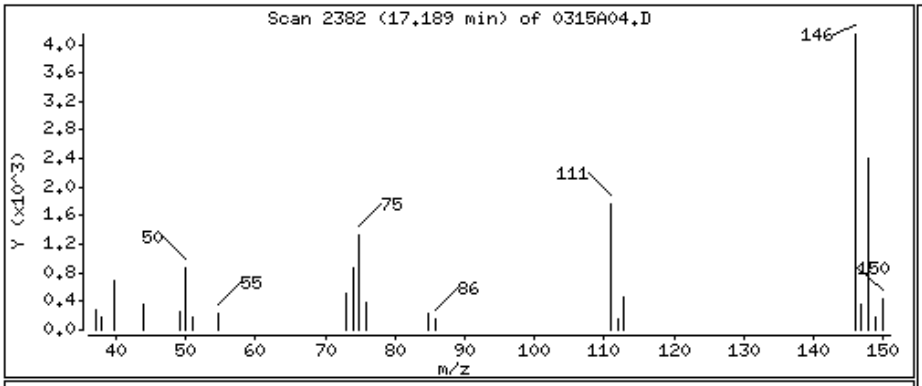
Operator: PD

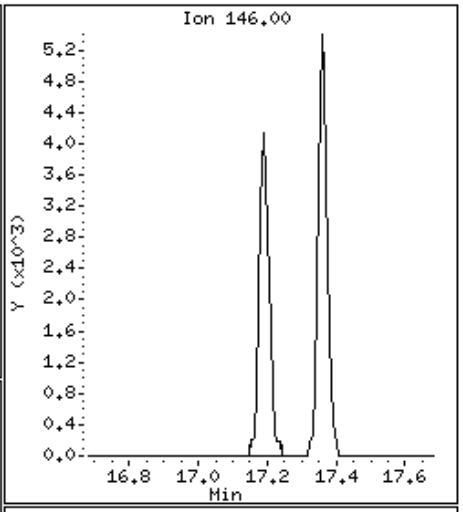
Column phase: Rtx-502.2

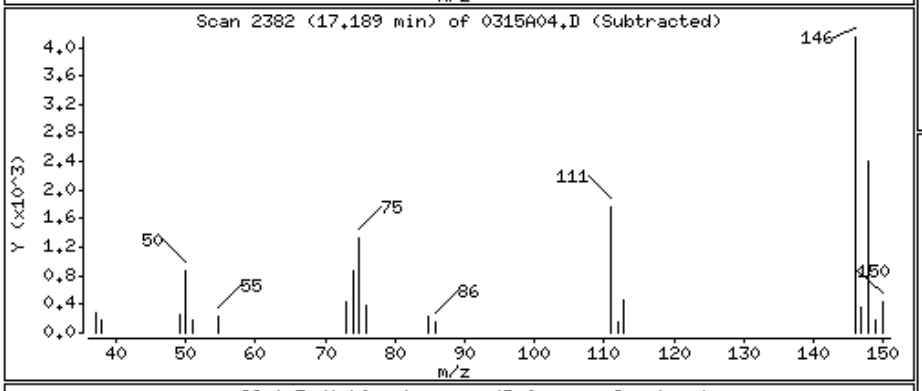
Column diameter: 0.18

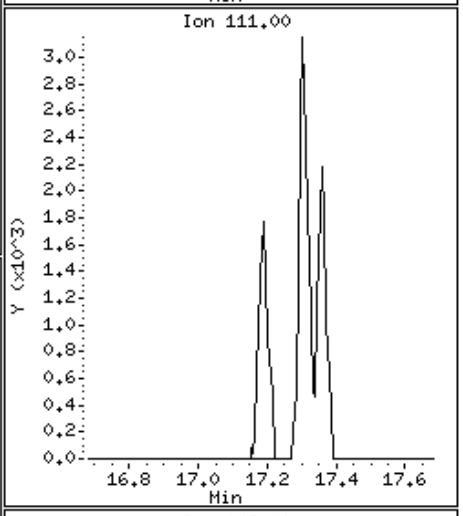
89 1,3-dichlorobenzene

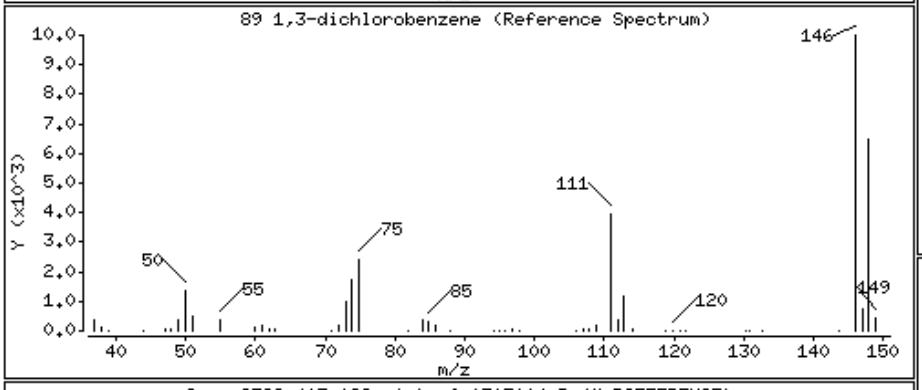
Concentration: 1.225 ngs

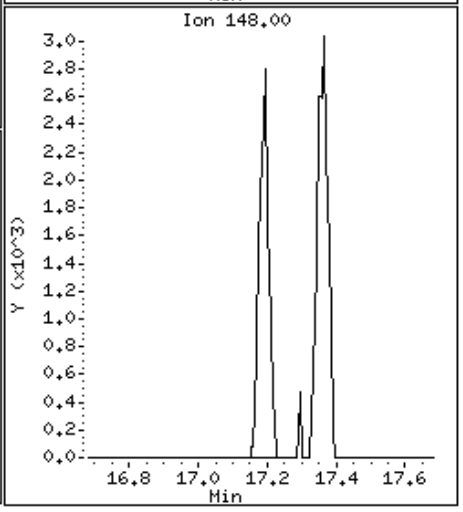


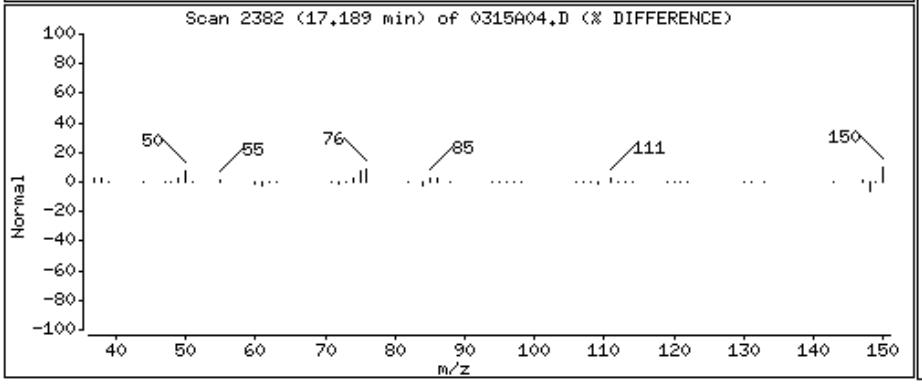












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

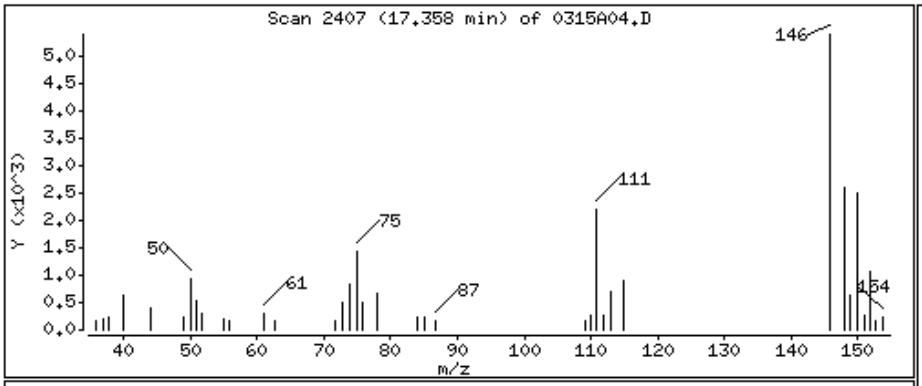
Operator: PD

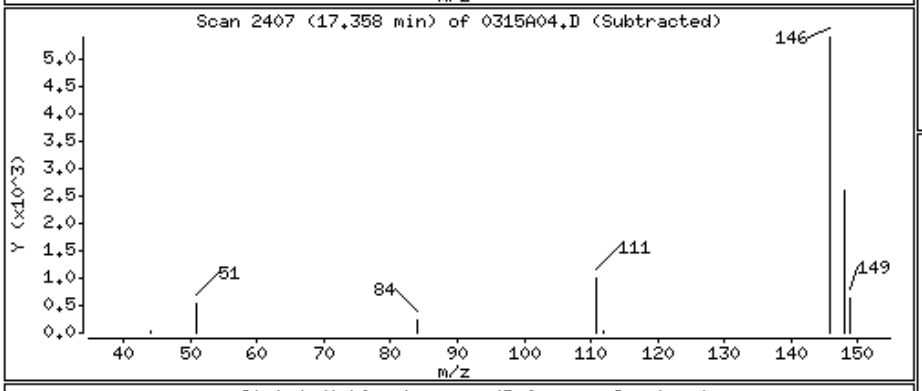
Column phase: Rtx-502.2

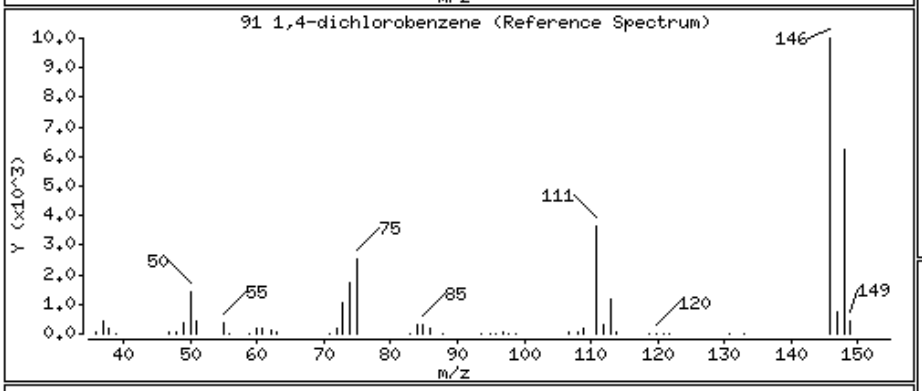
Column diameter: 0.18

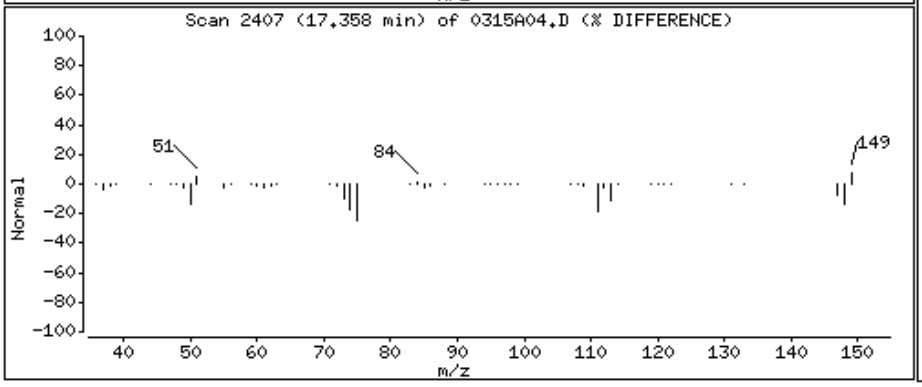
91 1,4-dichlorobenzene

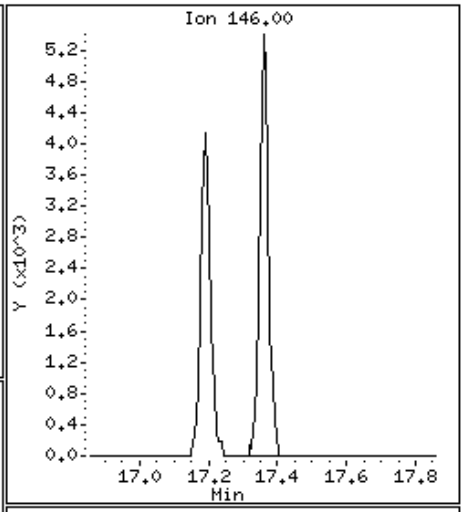
Concentration: 1.471 ngs

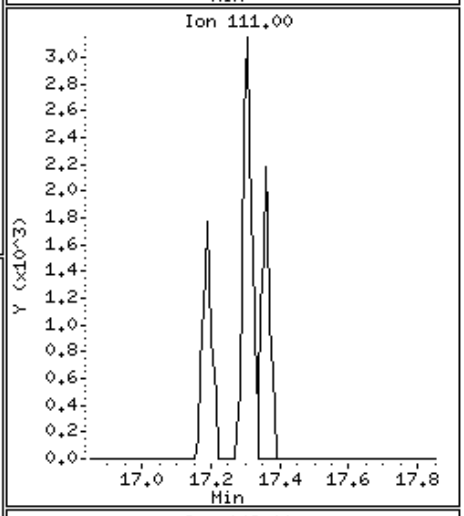


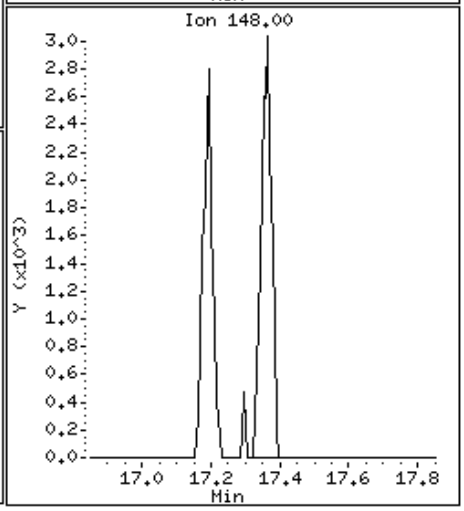












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

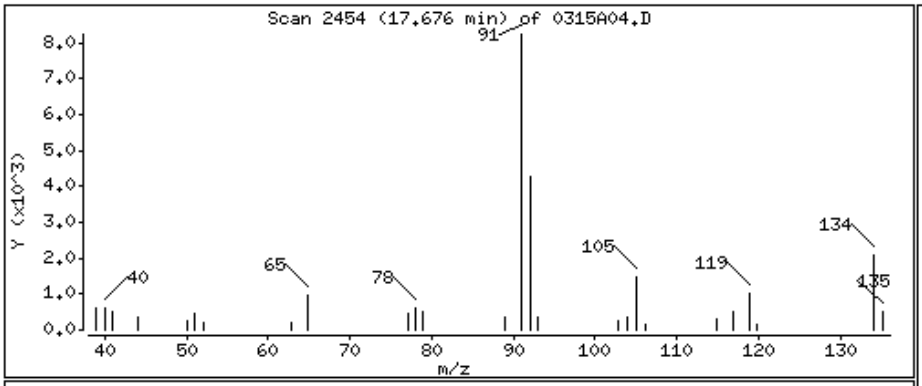
Operator: PD

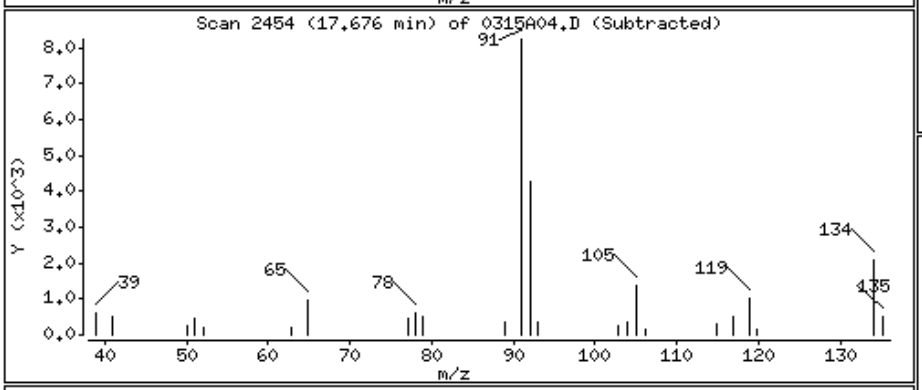
Column phase: Rtx-502.2

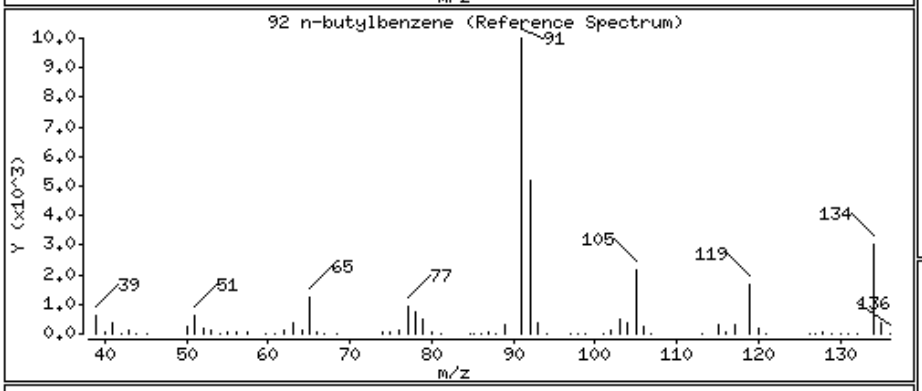
Column diameter: 0.18

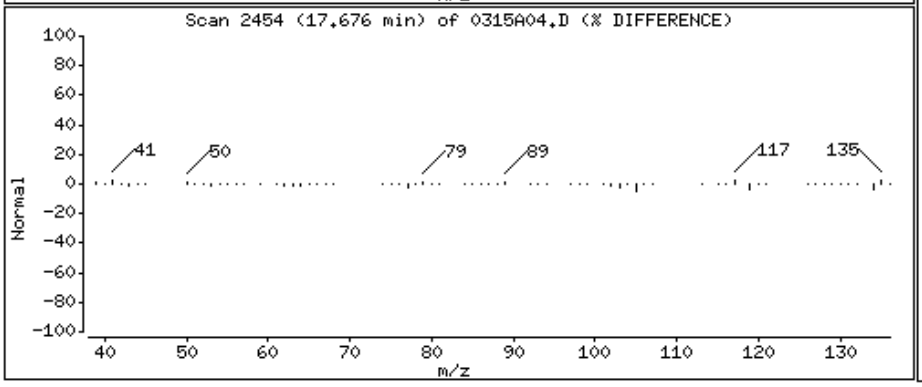
92 n-butylbenzene

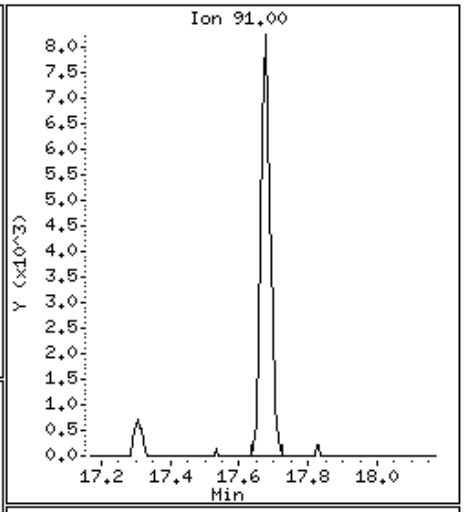
Concentration: 1.203 ngs

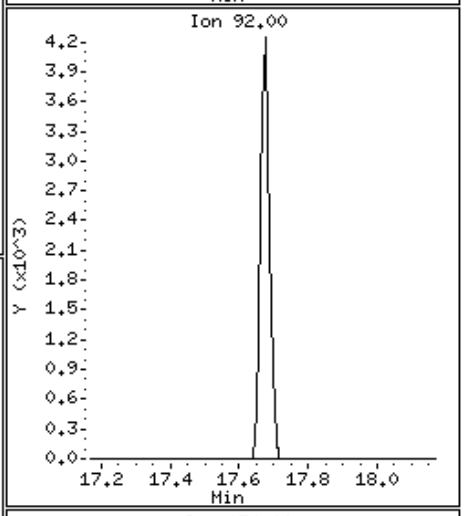


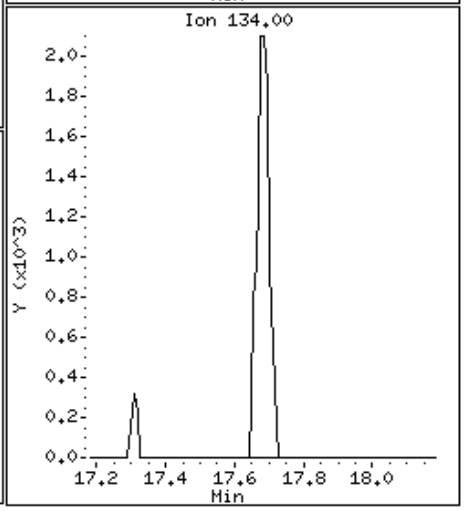












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

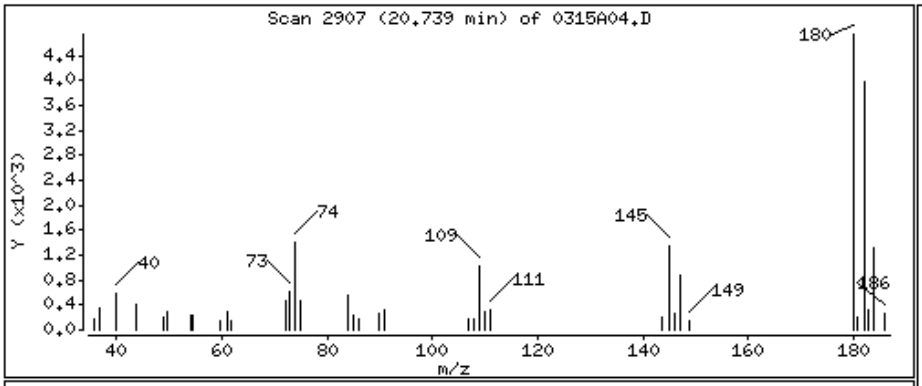
Operator: PD

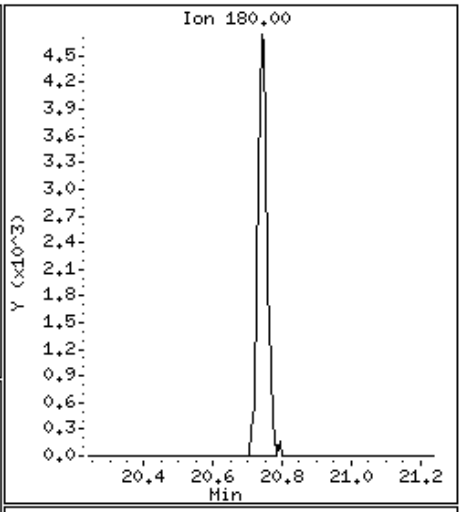
Column phase: Rtx-502.2

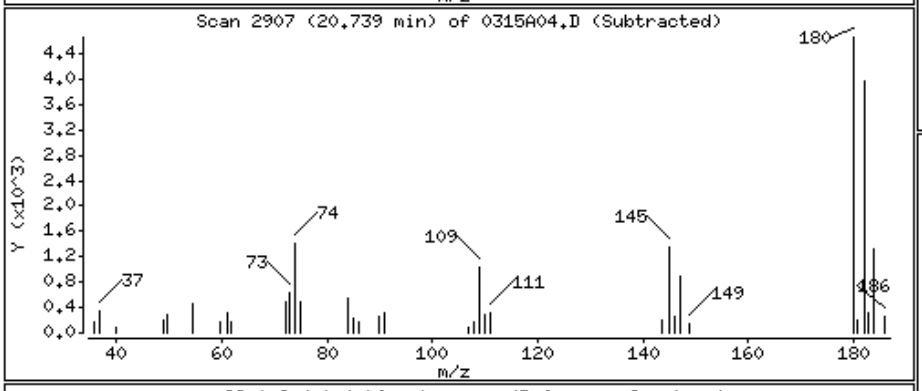
Column diameter: 0.18

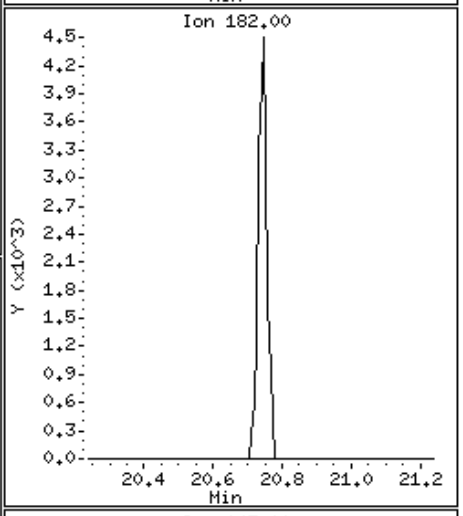
98 1,2,4-trichlorobenzene

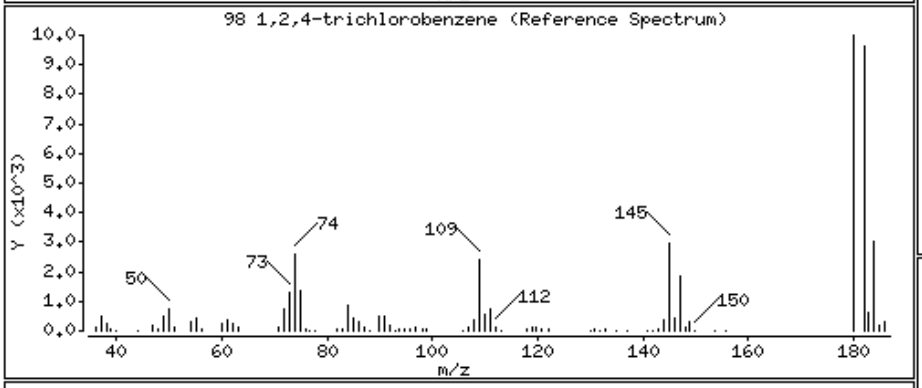
Concentration: 2.661 ngs

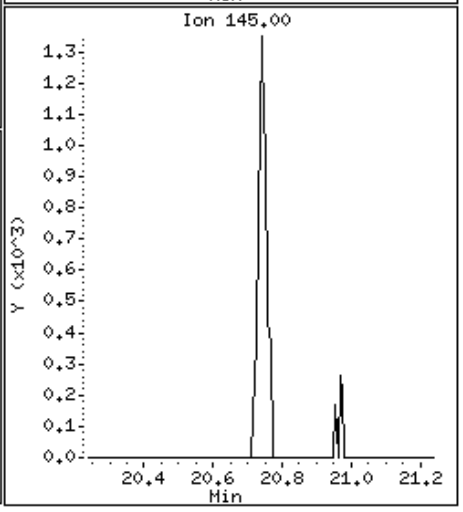


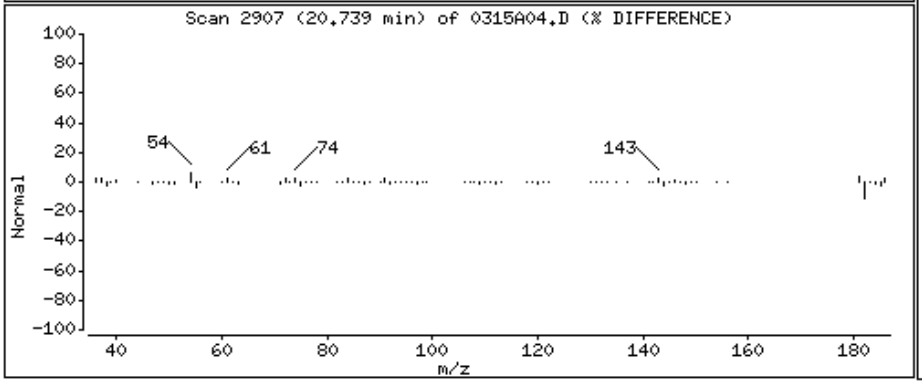












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

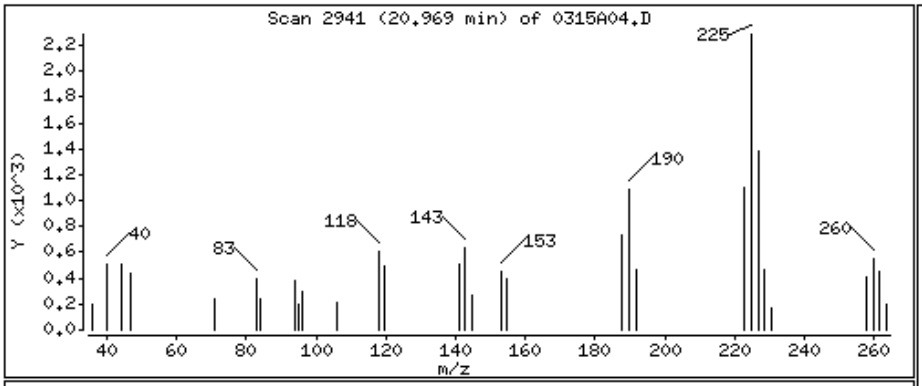
Operator: PD

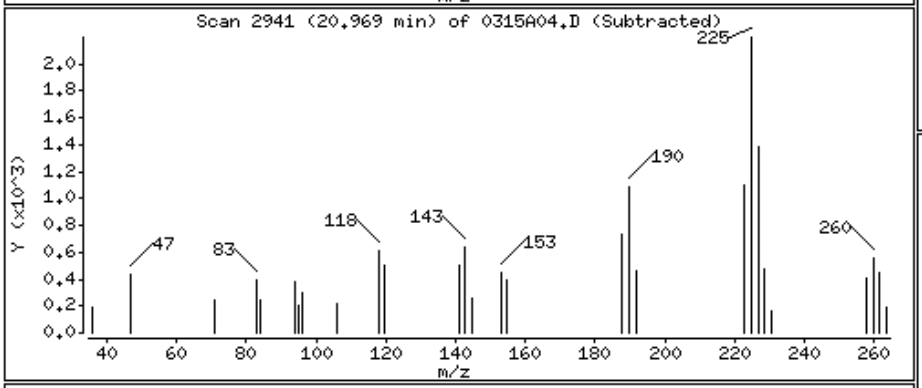
Column phase: Rtx-502.2

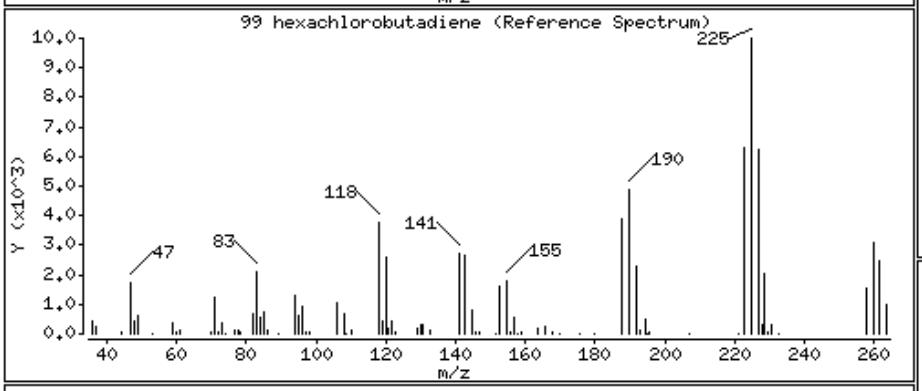
Column diameter: 0.18

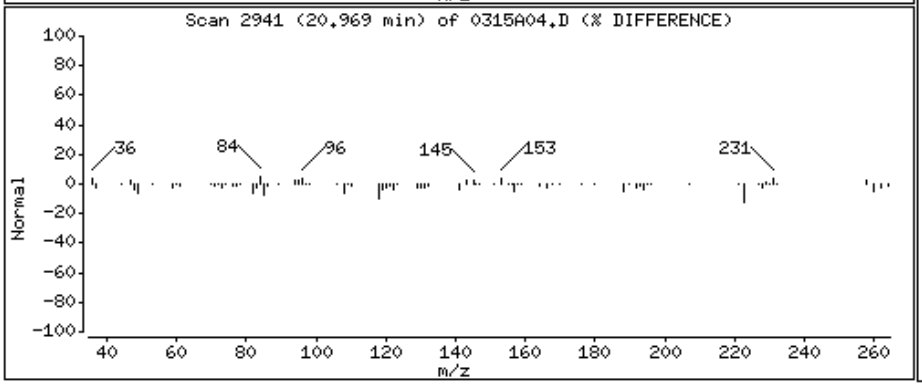
99 hexachlorobutadiene

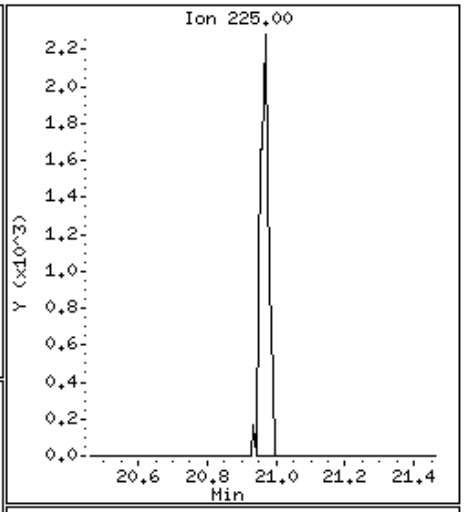
Concentration: 2.249 ngs

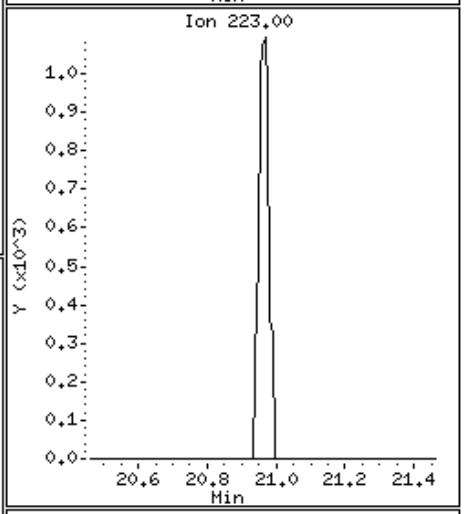


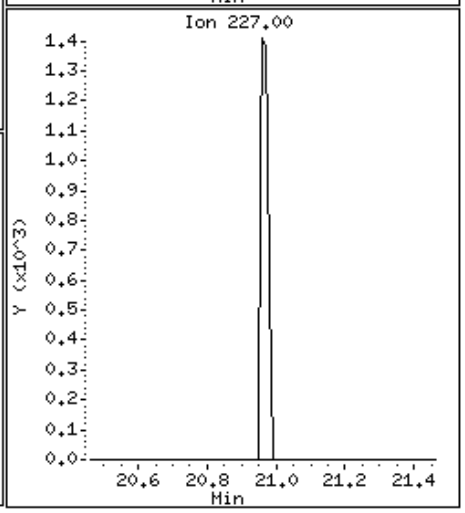












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

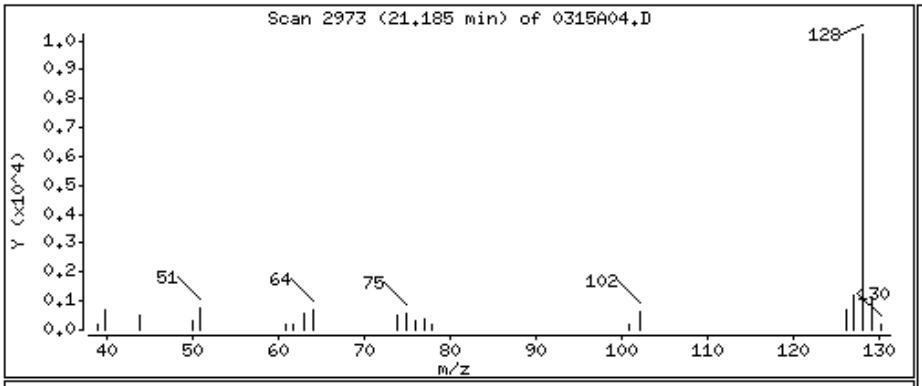
Operator: PD

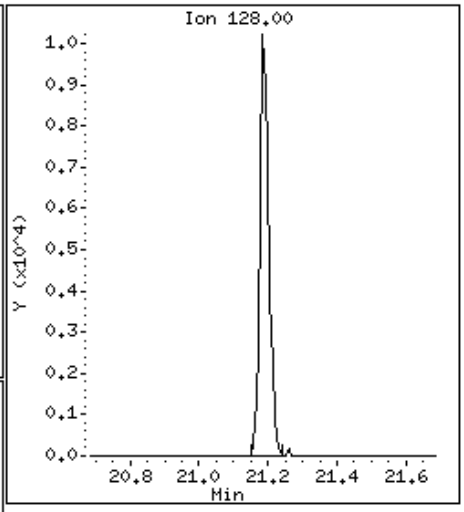
Column phase: Rtx-502.2

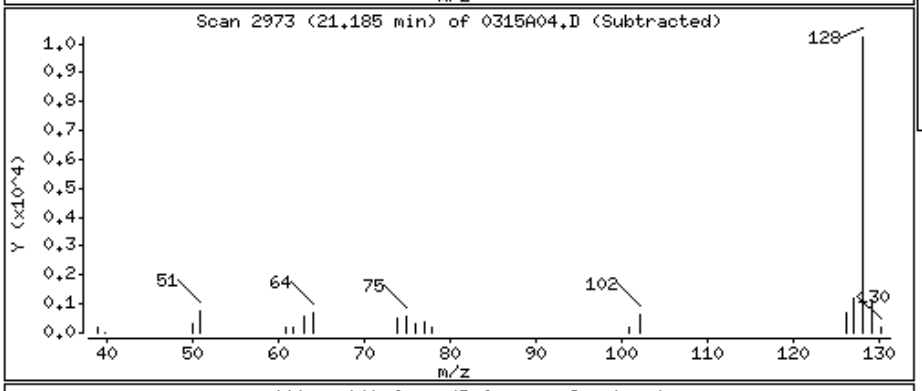
Column diameter: 0.18

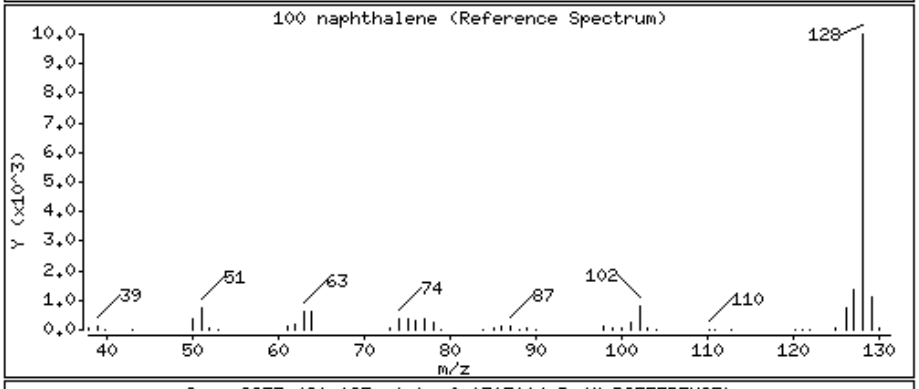
100 naphthalene

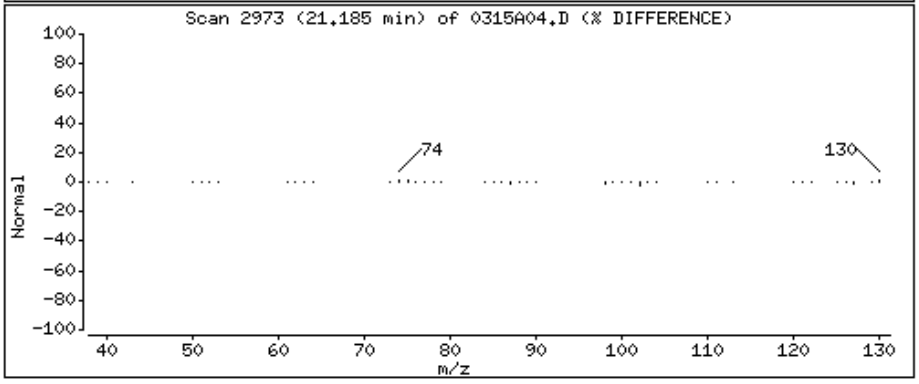
Concentration: 2.796 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A04.D

Date : 15-MAR-2016 10:05

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-3,31,10

Purge Volume: 10.0

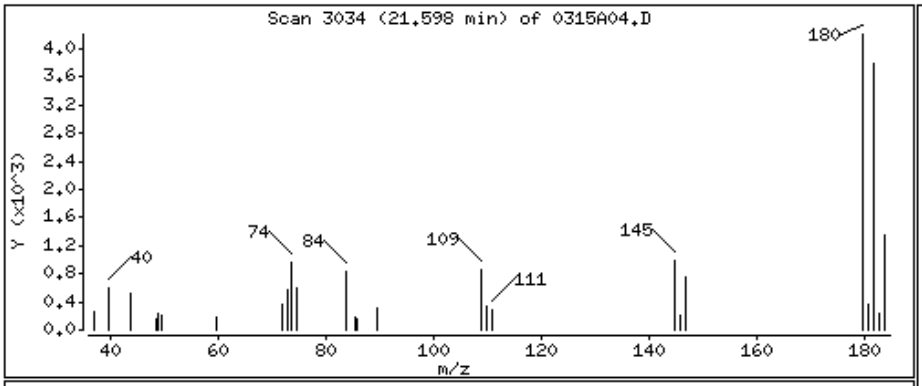
Operator: PD

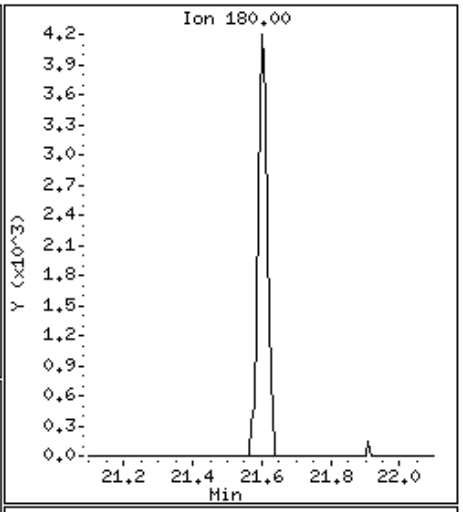
Column phase: Rtx-502.2

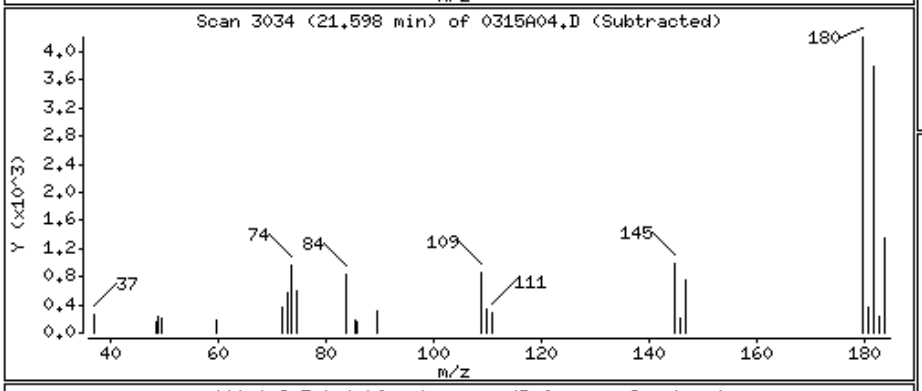
Column diameter: 0.18

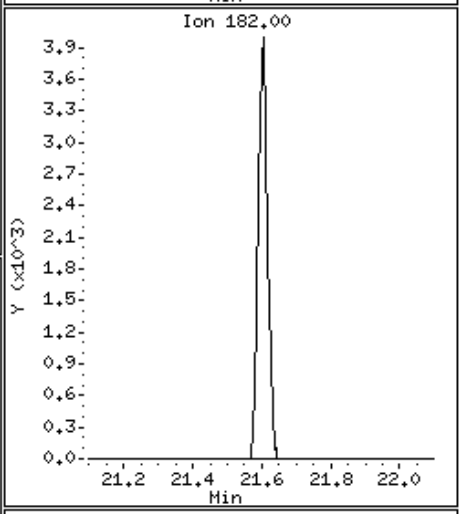
101 1,2,3-trichlorobenzene

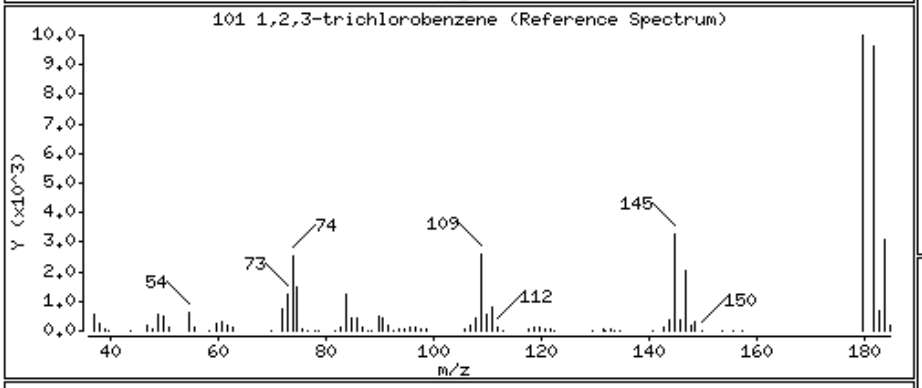
Concentration: 2.688 ngs

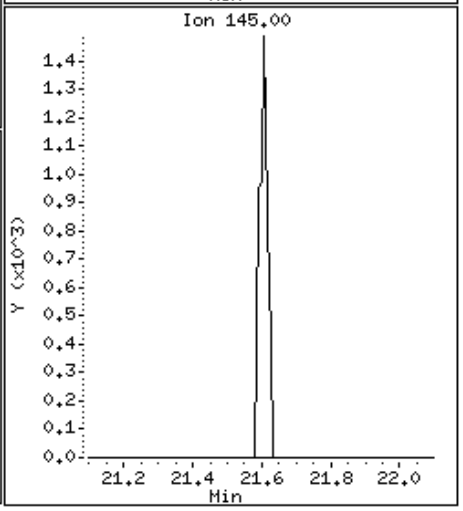


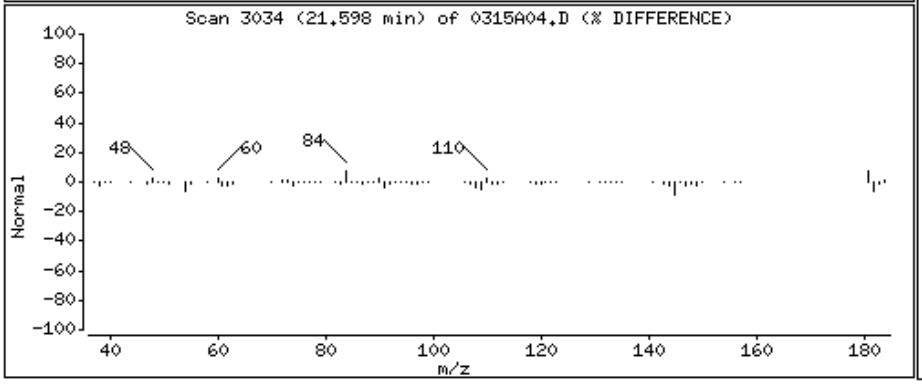












Alpha Analytical Labs

Manual Integration

Sample Info	: wg873931-3,31,10 wg873931,ical12094		
Instrument ID	: Gonzo.i		
Method	: v10ml8260.m		
File	: 0315A04.D		
Injection Date	: 15-MAR-2016 10:05		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: SAMPLE	

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D
Lab Smp Id:
Inj Date : 15-MAR-2016 08:28
Operator : PD Inst ID: Gonzo.i
Smp Info : wg873931-1,31,10
Misc Info : wg873931,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 08:59 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.825	2.825	(0.313)	377227	94.7652	94.765	
2	chloromethane	50	3.176	3.176	(0.352)	283541	94.2804	94.280	
3	vinyl chloride	62	3.339	3.339	(0.370)	313574	115.375	115.374	
4	bromomethane	94	3.954	3.954	(0.438)	217984	89.9221	89.922	
5	chloroethane	64	4.055	4.055	(0.449)	224052	109.466	109.466	
6	trichlorofluoromethane	101	4.394	4.394	(0.486)	475732	100.633	100.633	
7	ethyl ether	74	4.772	4.772	(0.528)	177143	104.177	104.177	
8	acrolien	56	4.948	4.948	(0.548)	32869	104.729	104.729	
9	Freon 113	101	4.948	4.948	(0.548)	300254	100.602	100.602	
10	acetone	43	5.029	5.029	(0.557)	58854	96.6712	96.671	
11	1,1,-dichloroethene	96	5.192	5.192	(0.575)	336458	104.785	104.785	
12	Tert-Butyl Alcohol	59	5.293	5.293	(0.586)	96730	465.046	465.046	
14	Methyl Acetate	43	5.597	5.597	(0.620)	168233	98.2410	98.240	
13	iodomethane	142	5.604	5.604	(0.620)	70135	38.0845	38.084(R)	
15	methylene chloride	84	5.807	5.807	(0.643)	389255	101.220	101.220	
16	carbon disulfide	76	5.861	5.861	(0.649)	1109992	97.9661	97.966	
17	acrylonitrile	53	5.956	5.956	(0.659)	99777	101.217	101.216	
20	methyl tert butyl ether	73	5.983	5.983	(0.662)	824525	85.8733	85.873	
21	halothane	117	6.084	6.084	(0.674)	282100	107.270	107.270	
22	trans-1,2-dichloroethene	96	6.179	6.179	(0.684)	371343	105.888	105.887	
23	Diisopropyl Ether	45	6.530	6.530	(0.723)	1356516	106.163	106.163	
26	vinyl acetate	43	6.686	6.686	(0.740)	618572	122.799	122.799	
24	1,1-dichloroethane	63	6.713	6.713	(0.743)	733531	104.468	104.468	
25	Ethyl-Tert-Butyl-Ether	59	7.051	7.051	(0.781)	1071753	89.0863	89.086	
27	2-butanone	43	7.227	7.227	(0.800)	106970	96.6771	96.677	
29	Ethyl Acetate	43	7.416	7.416	(0.821)	238880	97.3061	97.306	
28	2,2-dichloropropane	77	7.423	7.423	(0.822)	504785	109.995	109.995	
30	cis-1,2-dichloroethene	96	7.491	7.491	(0.829)	415792	104.638	104.638	

		QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ngs)	(ngs)	REVIEW CODE
	31 chloroform	83	7.687	7.687	(0.851)	697792	105.834	105.833	
	32 bromochloromethane	128	7.910	7.910	(0.876)	180614	117.022	117.022	
	33 tetrahydrofuran	42	7.951	7.951	(0.880)	72445	97.1459	97.145	
$	34 dibromofluoromethane	113	7.971	7.971	(0.882)	359167	100.652	100.651	
	35 1,1,1-trichloroethane	97	8.208	8.208	(0.909)	553798	110.724	110.723	
	36 Cyclohexane	56	8.241	8.241	(0.912)	682438	106.163	106.163	
	37 1,1-dichloropropene	75	8.410	8.410	(0.931)	516529	105.282	105.281	
	39 Tertiary-Amyl Methyl Ether	73	8.519	8.519	(0.943)	864904	86.1717	86.171	
	38 carbontetrachloride	117	8.552	8.552	(0.947)	449607	104.620	104.619	
$	40 1,2-dichloroethane-d4	65	8.613	8.613	(0.954)	373545	99.6041	99.604	
	41 1,2-dichloroethane	62	8.735	8.735	(0.967)	488744	104.561	104.560	
	42 benzene	78	8.769	8.769	(0.971)	1681213	105.021	105.020	
*	43 fluorobenzene	96	9.033	9.033	(1.000)	1599434	100.000		
	44 trichloroethene	95	9.574	9.574	(1.060)	396421	103.492	103.492	
	46 methyl cyclohexane	83	9.662	9.662	(1.070)	639846	103.665	103.664	
	47 1,2-dichloropropane	63	9.804	9.804	(1.085)	423293	105.744	105.743	
	48 bromodichloromethane	83	10.135	10.135	(1.122)	497189	110.423	110.422	
	49 1,4-dioxane	88	10.142	10.142	(1.123)	142411	5059.68	5059.681(R)	
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.223	10.223	(1.132)	194528	102.986	102.985	
	51 2-chloroethylvinylether	63	10.500	10.500	(1.162)	86105	66.6940	66.694(R)	
	52 4-methyl-2-pentanone	58	10.541	10.541	(1.167)	100490	96.3011	96.301	
	53 cis-1,3-dichloropropene	75	10.865	10.865	(1.203)	565830	109.985	109.984	
$	55 toluene-d8	98	11.230	11.230	(0.833)	1516107	96.8775	96.877	
	56 toluene	92	11.345	11.345	(0.841)	1074668	106.146	106.145	
	57 ethyl-methacrylate	69	11.508	11.508	(0.853)	378334	101.376	101.376(M)	M1
	58 trans-1,3-dichloropropene	75	11.575	11.575	(0.858)	437564	111.818	111.818	
	60 2-hexanone	43	11.778	11.778	(0.873)	159647	98.5189	98.518	
	59 1,1,2-trichloroethane	83	11.819	11.819	(0.876)	249792	100.887	100.887	
	61 1,3-dichloropropane	76	12.184	12.184	(0.903)	505945	99.4681	99.468	
	62 tetrachloroethene	166	12.306	12.306	(0.912)	403233	105.869	105.868	
	63 chlorodibromomethane	129	12.617	12.617	(0.935)	330318	101.499	101.498	
	64 1,2-dibromoethane	107	12.928	12.928	(0.958)	260090	97.8156	97.815	
*	65 chlorobenzene-d5	117	13.489	13.489	(1.000)	1088580	100.000		
	66 chlorobenzene	112	13.550	13.550	(1.004)	1071083	99.9247	99.924	
	67 1,1,1,2-tetrachloroethane	131	13.597	13.597	(1.008)	354440	109.513	109.512	
	68 ethyl benzene	91	13.604	13.604	(1.009)	1904961	105.408	105.407	
	69 p/m xylene	106	13.719	13.719	(1.017)	1442926	207.833	207.833	
	70 o xylene	106	14.409	14.409	(1.068)	1404900	204.938	204.938	
	71 styrene	104	14.463	14.463	(1.072)	2172278	210.627	210.627	
	72 isopropylbenzene	105	14.957	14.957	(1.109)	1780104	103.674	103.674	
	73 bromoform	173	15.031	15.031	(0.869)	171366	112.557	112.557	
	74 1,4-dichloro-2-butane	55	15.105	15.105	(0.873)	463959	97.0473	97.047	
	75 1,1,2,2,-tetrachloroethane	83	15.234	15.234	(0.880)	315141	96.9513	96.951	
$	76 4-bromofluorobenzene	95	15.376	15.376	(0.889)	495709	98.3631	98.363	
	77 1,2,3-trichloropropane	75	15.477	15.477	(0.894)	229879	94.3763	94.376	
	78 trans-1,4-dichloro-2-butene	53	15.565	15.565	(0.900)	79080	110.808	110.808	
	79 n-propylbenzene	91	15.599	15.599	(0.902)	2032124	108.779	108.779	
	80 bromobenzene	156	15.707	15.707	(0.908)	405361	101.164	101.164	
	81 4-ethyltoluene	105	15.782	15.782	(0.912)	1724975	104.915	104.915	
	82 1,3,5-trimethybenzene	105	15.849	15.849	(0.916)	1432130	104.189	104.189	
	83 2-chlorotoluene	91	15.910	15.910	(0.919)	1193877	102.219	102.218	
	84 4-chorotoluene	91	15.978	15.978	(0.923)	1182815	100.344	100.343	
	85 tert-butylbenzene	119	16.431	16.431	(0.950)	1197833	104.366	104.365	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.498	16.498	(0.953)	1401404	103.451	103.451	
87	sec-butylbenzene	105	16.776	16.776	(0.970)	1769233	108.570	108.570	
88	p-isopropyltoluene	119	16.992	16.992	(0.982)	1457073	105.651	105.651	
89	1,3-dichlorobenzene	146	17.181	17.181	(0.993)	726111	99.2546	99.254	
* 90	1,4-dichlorobenzene-d4	152	17.303	17.303	(1.000)	495711	100.000		
91	1,4-dichlorobenzene	146	17.357	17.357	(1.003)	703370	96.8818	96.881	
92	n-butylbenzene	91	17.668	17.668	(1.021)	1554292	109.843	109.842	
93	1,2,4,5-tetramathylbenzene	119	17.689	17.689	(1.022)	834794	107.274	107.274	
94	1,2-dichlorobenzene	146	17.973	17.973	(1.039)	665341	97.9219	97.921	
95	p-Diethylbenzene	119	18.960	18.960	(1.096)	1200668	96.0046	96.004	
96	1,2-dibromo-3-chloropropane	75	19.264	19.264	(1.113)	38767	105.260	105.260	
97	1,3,5-trichlorobenzene	180	19.663	19.663	(1.136)	494355	99.3957	99.395	
98	1,2,4-trichlorobenzene	180	20.738	20.738	(1.199)	379330	100.873	100.872	
99	hexachlorobutadiene	225	20.962	20.962	(1.211)	196569	105.488	105.487	
100	naphthalene	128	21.185	21.185	(1.224)	624620	87.7767	87.776	
101	1,2,3-trichlorobenzene	180	21.597	21.597	(1.248)	320105	97.8707	97.870	

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0315A01.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

Calibration Date: 15-MAR-2016
Calibration Time: 08:28
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1599434	799717	3198868	1599434	0.00
65 chlorobenzene-d5	1088580	544290	2177160	1088580	0.00
90 1,4-dichlorobenze	495711	247856	991422	495711	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.03	0.00
65 chlorobenzene-d5	13.49	12.99	13.99	13.49	0.00
90 1,4-dichlorobenze	17.30	16.80	17.80	17.30	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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: LCS
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: curve.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

	SPIKE	COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
	1	dichlorodifluorome	100.000	94.765	94.77	36-147
	2	chloromethane	100.000	94.280	94.28	64-130
	3	vinyl chloride	100.000	115.374	115.37	55-140
	4	bromomethane	100.000	89.922	89.92	39-139
	5	chloroethane	100.000	109.466	109.47	55-138
	6	trichlorofluoromet	100.000	100.633	100.63	62-150
	7	ethyl ether	100.000	104.177	104.18	59-134
	8	acrolien	100.000	104.729	104.73	70-130
	10	acetone	100.000	96.671	96.67	58-148
	11	1,1,-dichloroethen	100.000	104.785	104.79	61-145
	12	Tert-Butyl Alcohol	500.000	465.046	93.01	70-130
	14	Methyl Acetate	100.000	98.240	98.24	40-160
	13	iodomethane	100.000	38.084	38.08*	70-130
	15	methylene chloride	100.000	101.220	101.22	70-130
	16	carbon disulfide	100.000	97.966	97.97	51-130
	17	acrylonitrile	100.000	101.216	101.22	70-130
	20	methyl tert butyl	100.000	85.873	85.87	63-130
	22	trans-1,2-dichloro	100.000	105.887	105.89	70-130
	23	Diisopropyl Ether	100.000	106.163	106.16	70-130
	26	vinyl acetate	100.000	122.799	122.80	70-130
	24	1,1-dichloroethane	100.000	104.468	104.47	70-130
	25	Ethyl-Tert-Butyl-E	100.000	89.086	89.09	70-130
	27	2-butanone	100.000	96.677	96.68	63-138
	29	Ethyl Acetate	100.000	97.306	97.31	70-130
	28	2,2-dichloropropan	100.000	109.995	110.00	63-133
	30	cis-1,2-dichloroet	100.000	104.638	104.64	70-130
	31	chloroform	100.000	105.833	105.83	70-130
	32	bromochloromethane	100.000	117.022	117.02	70-130
	33	tetrahydrofuran	100.000	97.145	97.15	58-130
$	34	dibromofluorometha	100.000	100.651	100.65	70-130
	35	1,1,1-trichloroeth	100.000	110.723	110.72	67-130
	36	Cyclohexane	100.000	106.163	106.16	40-160
	37	1,1-dichloropropen	100.000	105.281	105.28	70-130
	39	Tertiary-Amyl Meth	100.000	86.171	86.17	66-130
	38	carbontetrachlorid	100.000	104.619	104.62	63-132
$	40	1,2-dichloroethane	100.000	99.604	99.60	70-130
	41	1,2-dichloroethane	100.000	104.560	104.56	70-130
	42	benzene	100.000	105.020	105.02	70-130
	44	trichloroethene	100.000	103.492	103.49	70-130
	46	methyl cyclohexane	100.000	103.664	103.66	40-160

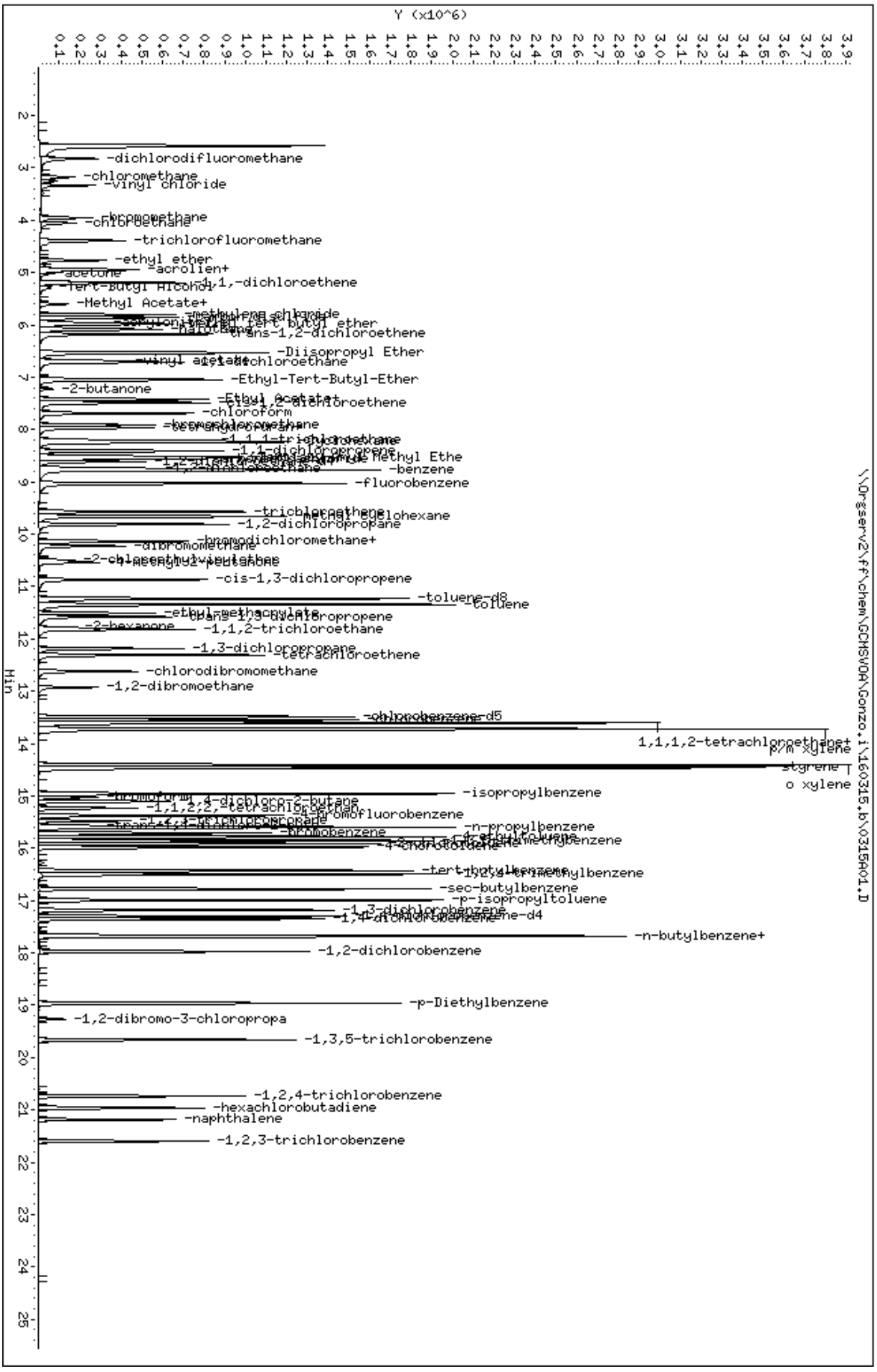
SPIKE		COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
	176	methy;-methylacrl	100.000	0.000	*	70-130
	47	1,2-dichloropropan	100.000	105.743	105.74	70-130
	48	bromodichlorometha	100.000	110.422	110.42	67-130
	49	1,4-dioxane	10000.000	5059.681	50.60*	56-162
	50	dibromomethane	100.000	102.985	102.99	70-130
	51	2-chloroethylvinyl	100.000	66.694	66.69*	70-130
	52	4-methyl-2-pentano	100.000	96.301	96.30	59-130
	53	cis-1,3-dichloropr	100.000	109.984	109.98	70-130
$	55	toluene-d8	100.000	96.877	96.88	70-130
	56	toluene	100.000	106.145	106.15	70-130
	57	ethyl-methacrylate	100.000	101.376	101.38	40-160
	58	trans-1,3-dichloro	100.000	111.818	111.82	70-130
	60	2-hexanone	100.000	98.518	98.52	57-130
	59	1,1,2-trichloroeth	100.000	100.887	100.89	70-130
	61	1,3-dichloropropan	100.000	99.468	99.47	70-130
	62	tetrachloroethene	100.000	105.868	105.87	70-130
	63	chlorodibromometha	100.000	101.498	101.50	63-130
	64	1,2-dibromoethane	100.000	97.815	97.82	70-130
	66	chlorobenzene	100.000	99.924	99.92	75-130
	67	1,1,1,2-tetrachlor	100.000	109.512	109.51	64-130
	68	ethyl benzene	100.000	105.407	105.41	70-130
	69	p/m xylene	200.000	207.833	103.92	70-130
	70	o xylene	200.000	204.938	102.47	70-130
	71	styrene	200.000	210.627	105.31	70-130
	72	isopropylbenzene	100.000	103.674	103.67	70-130
	73	bromoform	100.000	112.557	112.56	54-136
	74	1,4-dichloro-2-but	100.000	97.047	97.05	40-160
	75	1,1,2,2,-tetrachlo	100.000	96.951	96.95	67-130
$	76	4-bromofluorobenze	100.000	98.363	98.36	70-130
	77	1,2,3-trichloropro	100.000	94.376	94.38	64-130
	78	trans-1,4-dichloro	100.000	110.808	110.81	70-130
	79	n-propylbenzene	100.000	108.779	108.78	69-130
	175	cyclohexanone	100.000	0.000	*	70-130
	80	bromobenzene	100.000	101.164	101.16	70-130
	81	4-ethyltoluene	100.000	104.915	104.92	40-160
	82	1,3,5-trimethybenz	100.000	104.189	104.19	64-130
	83	2-chlorotoluene	100.000	102.218	102.22	70-130
	84	4-chorotoluene	100.000	100.343	100.34	70-130
	85	tert-butylbenzene	100.000	104.365	104.37	70-130
	86	1,2,4-trimethylben	100.000	103.451	103.45	70-130
	87	sec-butylbenzene	100.000	108.570	108.57	70-130
	88	p-isopropyltoluene	100.000	105.651	105.65	70-130
	89	1,3-dichlorobenzen	100.000	99.254	99.25	70-130
	91	1,4-dichlorobenzen	100.000	96.881	96.88	70-130
	92	n-butylbenzene	100.000	109.842	109.84	53-136
	94	1,2-dichlorobenzen	100.000	97.921	97.92	70-130
	95	p-Diethylbenzene	100.000	96.004	96.00	40-160
	96	1,2-dibromo-3-chlo	100.000	105.260	105.26	41-144
	97	1,3,5-trichloroben	100.000	99.395	99.40	40-160
	98	1,2,4-trichloroben	100.000	100.872	100.87	70-130
	99	hexachlorobutadien	100.000	105.487	105.49	63-130
	100	naphthalene	100.000	87.776	87.78	70-130
	101	1,2,3-trichloroben	100.000	97.870	97.87	70-130

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: LCS
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: curve.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 34 dibromofluorometha	100.000	100.651	100.65	70-130
$ 40 1,2-dichloroethane	100.000	99.604	99.60	70-130
$ 55 toluene-d8	100.000	96.877	96.88	70-130
$ 76 4-bromofluorobenze	100.000	98.363	98.36	70-130



Data File: \\Orgserv2\ff\chem\GCMSWOA\Gonzo.i\160315.b\0315A01.D
Date : 15-MAR-2016 08:28
Client ID:
Sample Info: ug873931-1,31,10
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

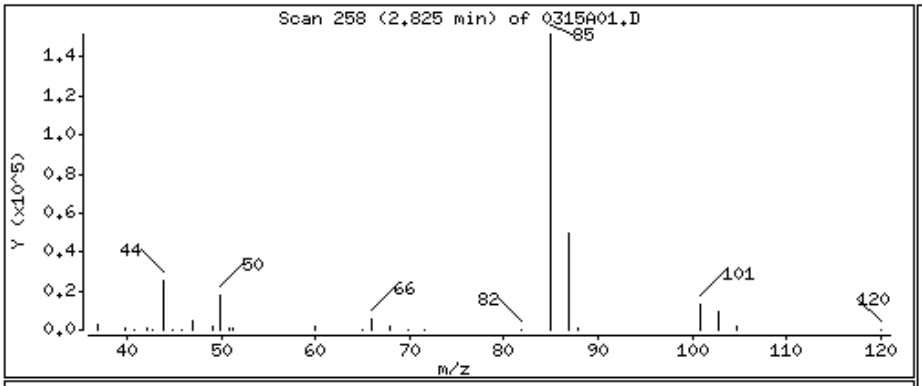
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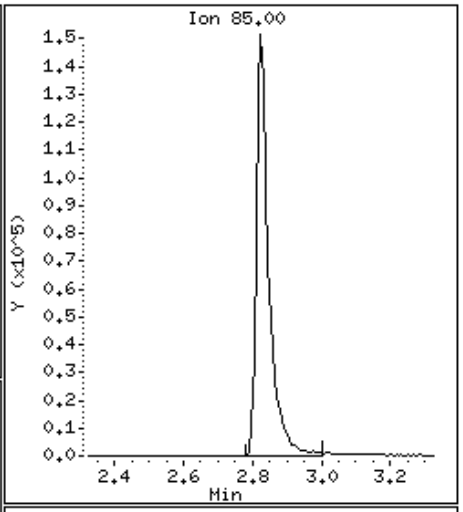
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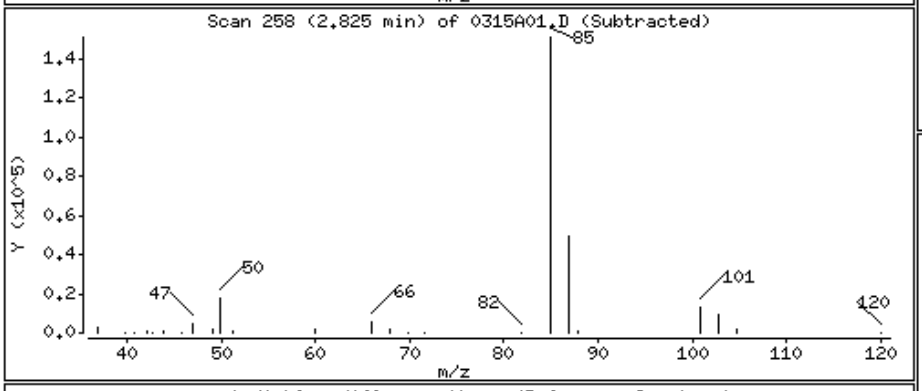
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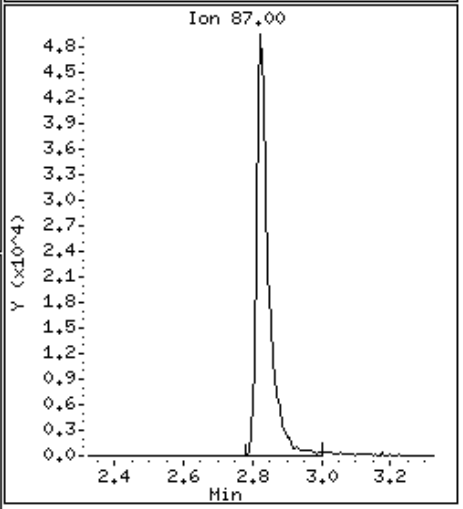
1 dichlorodifluoromethane

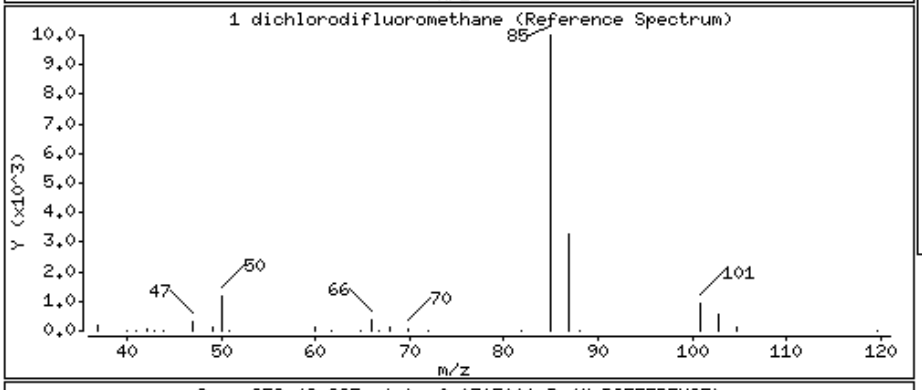
Concentration: 94.765 ngs

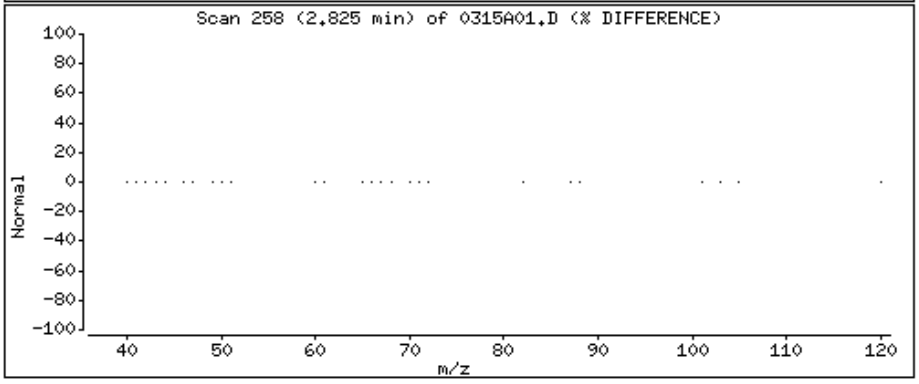












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

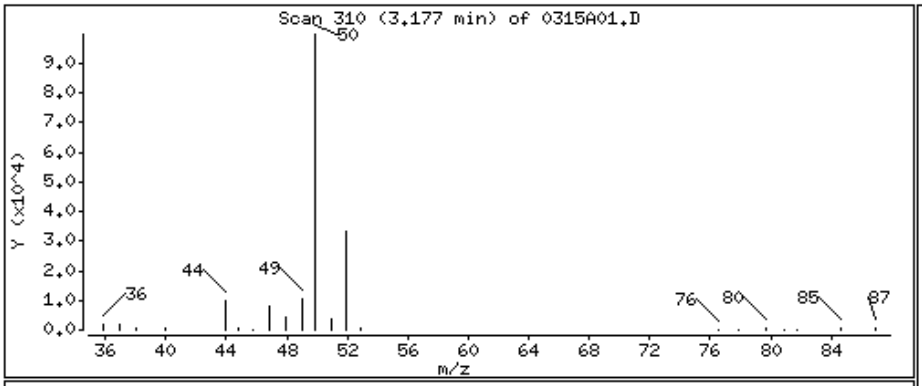
Operator: PD

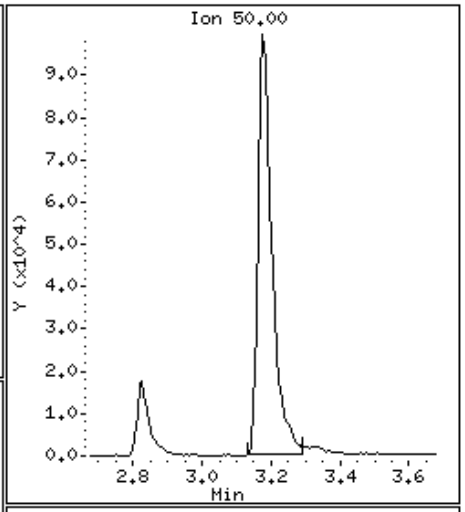
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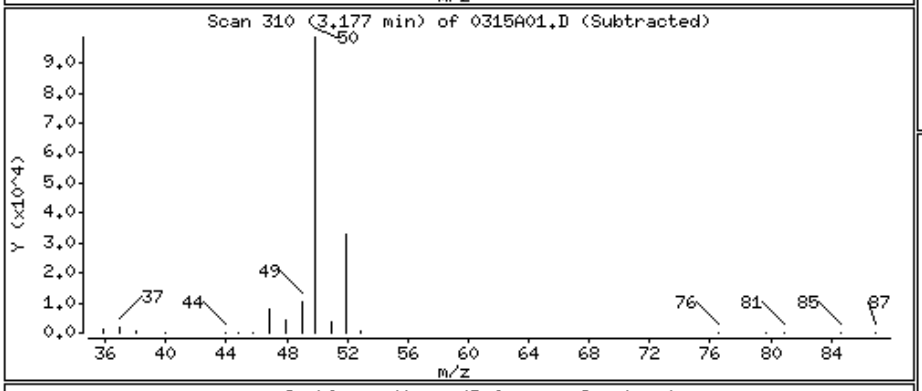
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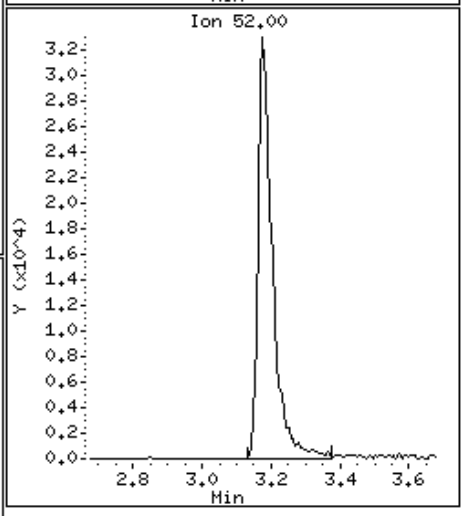
2 chloromethane

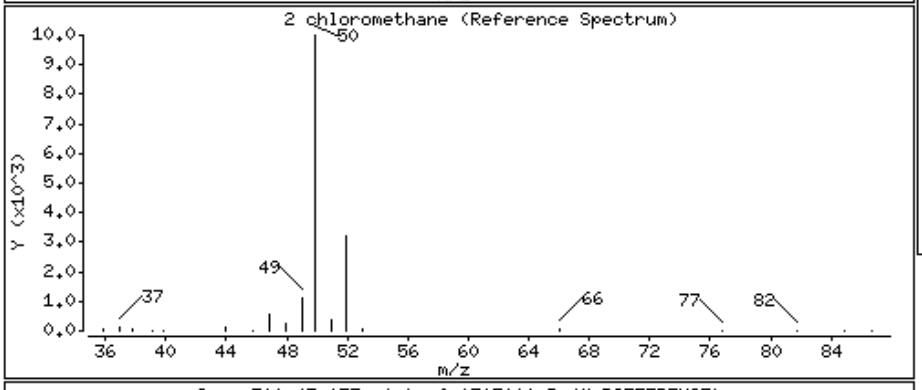
Concentration: 94.280 ngs

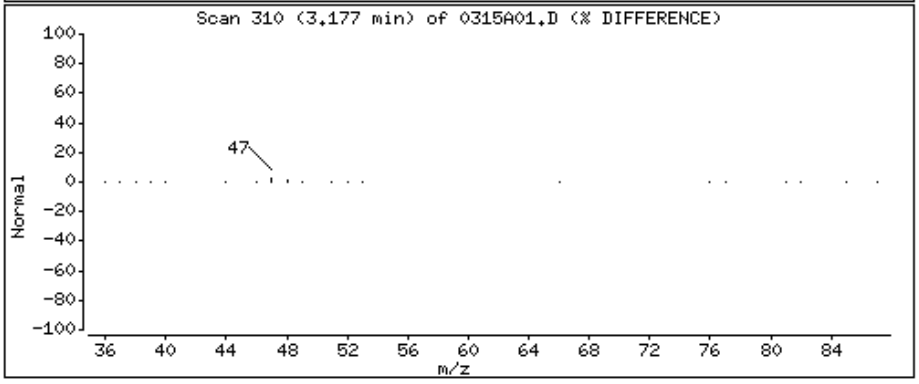












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

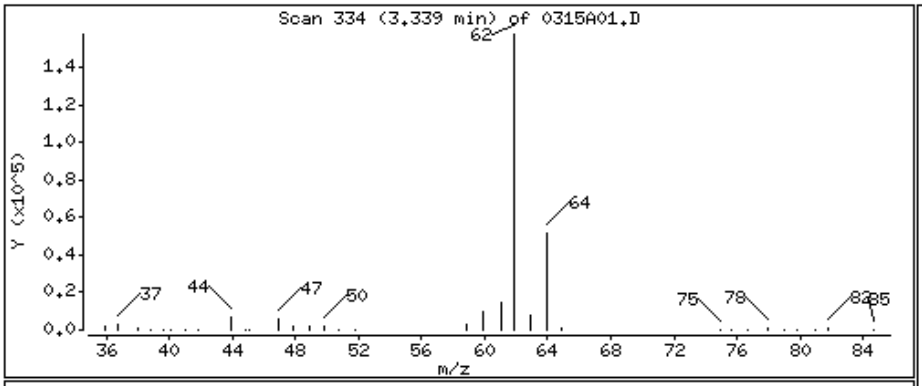
Operator: PD

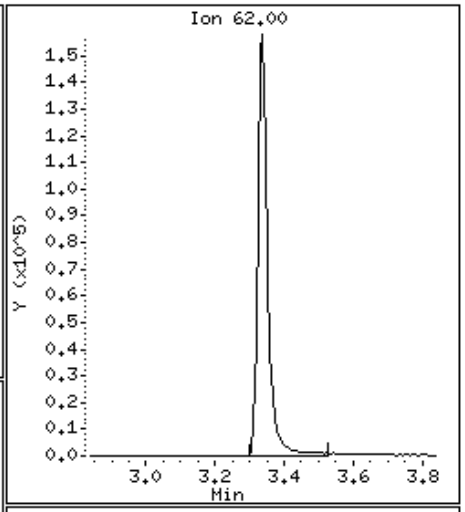
Column phase: Rtx-502.2

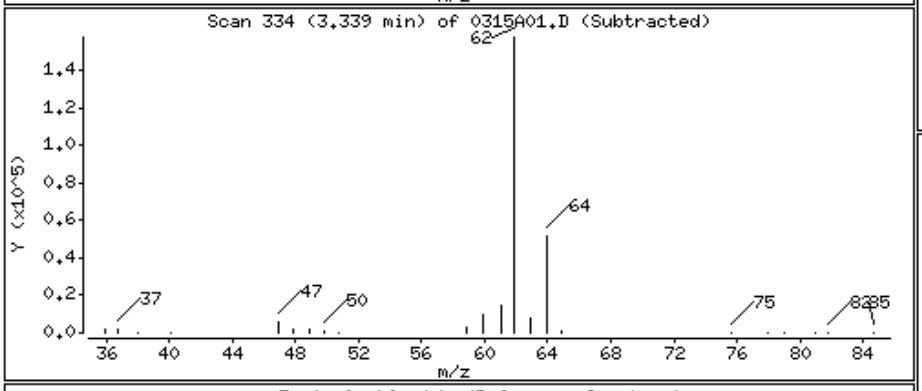
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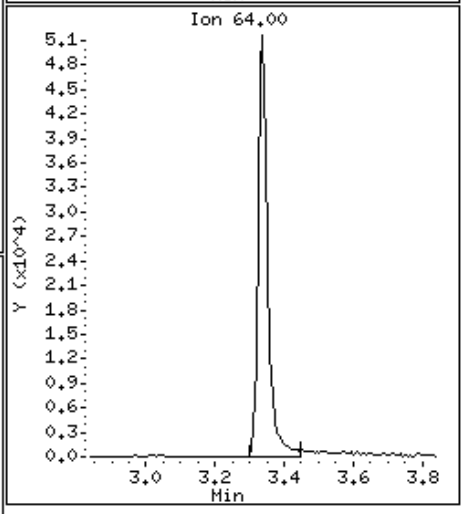
3 vinyl chloride

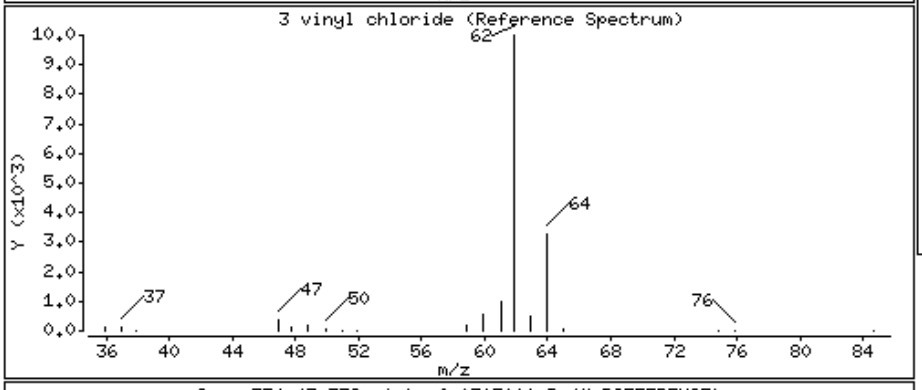
Concentration: 115.374 ngs

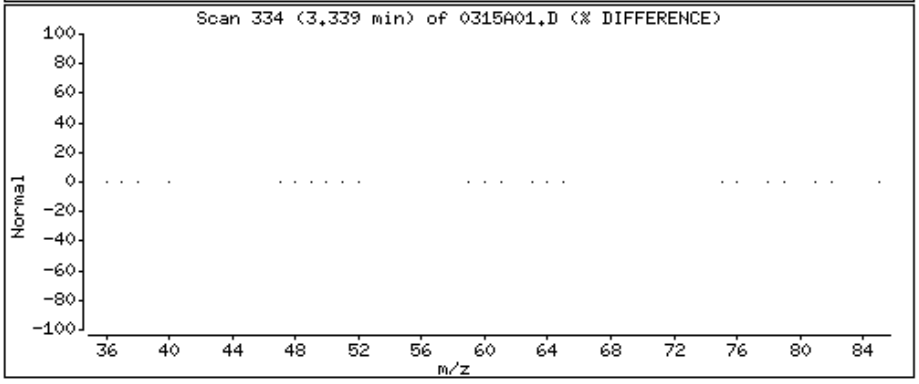












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

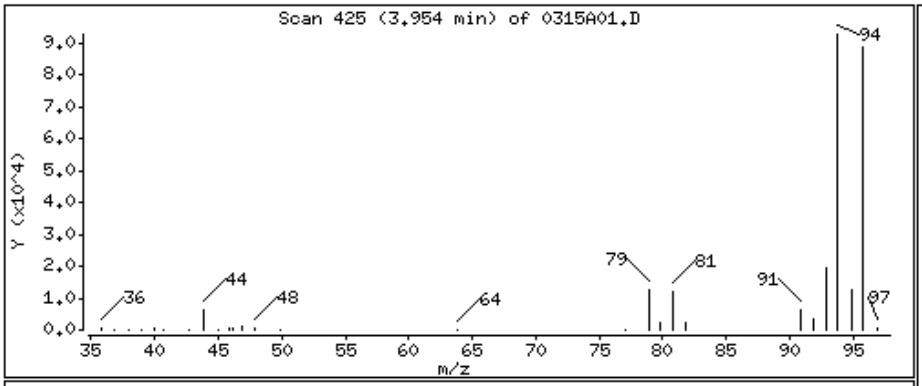
Operator: PD

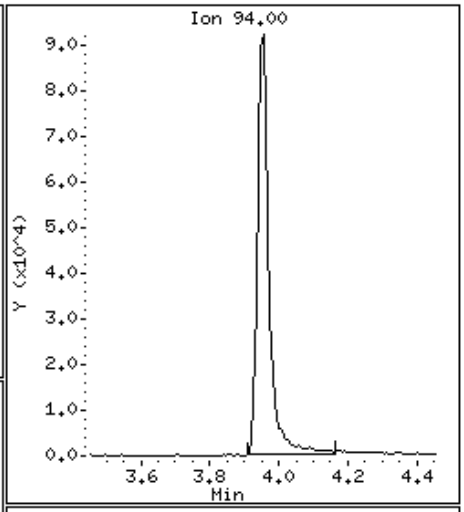
Column phase: Rtx-502.2

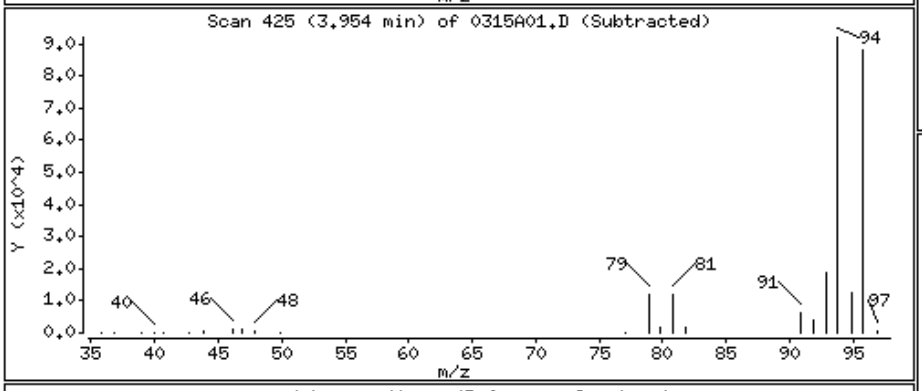
Column diameter: 0.18

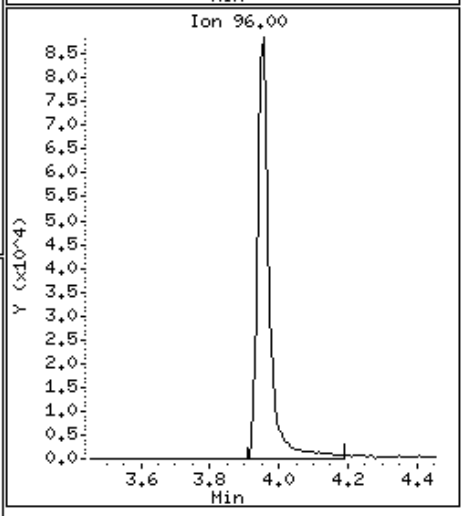
4 bromomethane

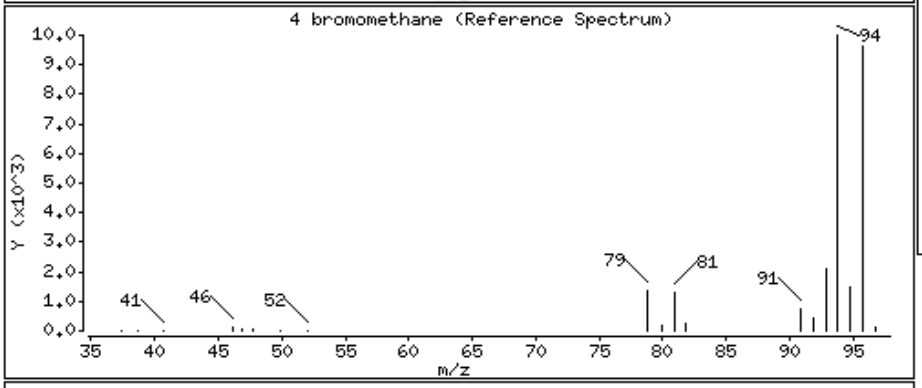
Concentration: 89.922 ngs

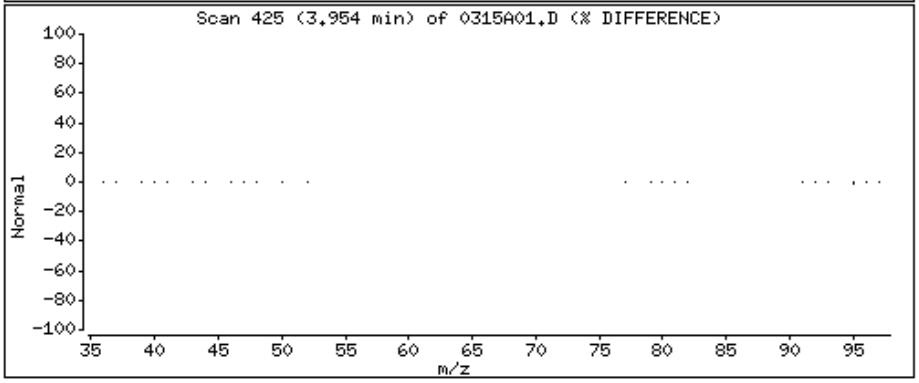












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

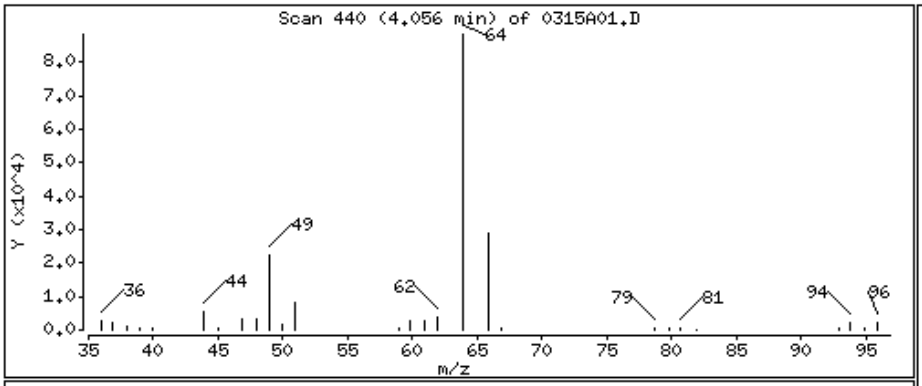
Operator: PD

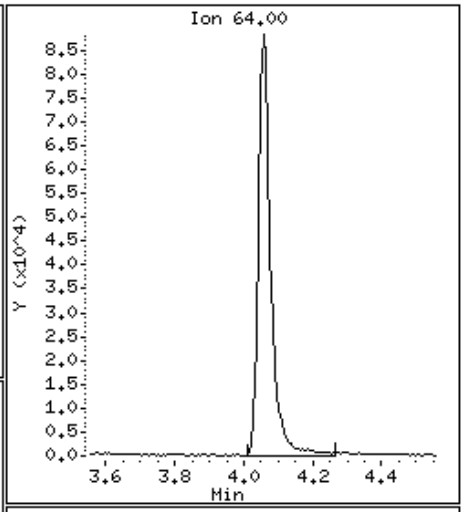
Column phase: Rtx-502.2

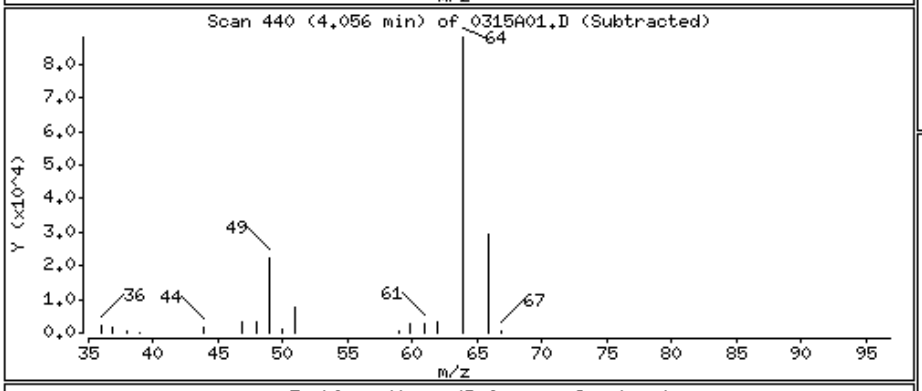
Column diameter: 0.18

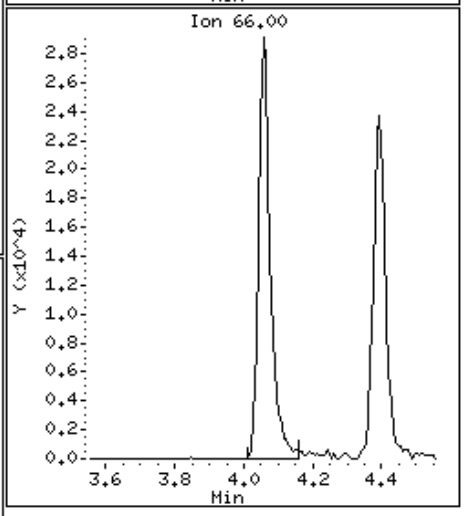
5 chloroethane

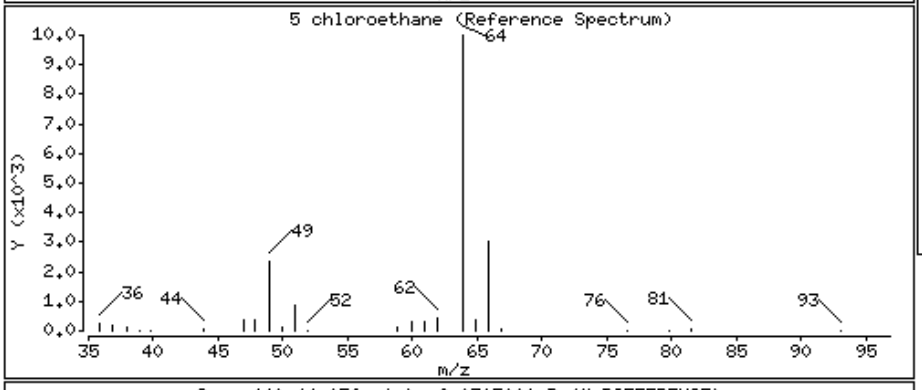
Concentration: 109.466 ngs

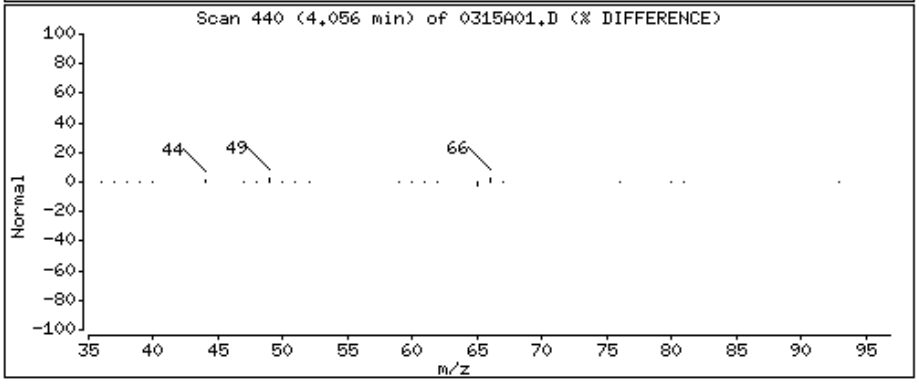












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

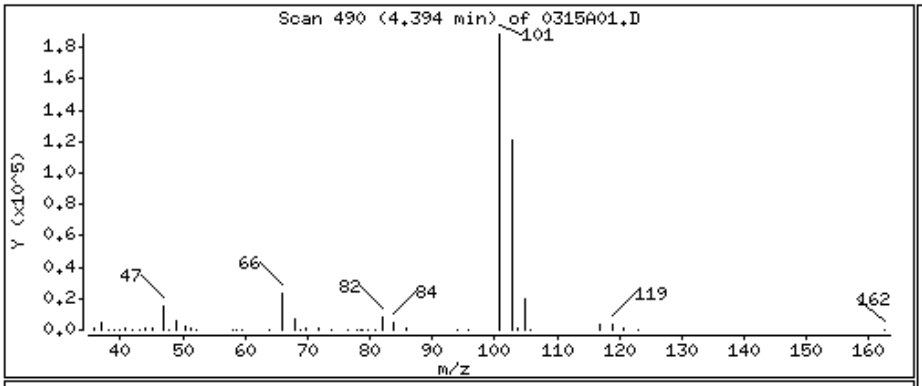
Operator: PD

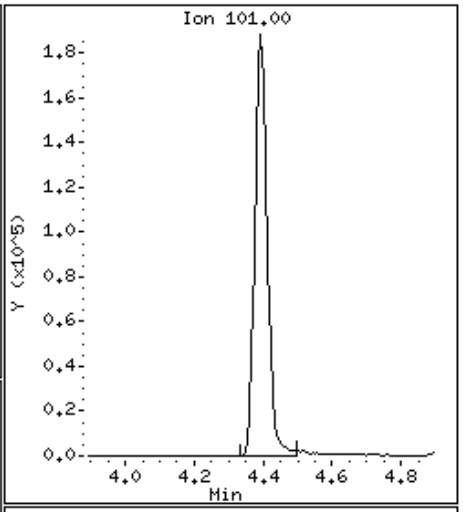
Column phase: Rtx-502.2

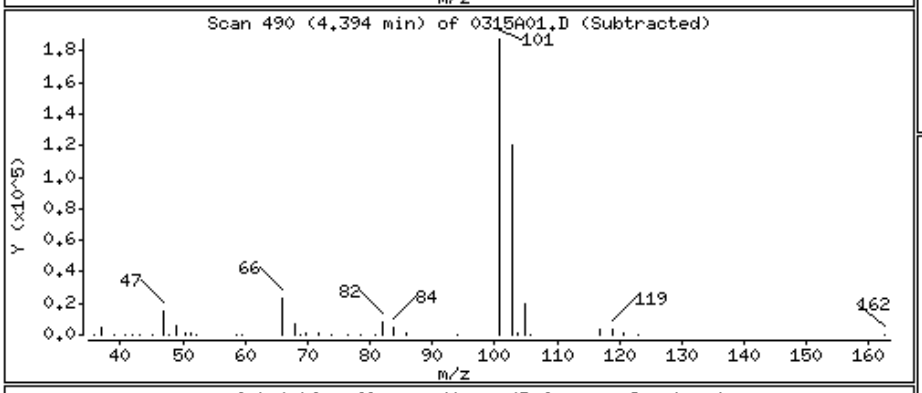
Column diameter: 0.18

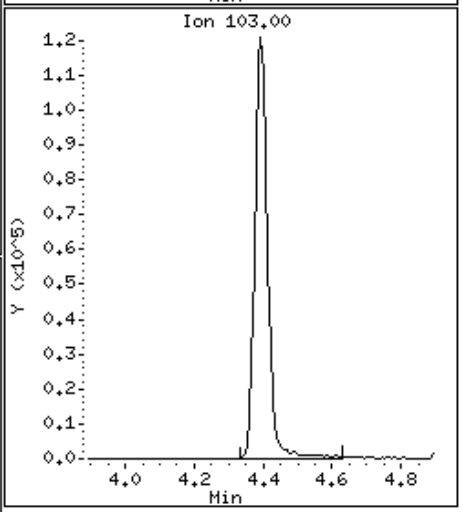
6 trichlorofluoromethane

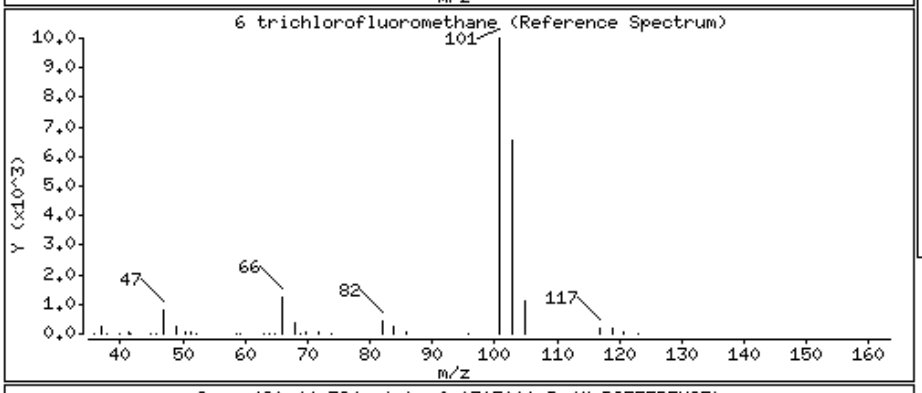
Concentration: 100.633 ngs

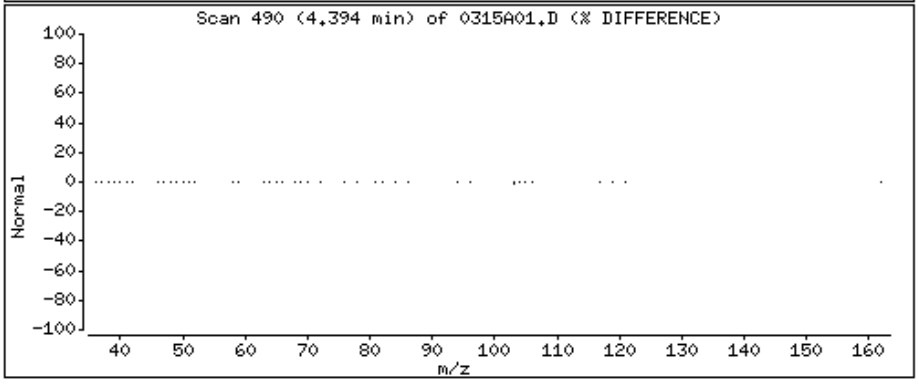












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

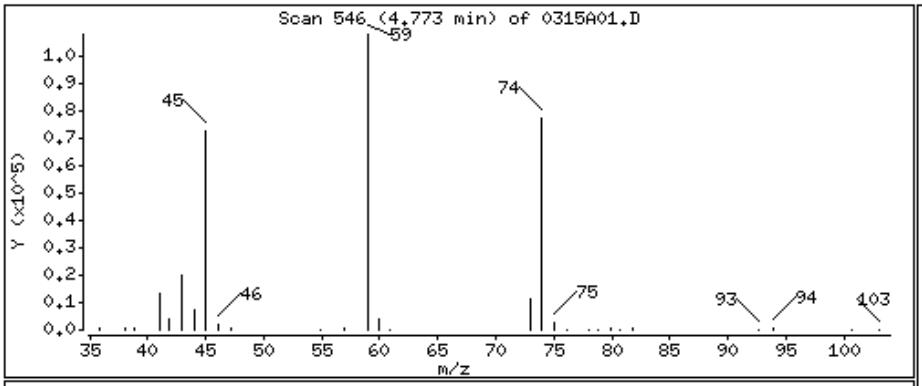
Operator: PD

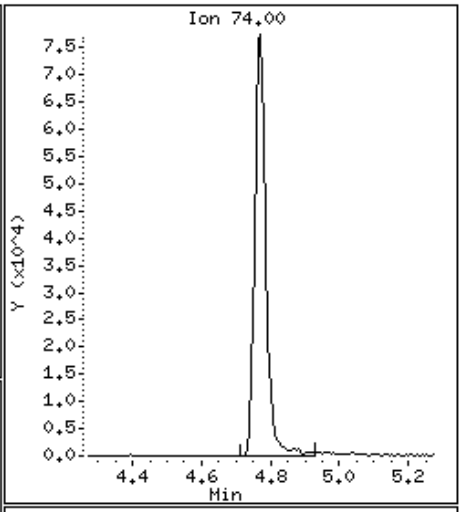
Column phase: Rtx-502.2

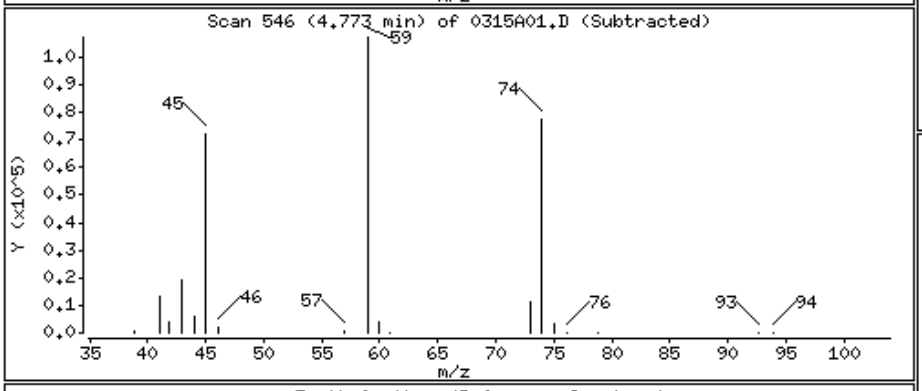
Column diameter: 0.18

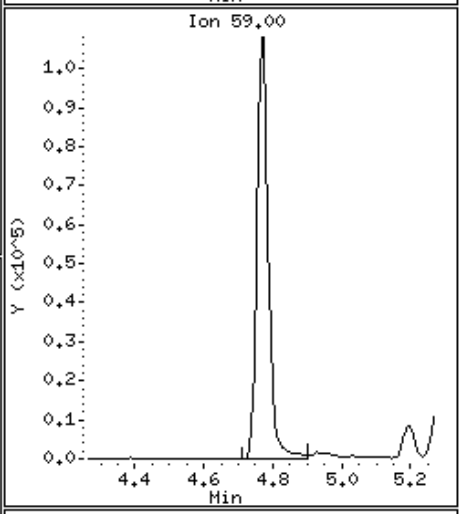
7 ethyl ether

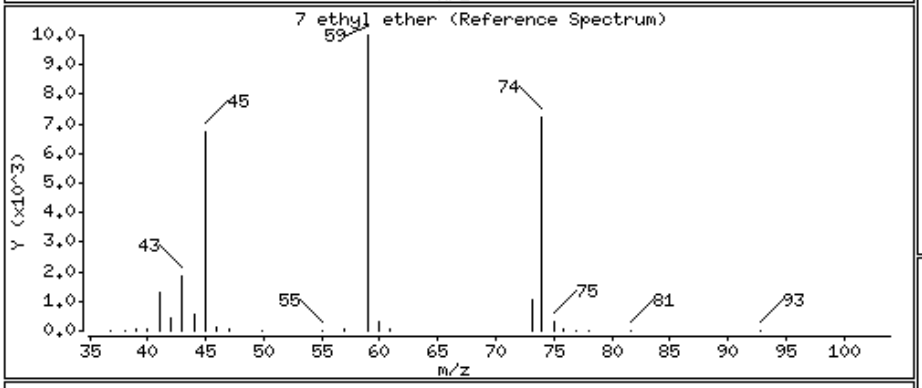
Concentration: 104.177 ngs

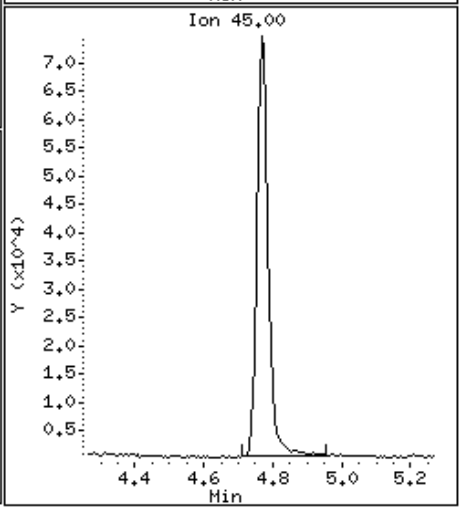


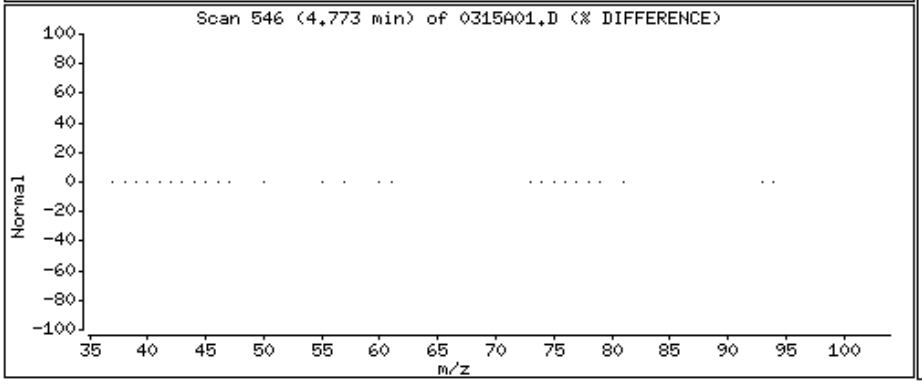












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

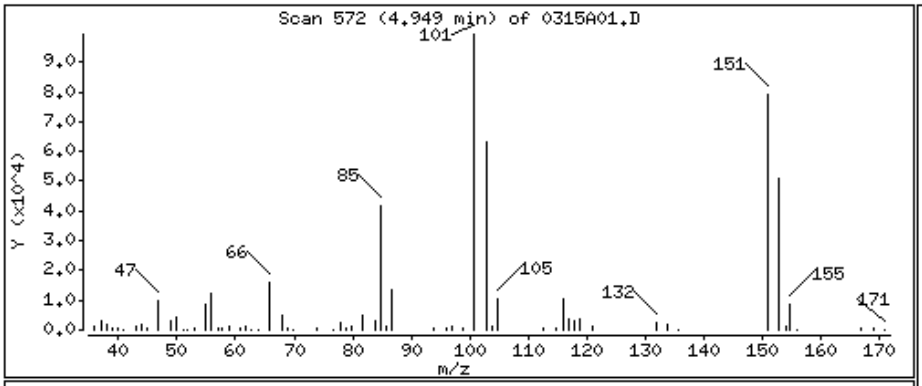
Operator: PD

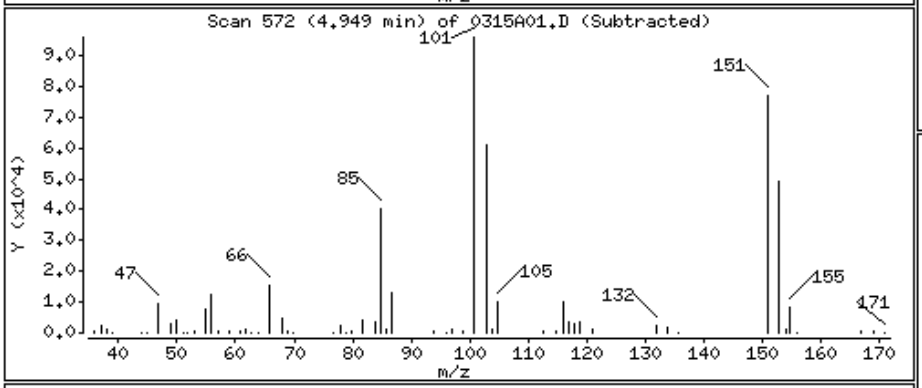
Column phase: Rtx-502.2

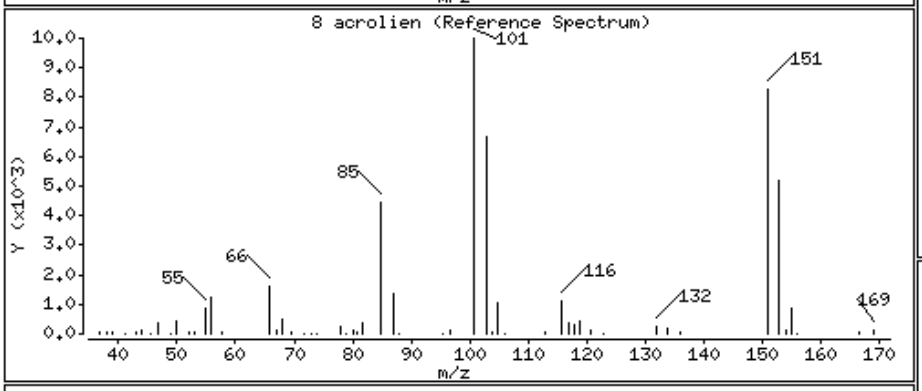
Column diameter: 0.18

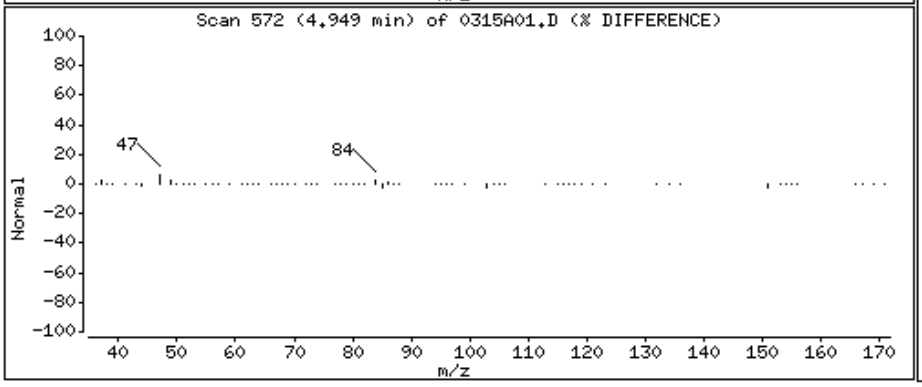
8 acrolien

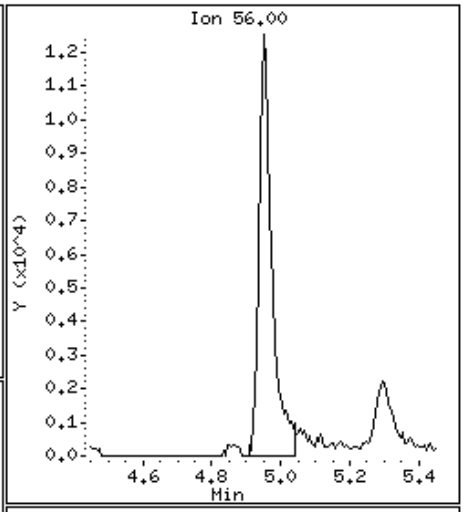
Concentration: 104.729 ngs

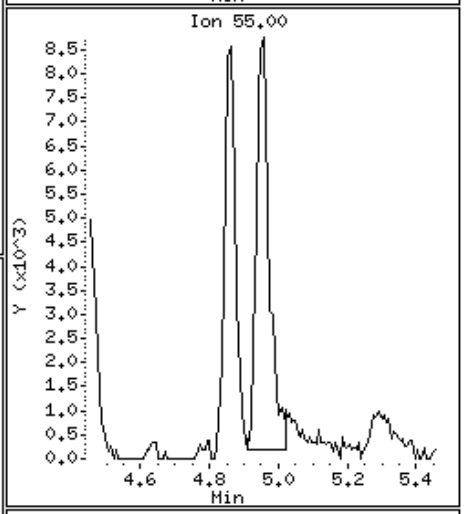


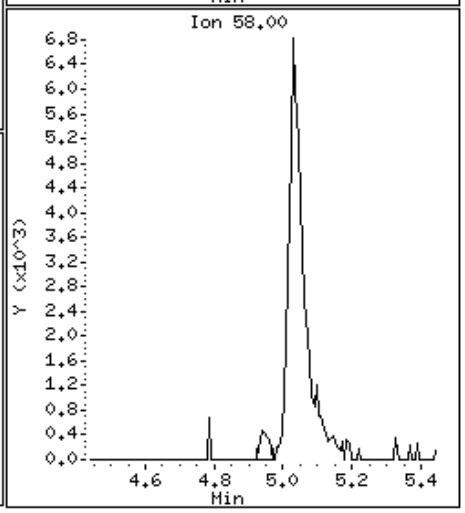












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

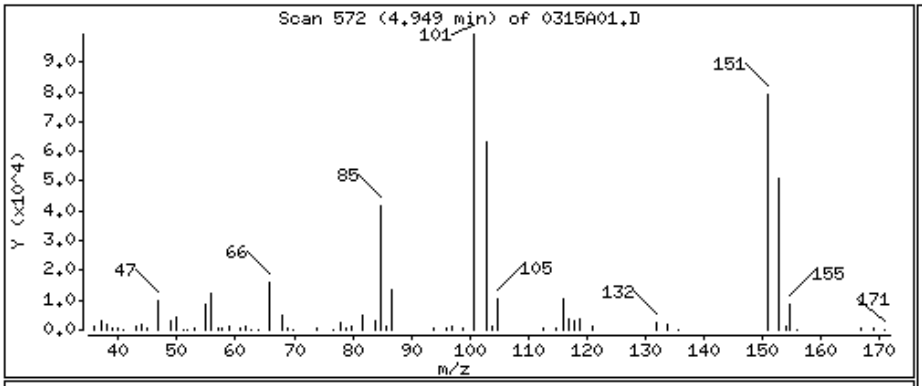
Operator: PD

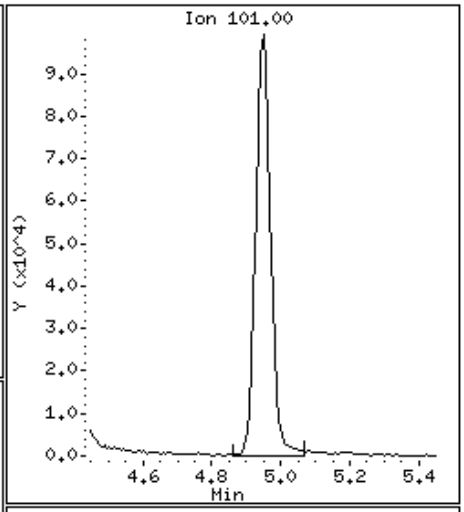
Column phase: Rtx-502.2

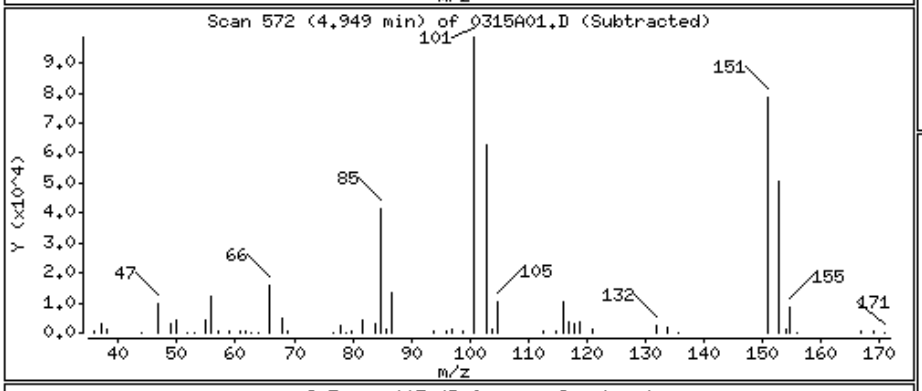
Column diameter: 0.18

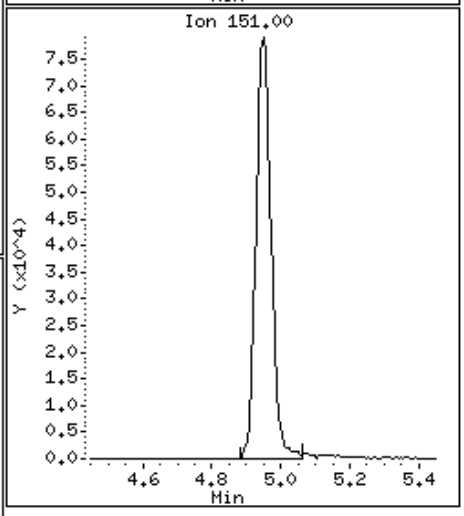
9 Freon 113

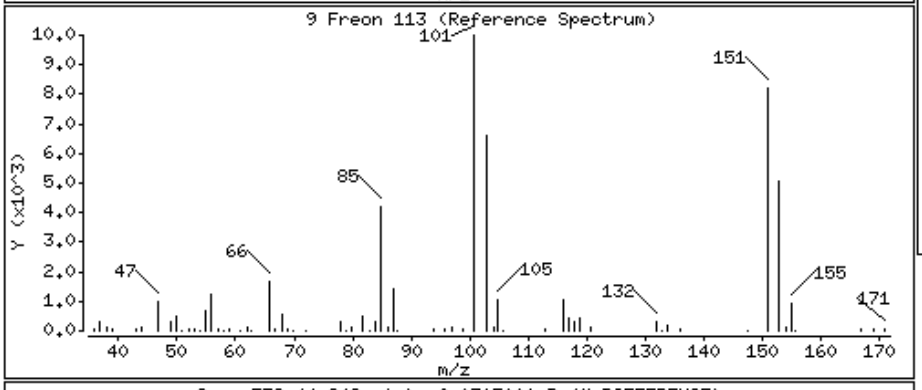
Concentration: 100.602 ngs

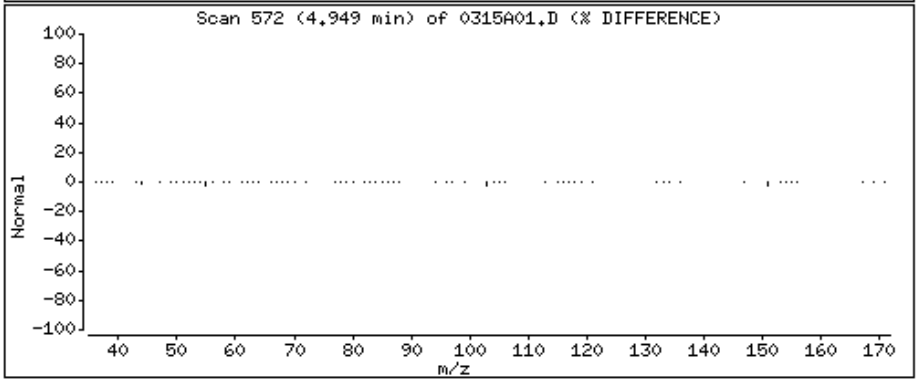












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

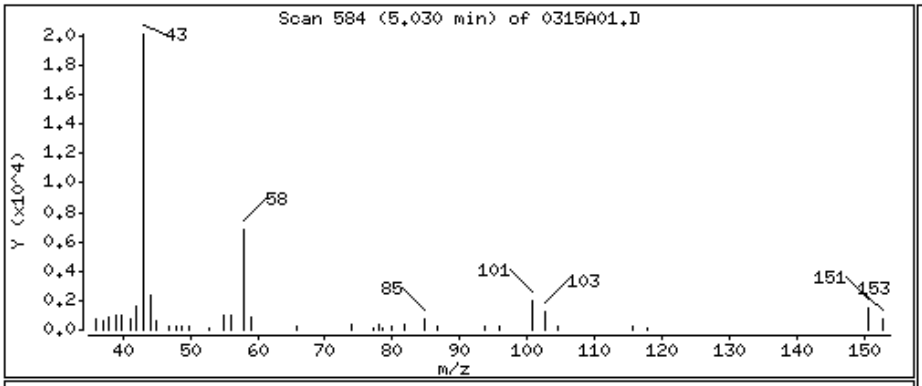
Operator: PD

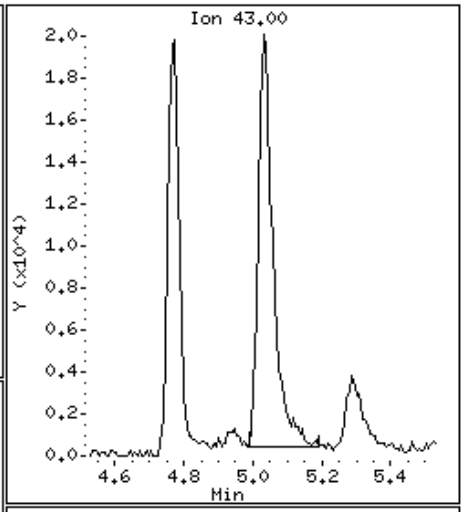
Column phase: Rtx-502.2

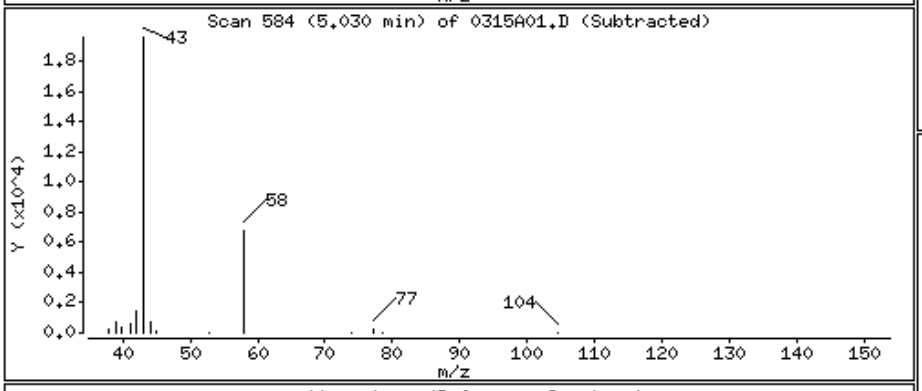
Column diameter: 0.18

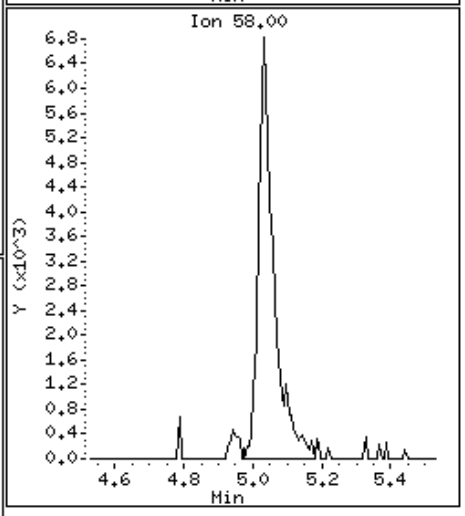
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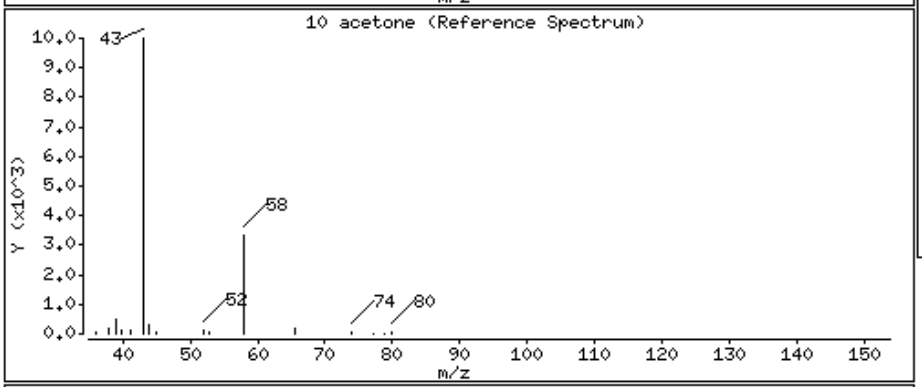
Concentration: 96.671 ngs

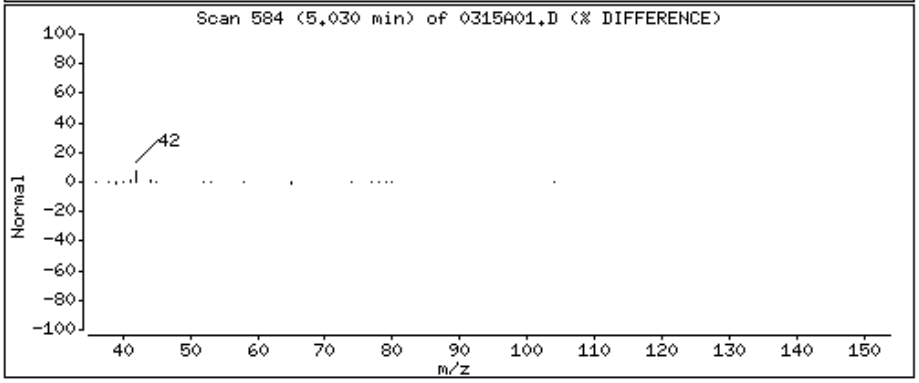












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

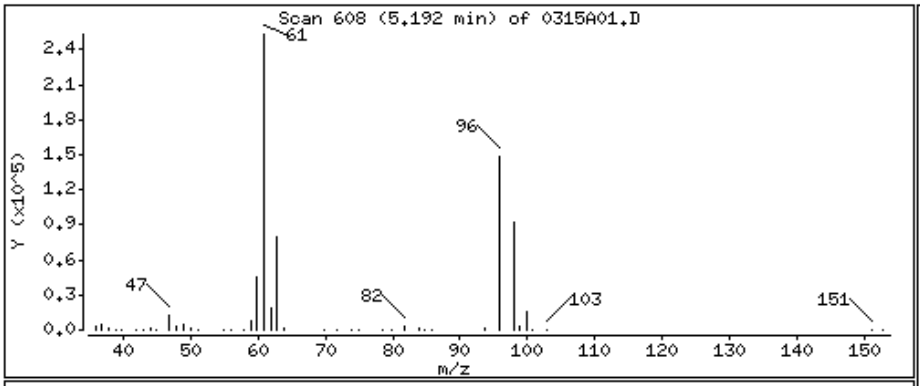
Operator: PD

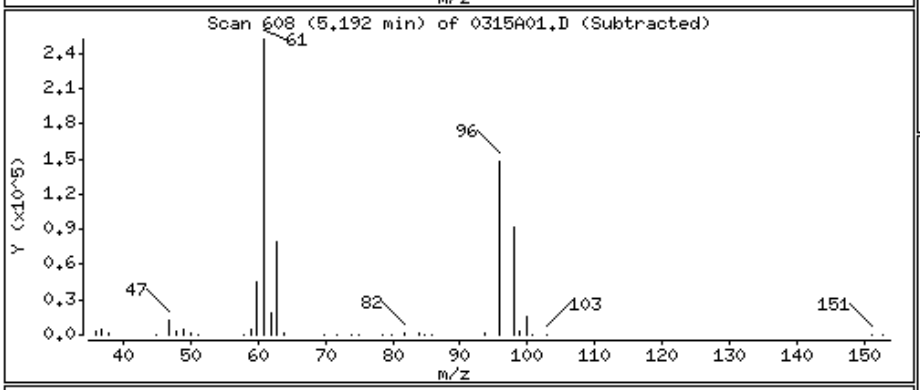
Column phase: Rtx-502.2

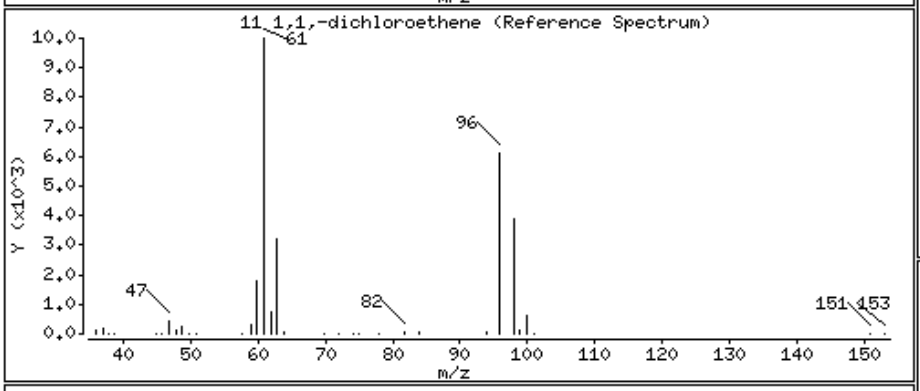
Column diameter: 0.18

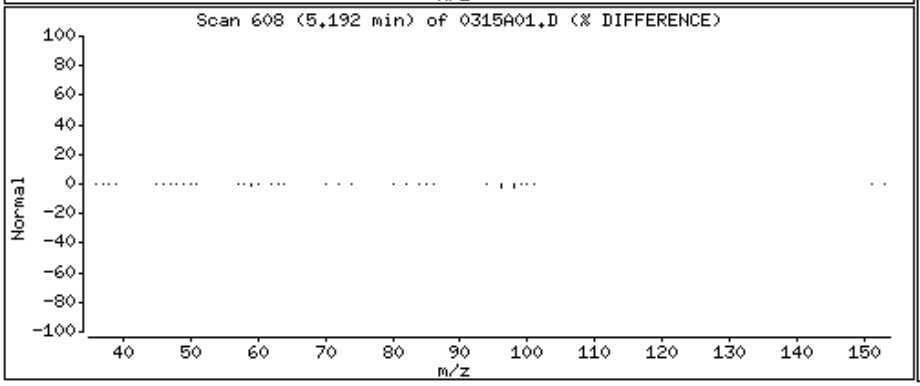
11 1,1,-dichloroethene

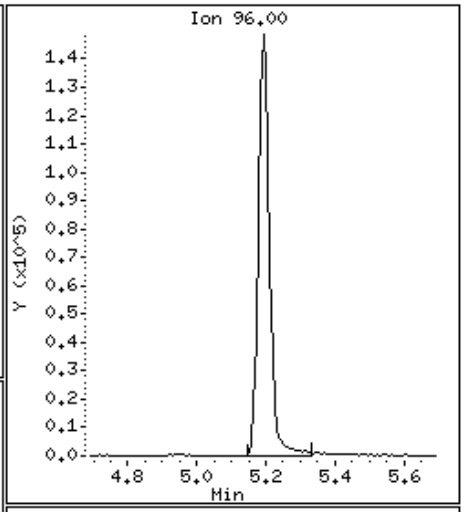
Concentration: 104.785 ngs

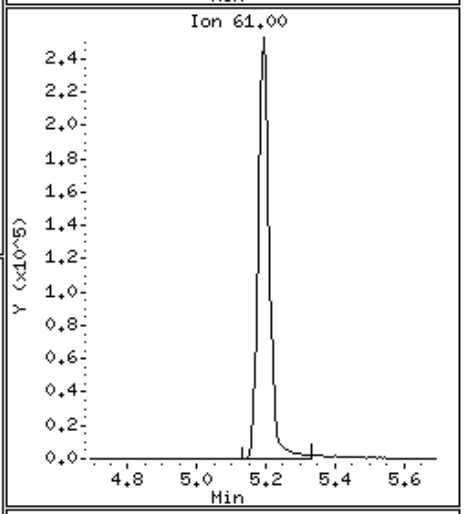


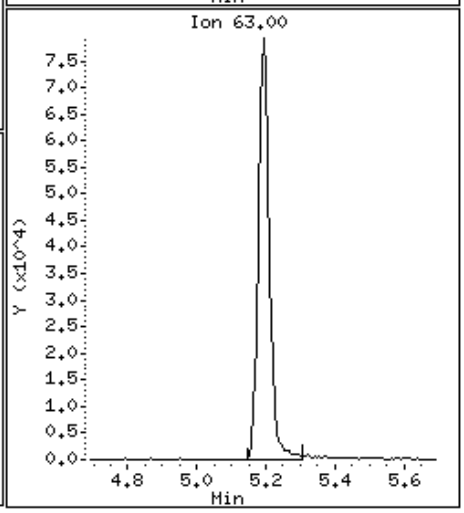












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

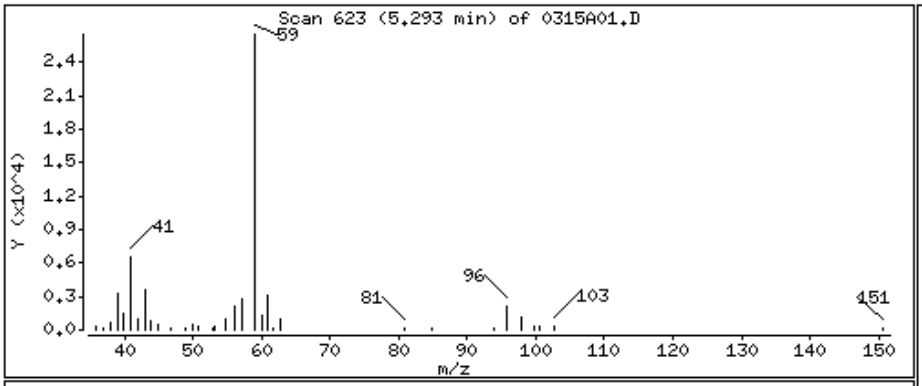
Operator: PD

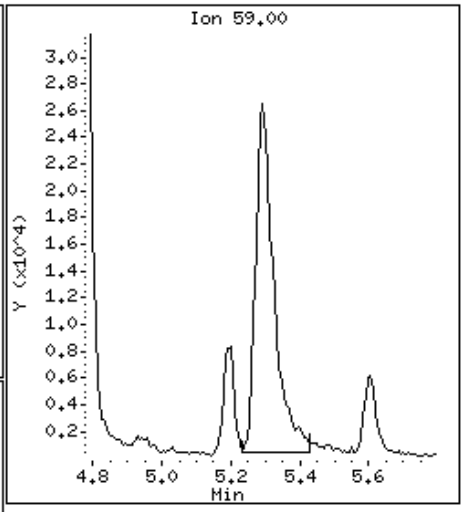
Column phase: Rtx-502.2

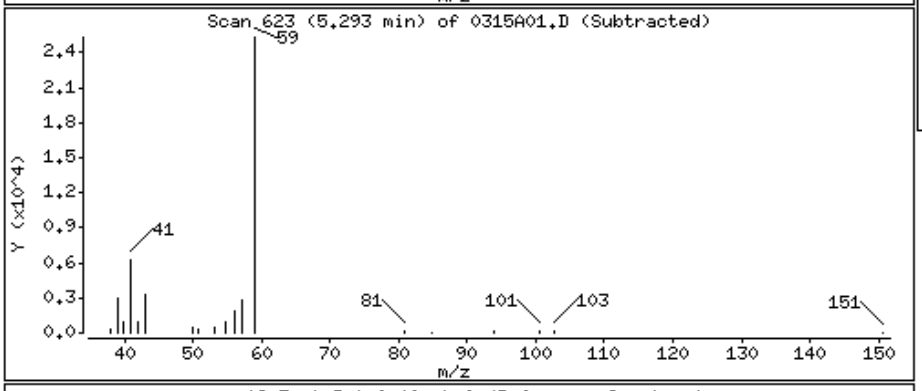
Column diameter: 0.18

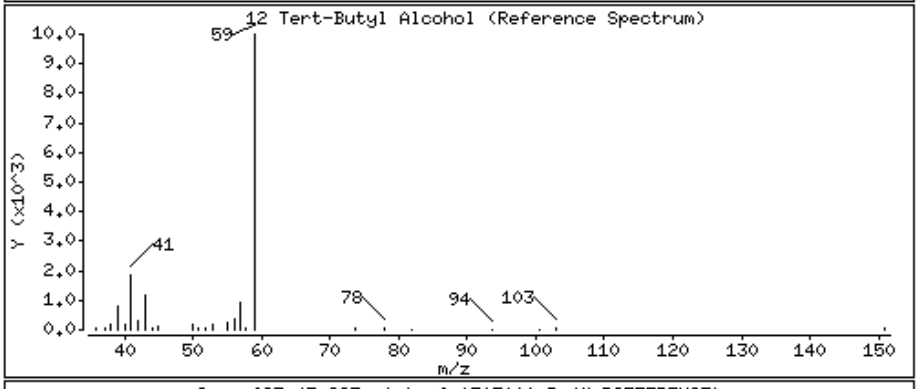
12 Tert-Butyl Alcohol

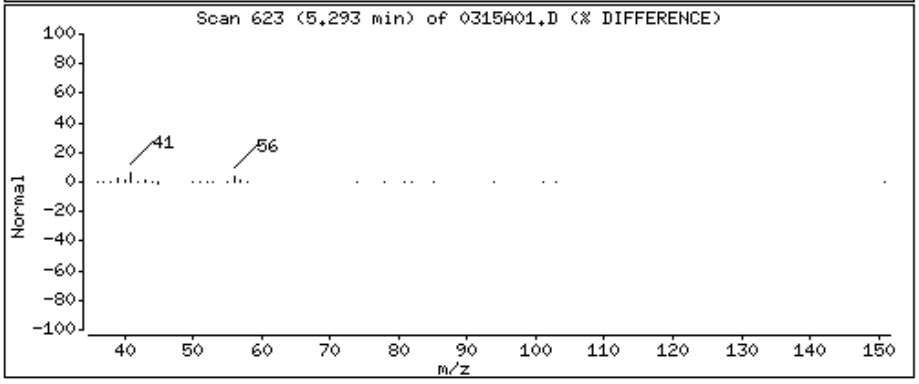
Concentration: 465.046 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

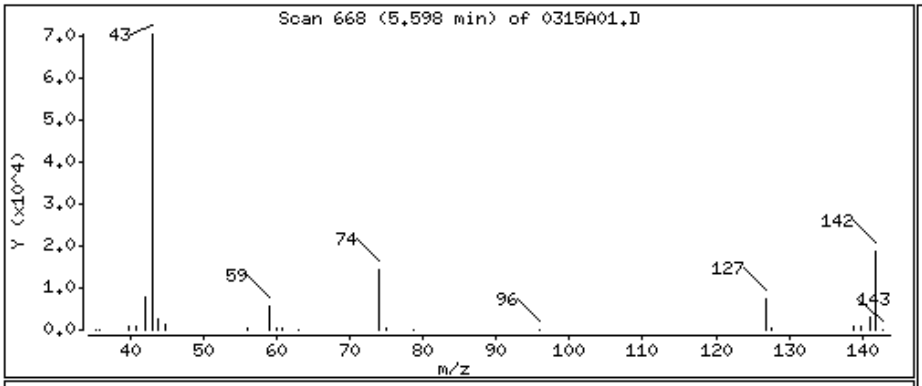
Operator: PD

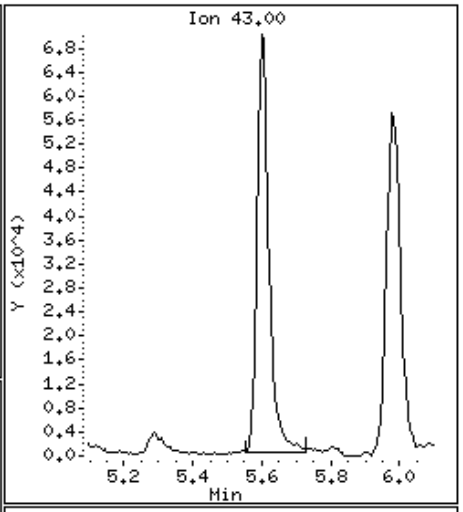
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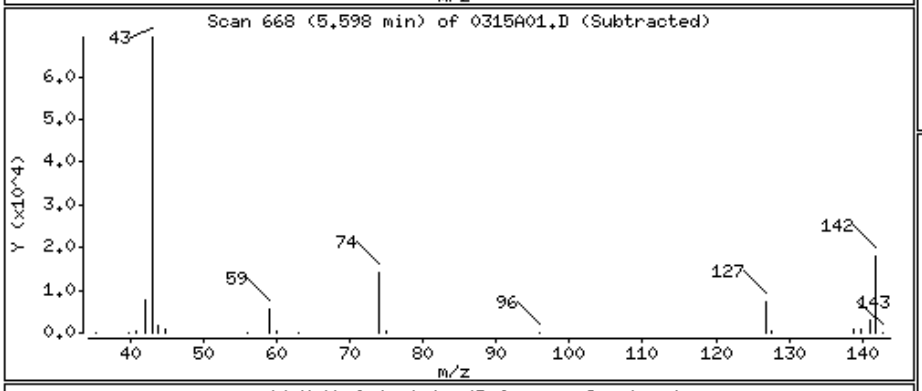
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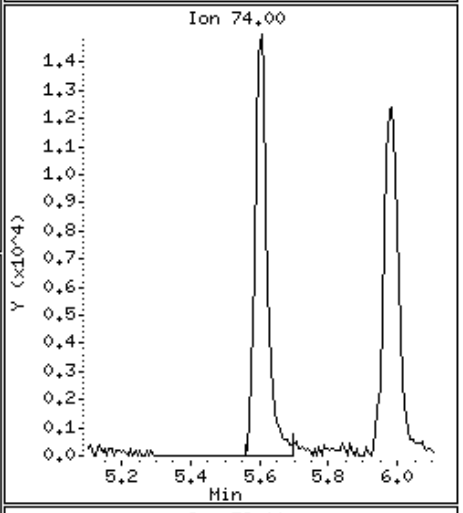
14 Methyl Acetate

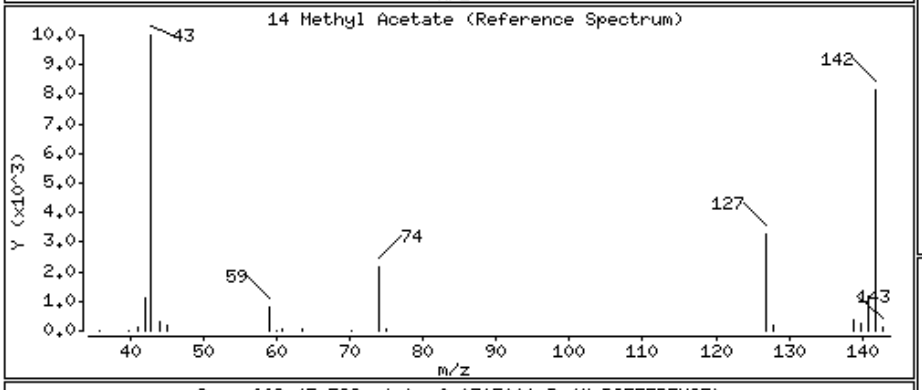
Concentration: 98.240 ngs

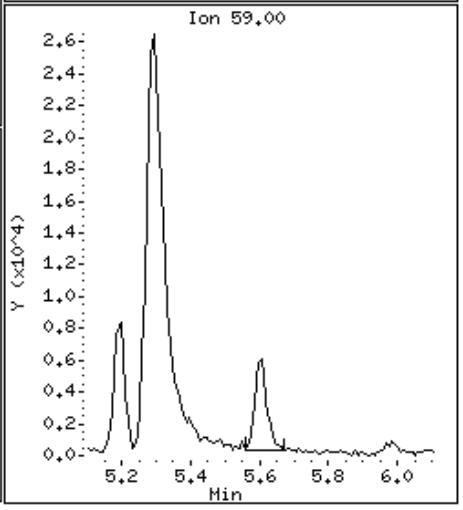


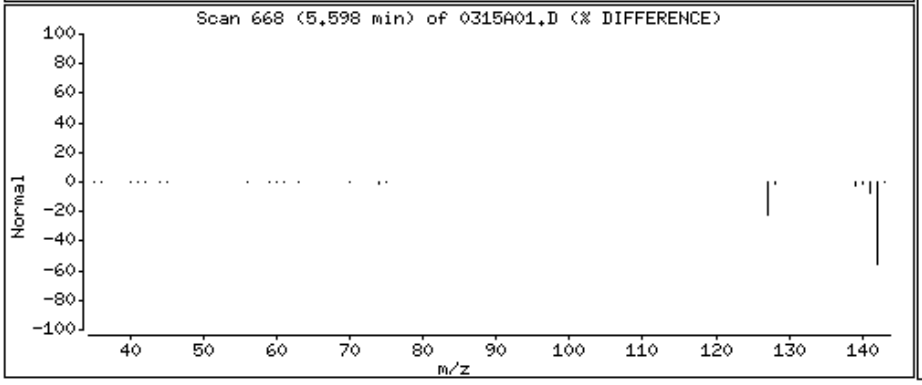












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

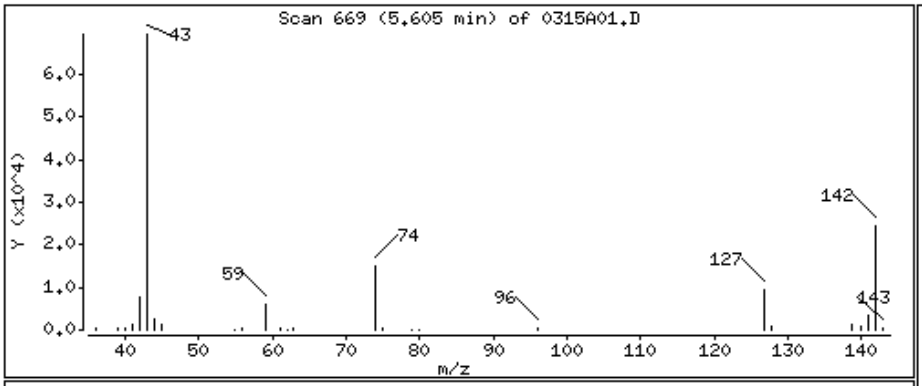
Operator: PD

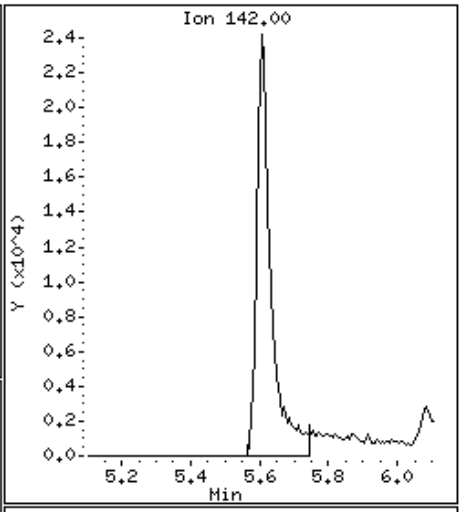
Column phase: Rtx-502.2

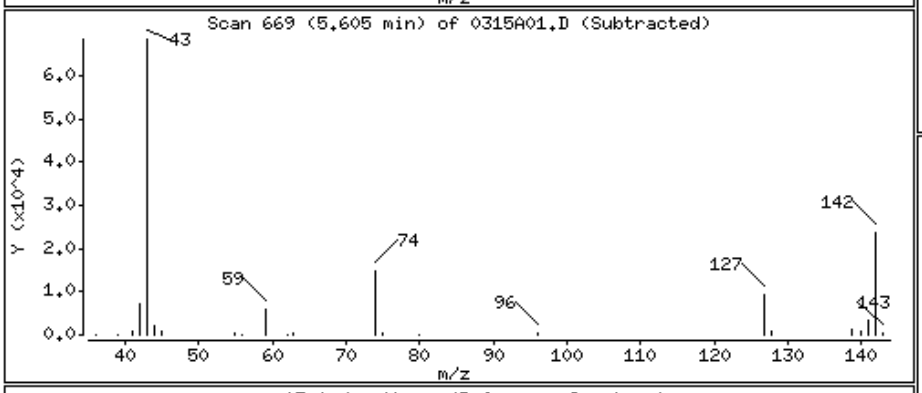
Column diameter: 0.18

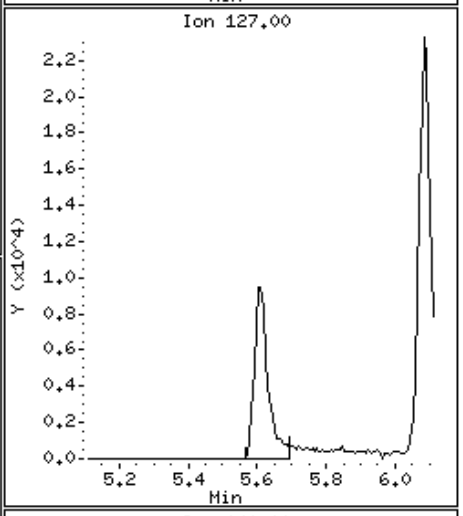
13 iodomethane

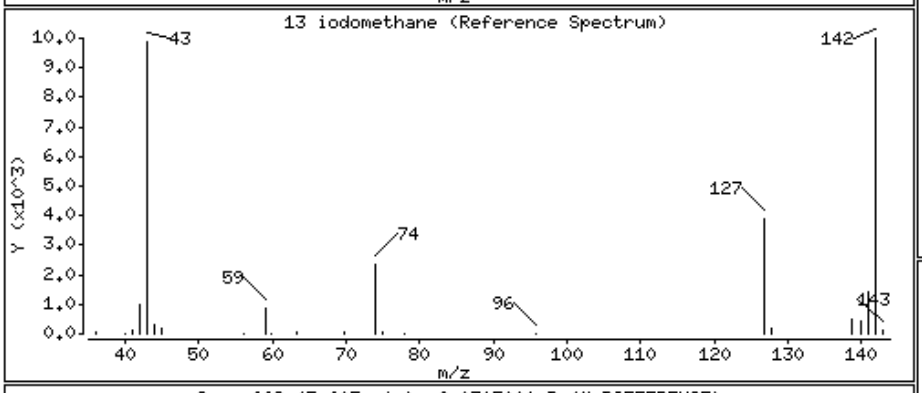
Concentration: 38.084 ngs

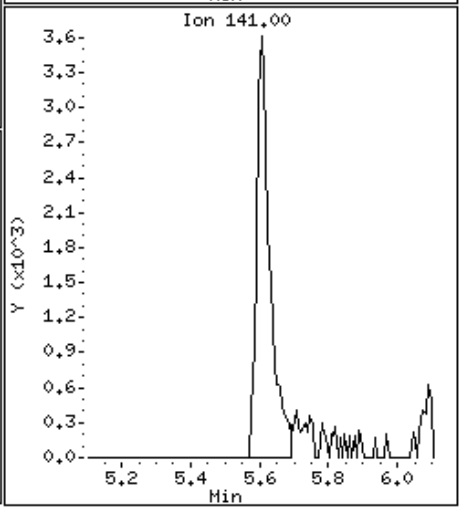


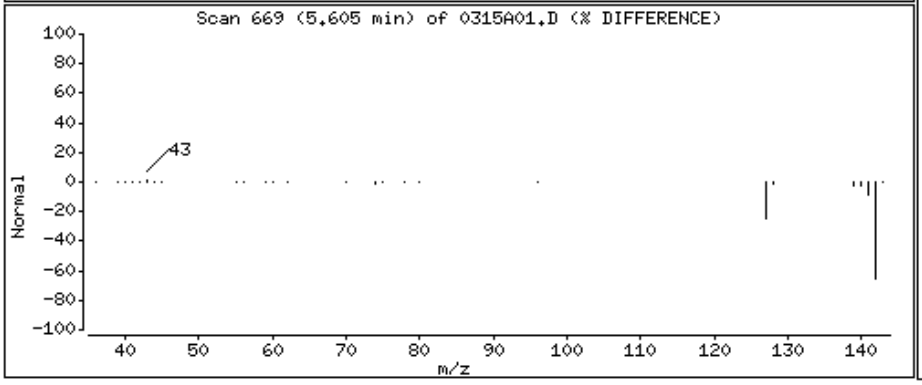












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

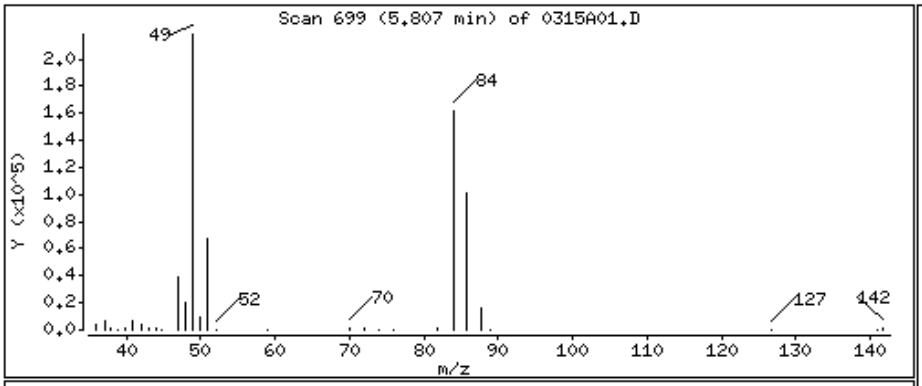
Operator: PD

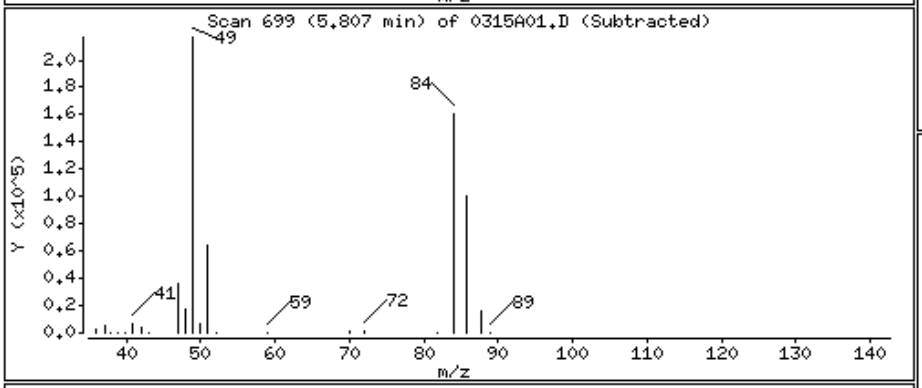
Column phase: Rtx-502.2

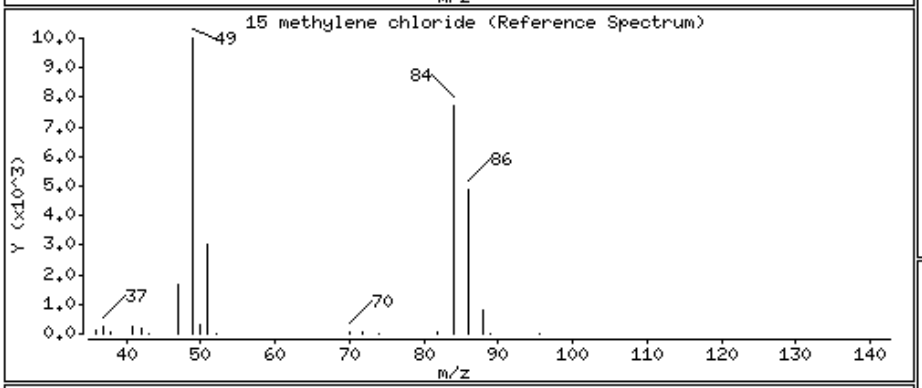
Column diameter: 0.18

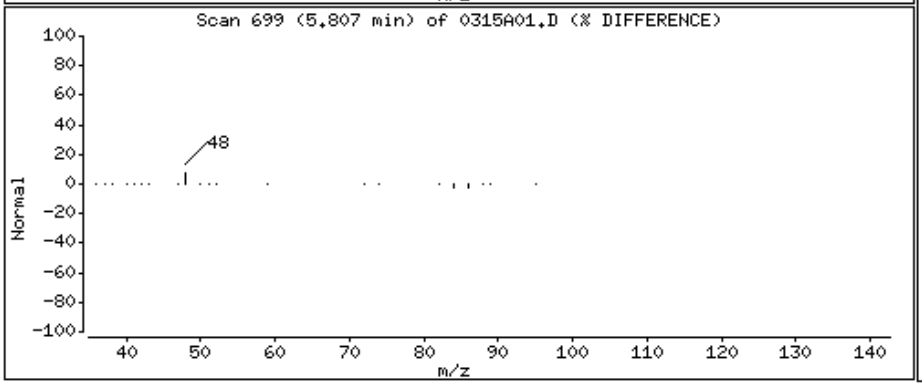
15 methylene chloride

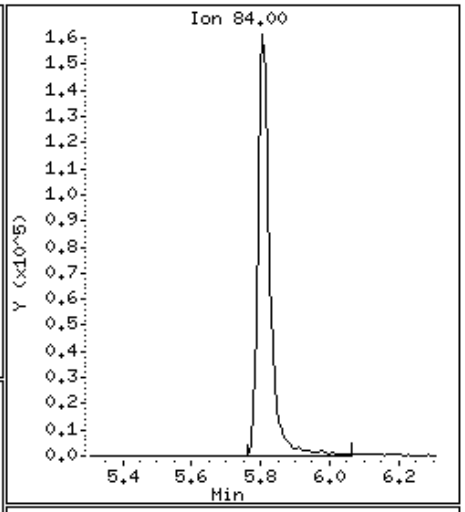
Concentration: 101.220 ngs

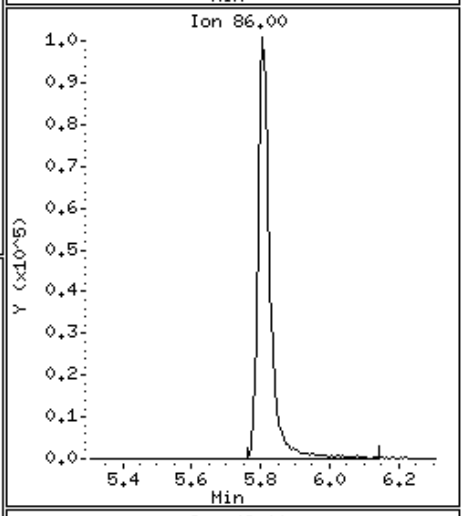


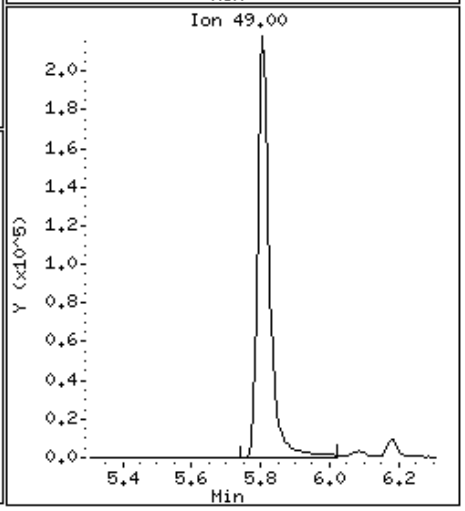












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

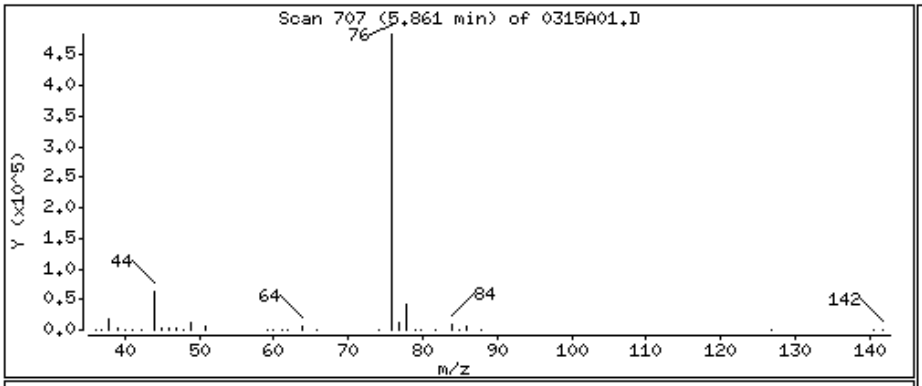
Operator: PD

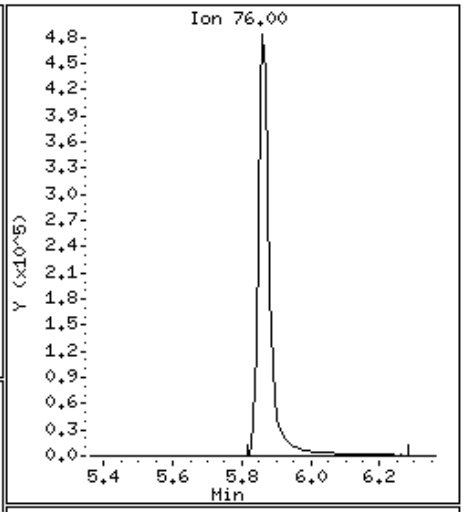
Column phase: Rtx-502.2

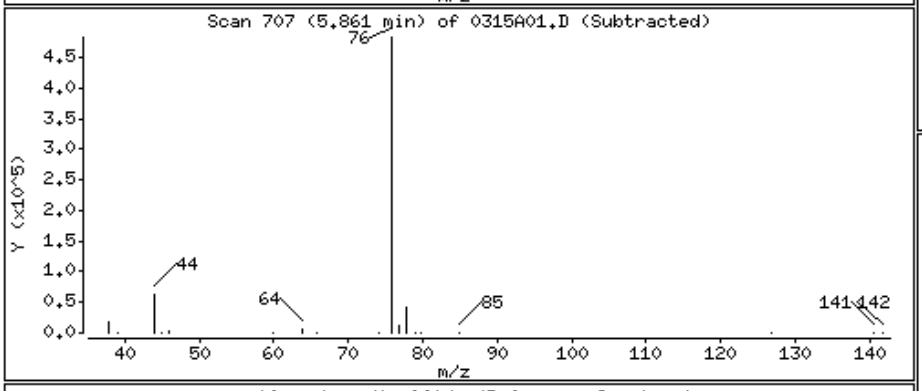
Column diameter: 0.18

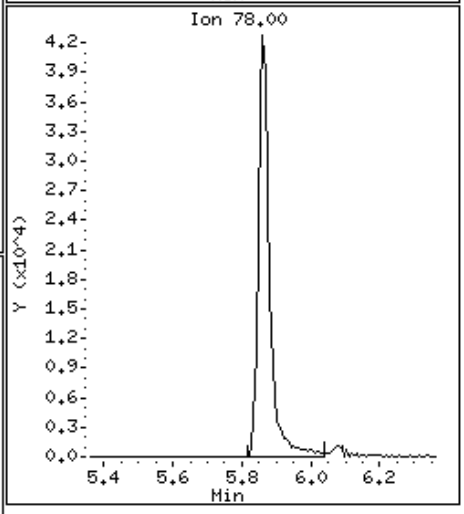
16 carbon disulfide

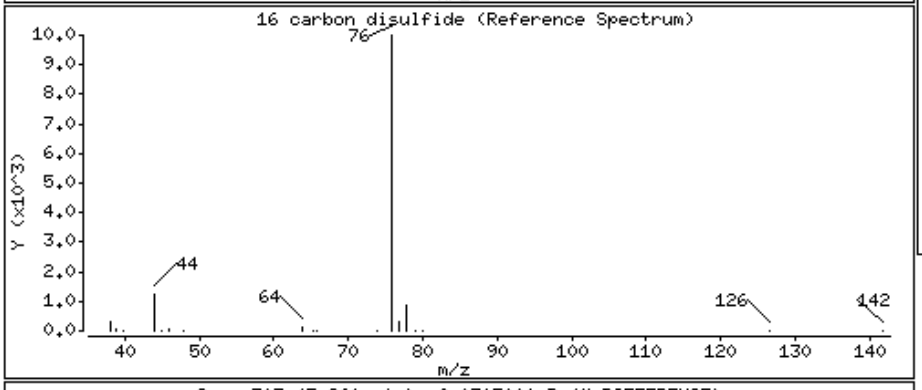
Concentration: 97.966 ngs

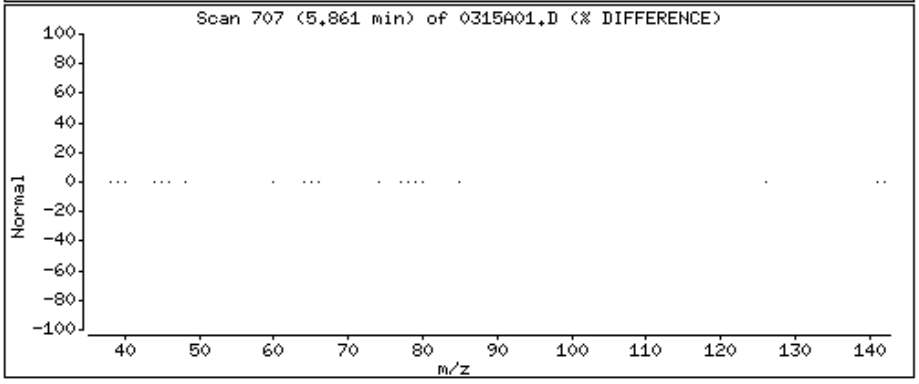












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

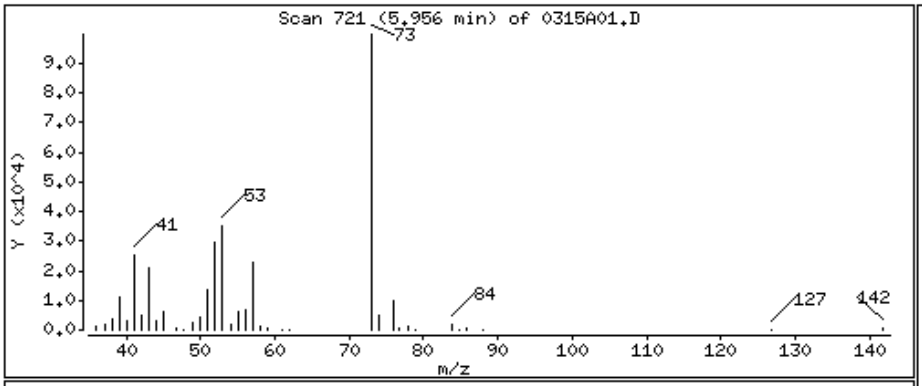
Operator: PD

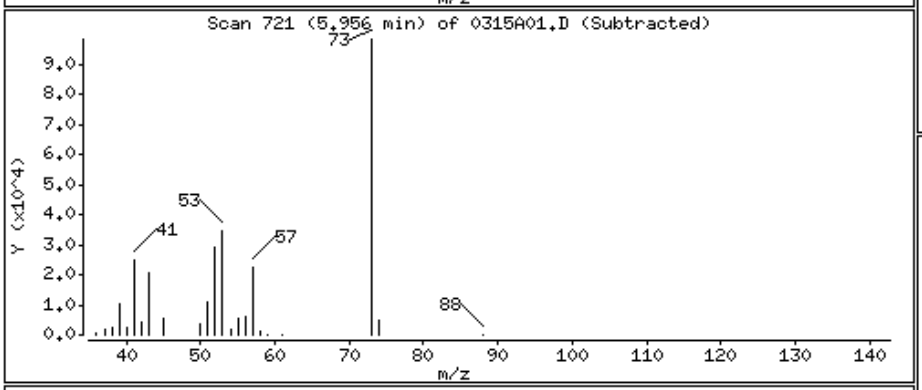
Column phase: Rtx-502.2

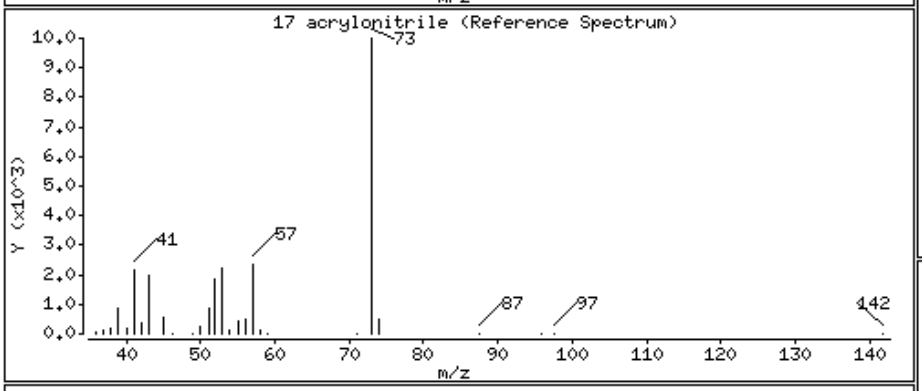
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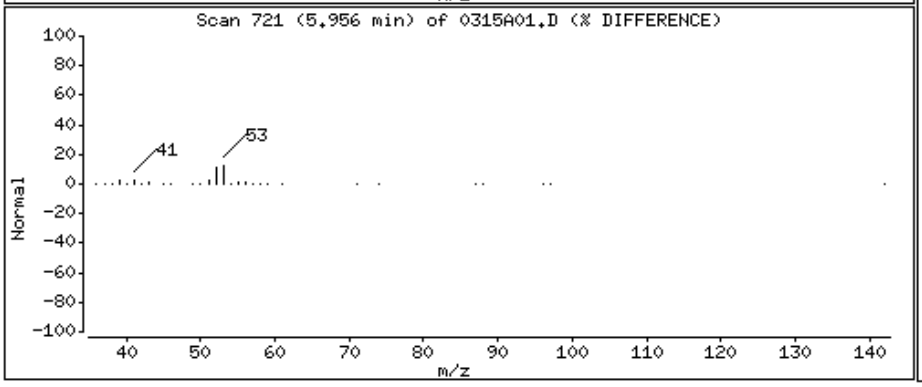
17 acrylonitrile

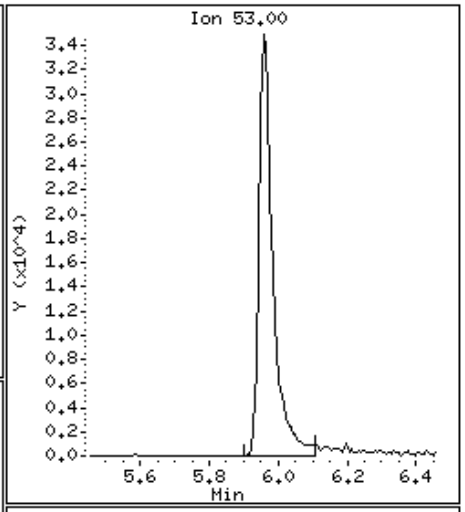
Concentration: 101.216 ngs

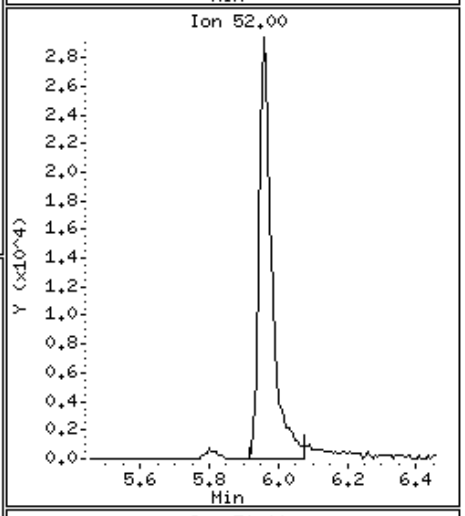


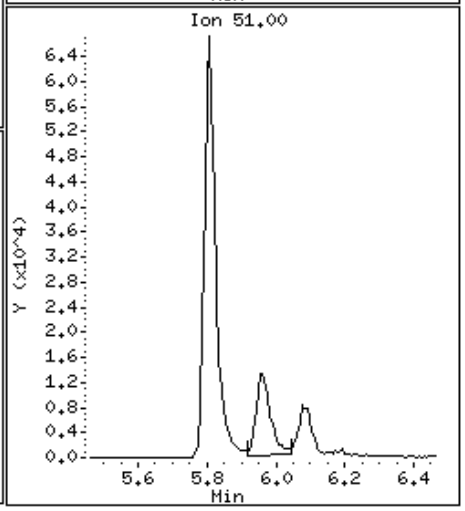












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

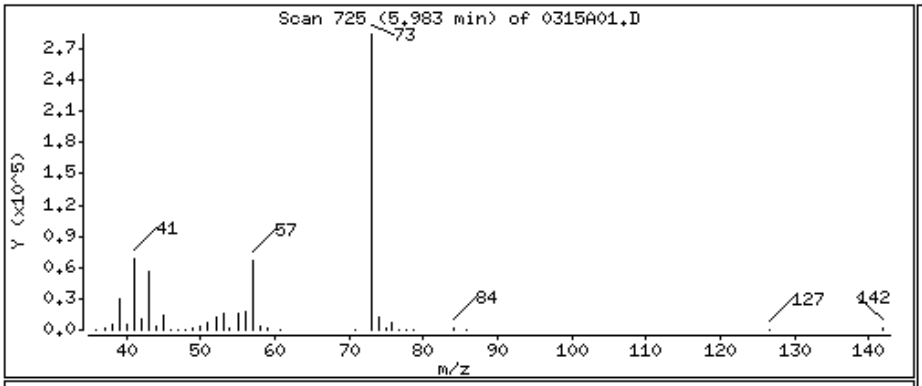
Operator: PD

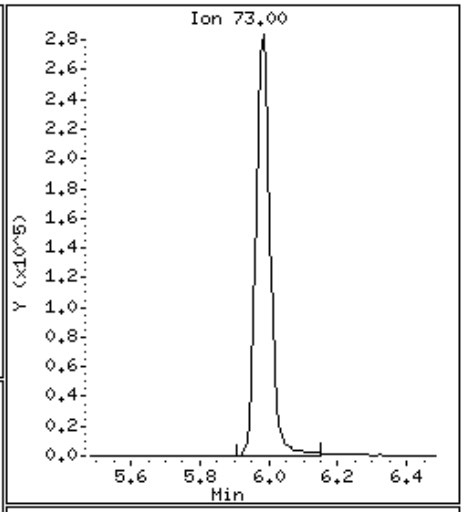
Column phase: Rtx-502.2

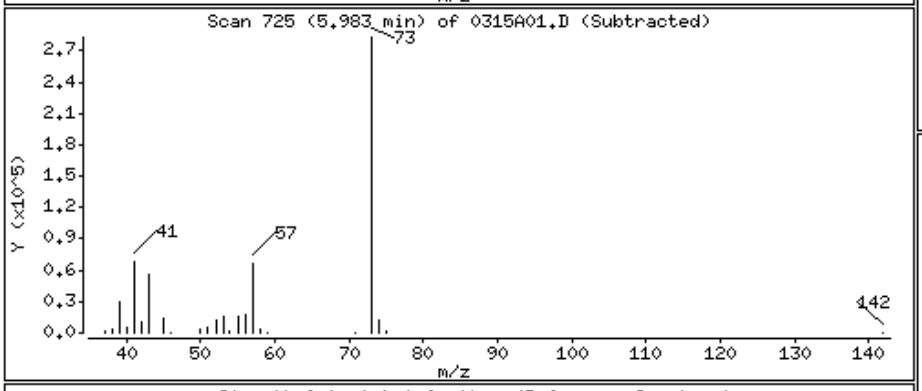
Column diameter: 0.18

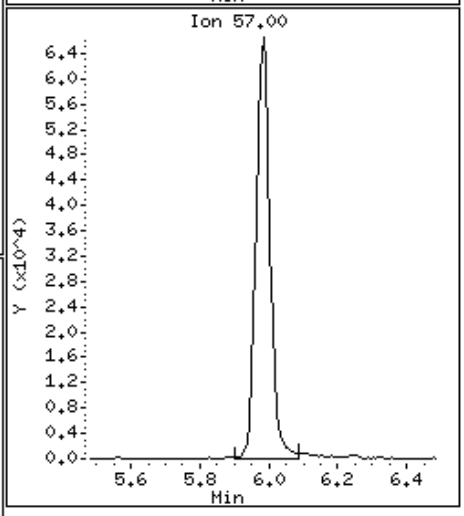
20 methyl tert butyl ether

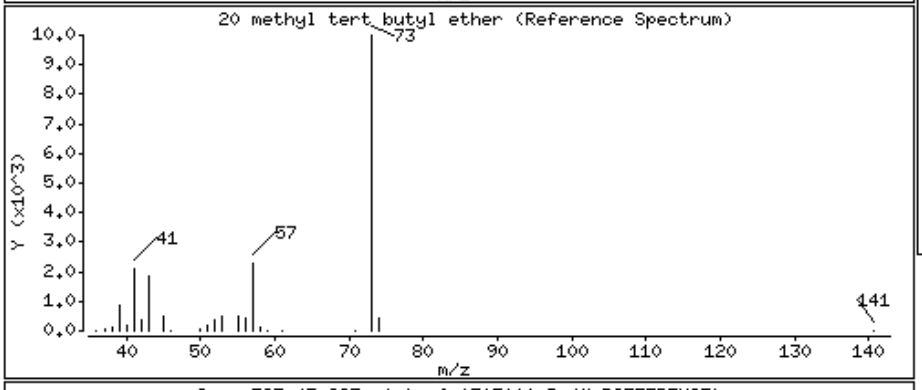
Concentration: 85.873 ngs

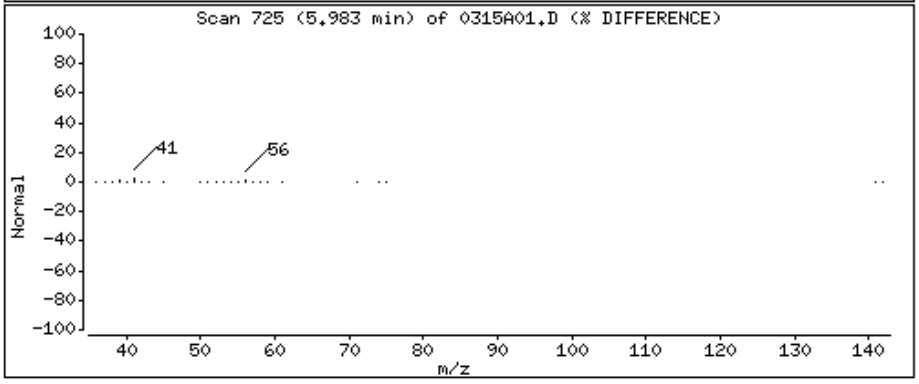












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

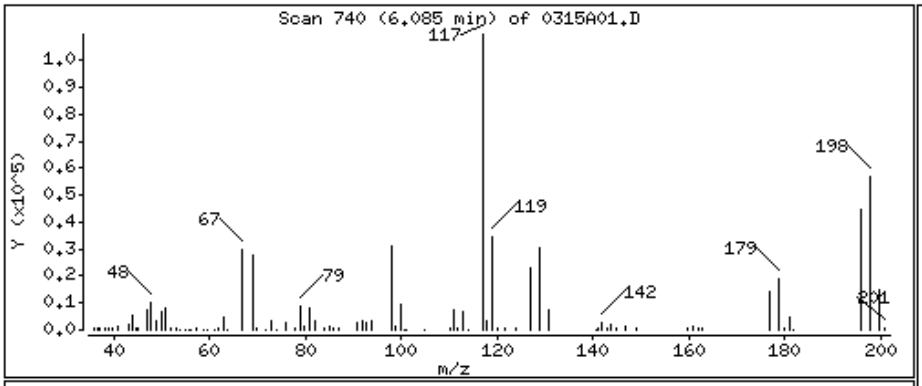
Operator: PD

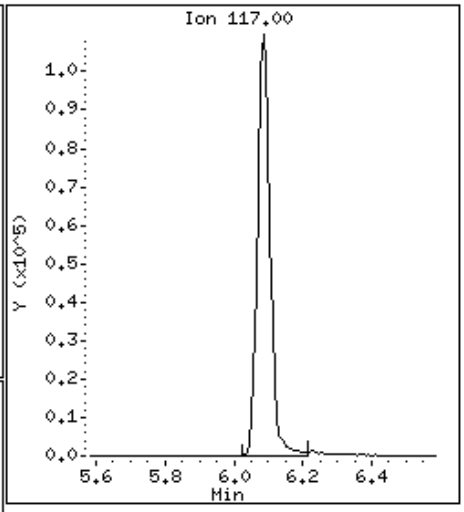
Column phase: Rtx-502.2

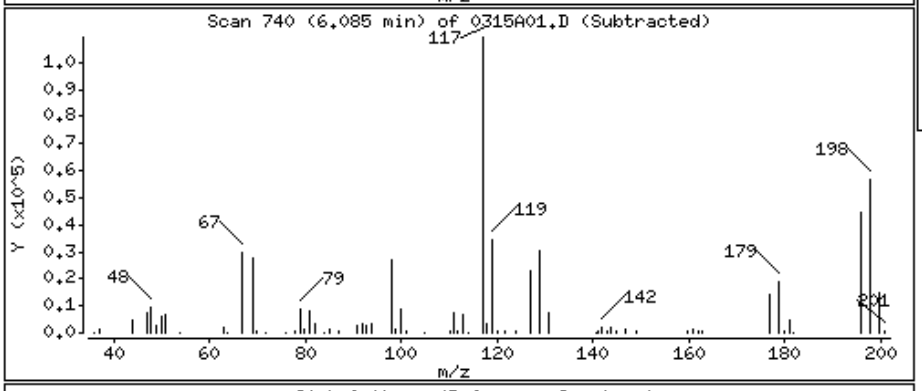
Column diameter: 0.18

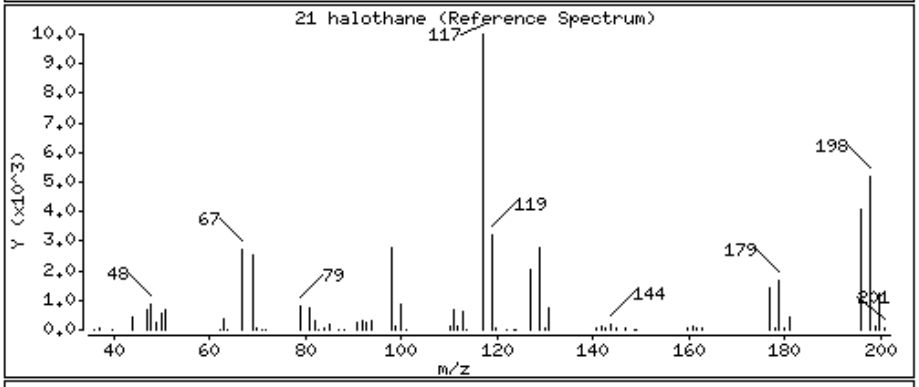
21 halothane

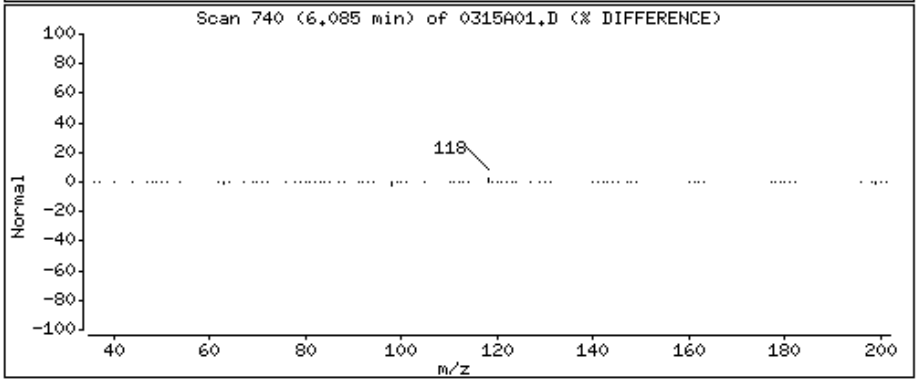
Concentration: 107.270 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

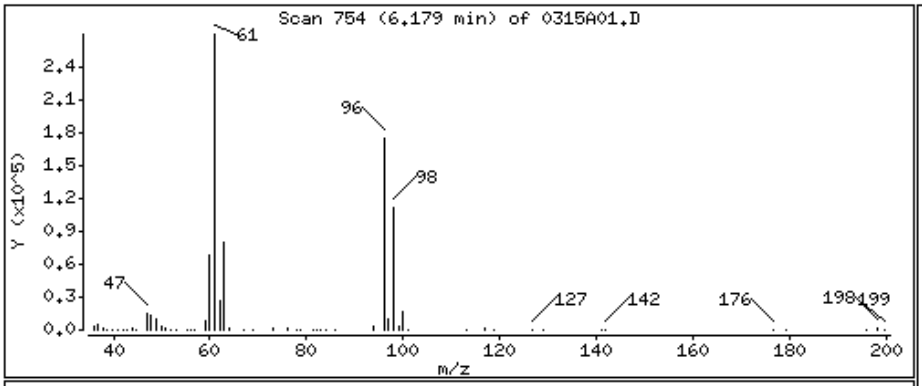
Operator: PD

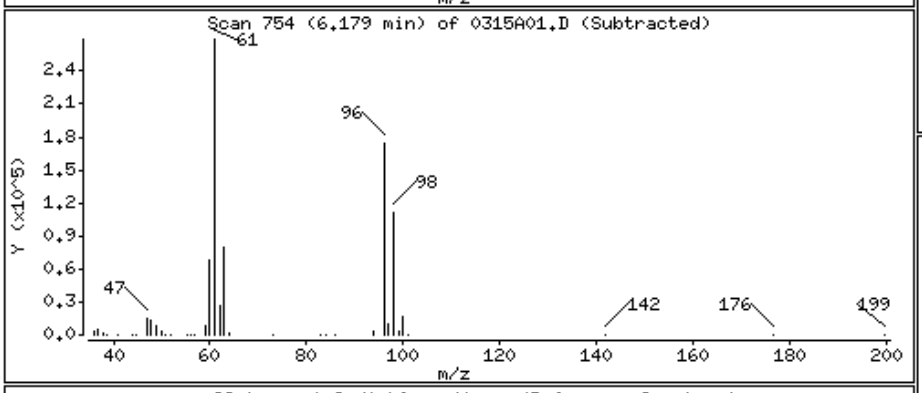
Column phase: Rtx-502.2

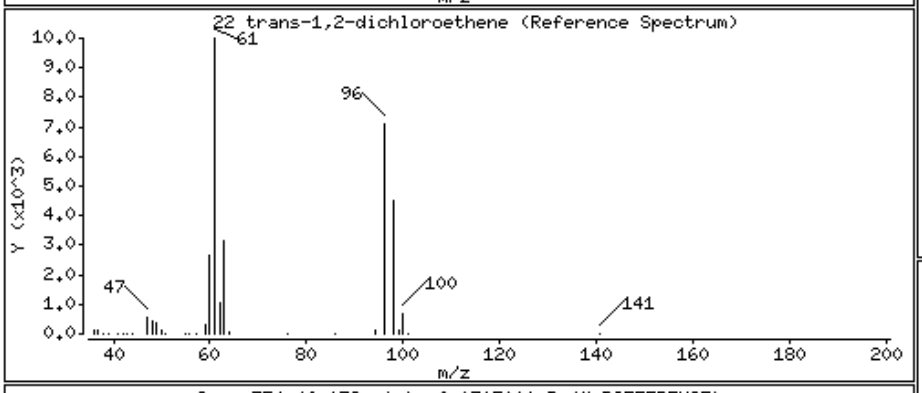
Column diameter: 0.18

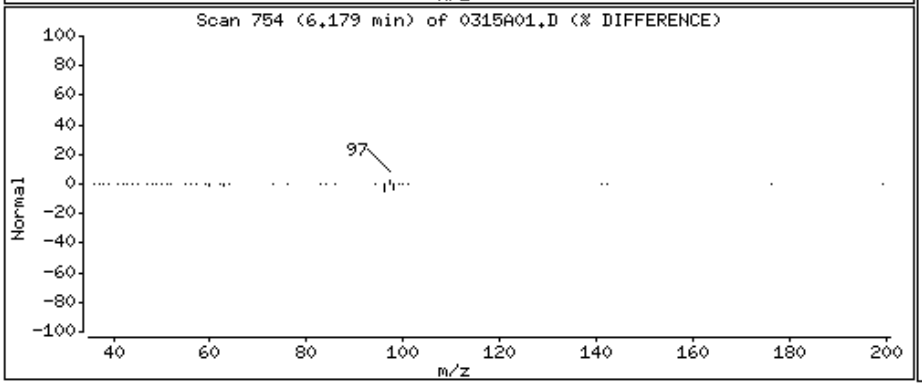
22 trans-1,2-dichloroethene

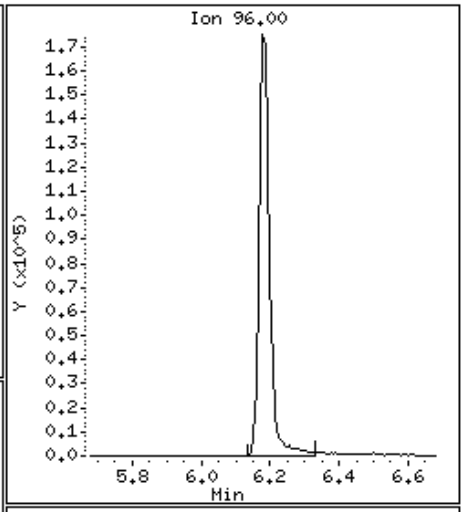
Concentration: 105.887 ngs

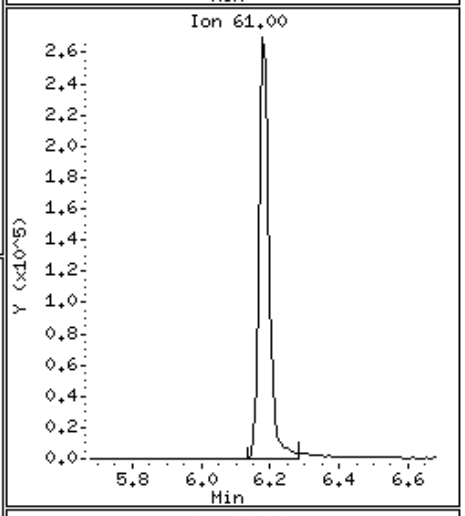


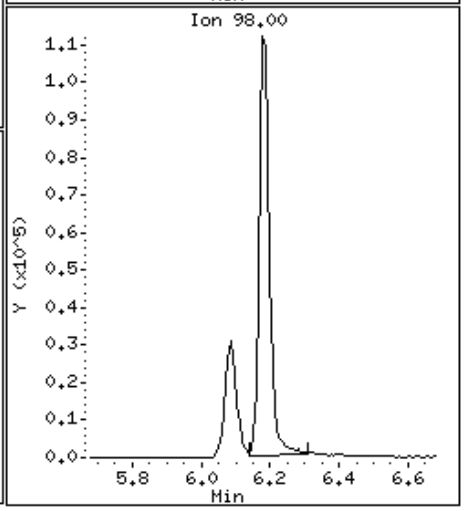












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

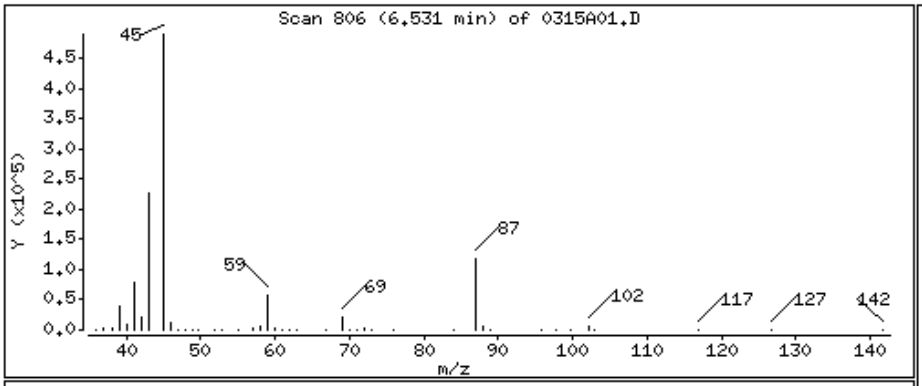
Operator: PD

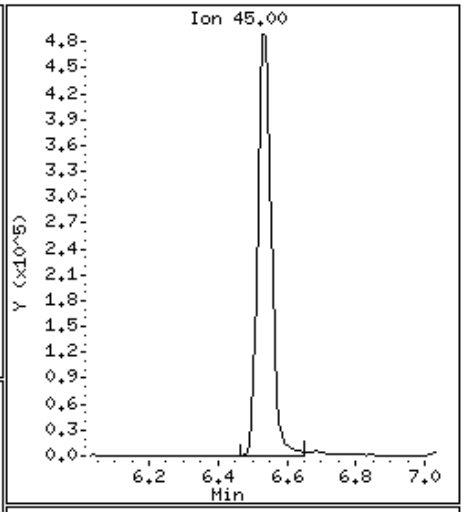
Column phase: Rtx-502.2

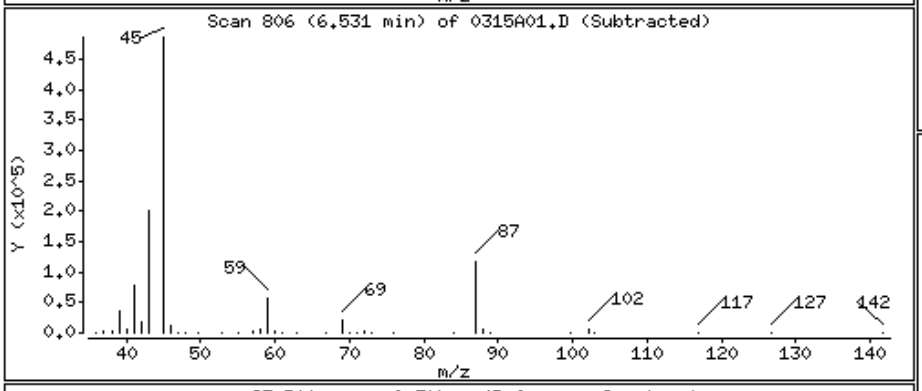
Column diameter: 0.18

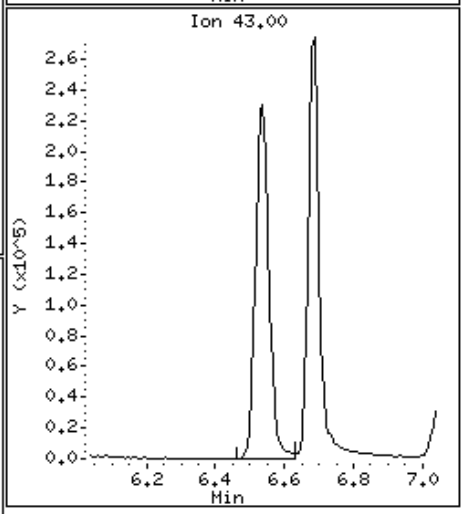
23 Diisopropyl Ether

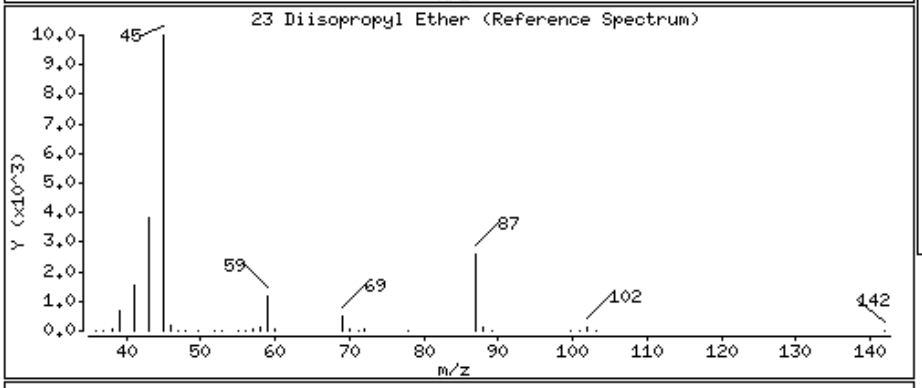
Concentration: 106.163 ngs

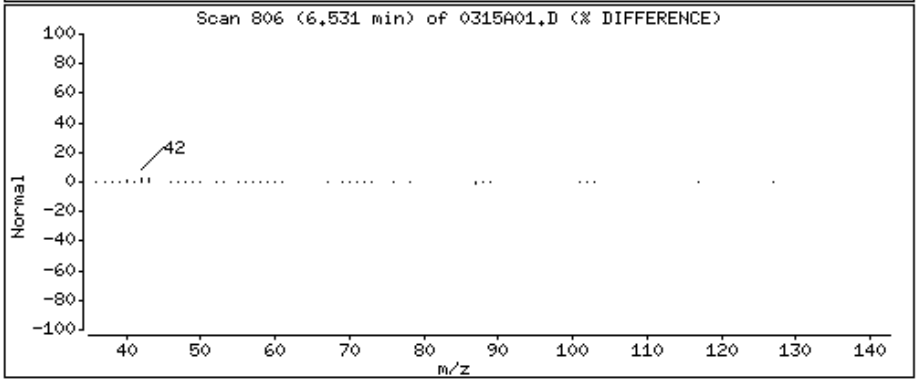












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

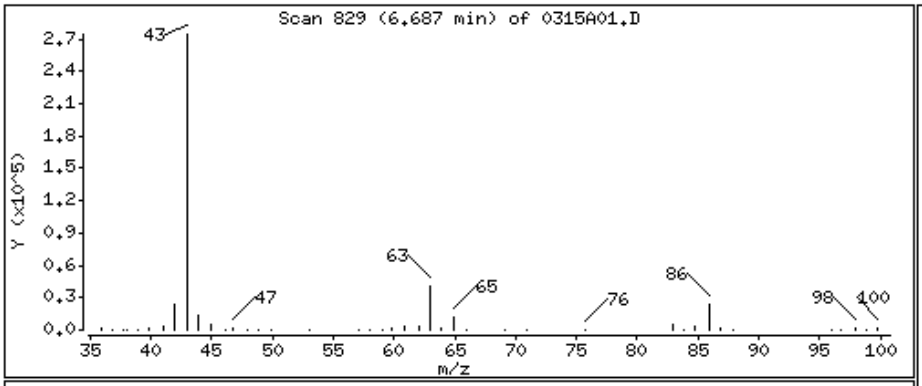
Operator: PD

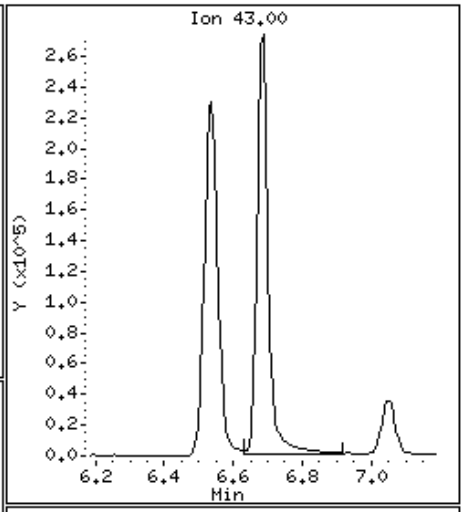
Column phase: Rtx-502.2

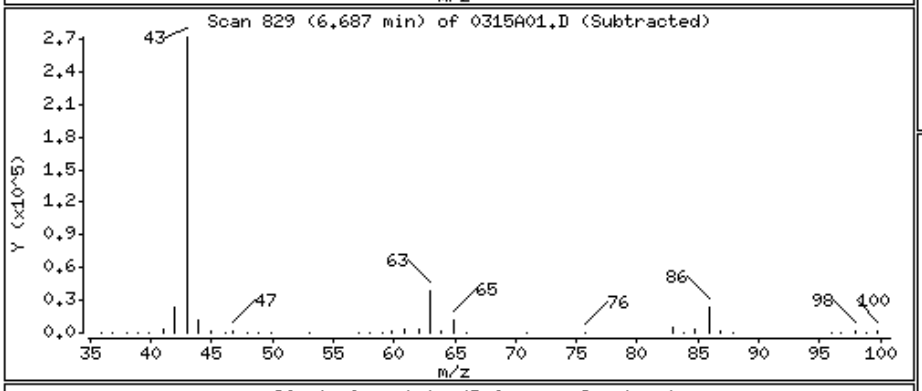
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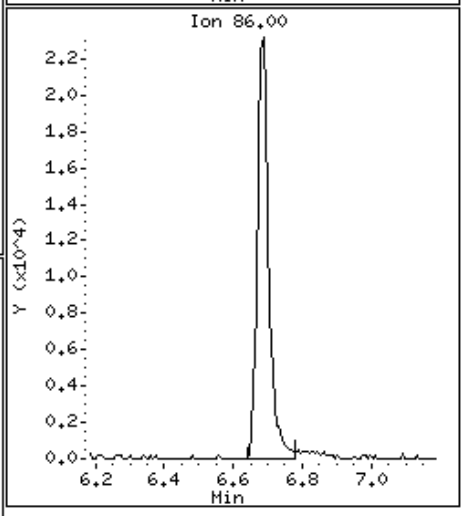
26 vinyl acetate

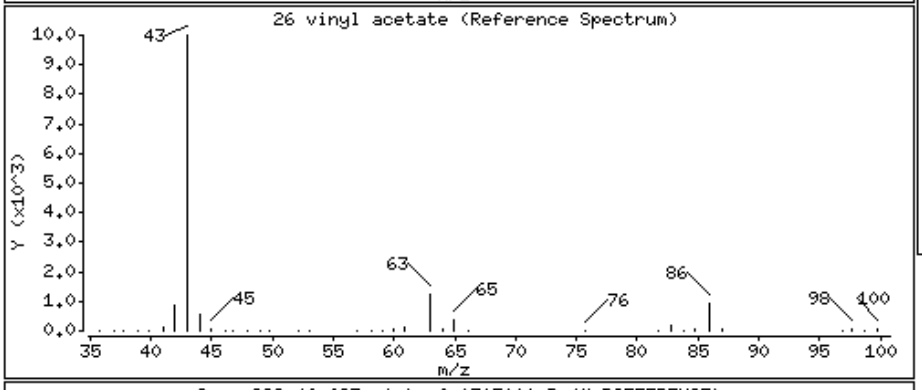
Concentration: 122.799 ngs

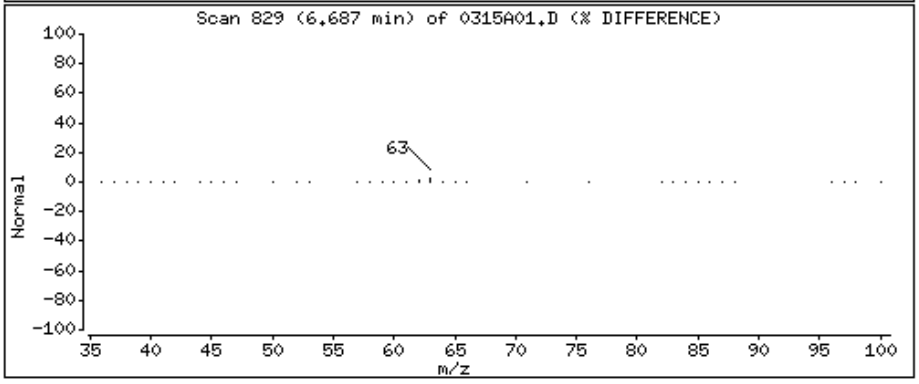












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

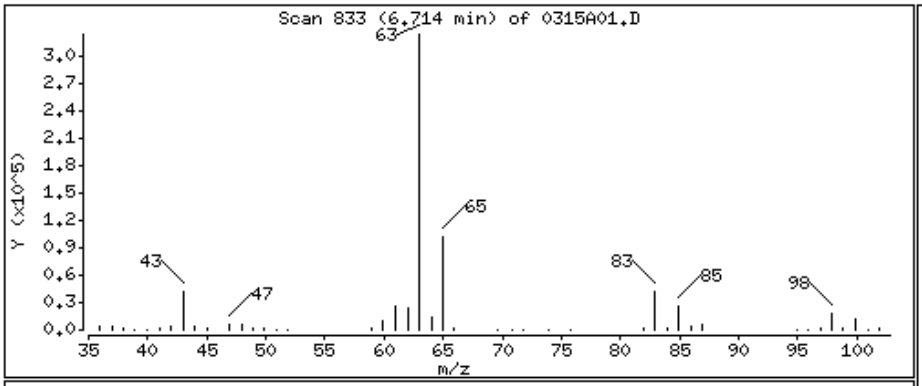
Operator: PD

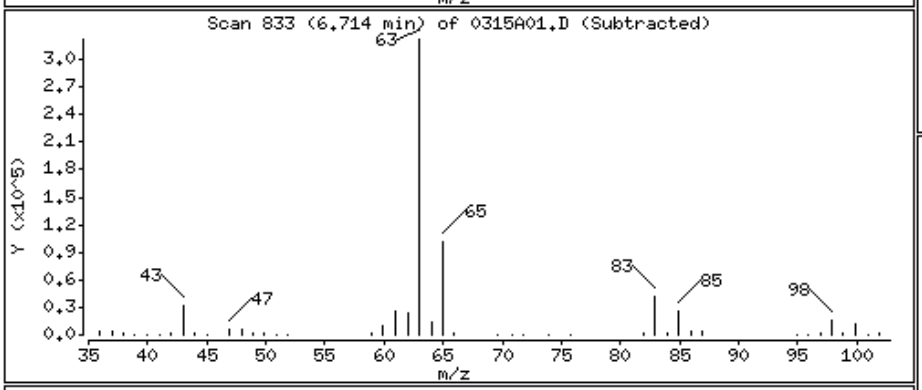
Column phase: Rtx-502.2

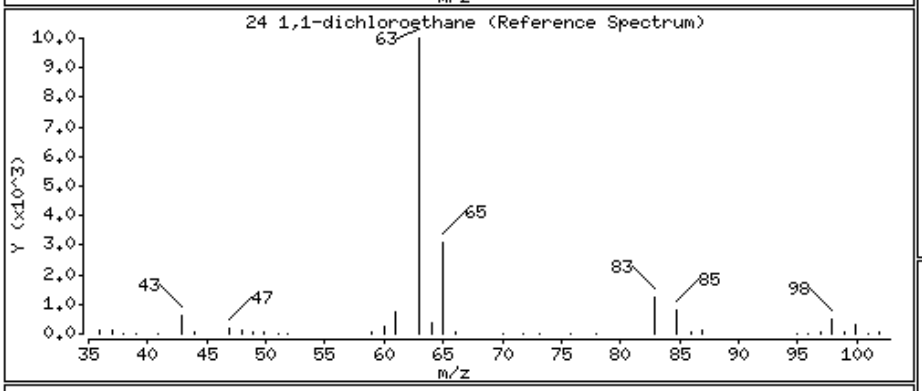
Column diameter: 0.18

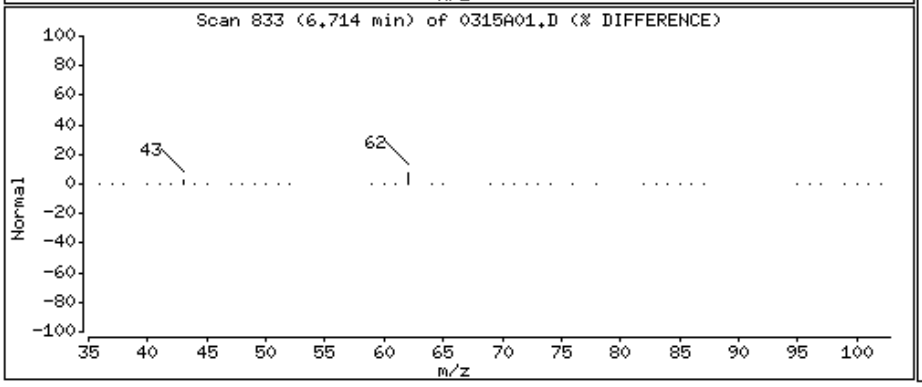
24 1,1-dichloroethane

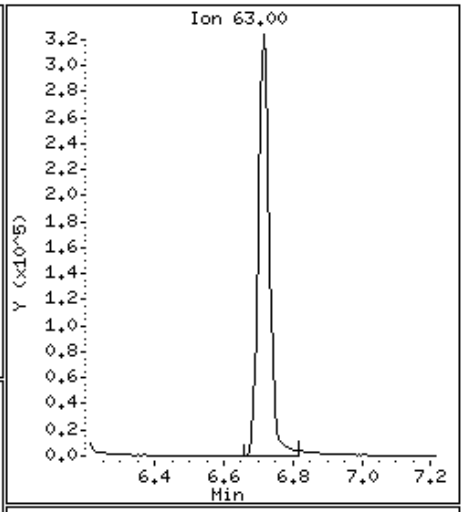
Concentration: 104.468 ngs

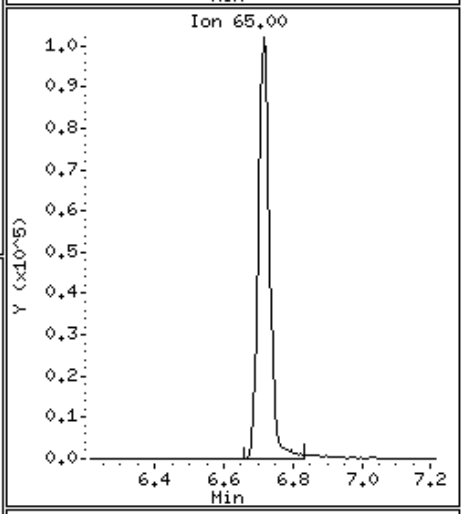


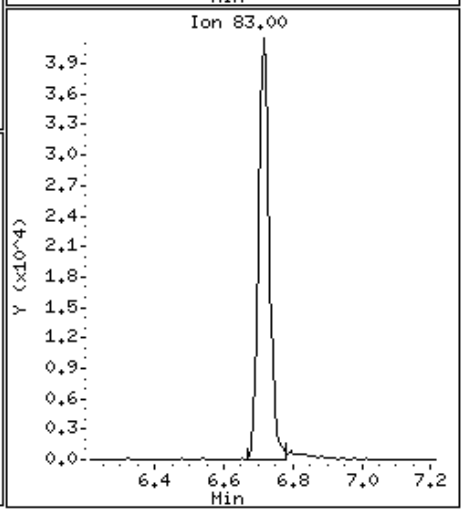












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

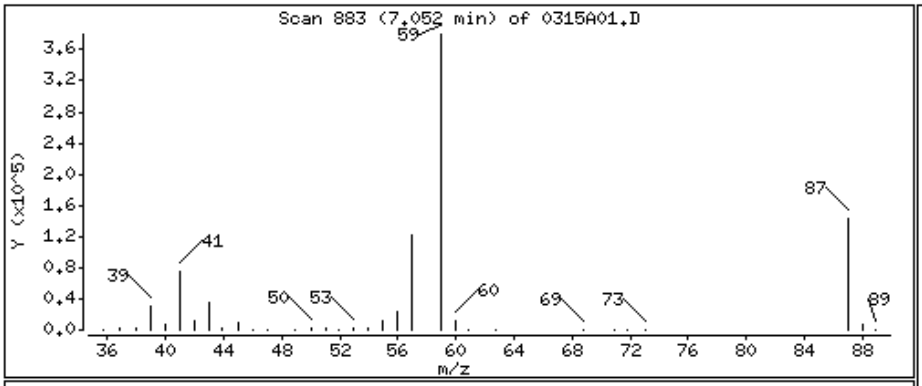
Operator: PD

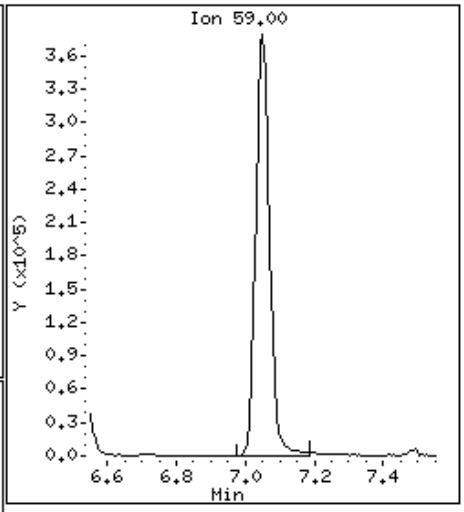
Column phase: Rtx-502.2

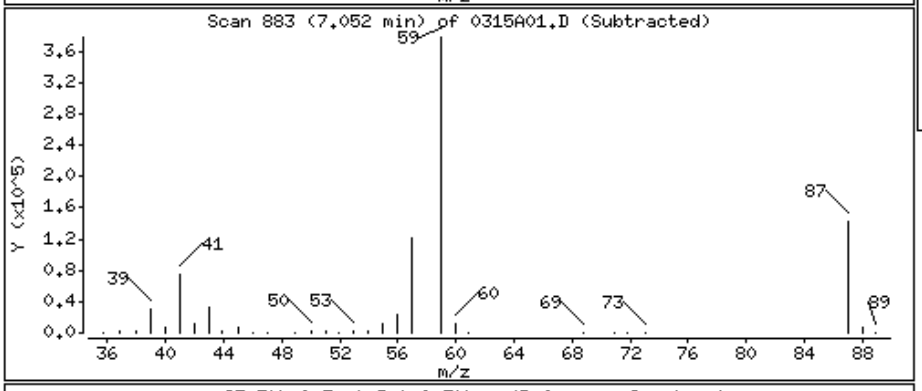
Column diameter: 0.18

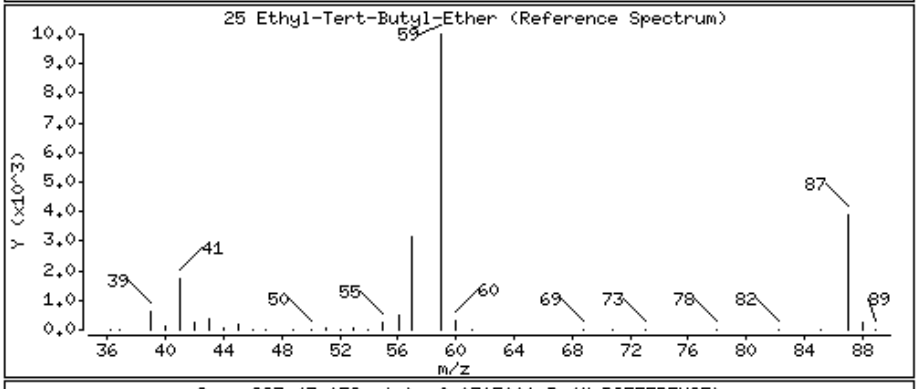
25 Ethyl-Tert-Butyl-Ether

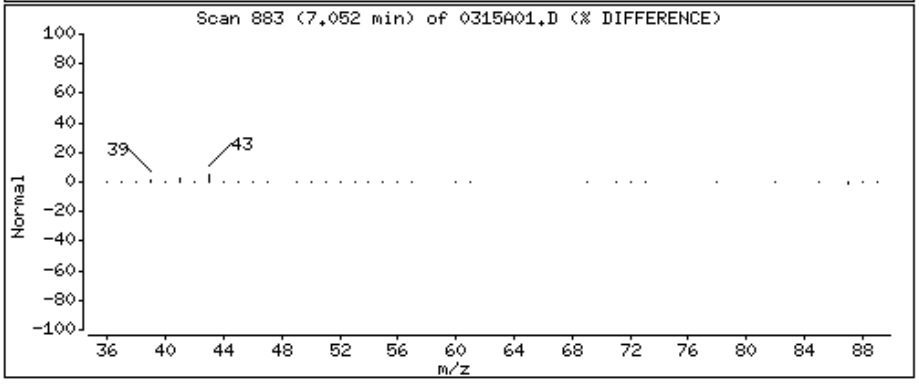
Concentration: 89.086 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

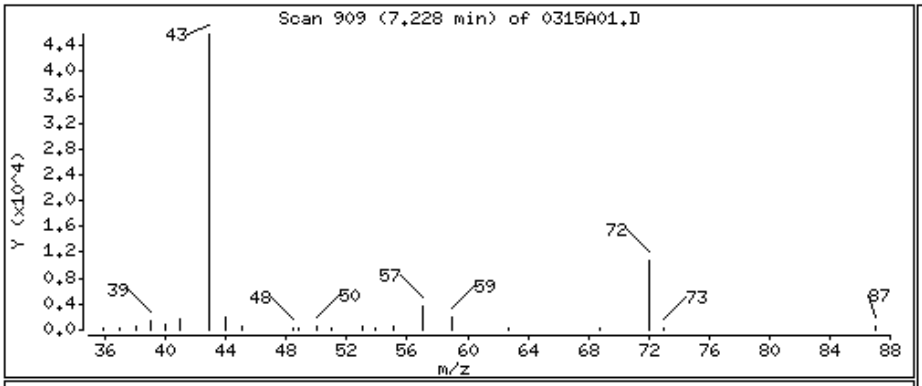
Operator: PD

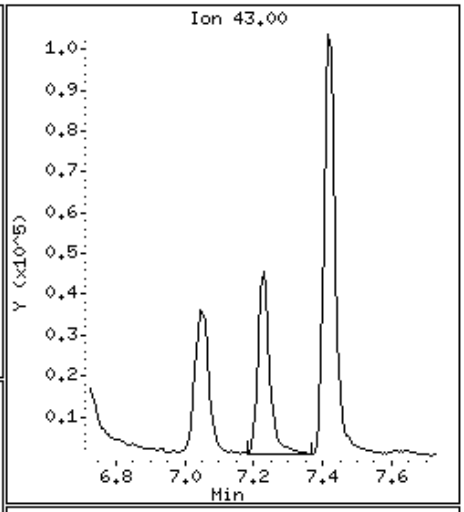
Column phase: Rtx-502.2

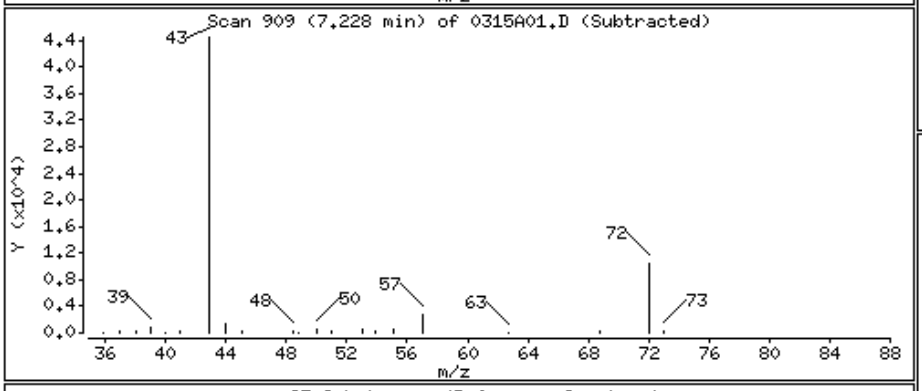
Column diameter: 0.18

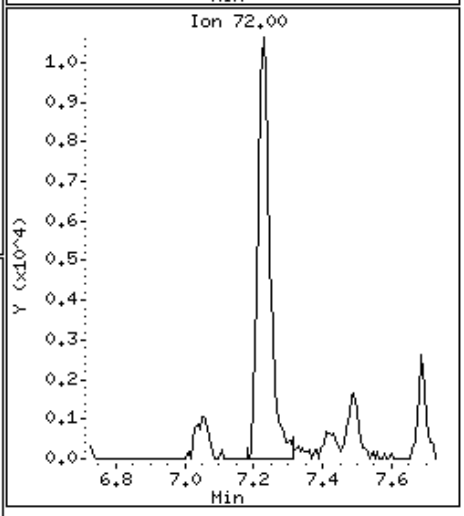
27 2-butanone

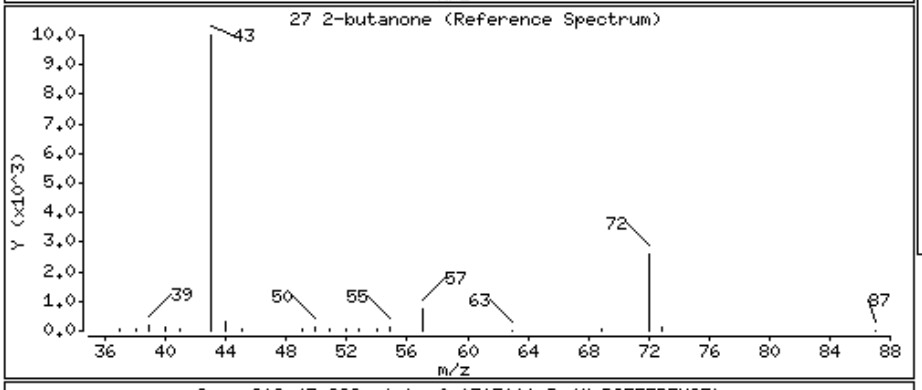
Concentration: 96.677 ngs

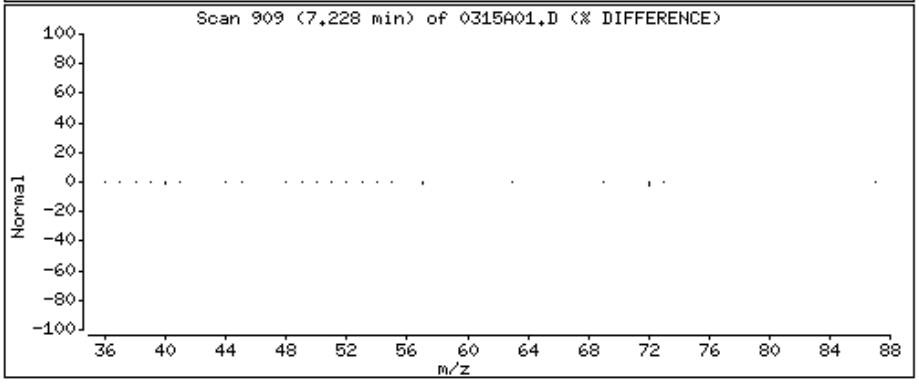












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

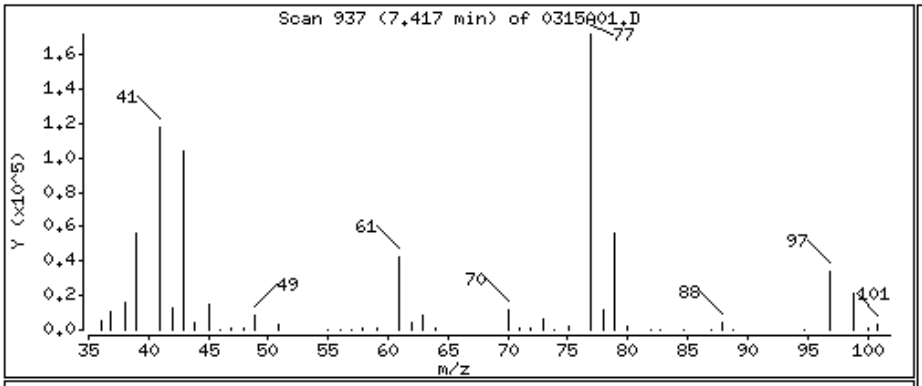
Operator: PD

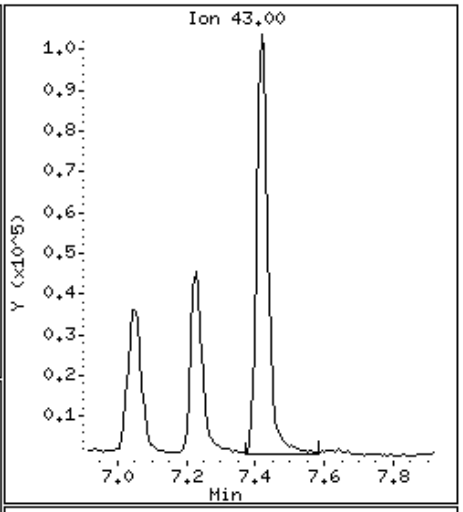
Column phase: Rtx-502.2

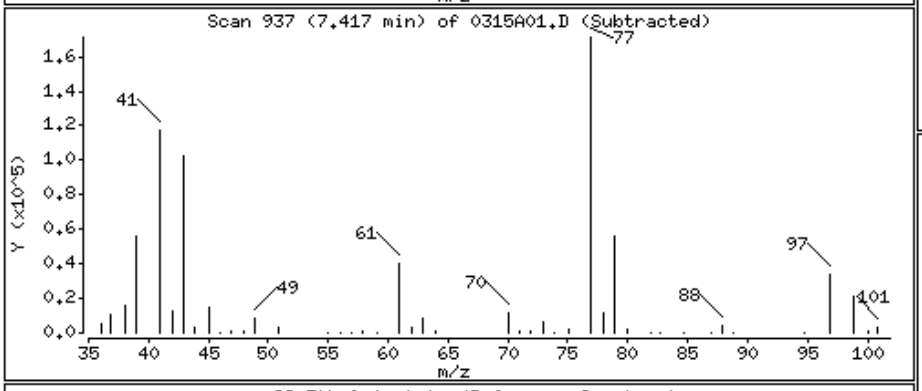
Column diameter: 0.18

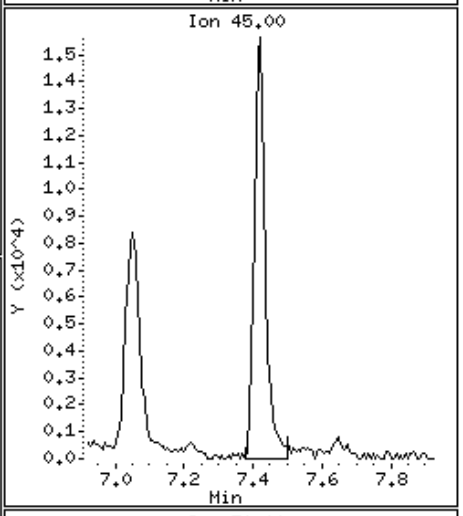
29 Ethyl Acetate

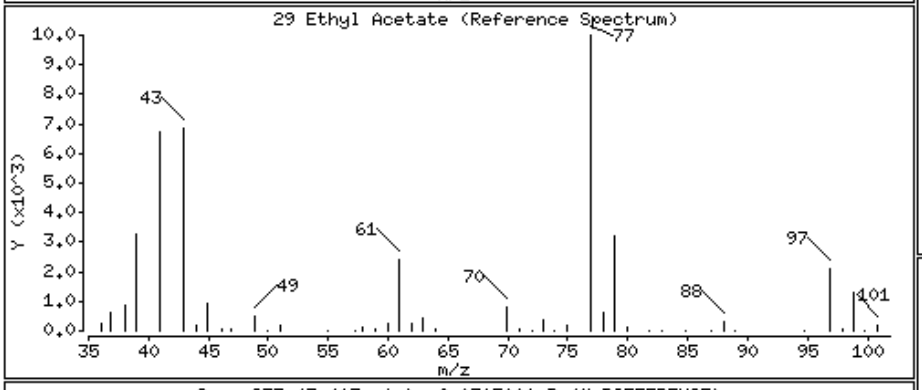
Concentration: 97.306 ngs

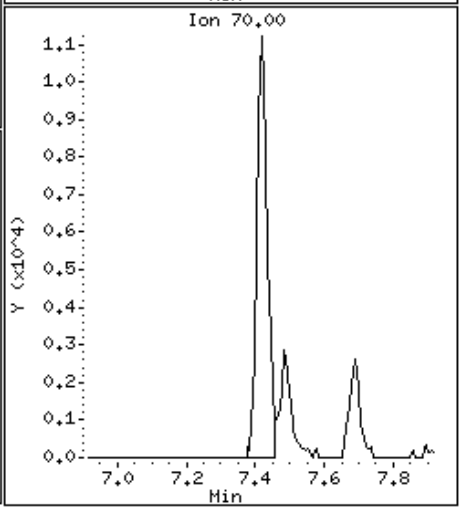


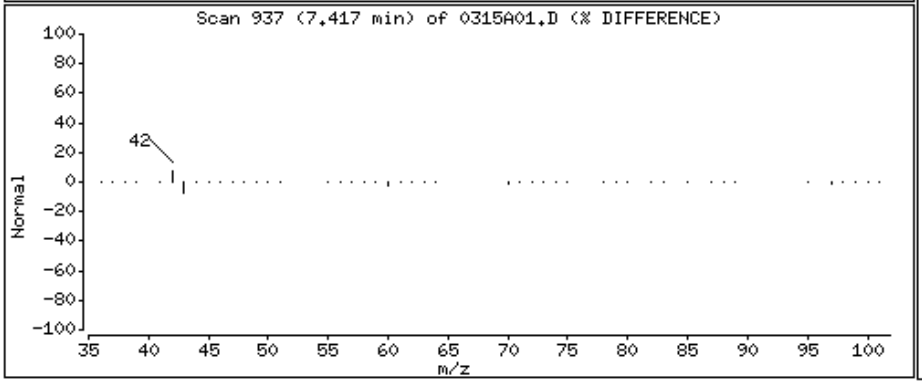












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

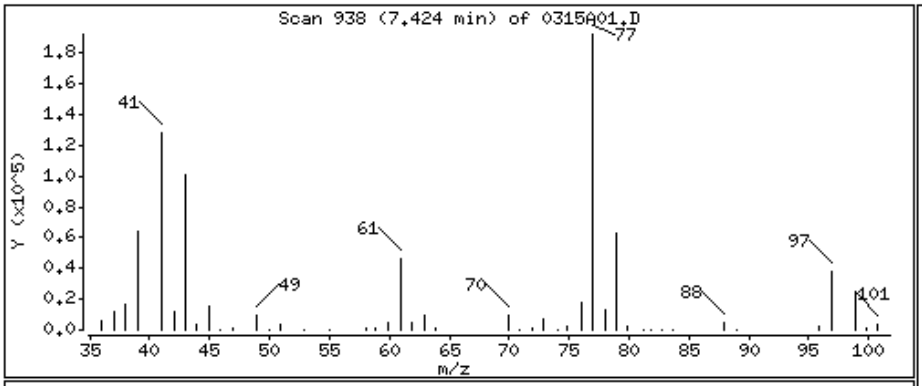
Operator: PD

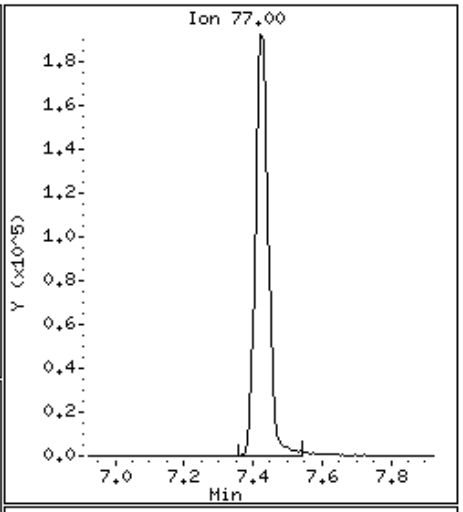
Column phase: Rtx-502.2

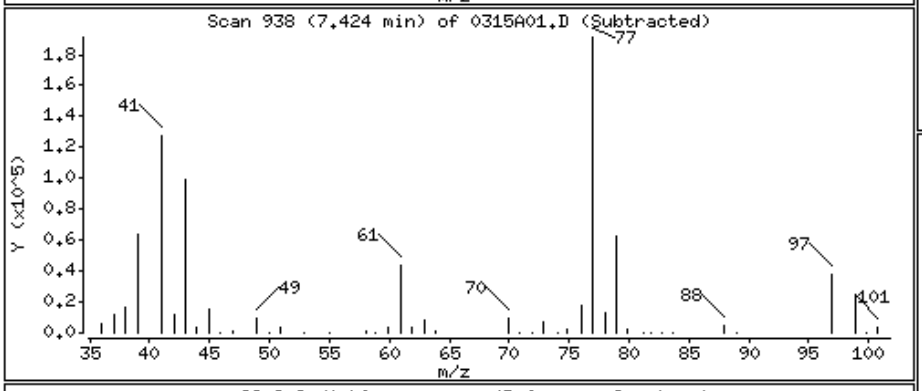
Column diameter: 0.18

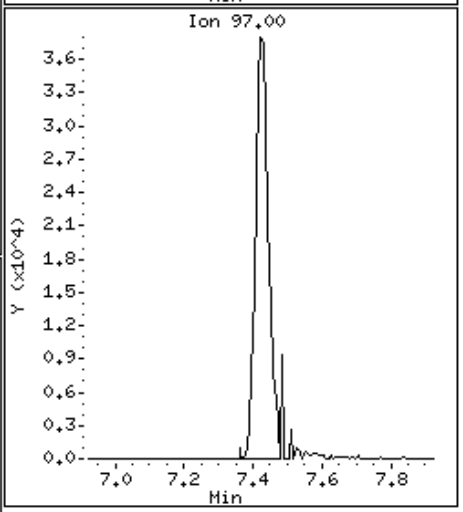
28 2,2-dichloropropane

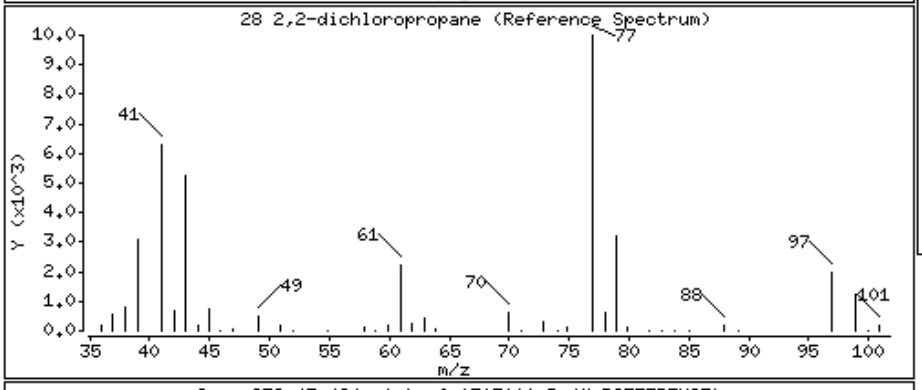
Concentration: 109.995 ngs

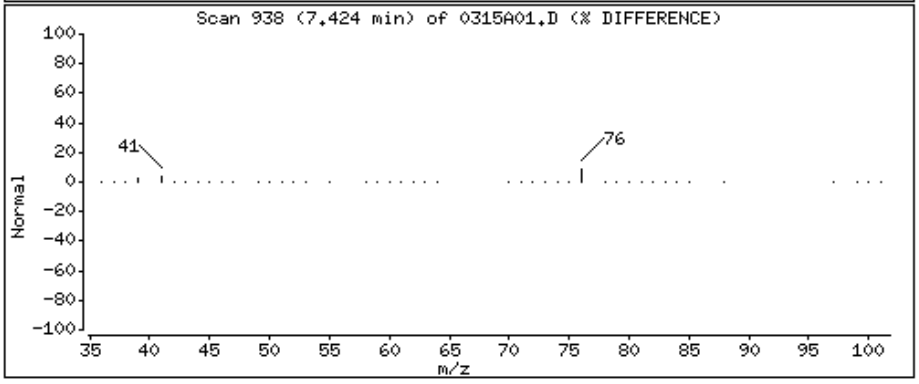












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

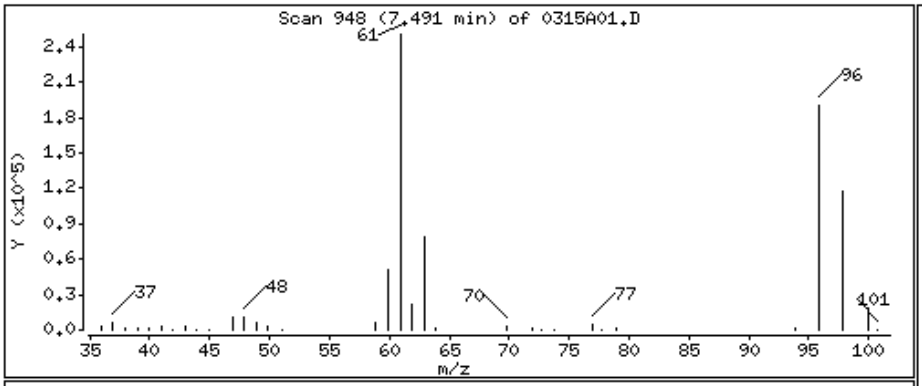
Operator: PD

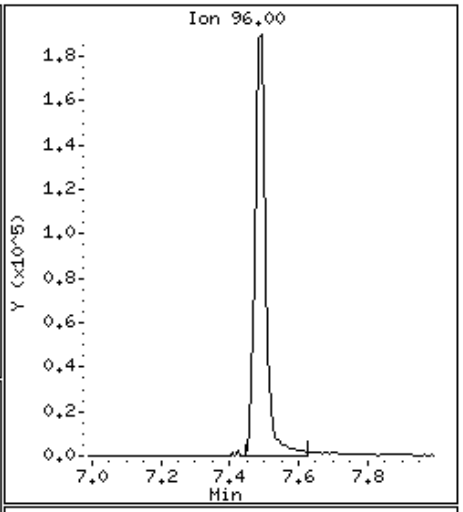
Column phase: Rtx-502.2

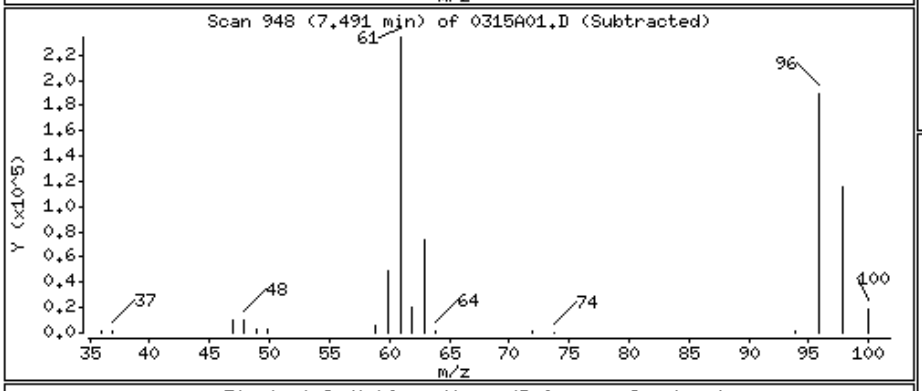
Column diameter: 0.18

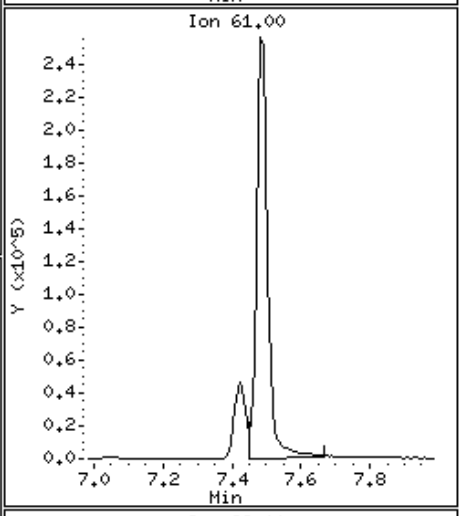
30 cis-1,2-dichloroethene

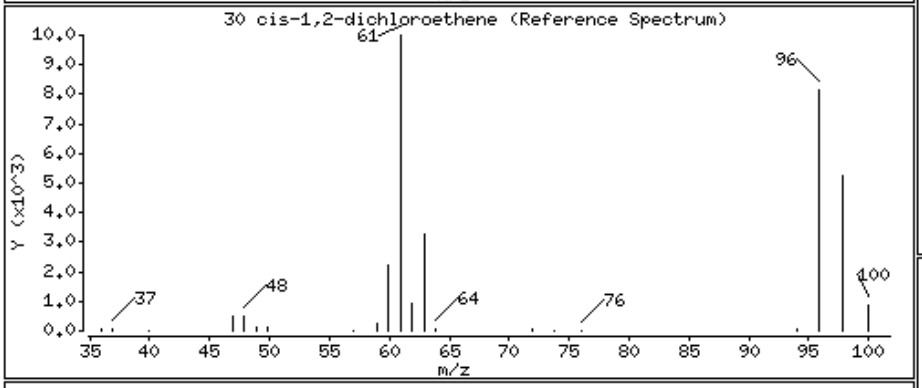
Concentration: 104.638 ngs

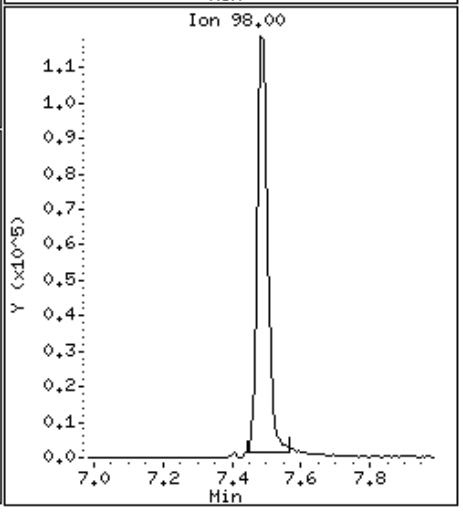


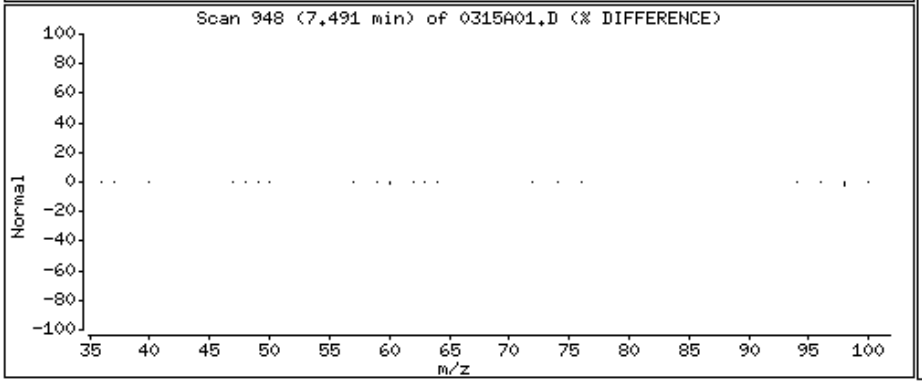












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

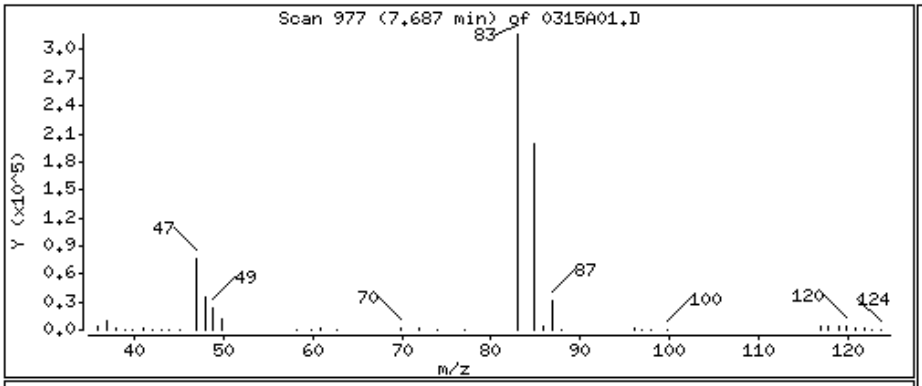
Operator: PD

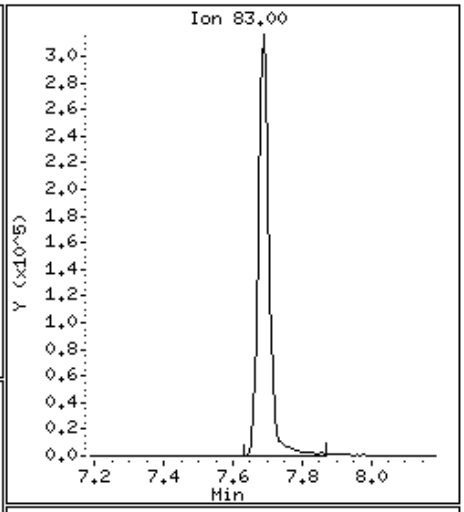
Column phase: Rtx-502.2

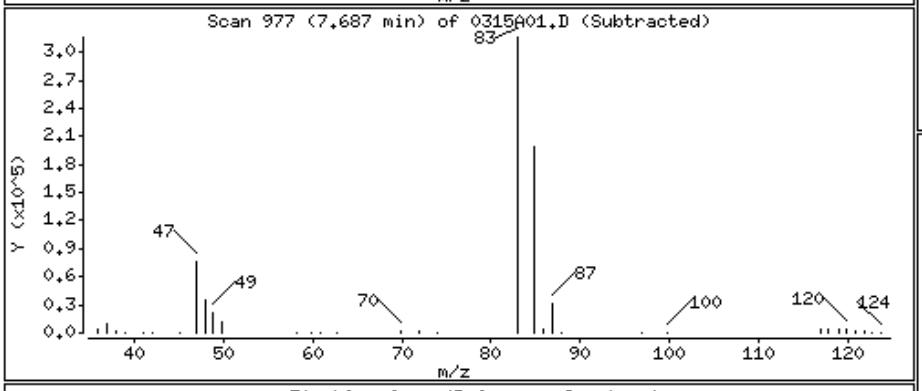
Column diameter: 0.18

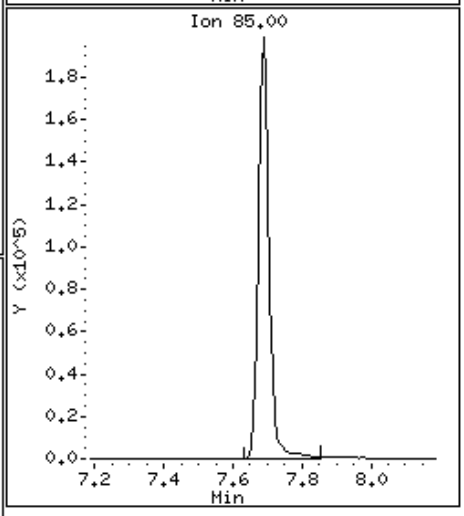
31 chloroform

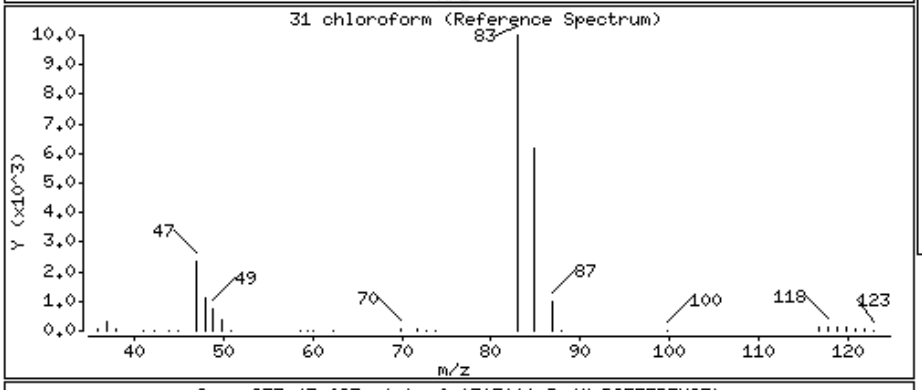
Concentration: 105.833 ngs

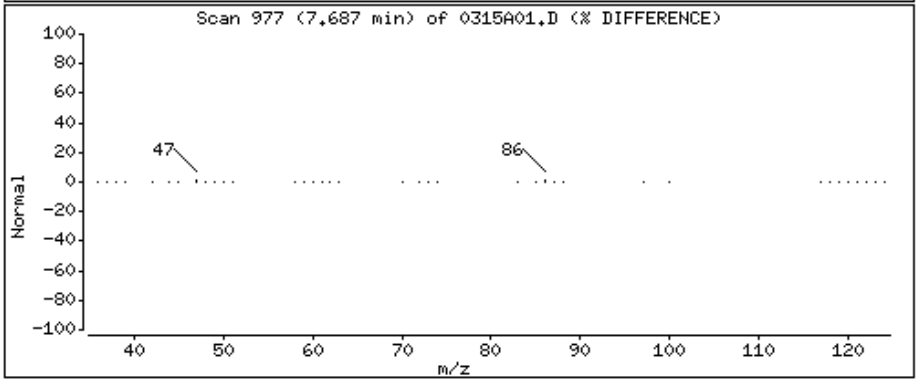












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

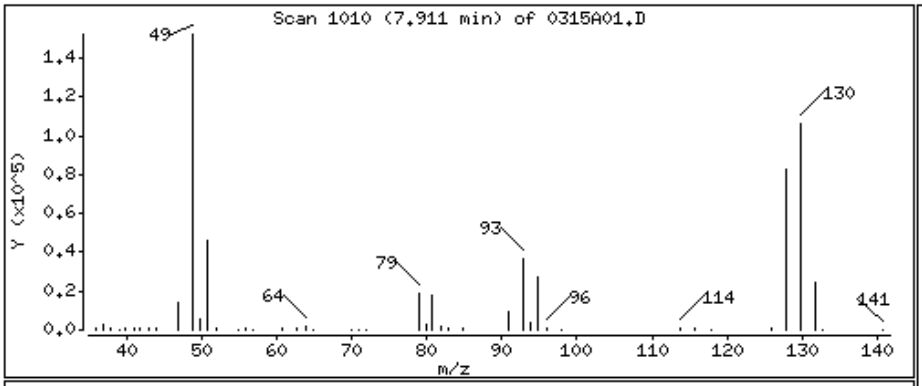
Operator: PD

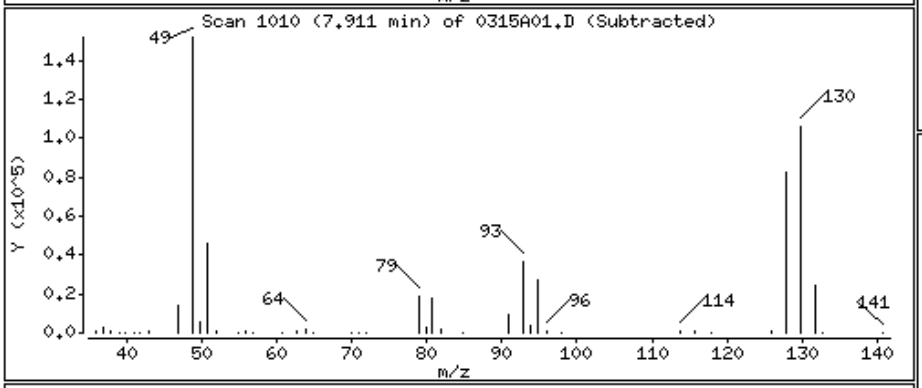
Column phase: Rtx-502.2

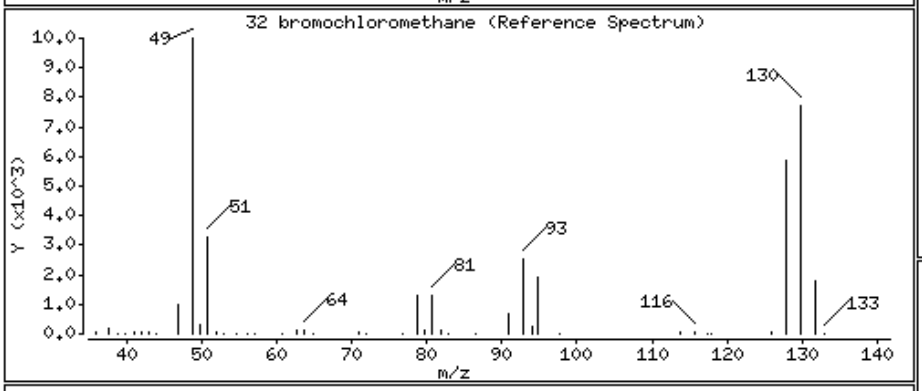
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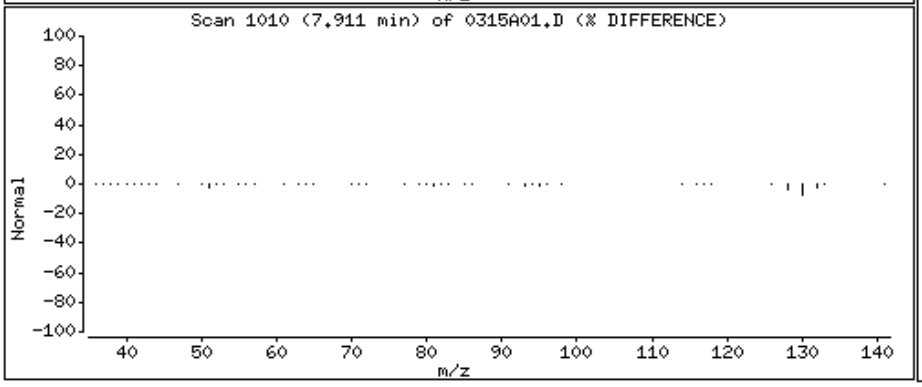
32 bromochloromethane

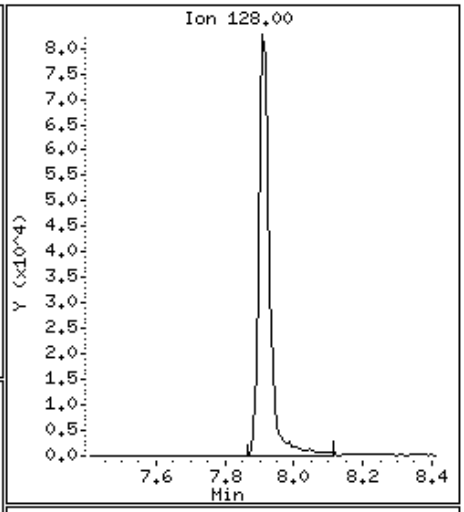
Concentration: 117.022 ngs

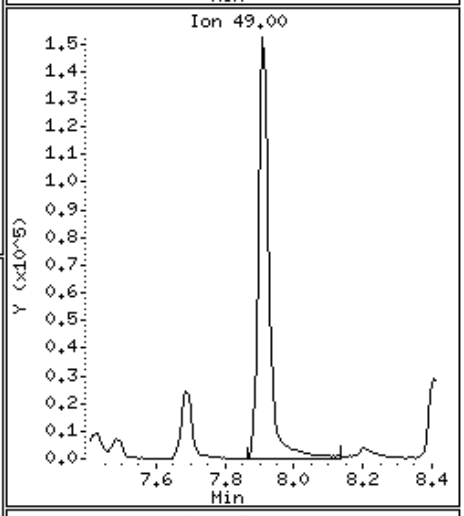


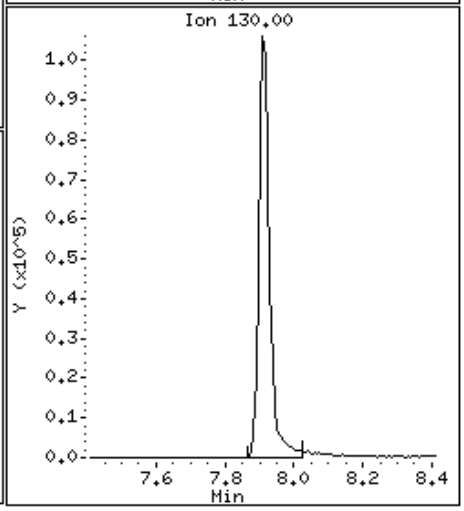












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

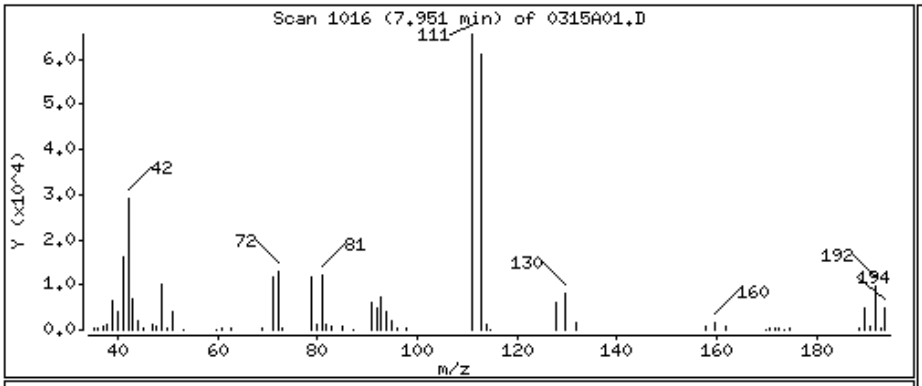
Operator: PD

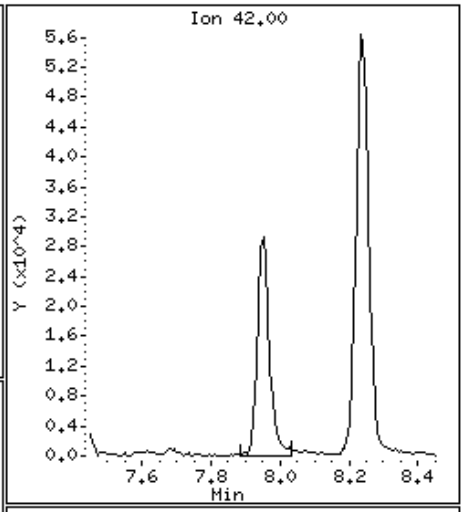
Column phase: Rtx-502.2

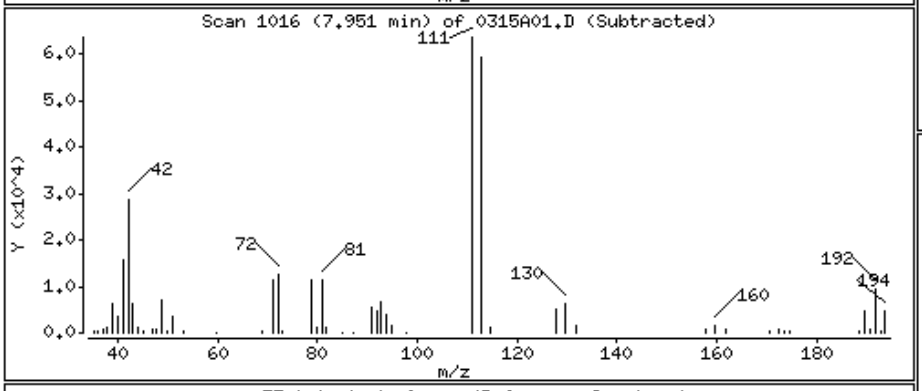
Column diameter: 0.18

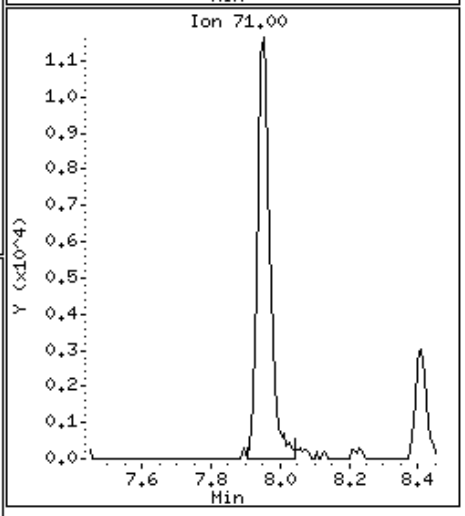
33 tetrahydrofuran

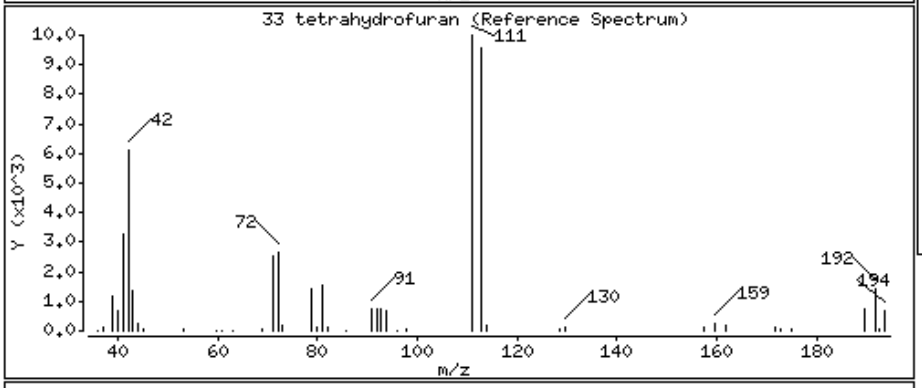
Concentration: 97.145 ngs

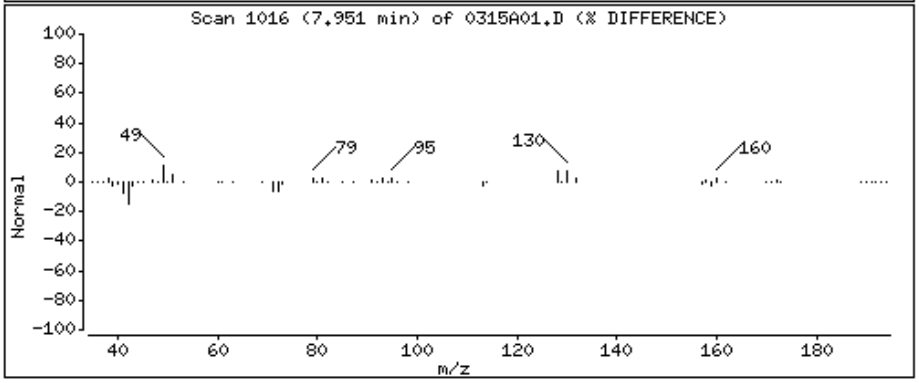












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

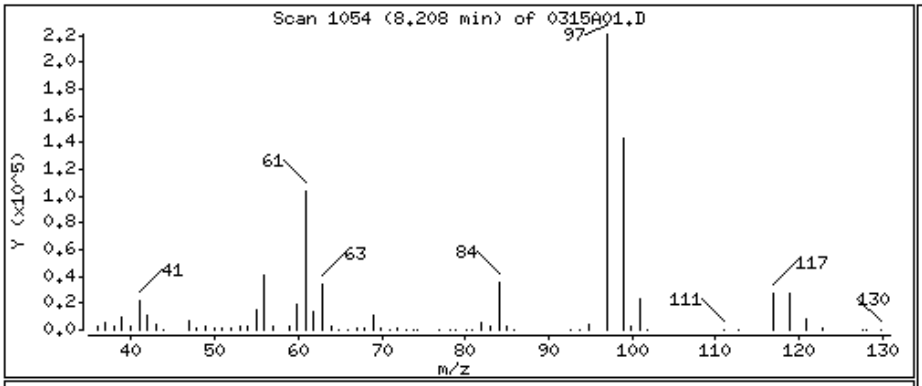
Operator: PD

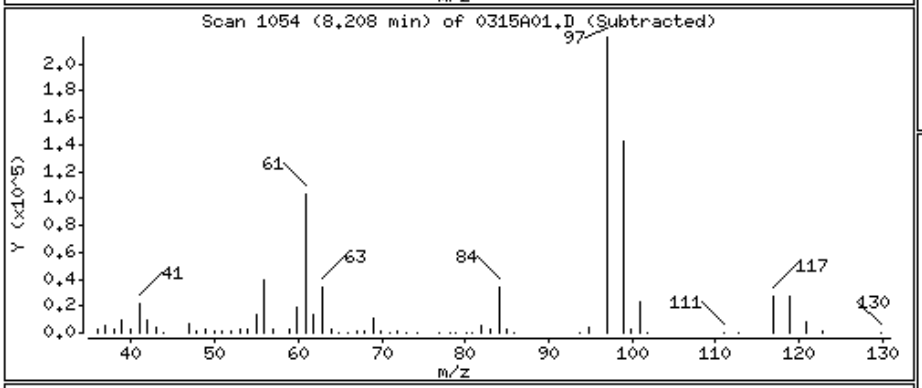
Column phase: Rtx-502.2

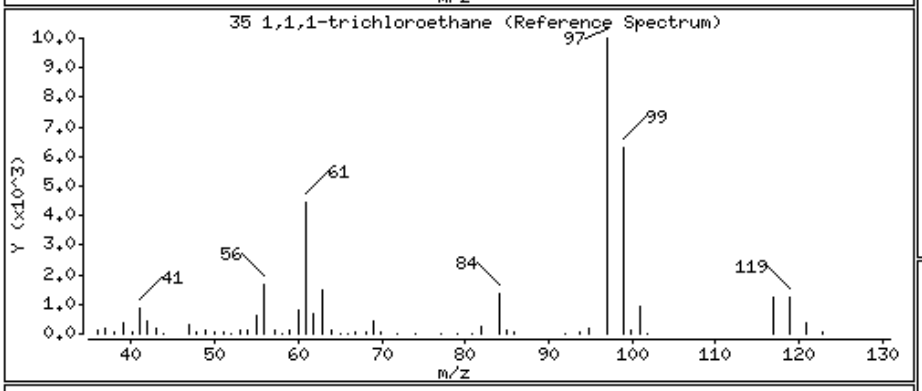
Column diameter: 0.18

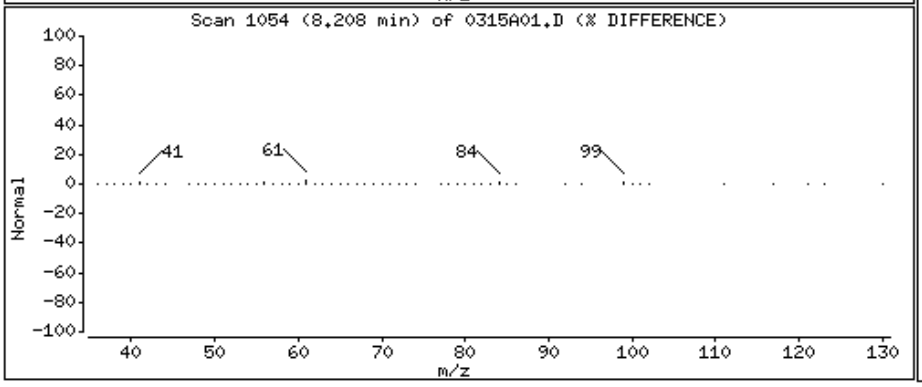
35 1,1,1-trichloroethane

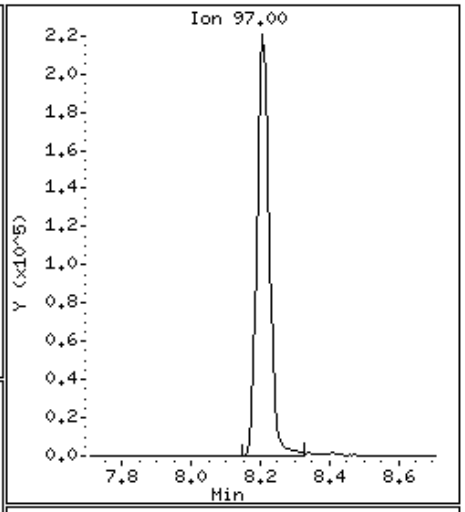
Concentration: 110.723 ngs

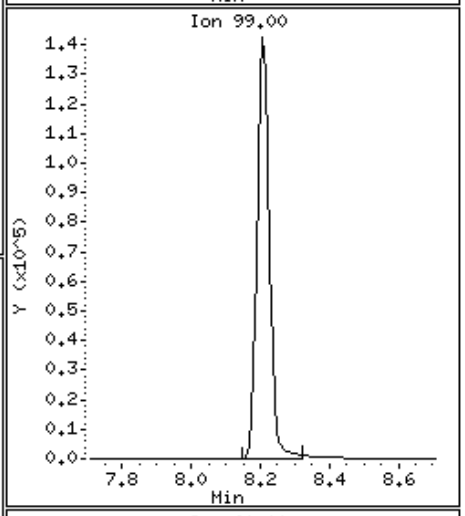


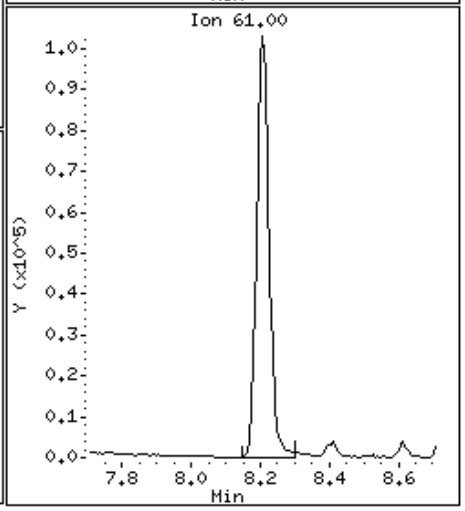












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

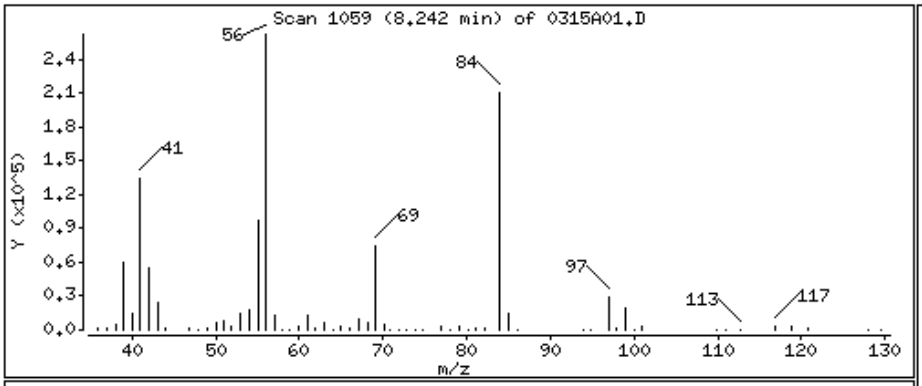
Operator: PD

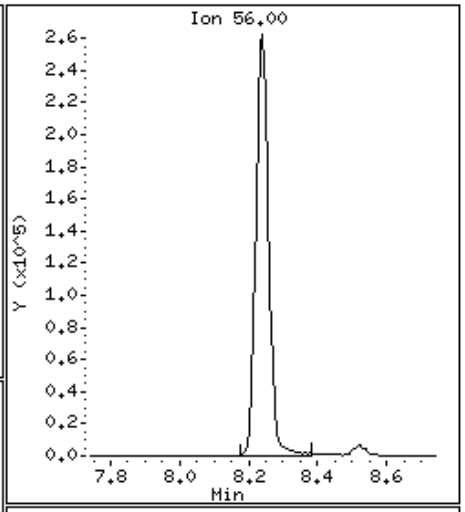
Column phase: Rtx-502.2

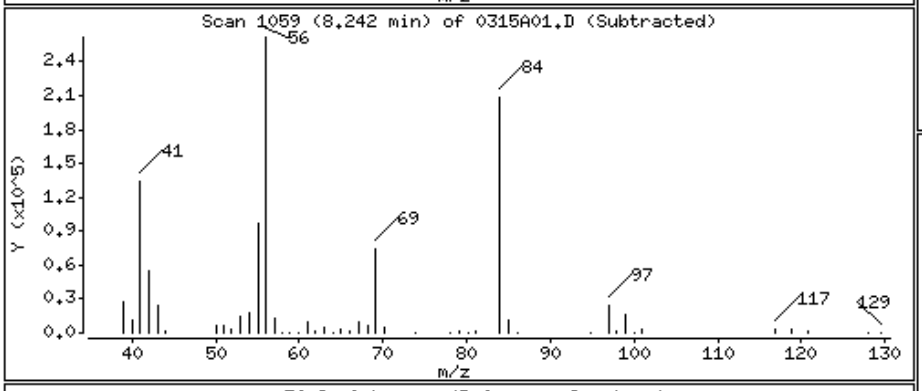
Column diameter: 0.18

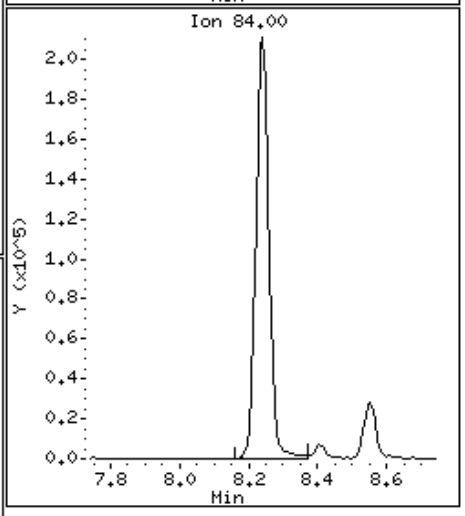
36 Cyclohexane

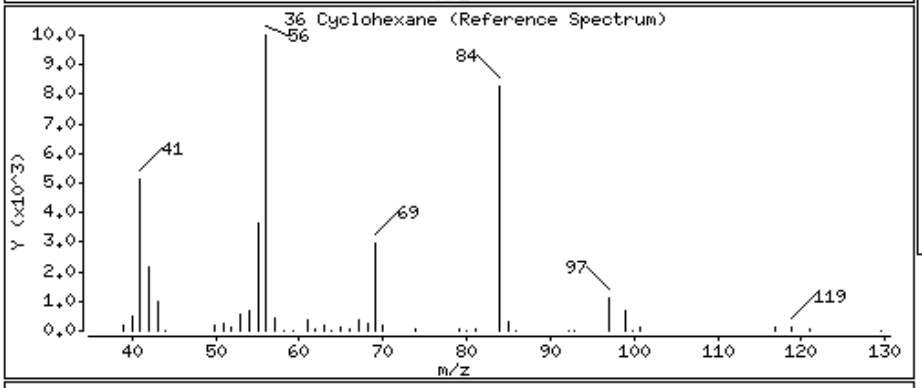
Concentration: 106.163 ngs

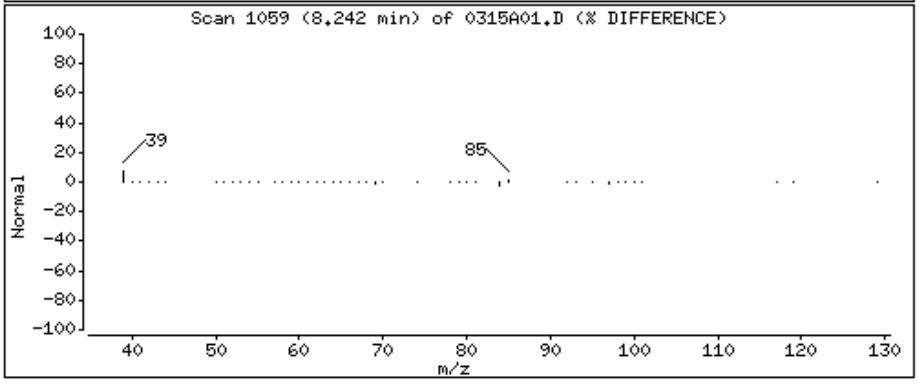












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

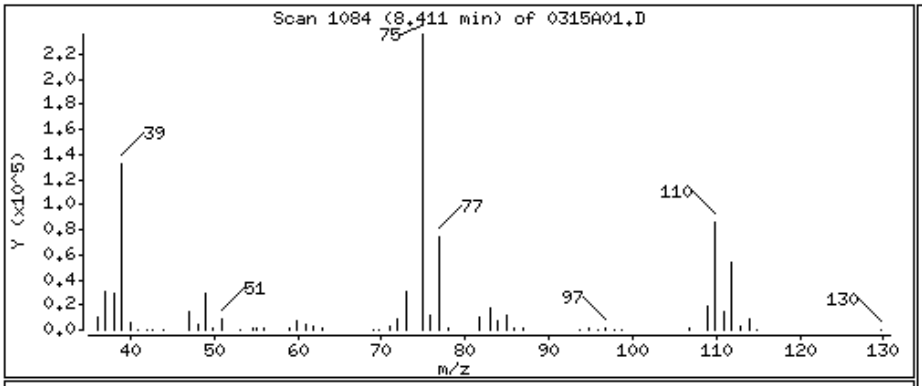
Operator: PD

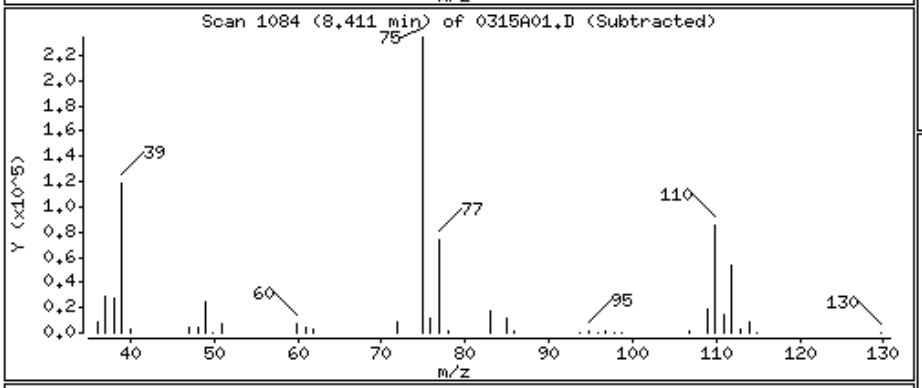
Column phase: Rtx-502.2

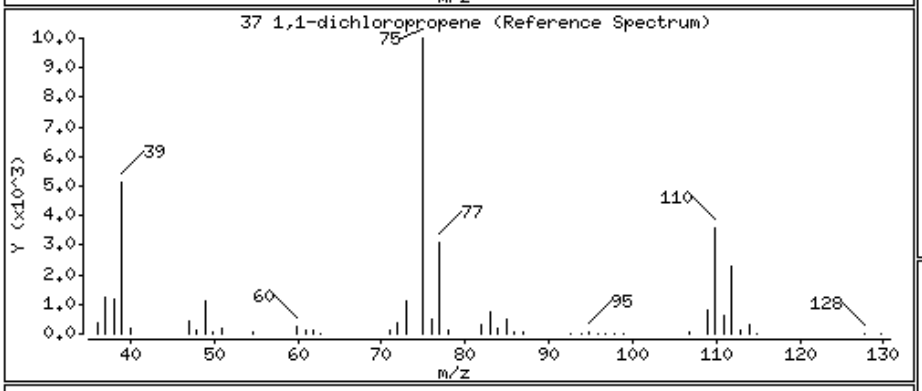
Column diameter: 0.18

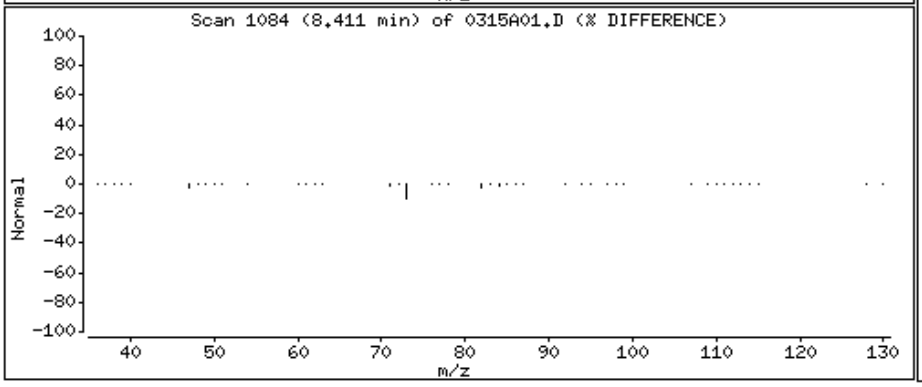
37 1,1-dichloropropene

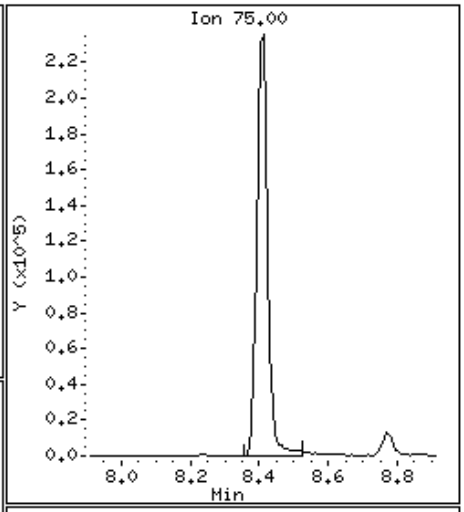
Concentration: 105.281 ngs

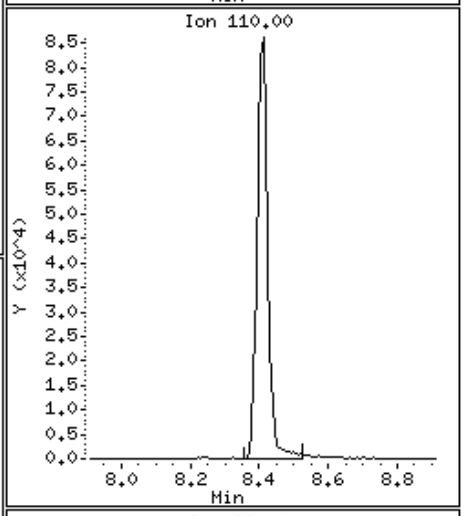


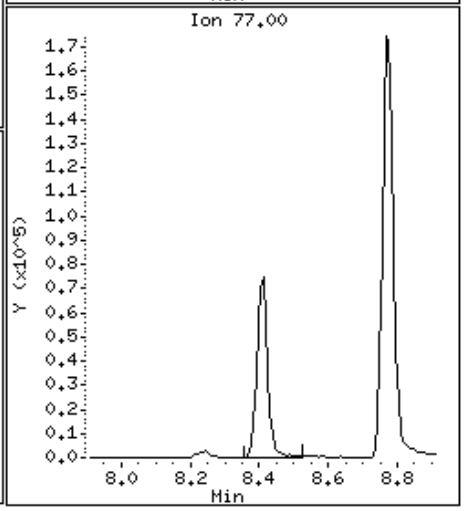












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

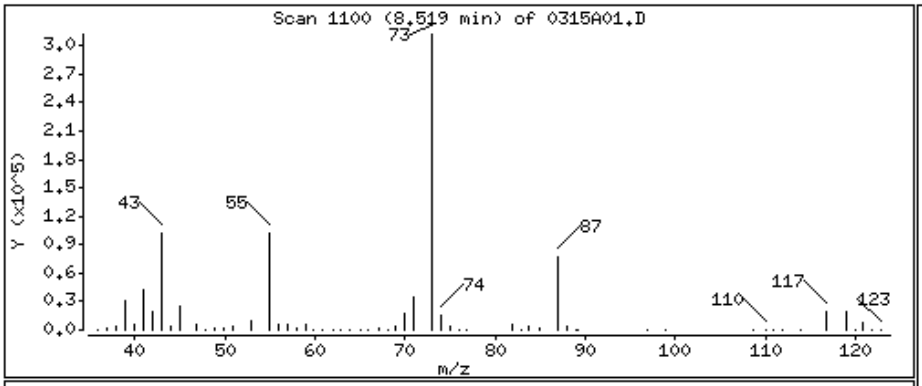
Operator: PD

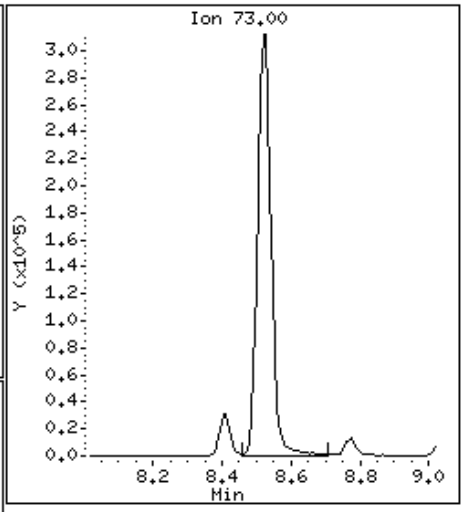
Column phase: Rtx-502.2

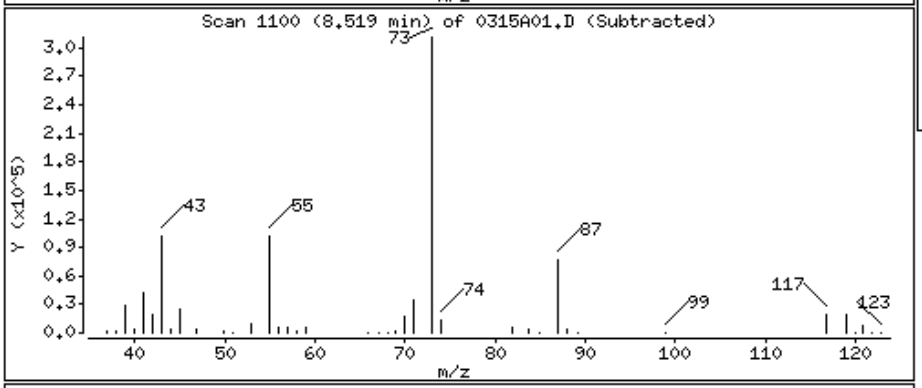
Column diameter: 0.18

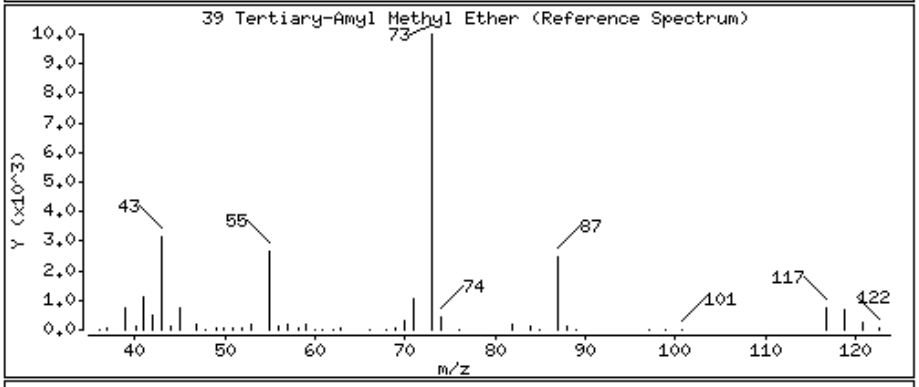
39 Tertiary-Amyl Methyl Ether

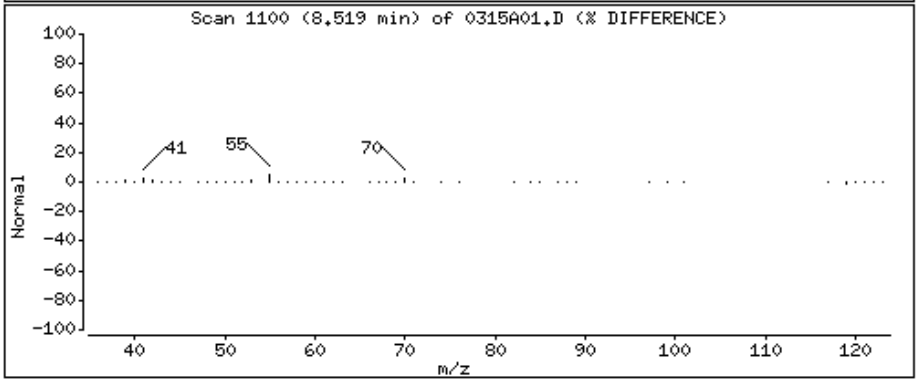
Concentration: 86.171 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

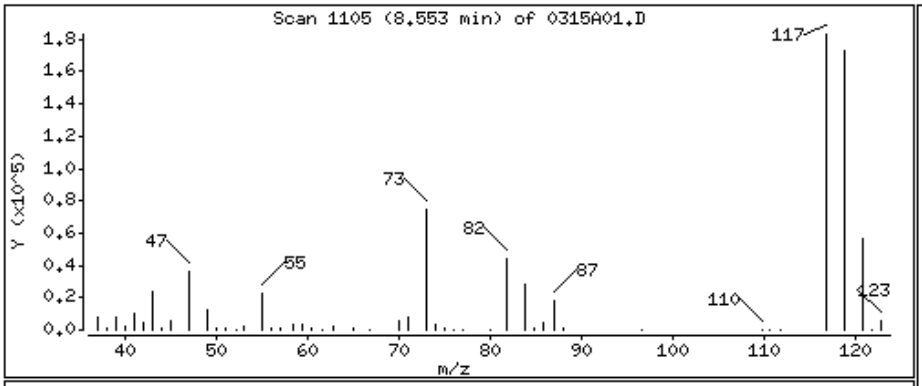
Operator: PD

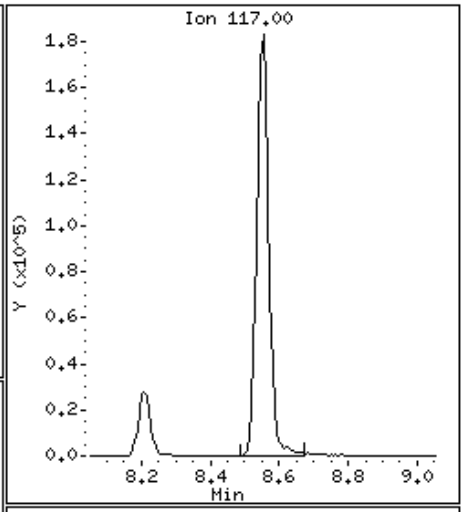
Column phase: Rtx-502.2

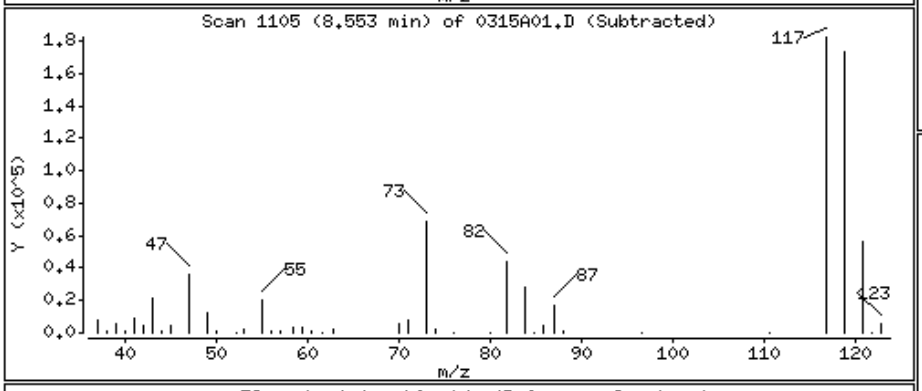
Column diameter: 0.18

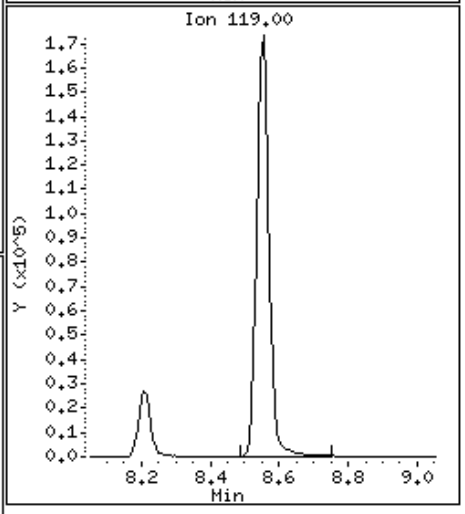
38 carbontetrachloride

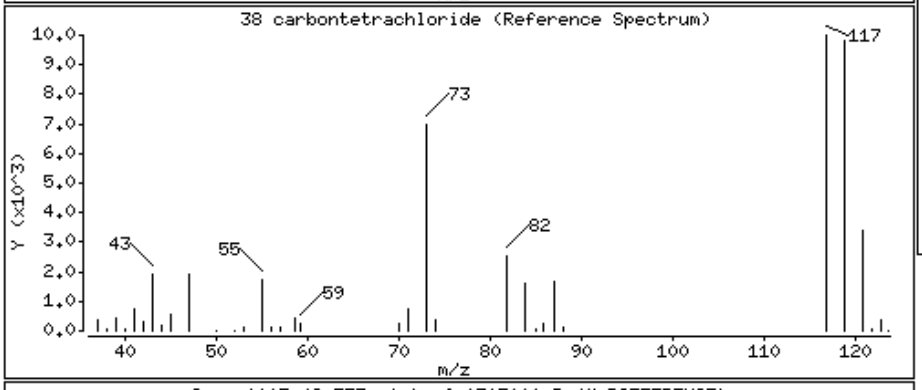
Concentration: 104.619 ngs

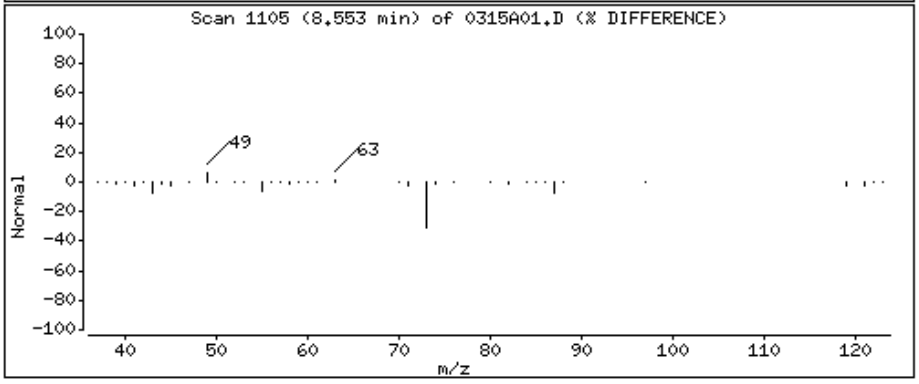












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

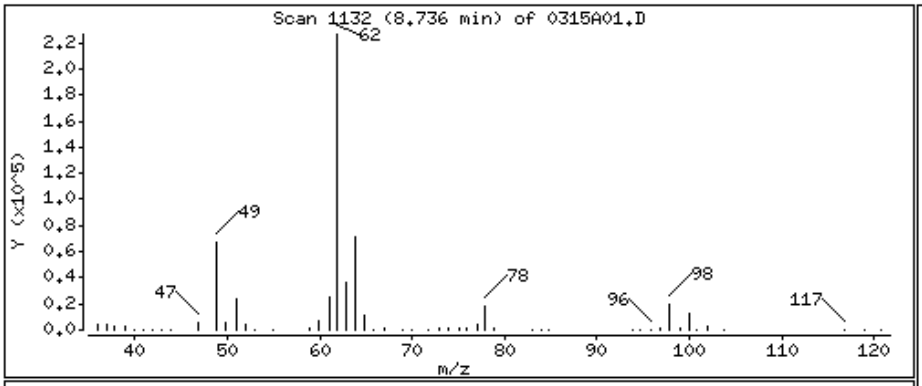
Operator: PD

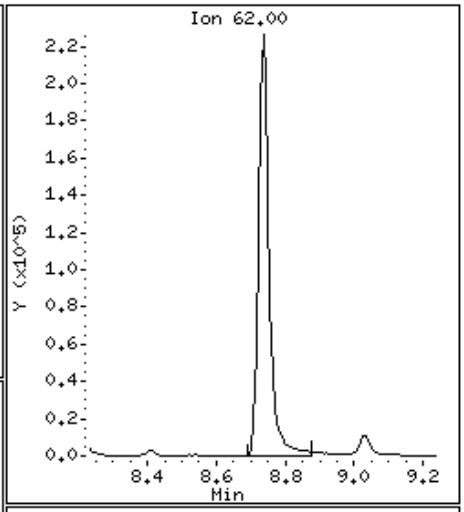
Column phase: Rtx-502.2

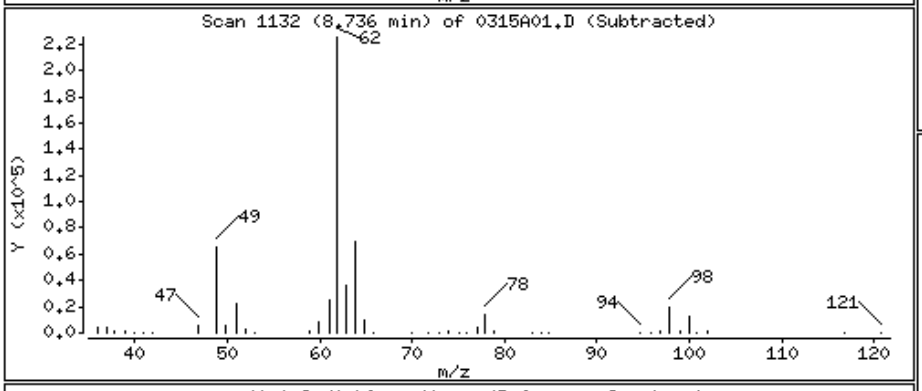
Column diameter: 0.18

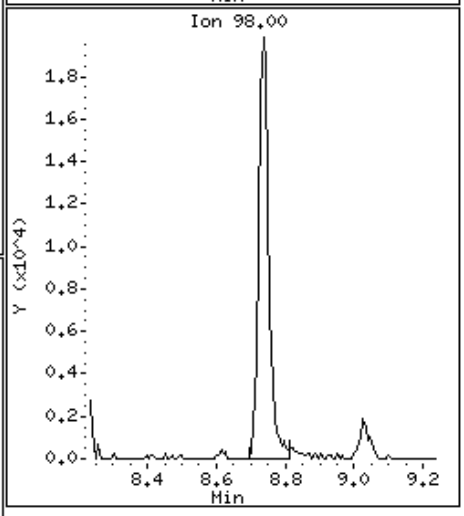
41 1,2-dichloroethane

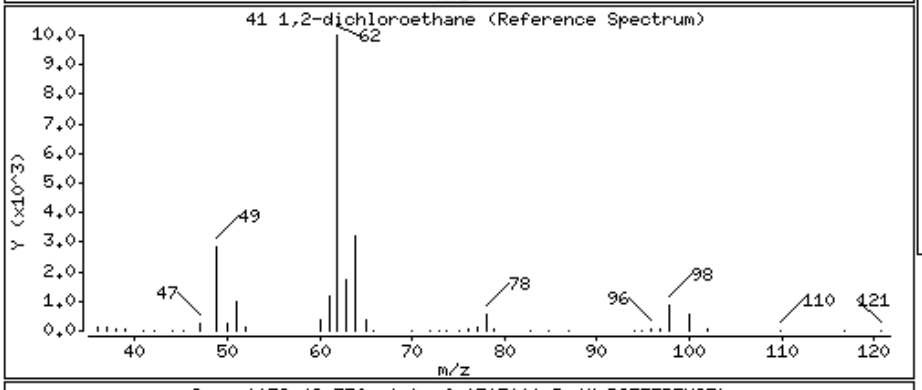
Concentration: 104.560 ngs

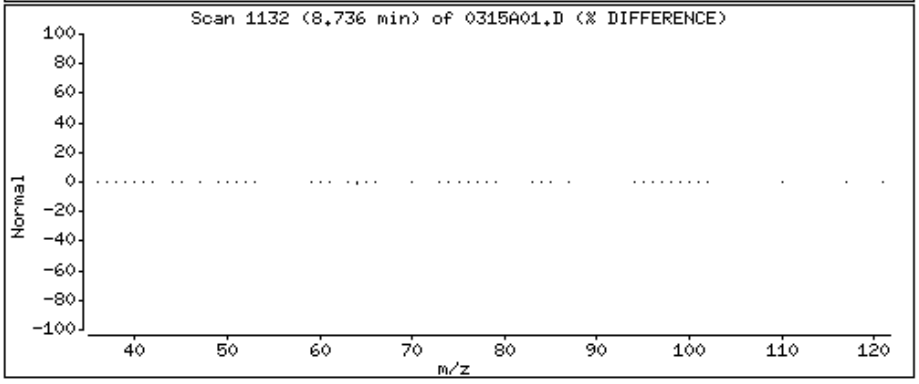












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

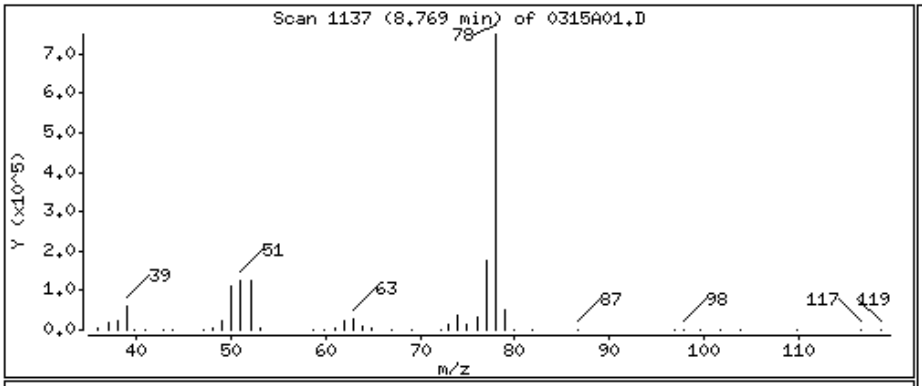
Operator: PD

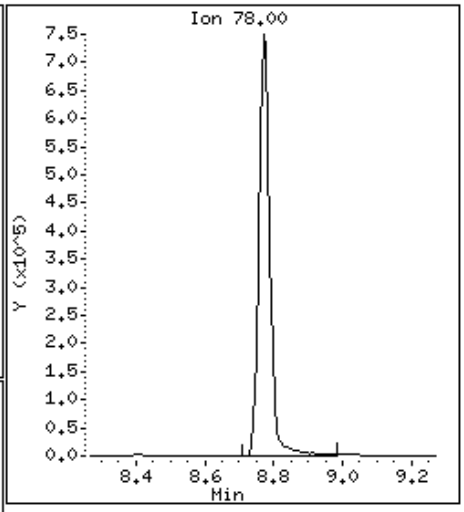
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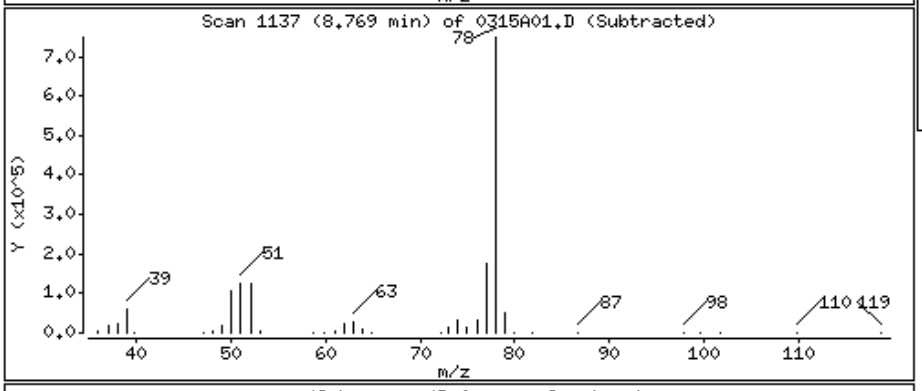
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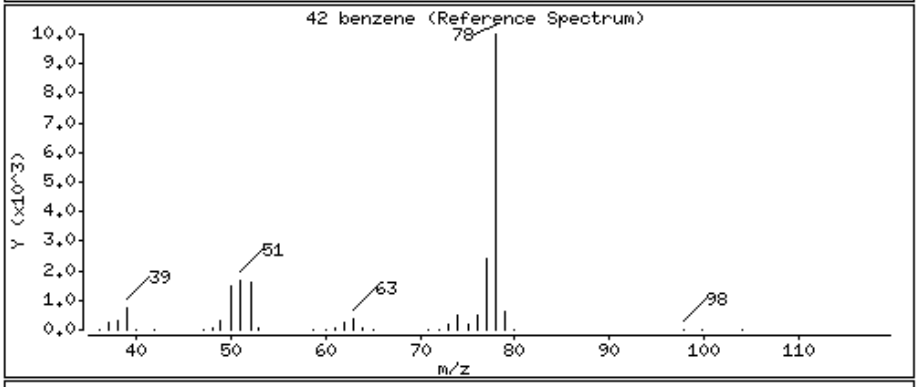
42 benzene

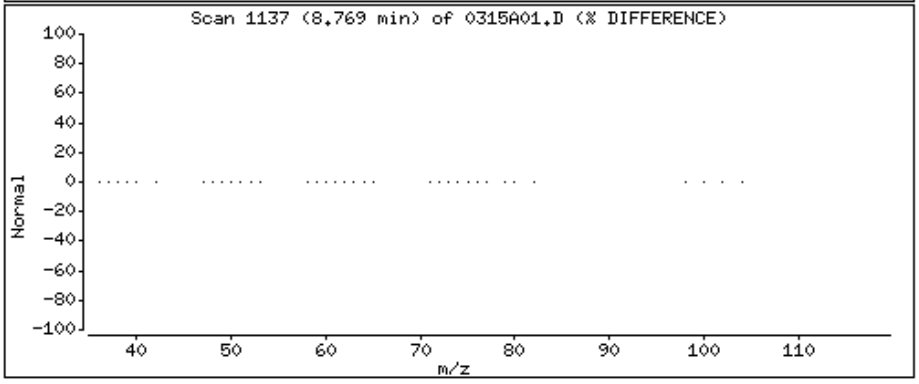
Concentration: 105.020 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

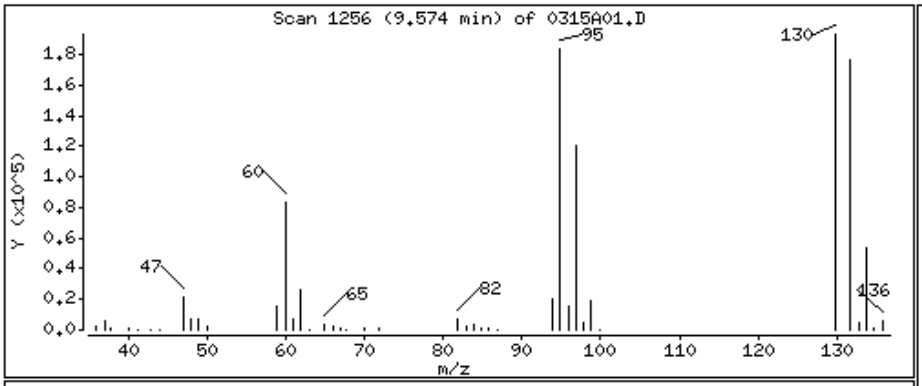
Operator: PD

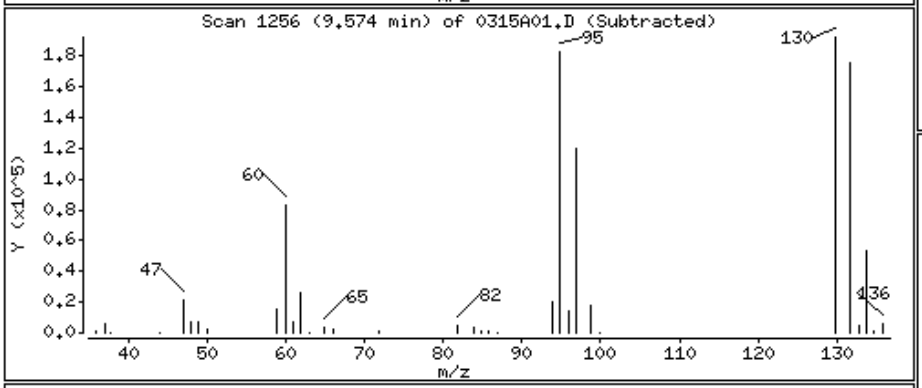
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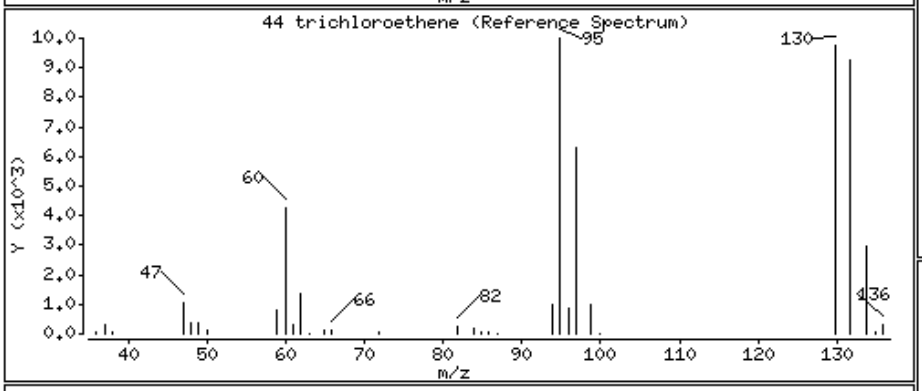
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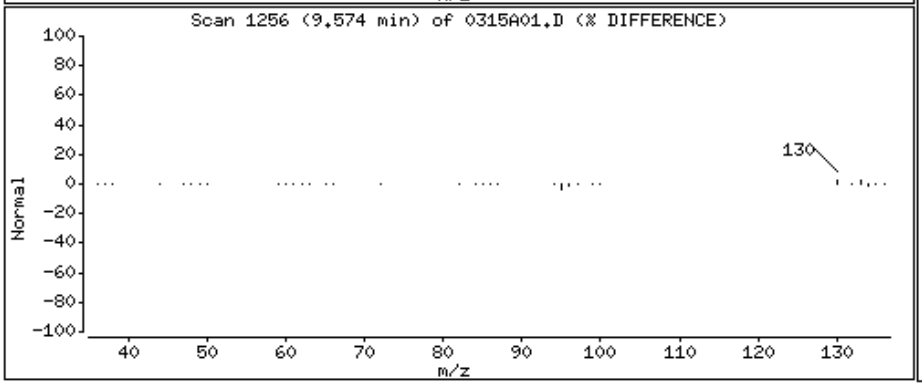
44 trichloroethene

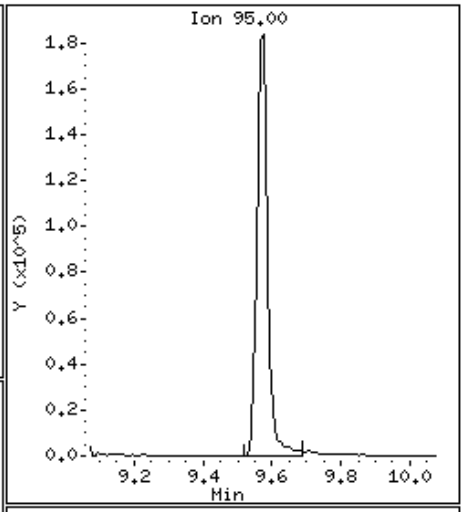
Concentration: 103.492 ngs

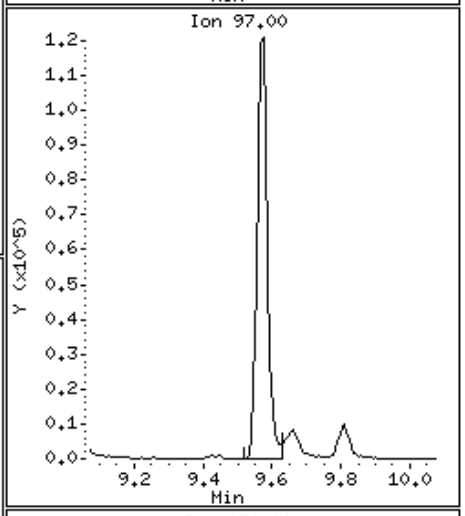


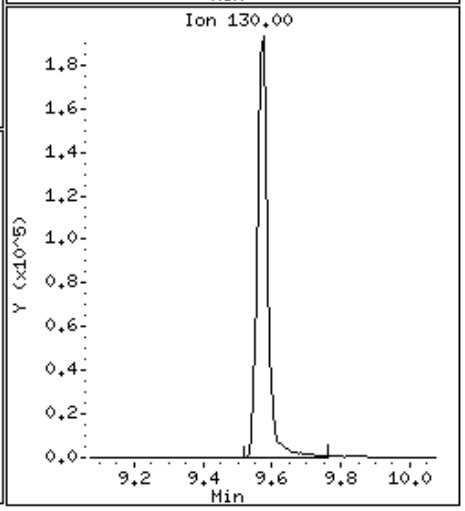












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

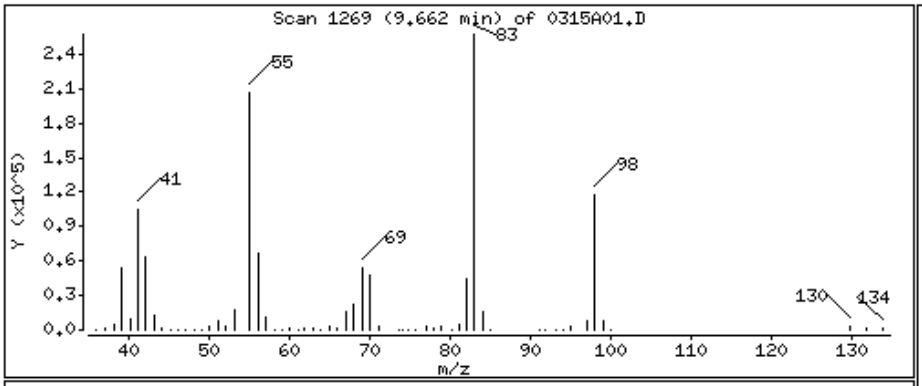
Operator: PD

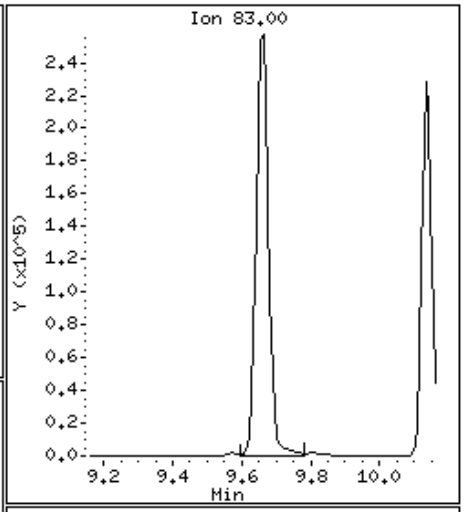
Column phase: Rtx-502.2

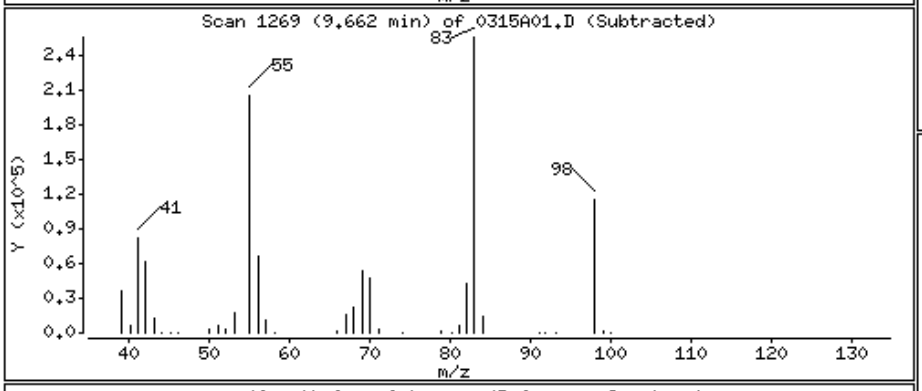
Column diameter: 0.18

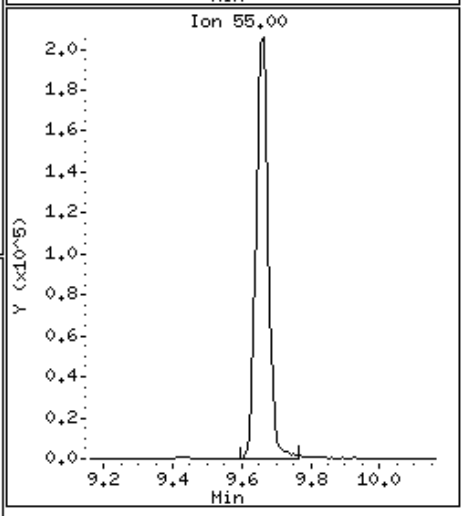
46 methyl cyclohexane

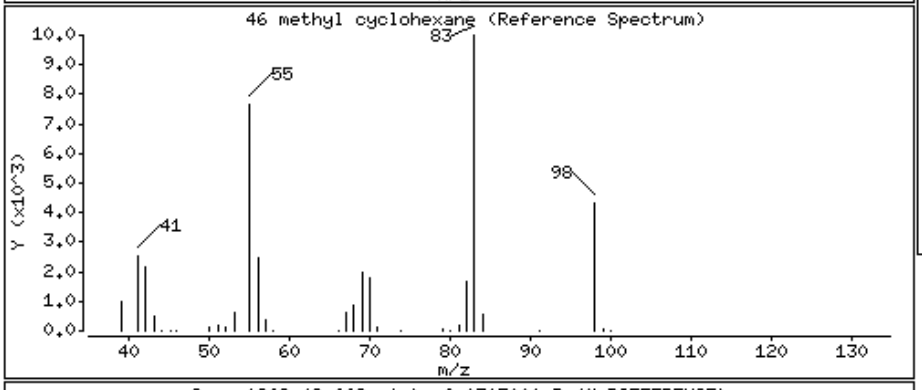
Concentration: 103.664 ngs

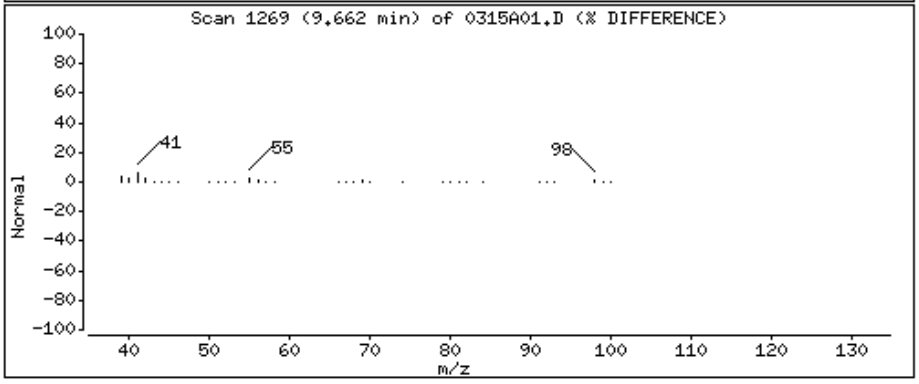












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

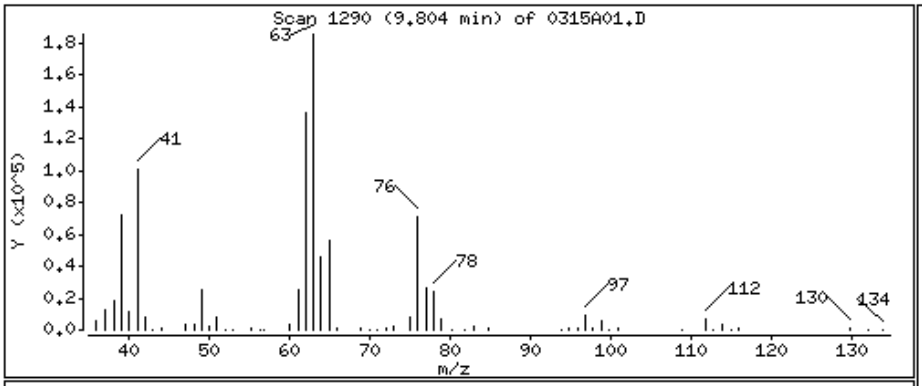
Operator: PD

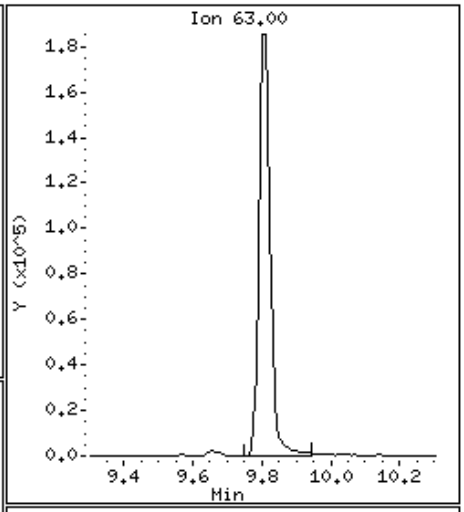
Column phase: Rtx-502.2

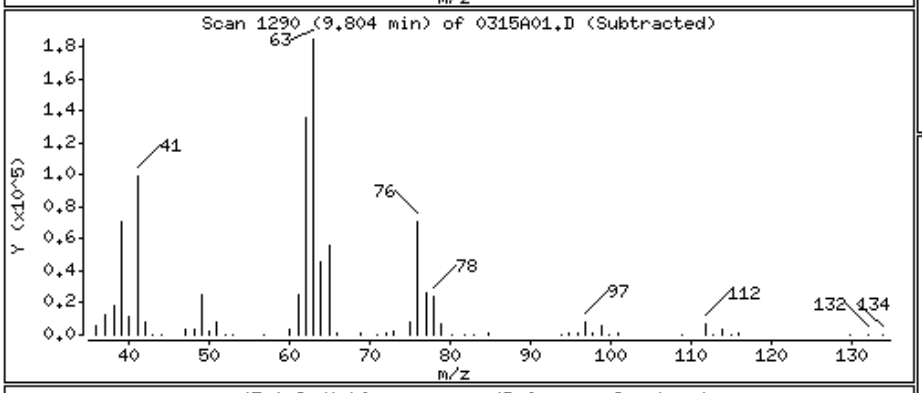
Column diameter: 0.18

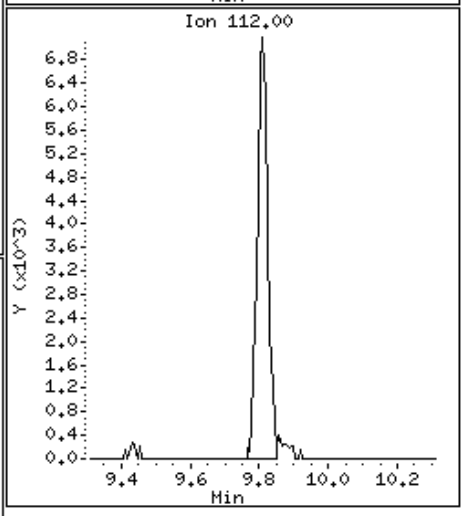
47 1,2-dichloropropane

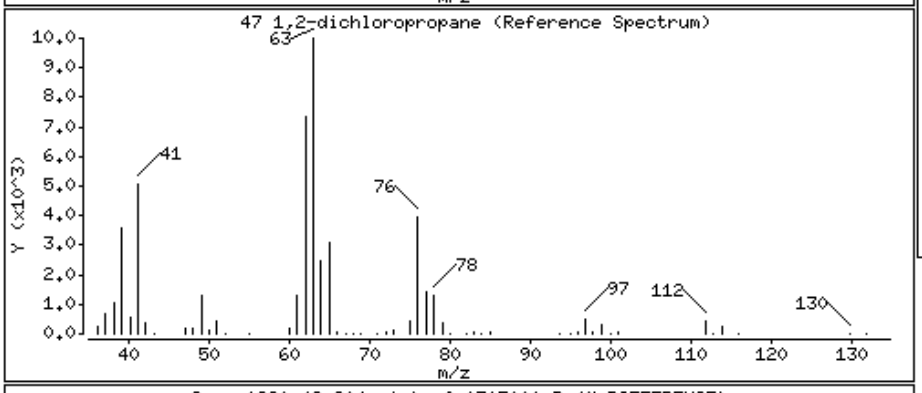
Concentration: 105.743 ngs

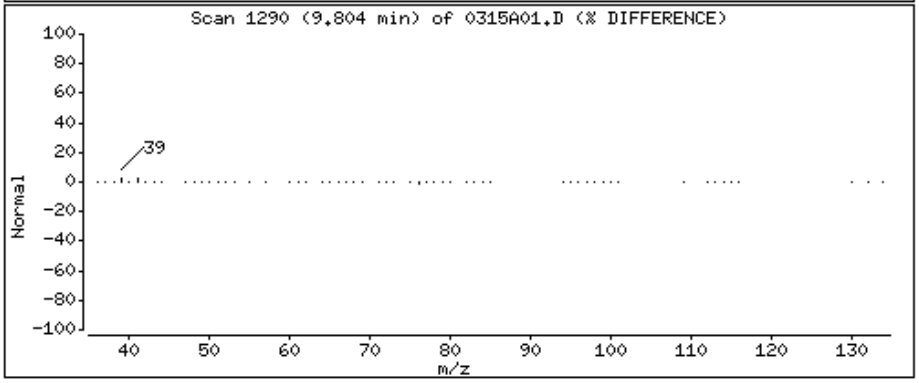












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

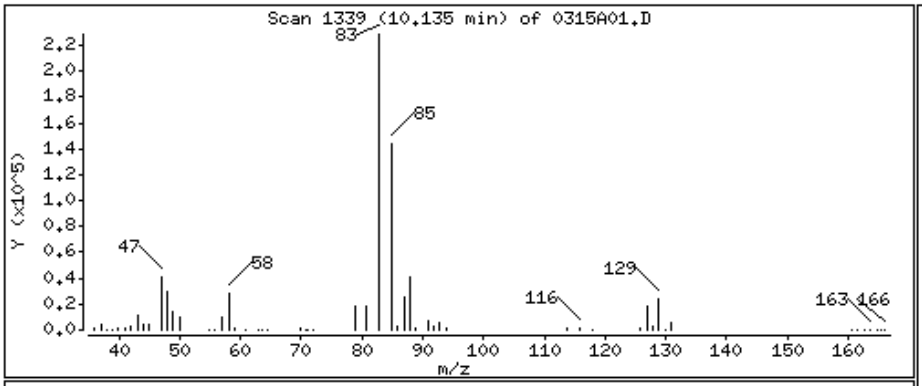
Operator: PD

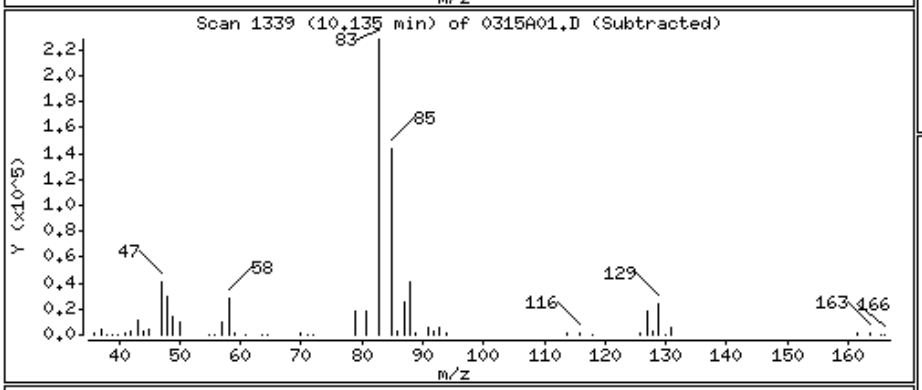
Column phase: Rtx-502.2

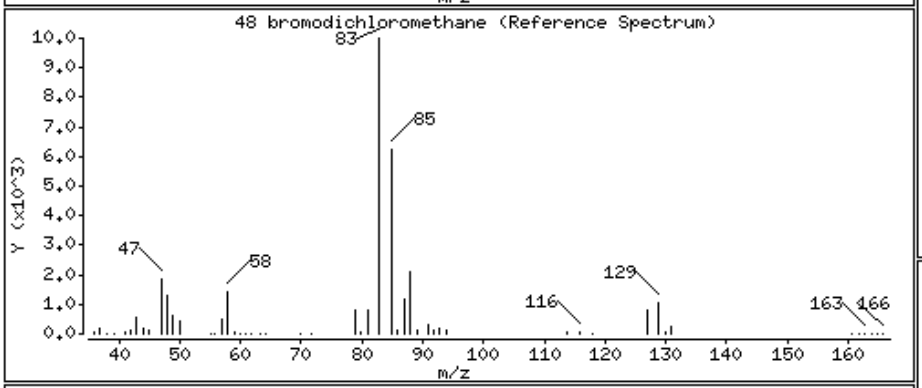
Column diameter: 0.18

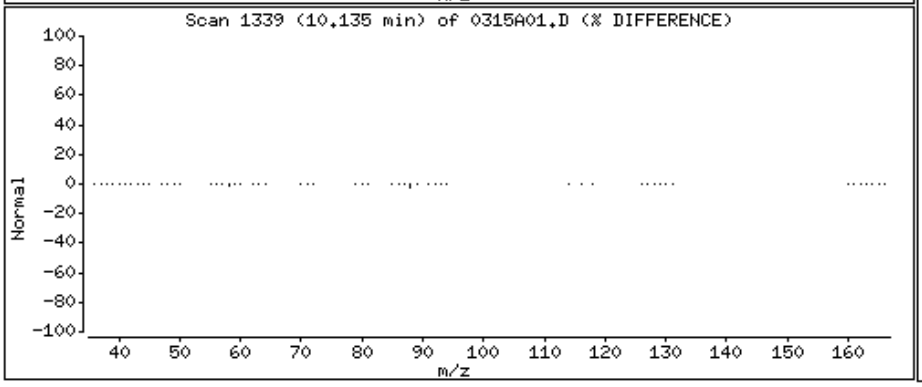
48 bromodichloromethane

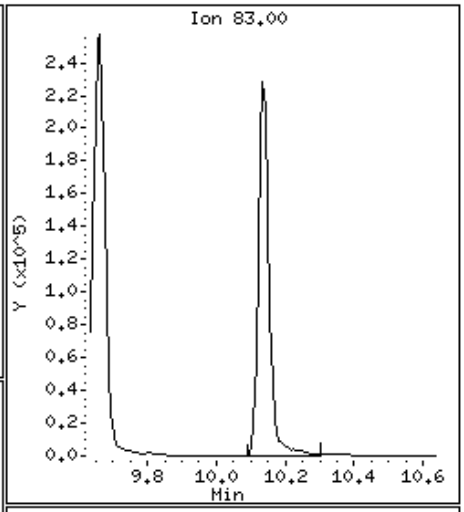
Concentration: 110.422 ngs

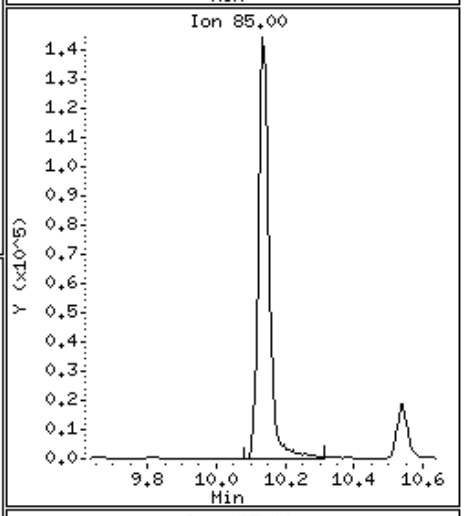


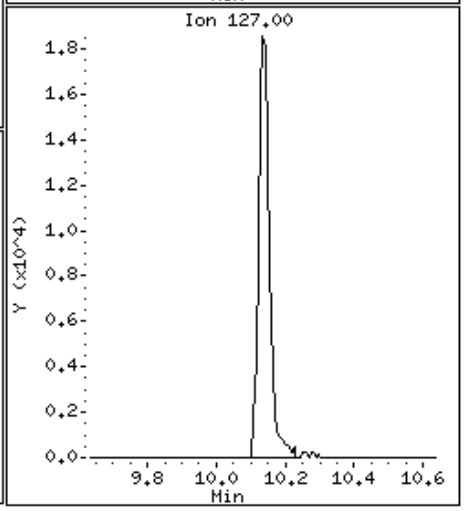












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

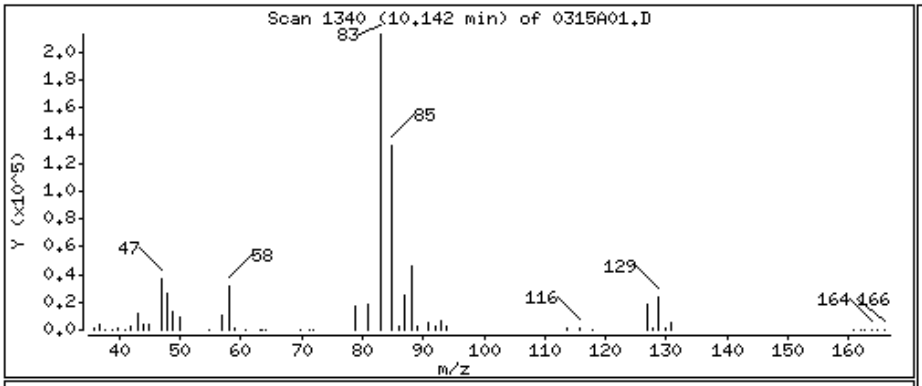
Operator: PD

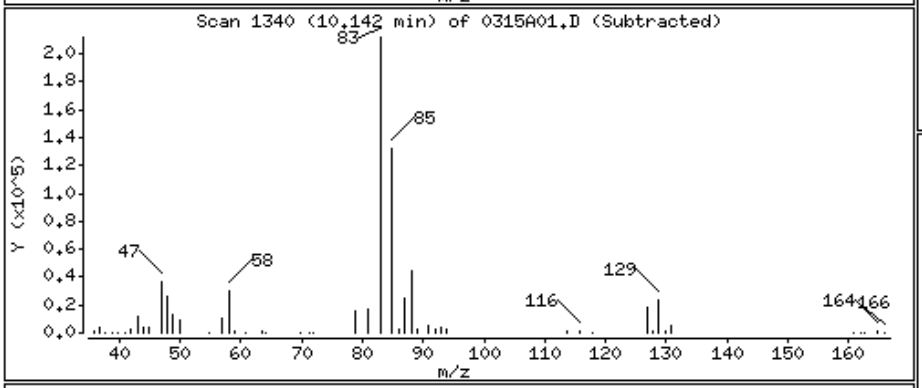
Column phase: Rtx-502.2

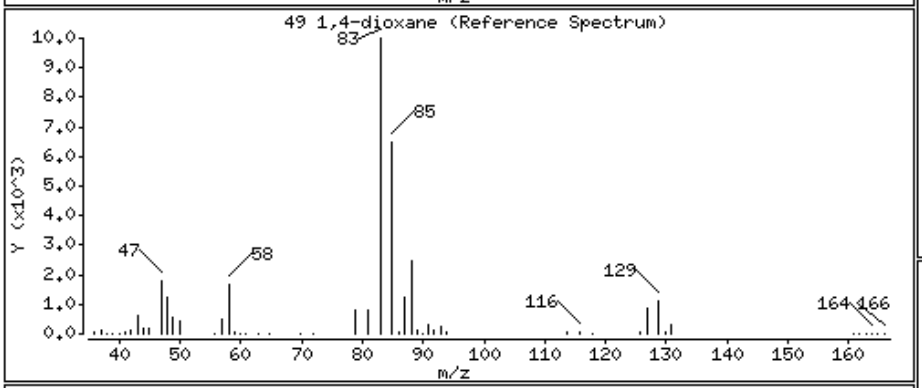
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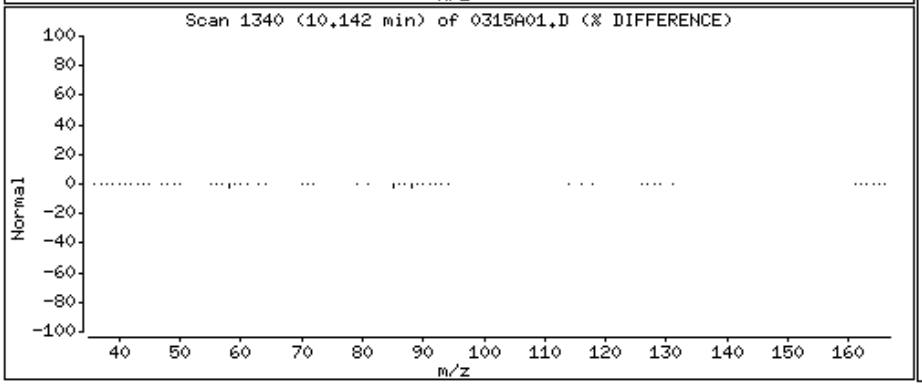
49 1,4-dioxane

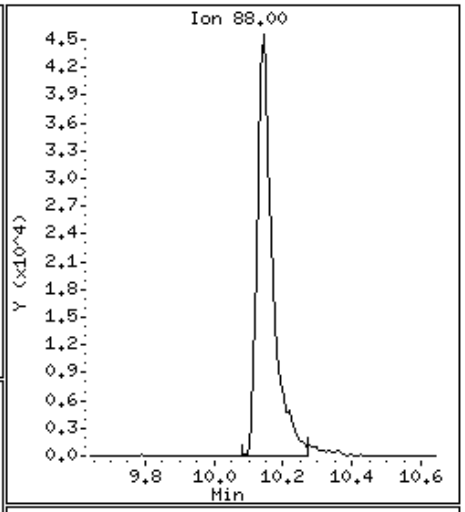
Concentration: 5059.681 ngs

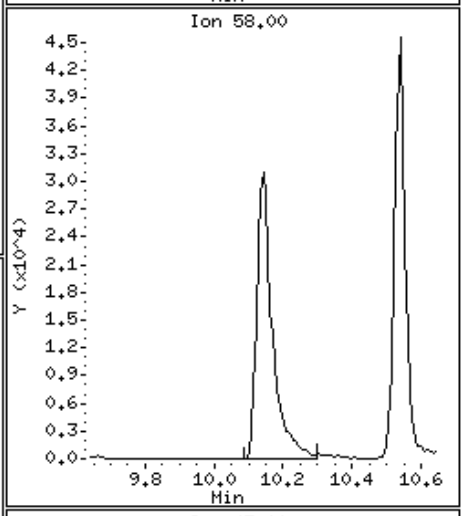


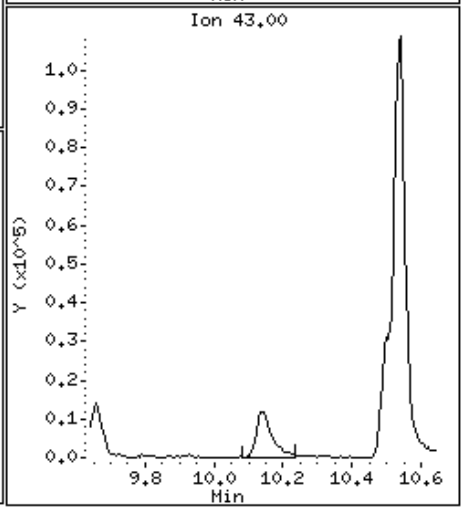












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

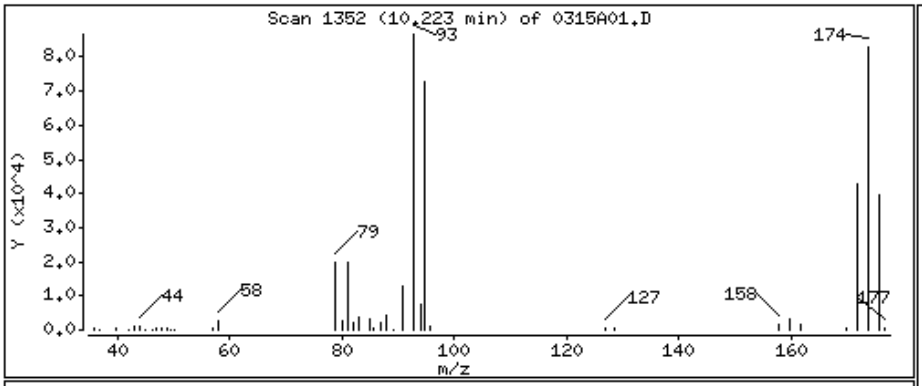
Operator: PD

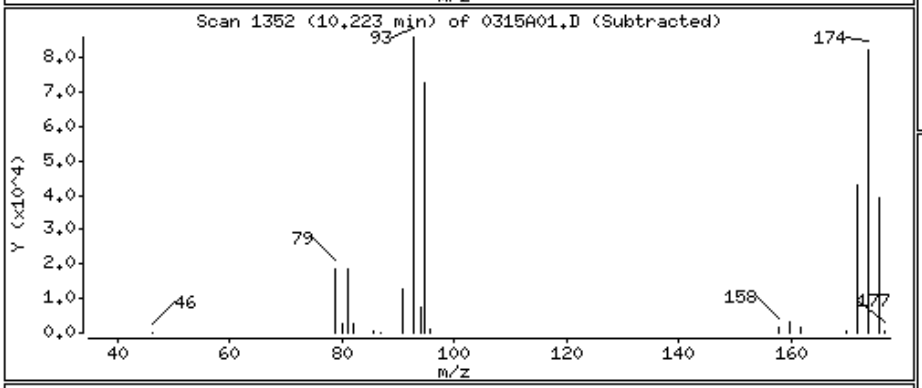
Column phase: Rtx-502.2

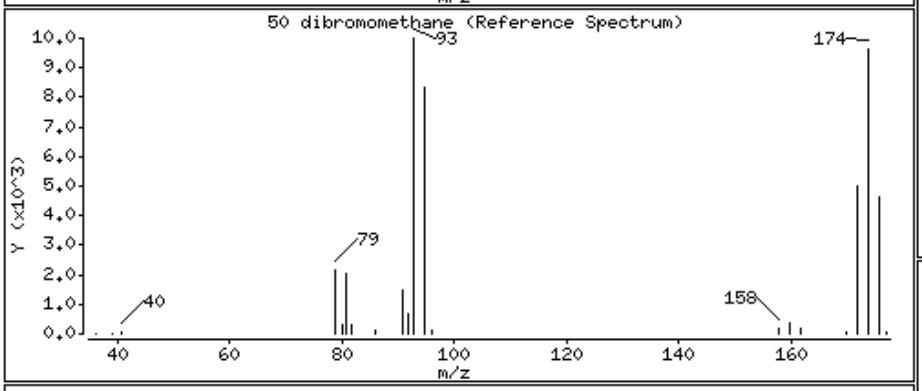
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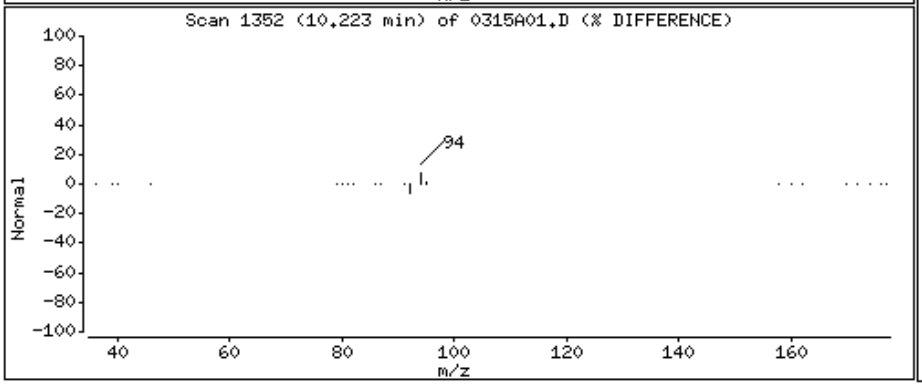
50 dibromomethane

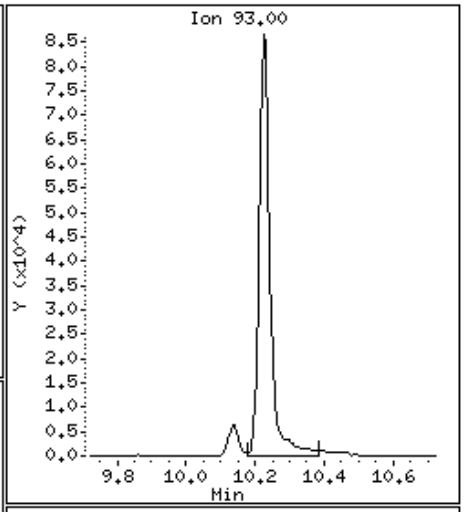
Concentration: 102.985 ngs

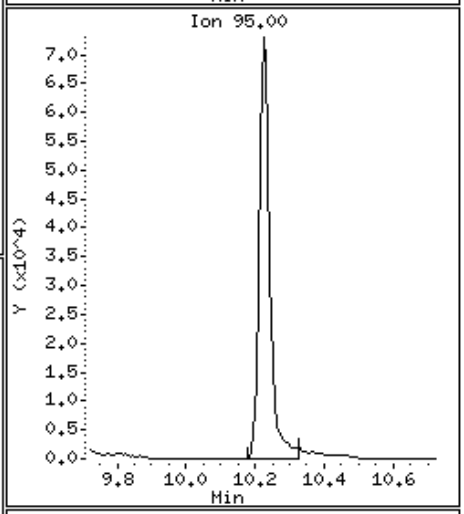


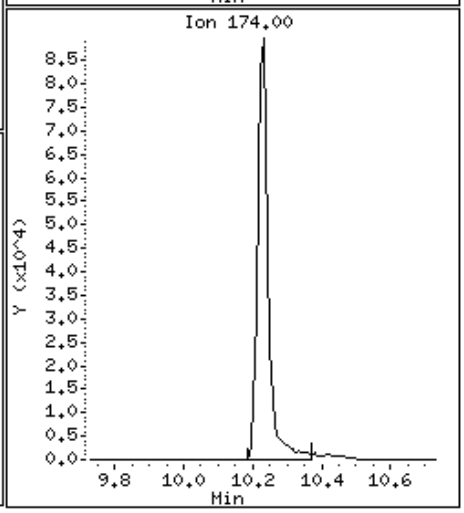












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

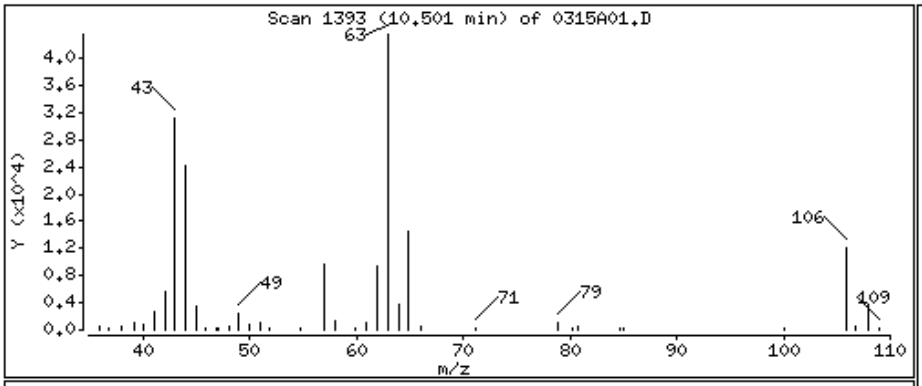
Operator: PD

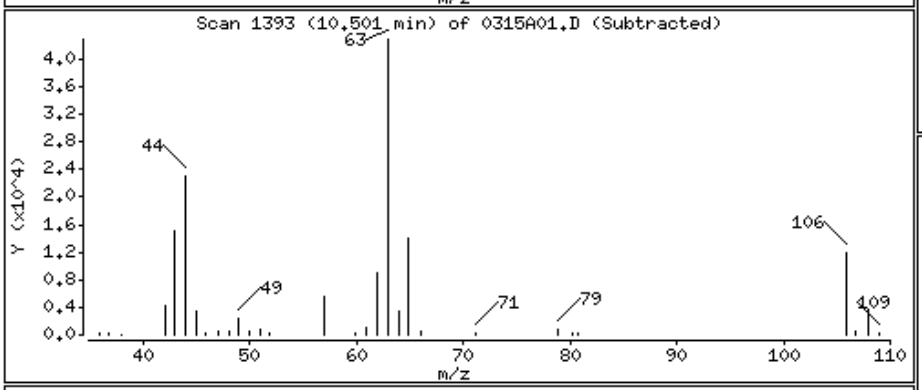
Column phase: Rtx-502.2

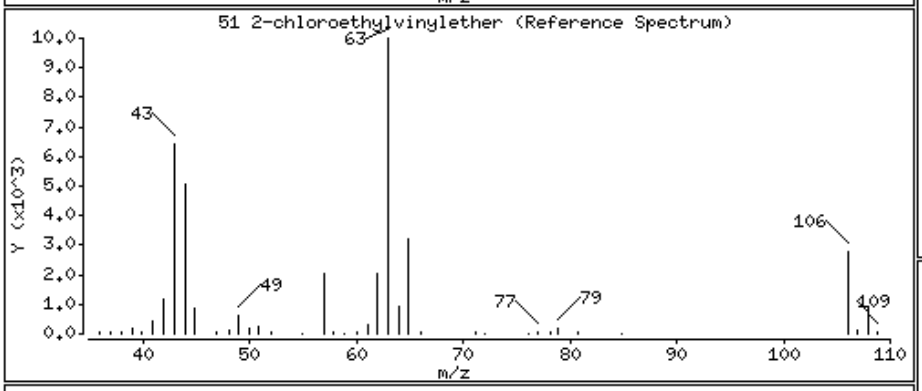
Column diameter: 0.18

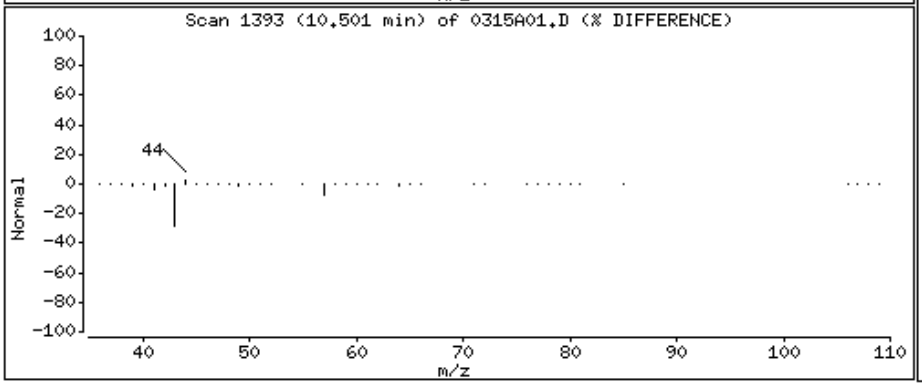
51 2-chloroethylvinylether

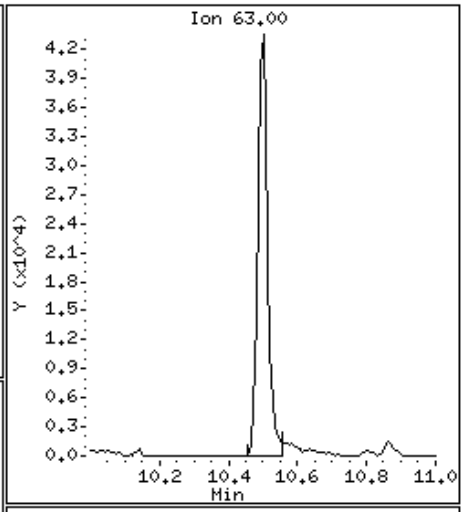
Concentration: 66.694 ngs

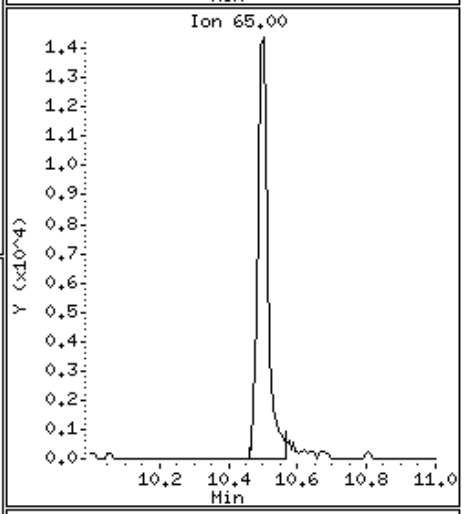


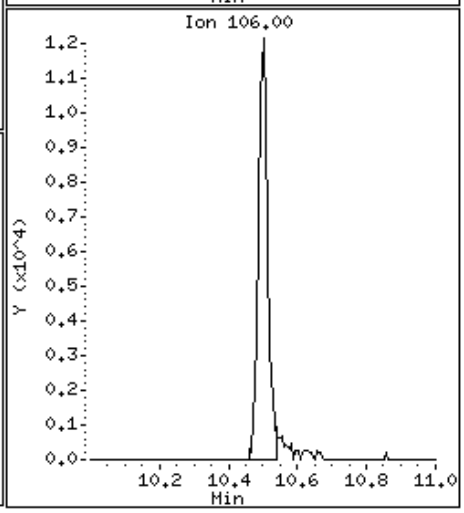












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

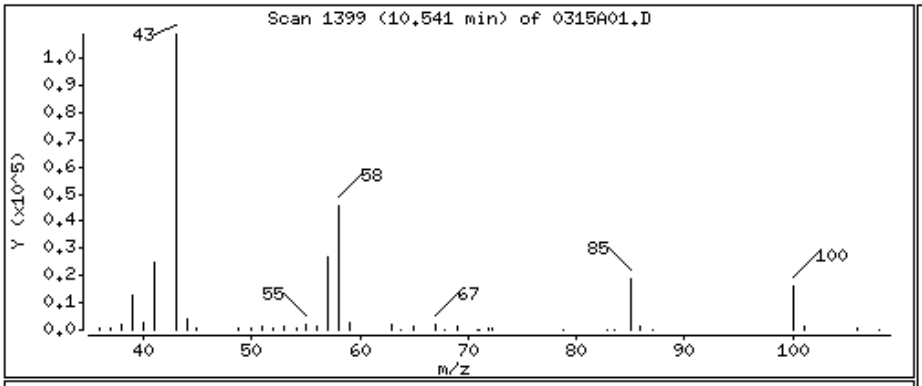
Operator: PD

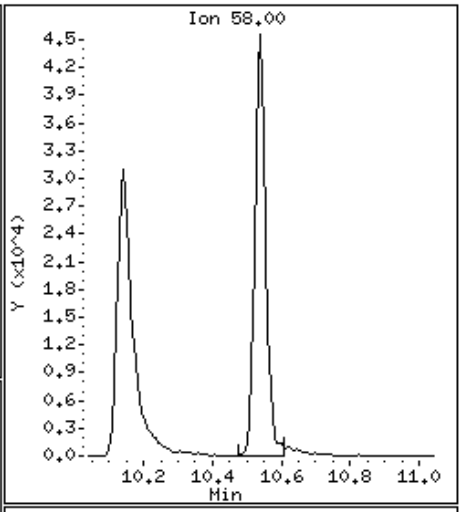
Column phase: Rtx-502.2

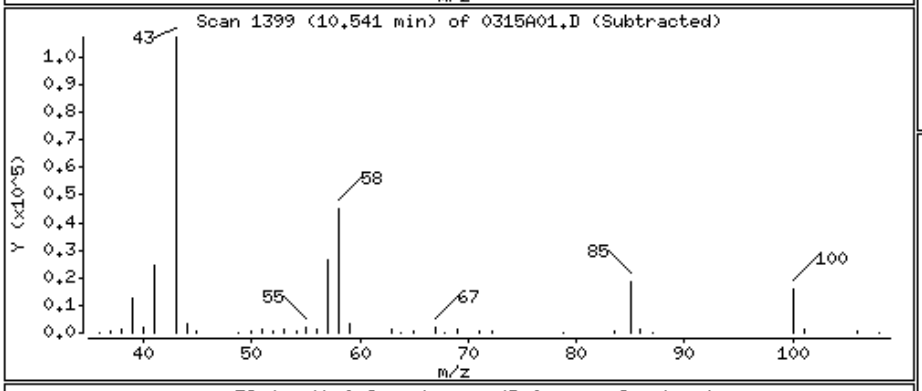
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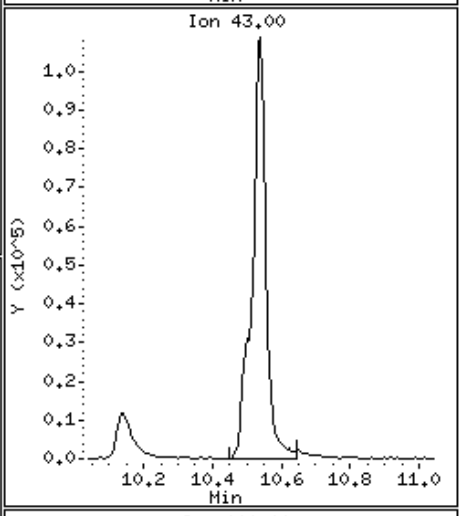
52 4-methyl-2-pentanone

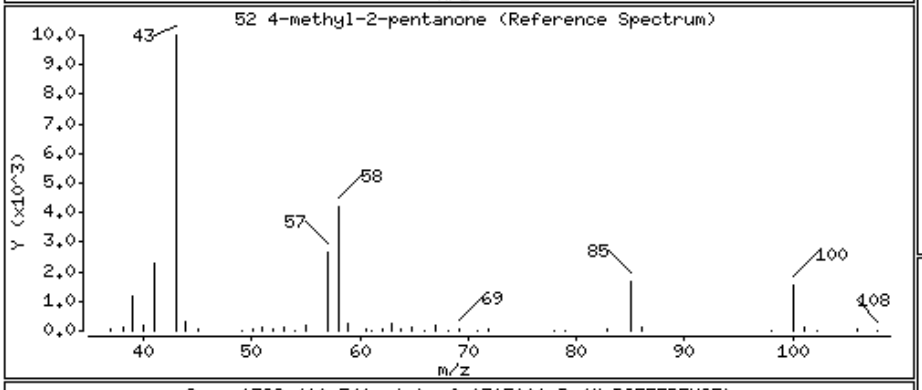
Concentration: 96.301 ngs

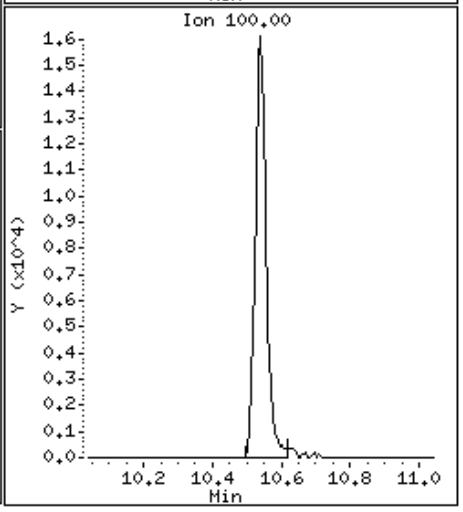


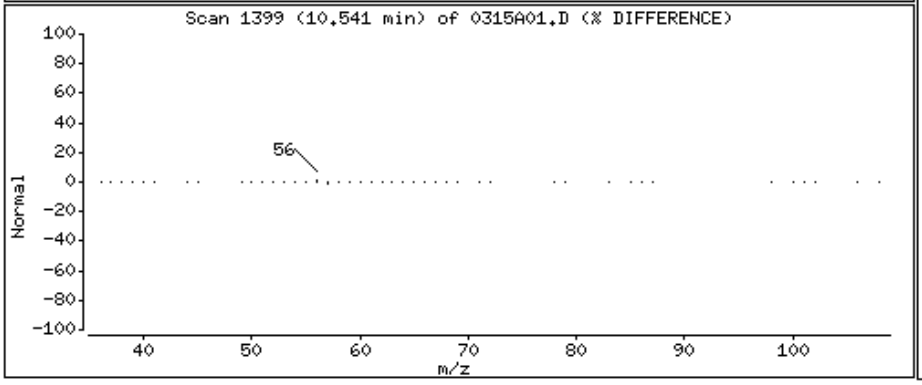












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

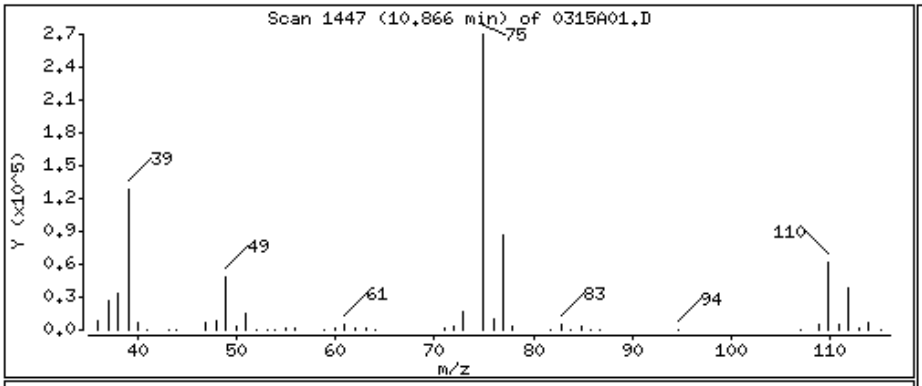
Operator: PD

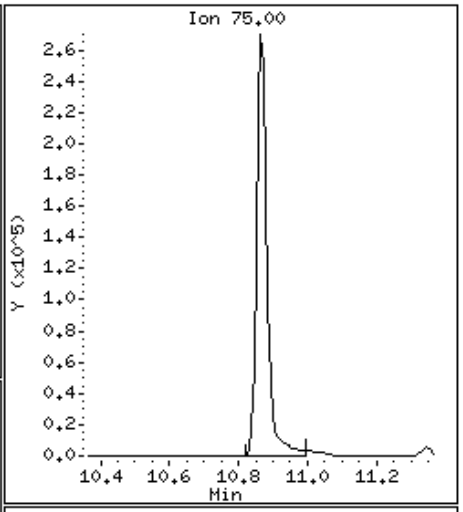
Column phase: Rtx-502.2

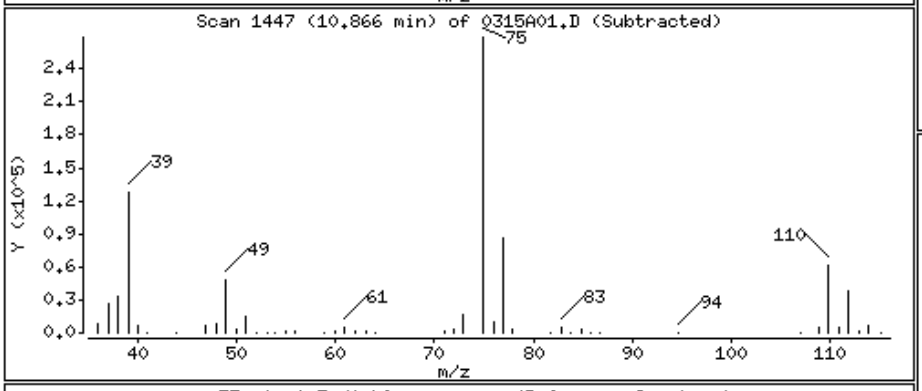
Column diameter: 0.18

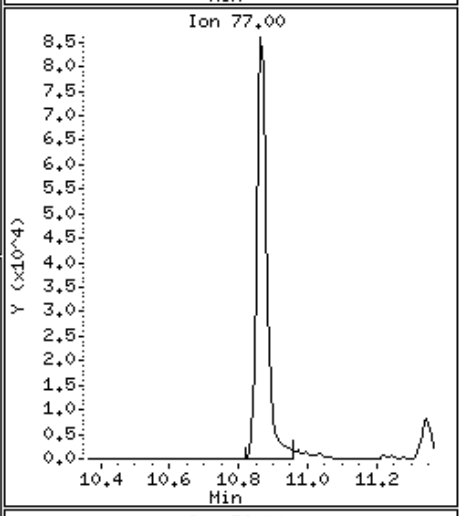
53 cis-1,3-dichloropropene

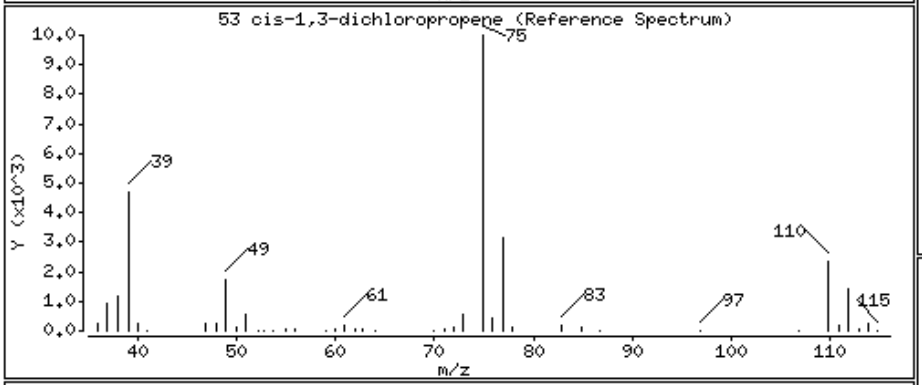
Concentration: 109.984 ngs

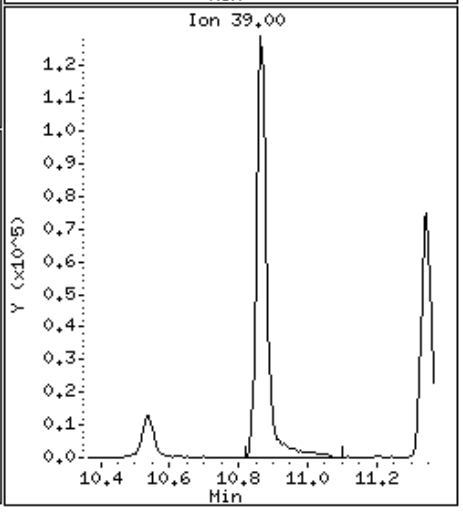


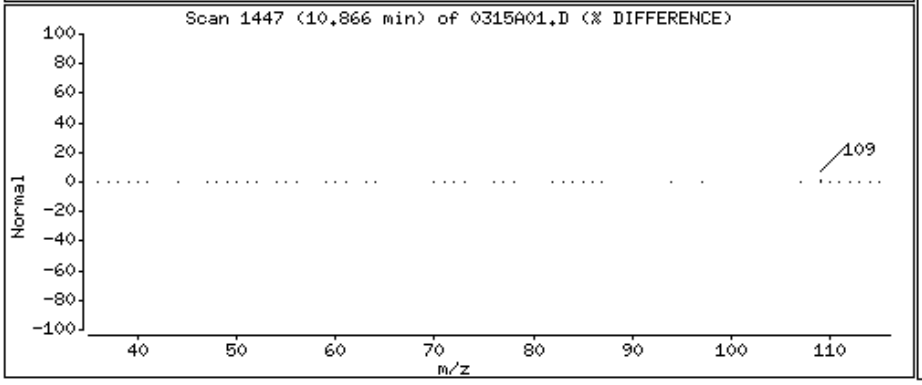












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

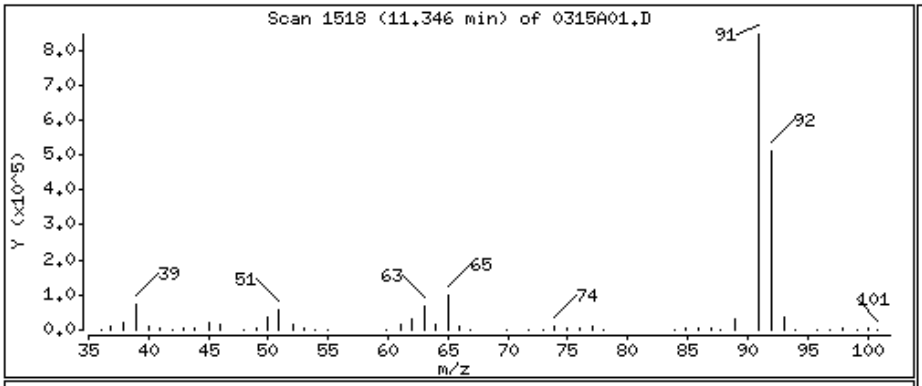
Operator: PD

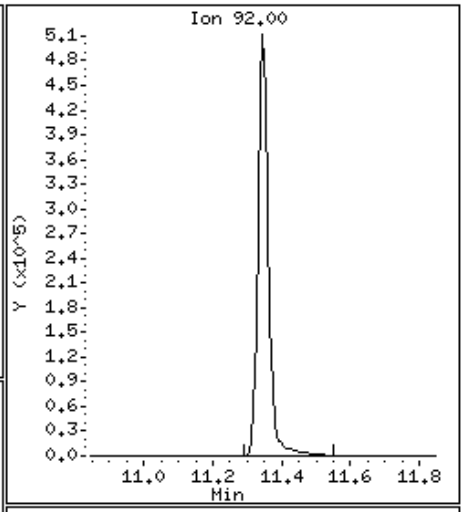
Column phase: Rtx-502.2

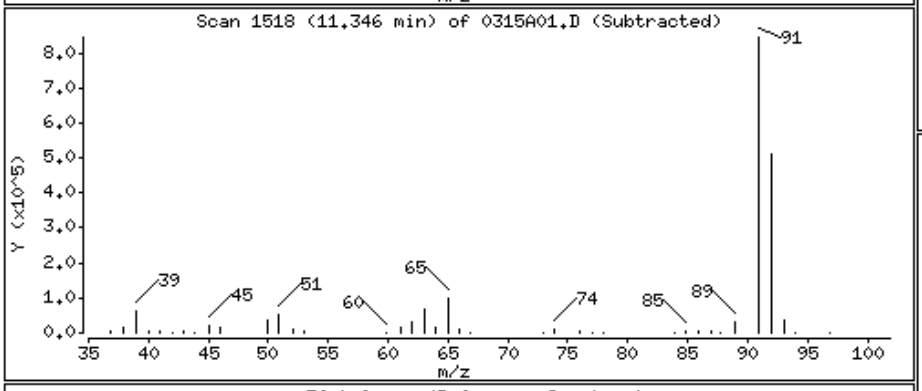
Column diameter: 0.18

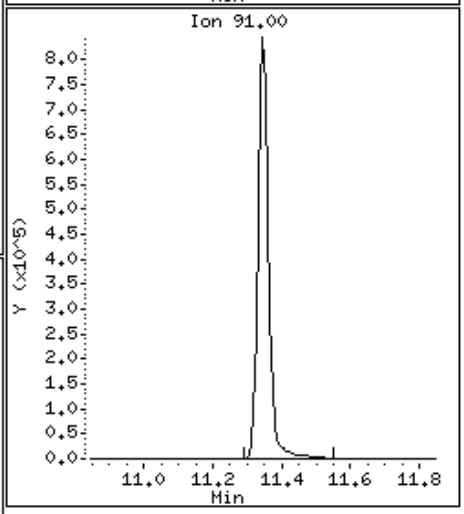
56 toluene

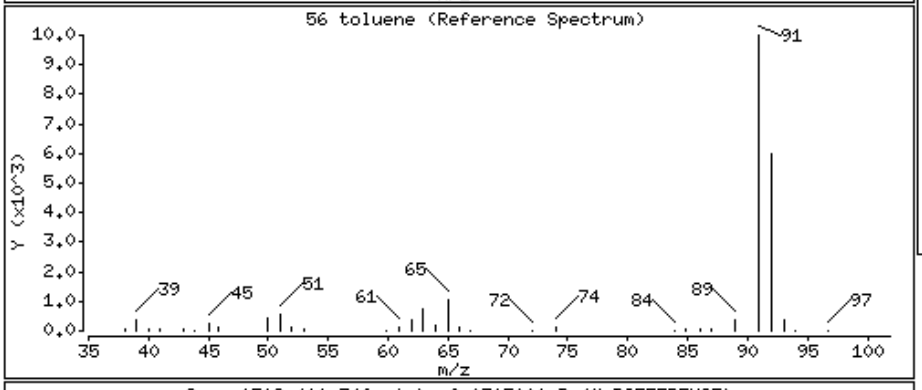
Concentration: 106.145 ngs

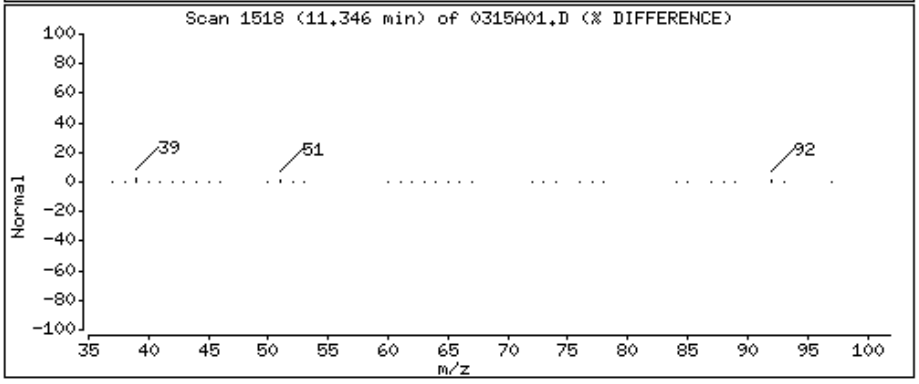












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

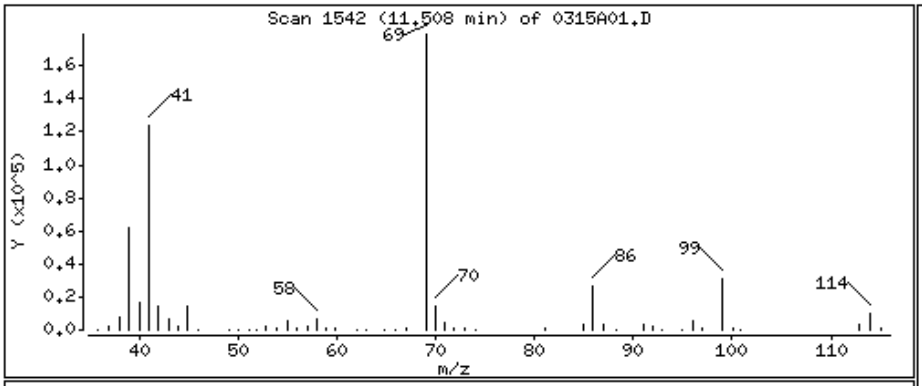
Operator: PD

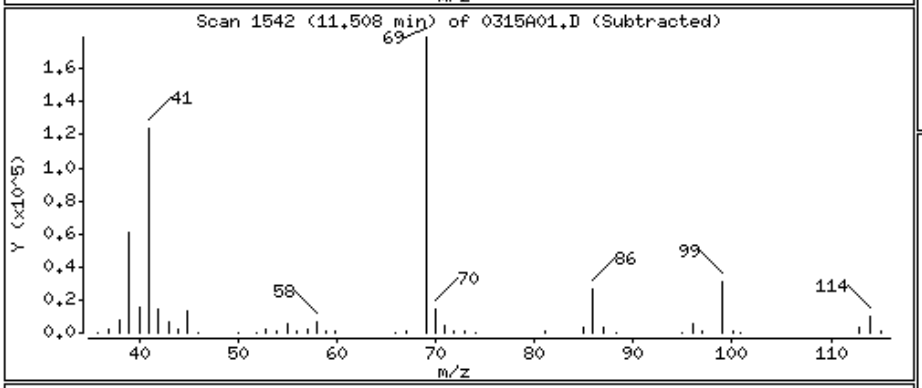
Column phase: Rtx-502.2

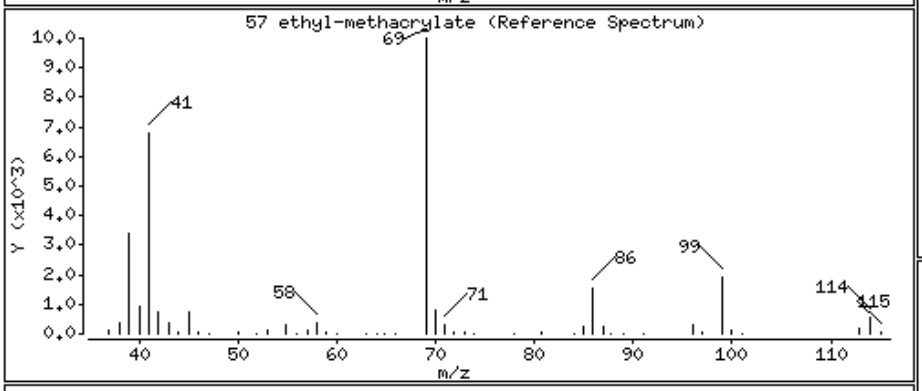
Column diameter: 0.18

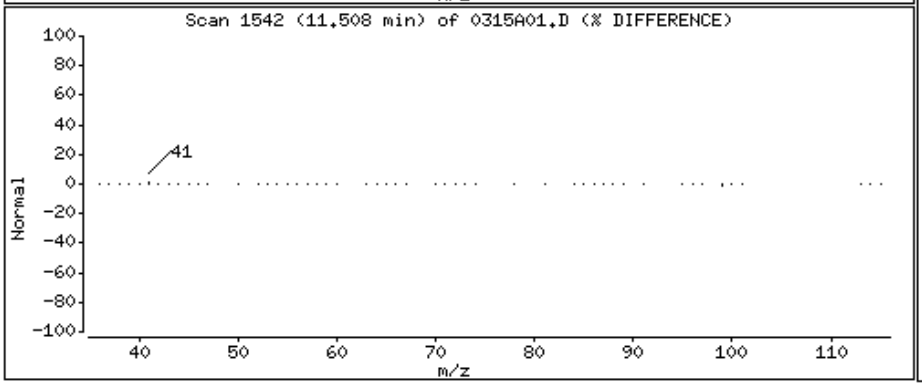
57 ethyl-methacrylate

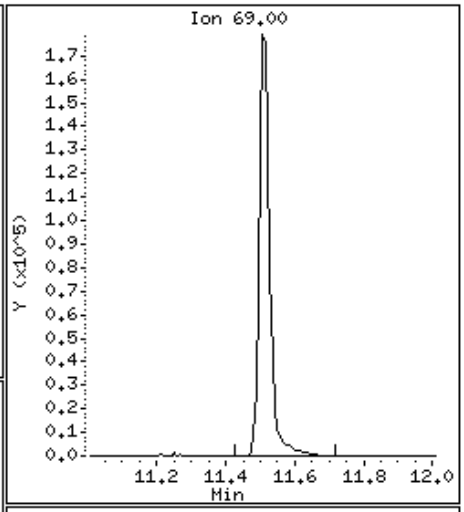
Concentration: 101.376 ngs

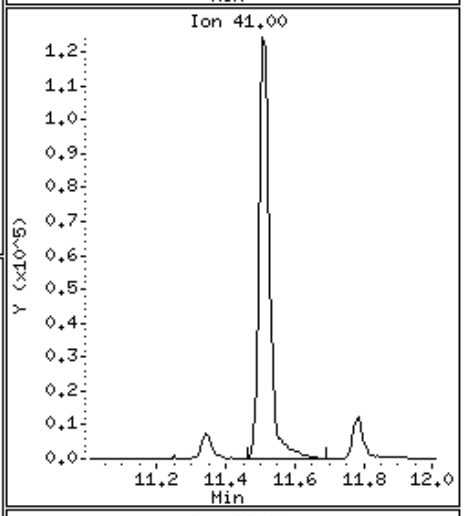


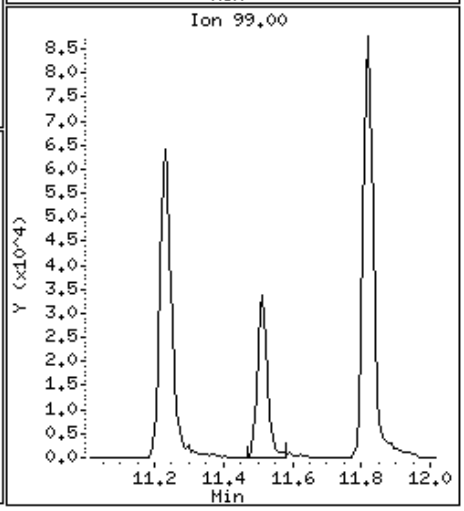












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

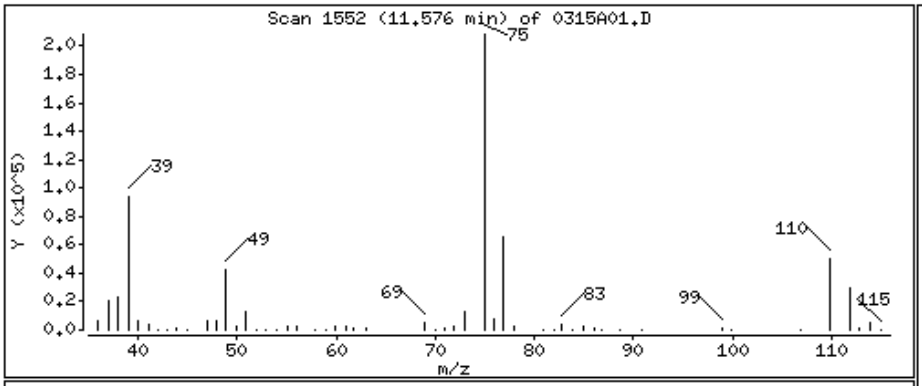
Operator: PD

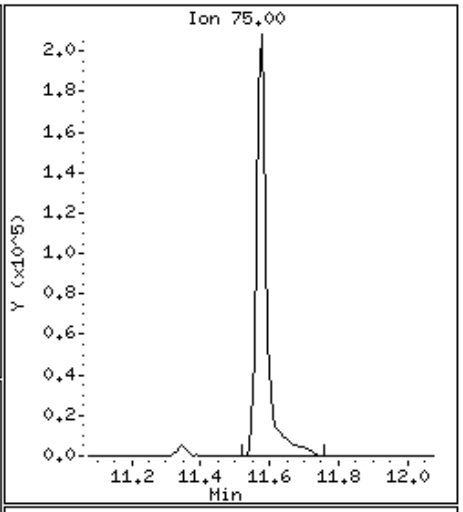
Column phase: Rtx-502.2

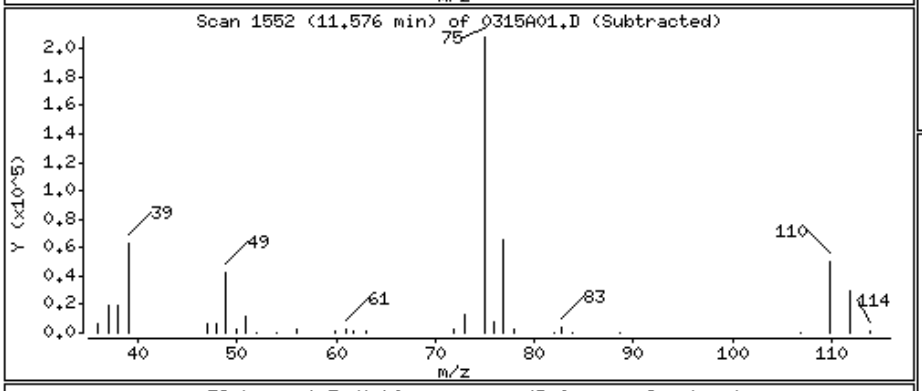
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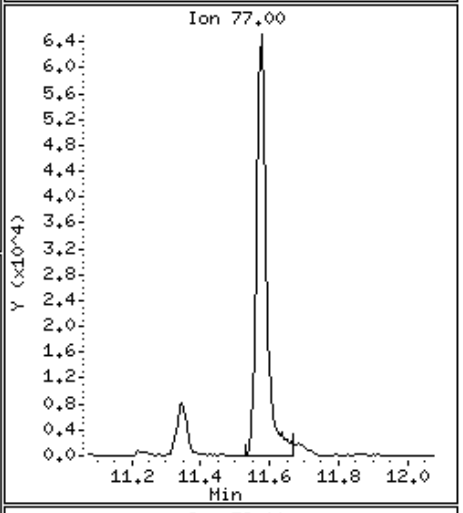
58 trans-1,3-dichloropropene

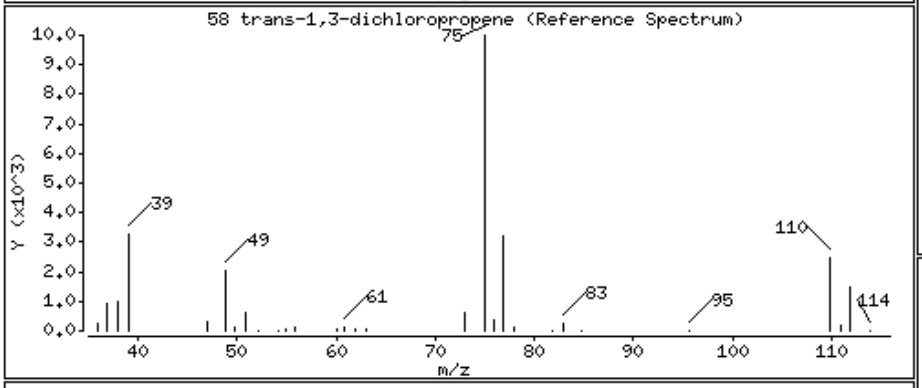
Concentration: 111.818 ngs

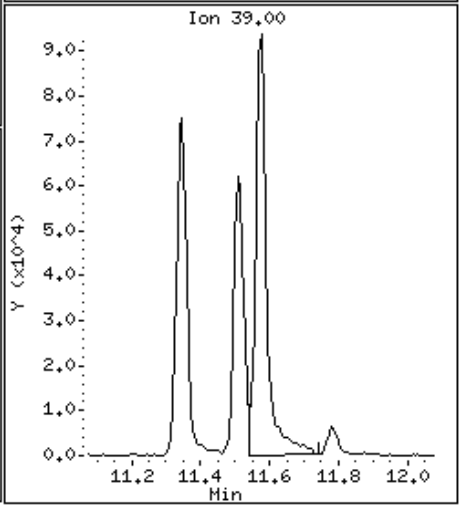


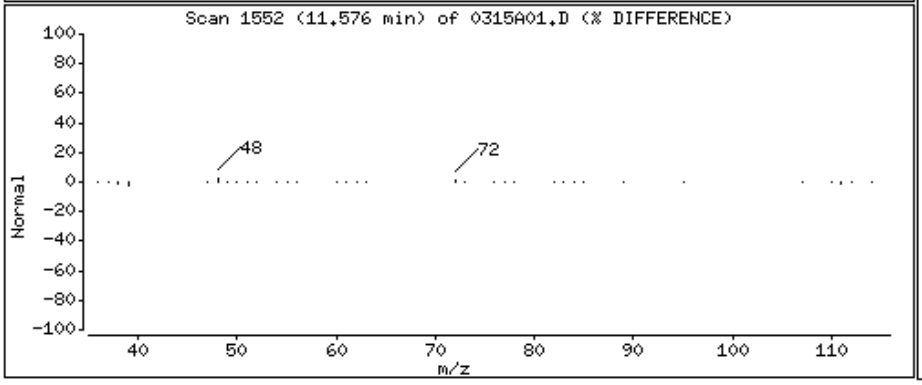












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

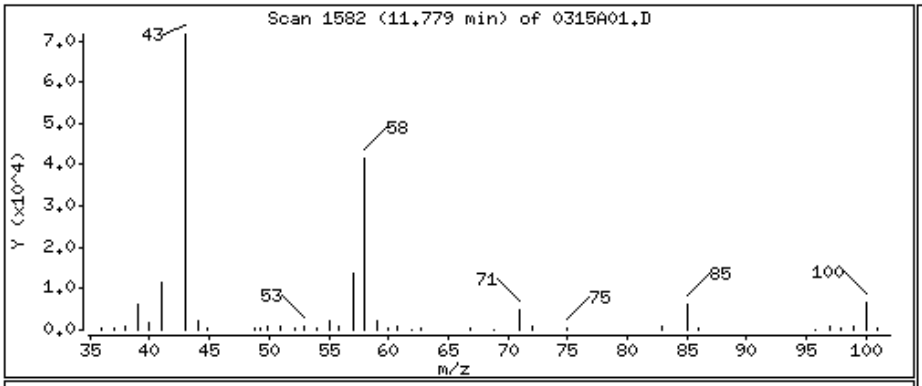
Operator: PD

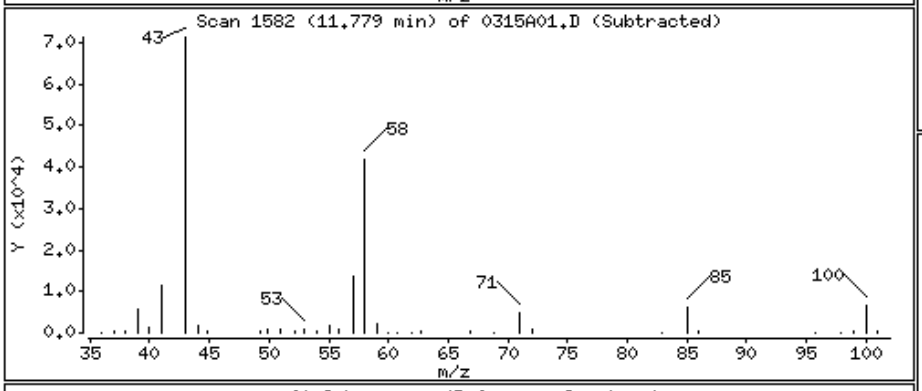
Column phase: Rtx-502.2

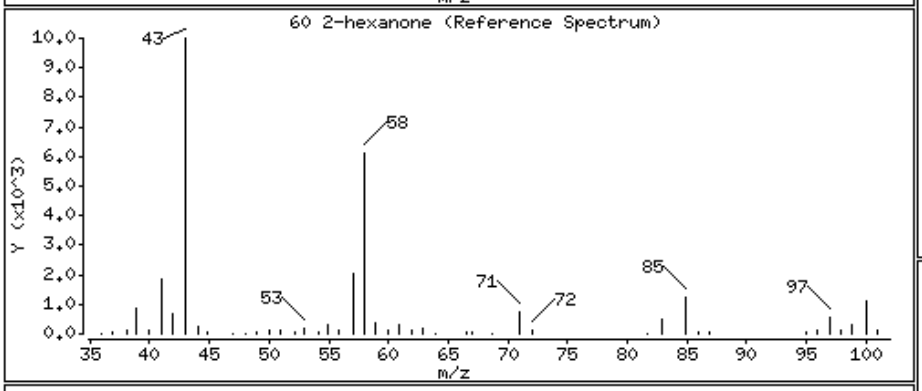
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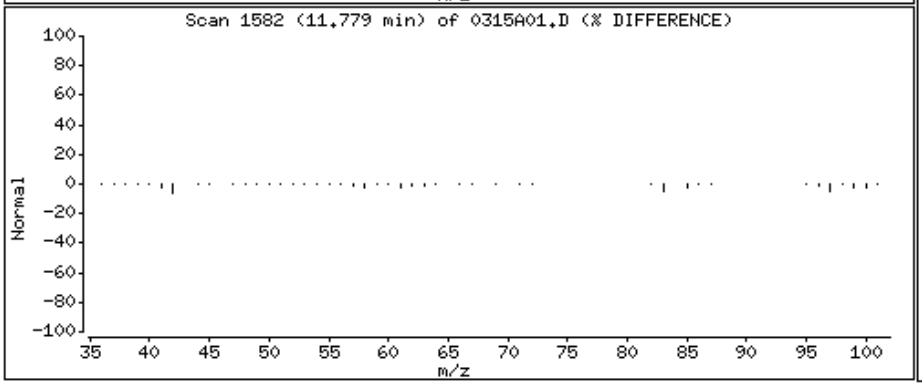
60 2-hexanone

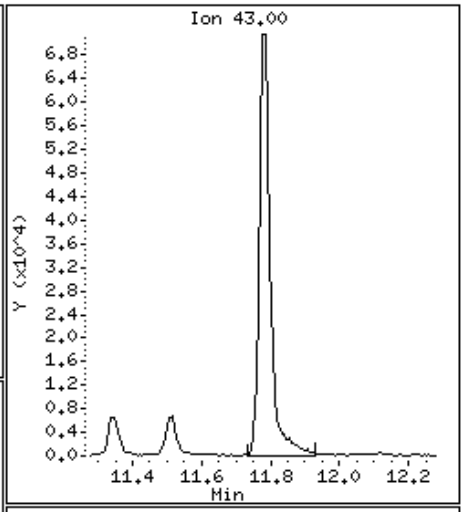
Concentration: 98.518 ngs

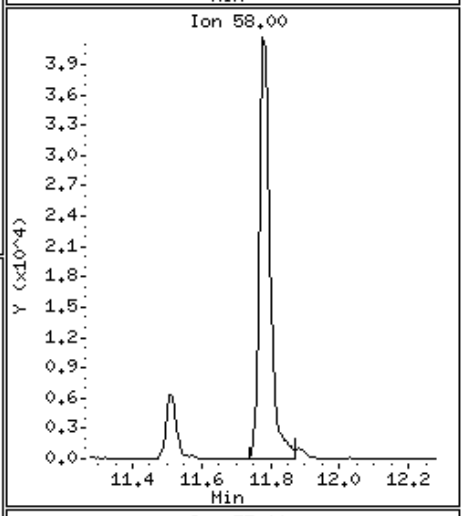


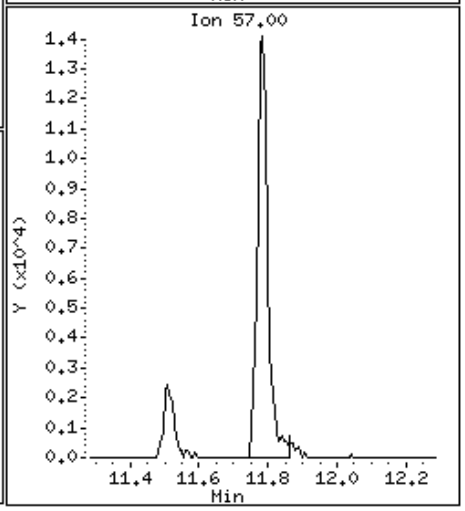












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

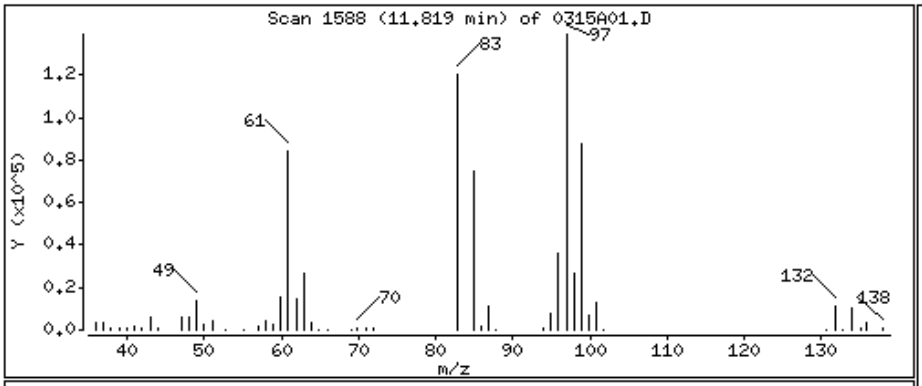
Operator: PD

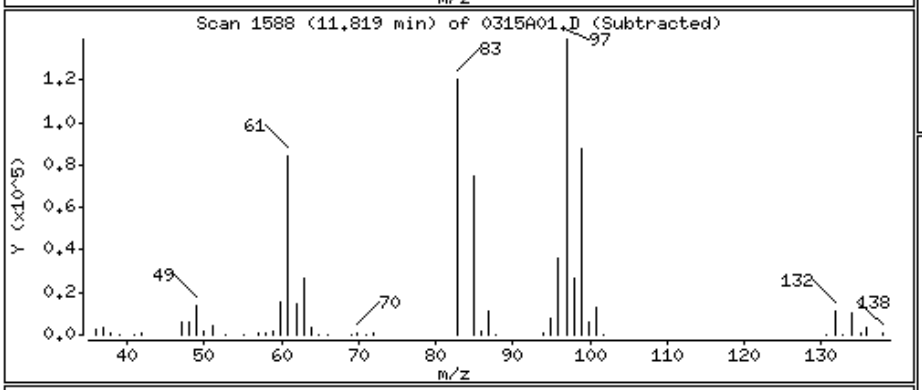
Column phase: Rtx-502.2

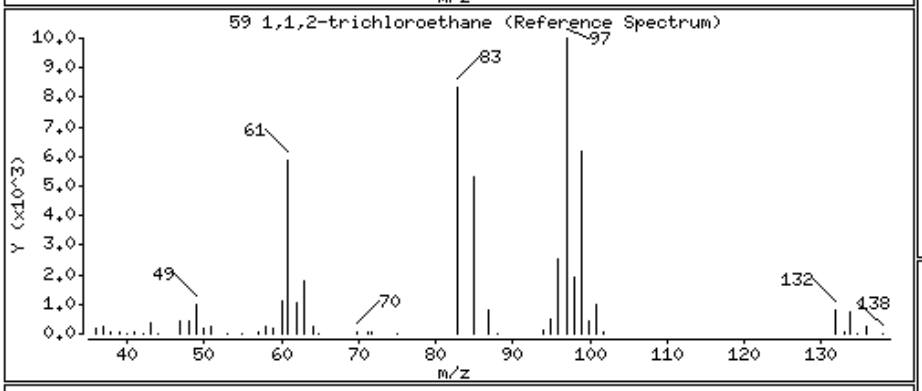
Column diameter: 0.18

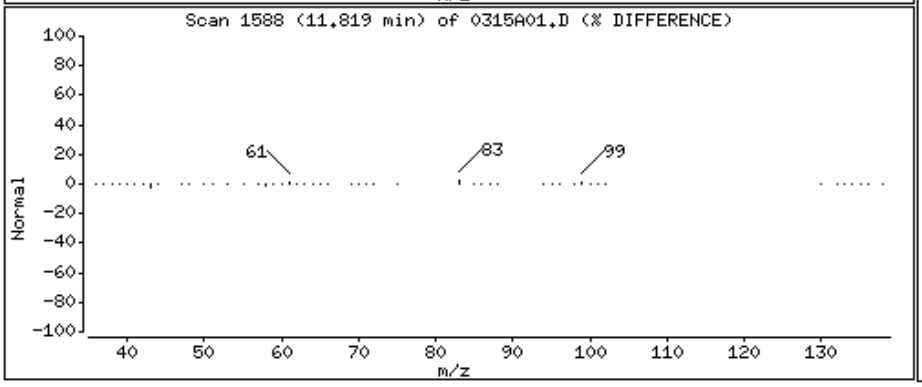
59 1,1,2-trichloroethane

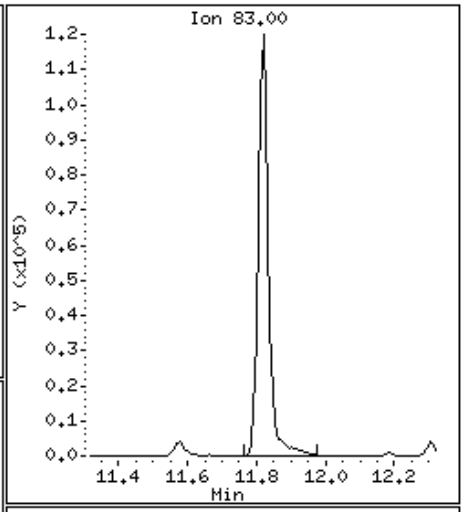
Concentration: 100.887 ngs

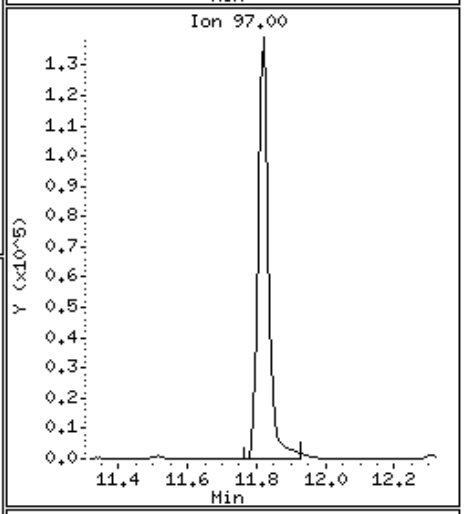


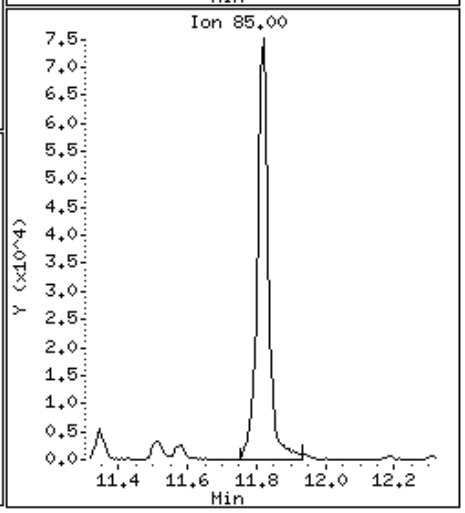












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

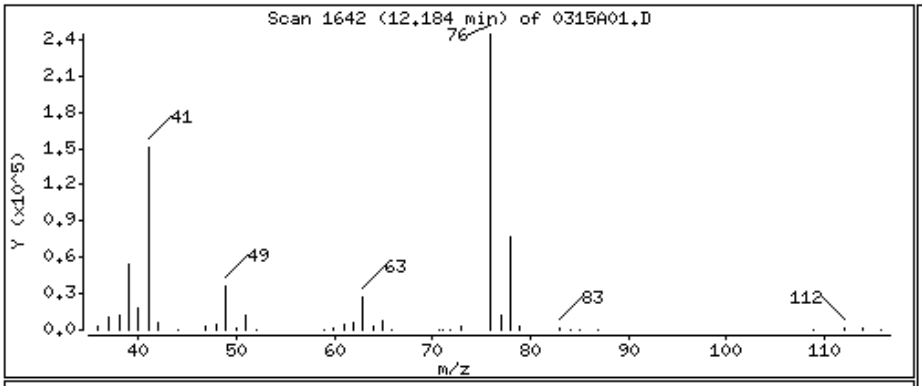
Operator: PD

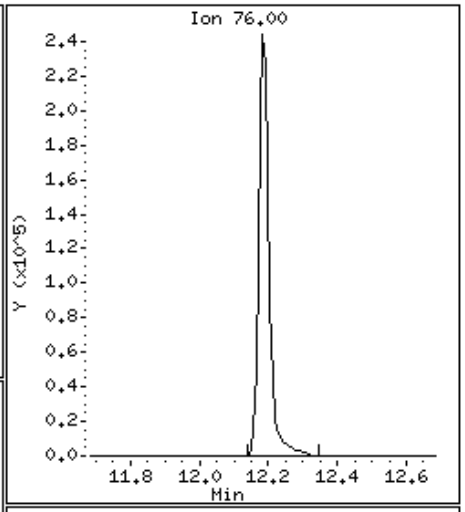
Column phase: Rtx-502.2

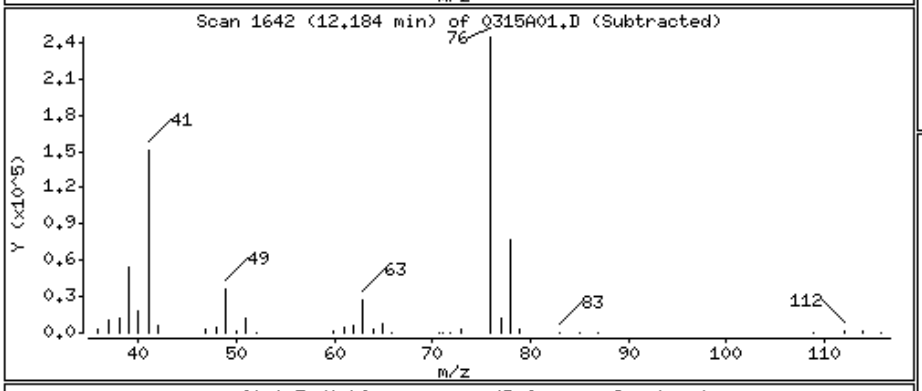
Column diameter: 0.18

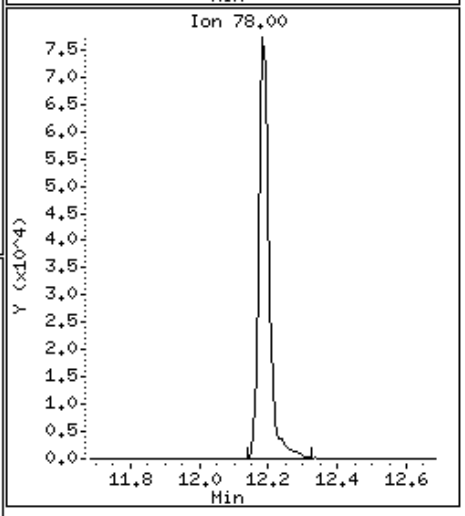
61 1,3-dichloropropane

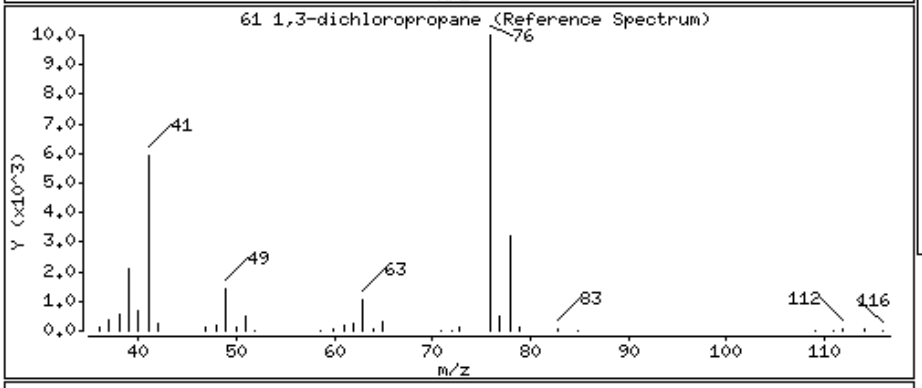
Concentration: 99.468 ngs

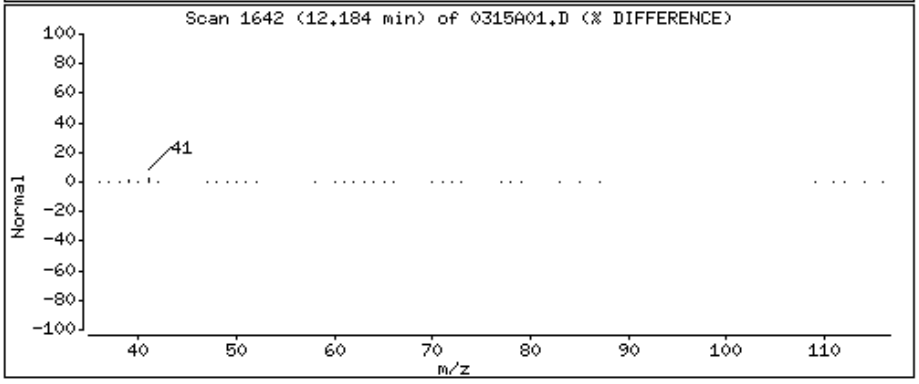












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

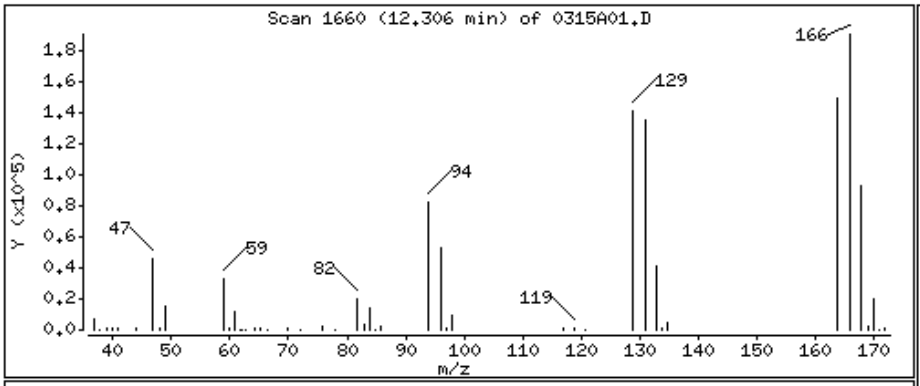
Operator: PD

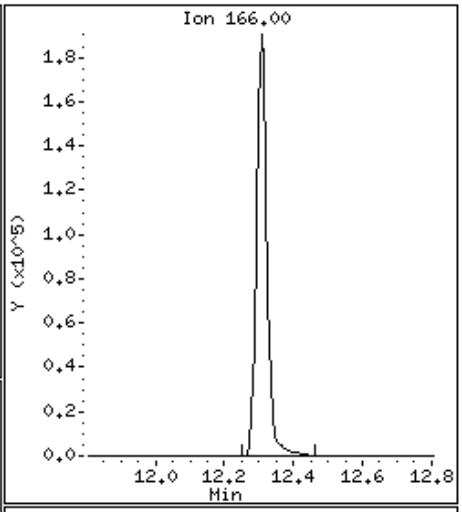
Column phase: Rtx-502.2

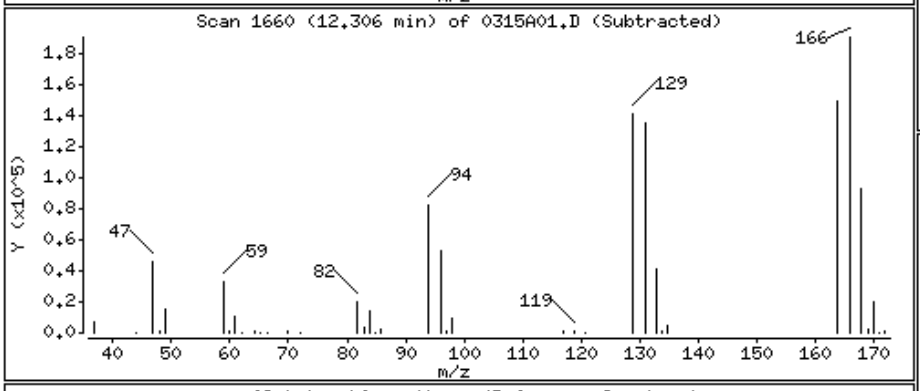
Column diameter: 0.18

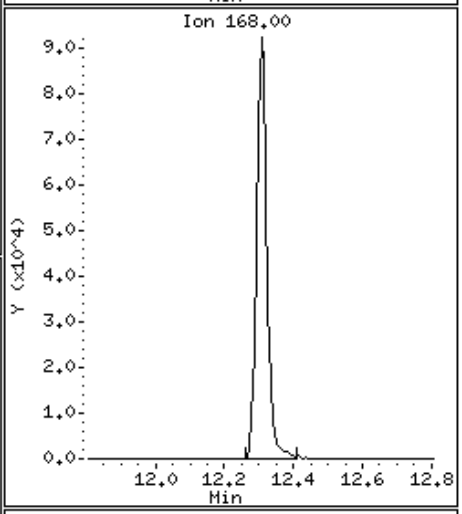
62 tetrachloroethene

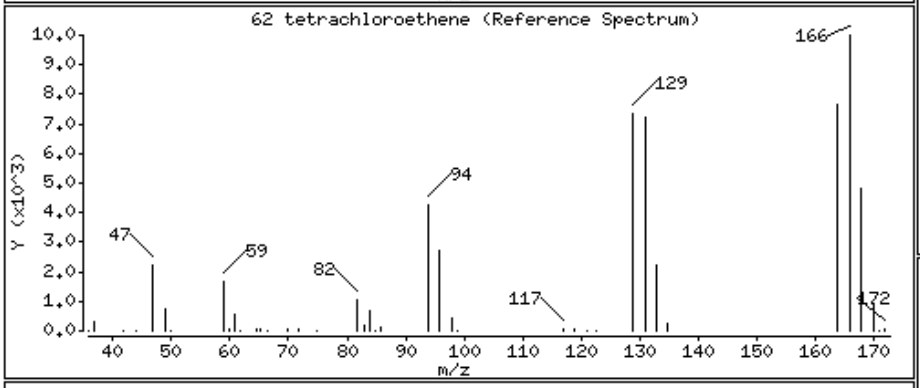
Concentration: 105.868 ngs

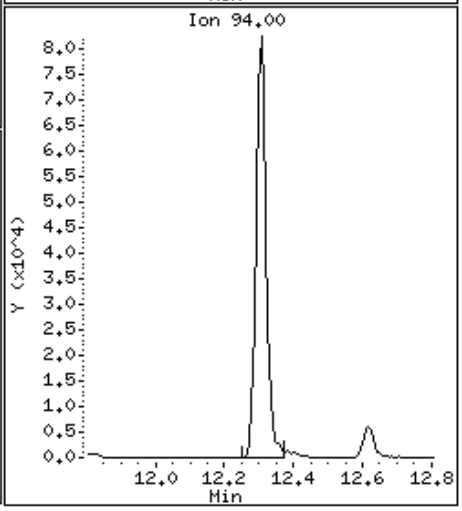


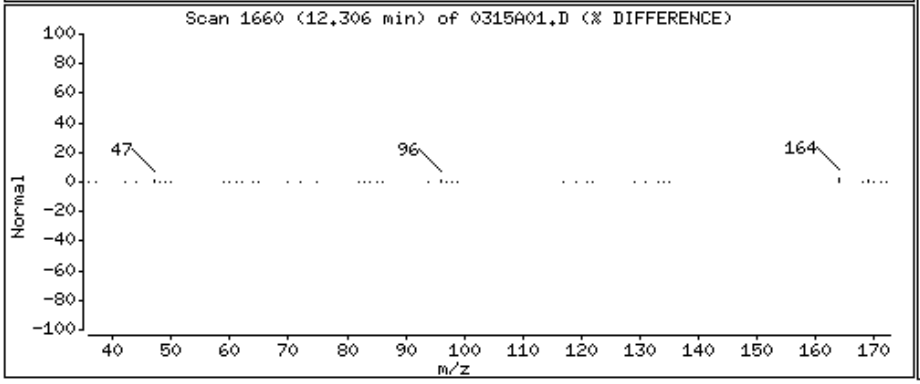












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

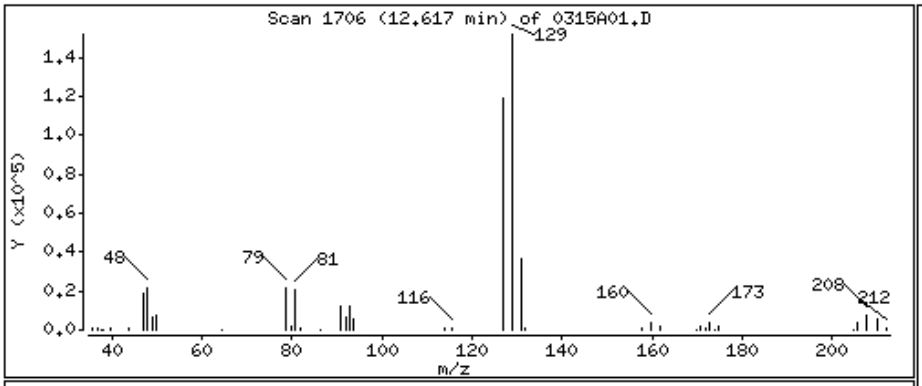
Operator: PD

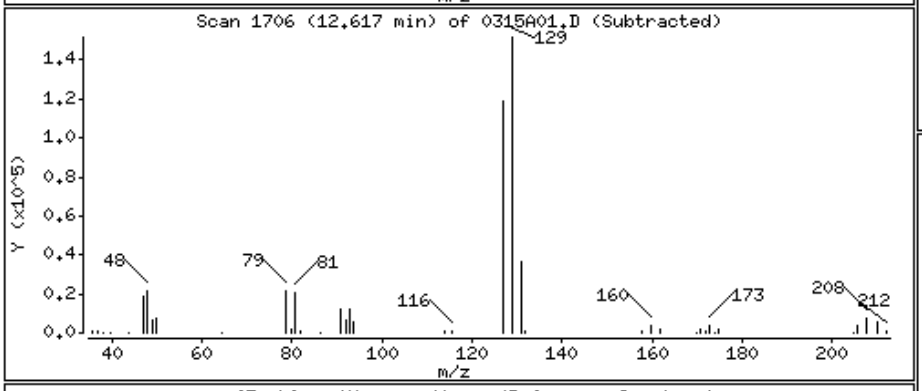
Column phase: Rtx-502.2

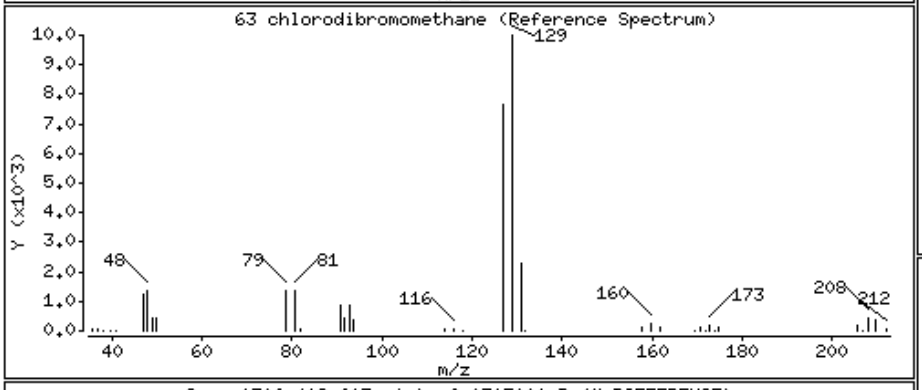
Column diameter: 0.18

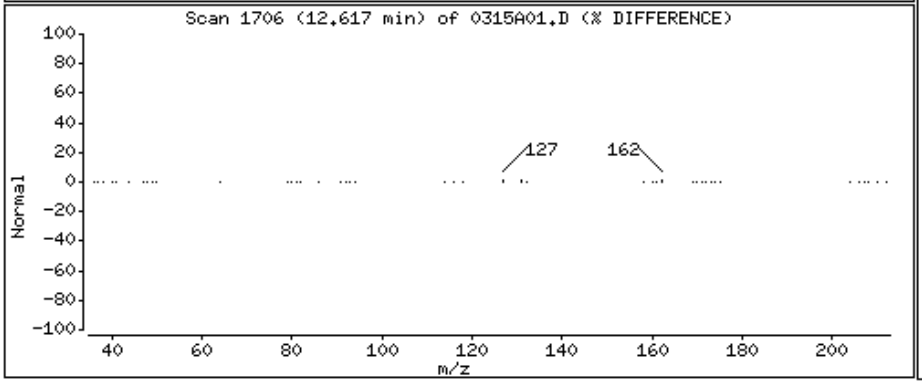
63 chlorodibromomethane

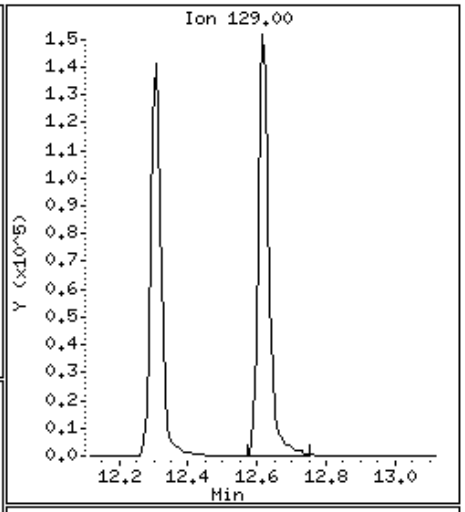
Concentration: 101.498 ngs

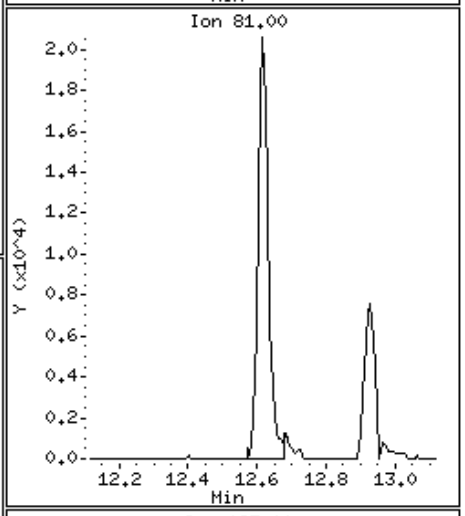


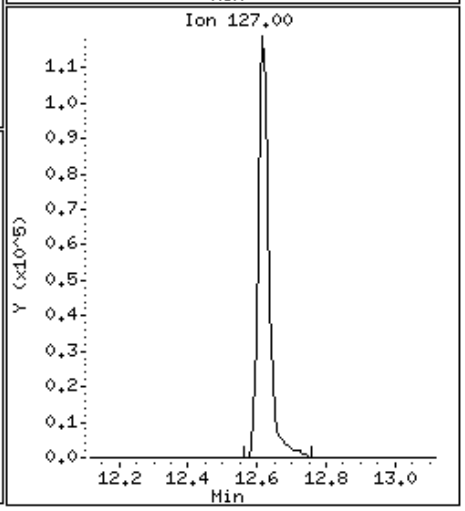












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

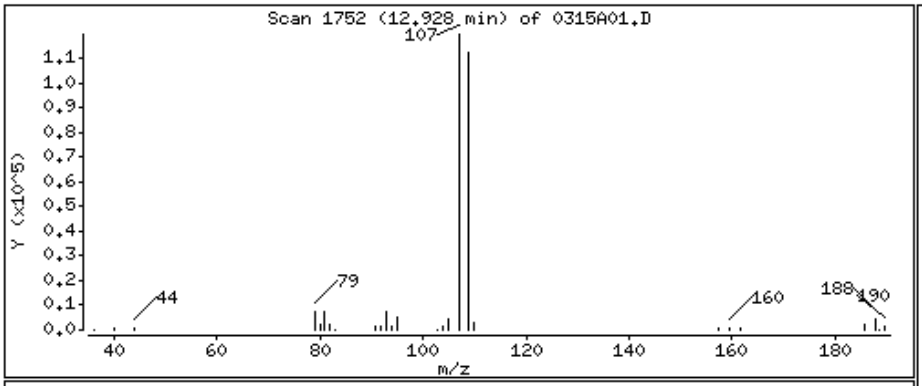
Operator: PD

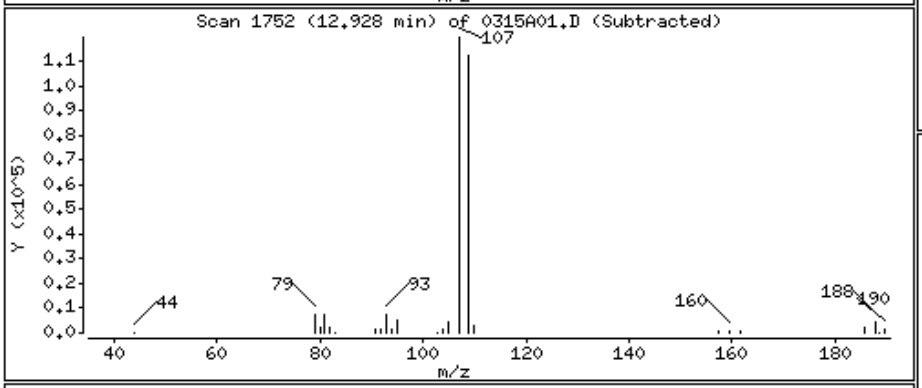
Column phase: Rtx-502.2

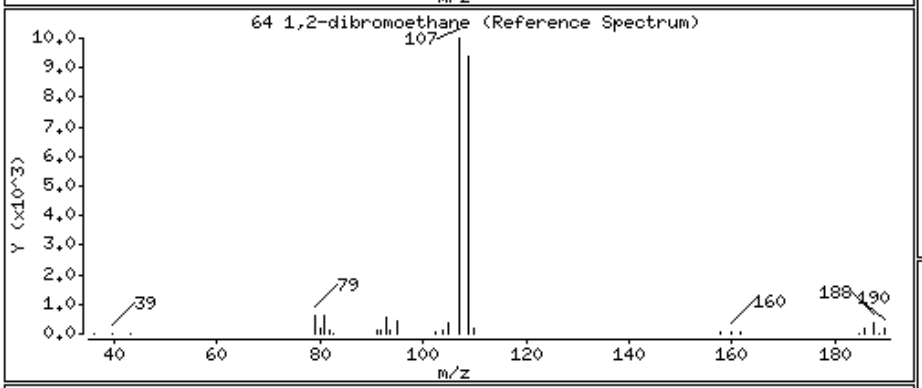
Column diameter: 0.18

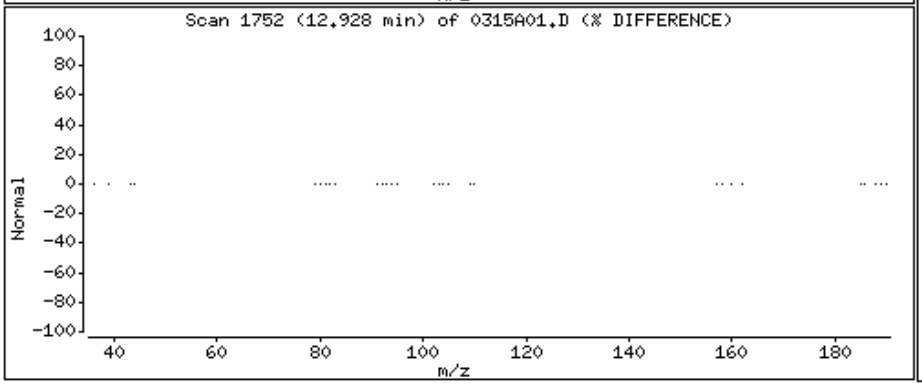
64 1,2-dibromoethane

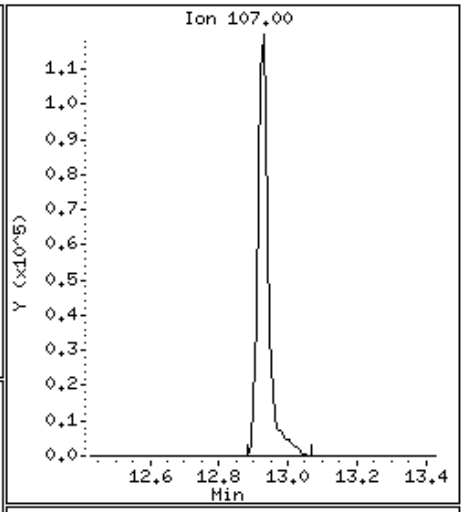
Concentration: 97.815 ngs

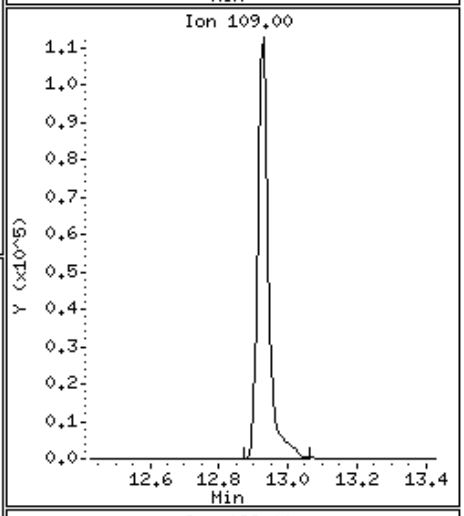


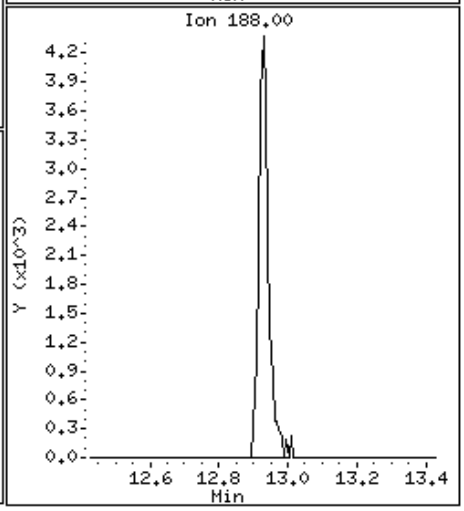












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

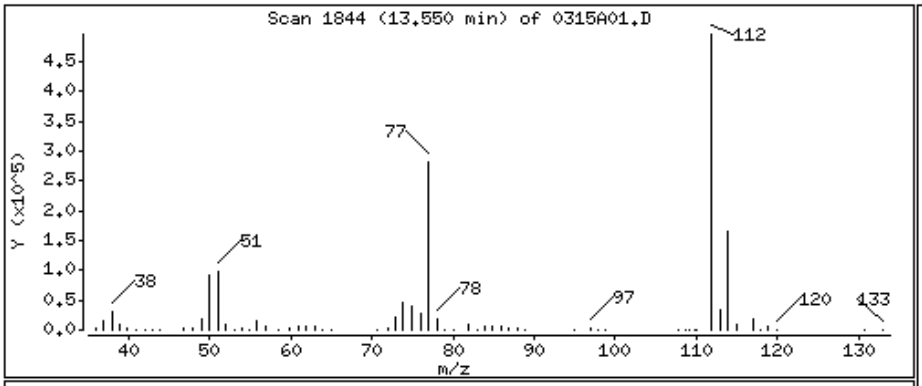
Operator: PD

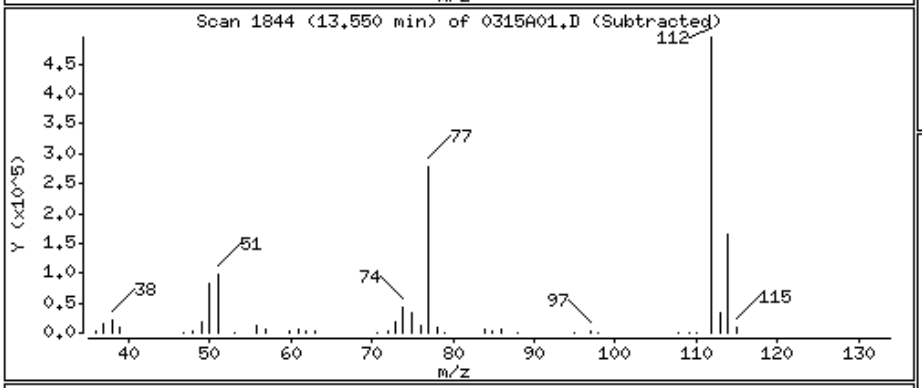
Column phase: Rtx-502.2

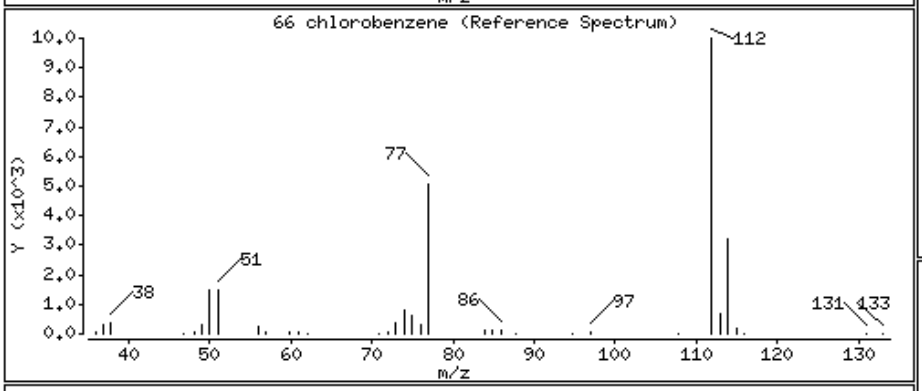
Column diameter: 0.18

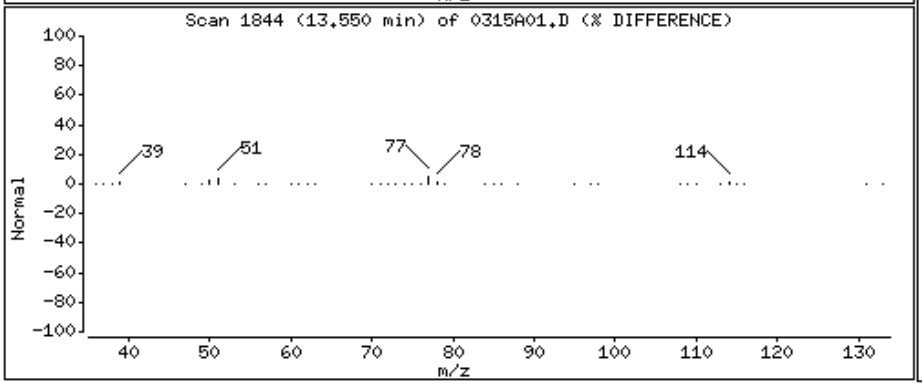
66 chlorobenzene

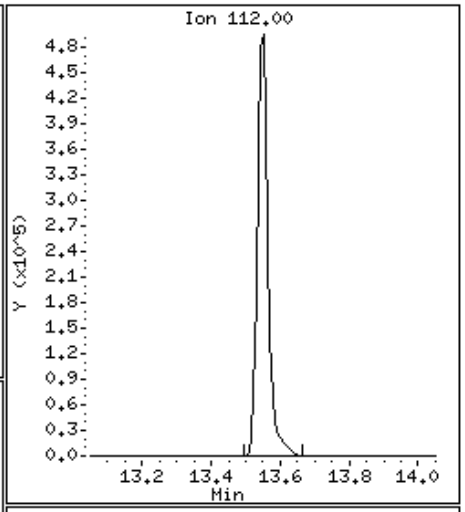
Concentration: 99.924 ngs

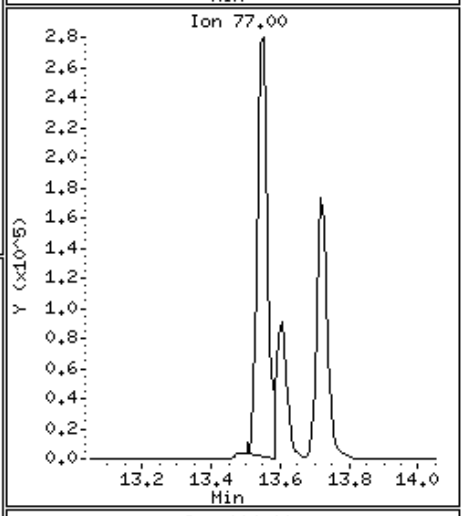


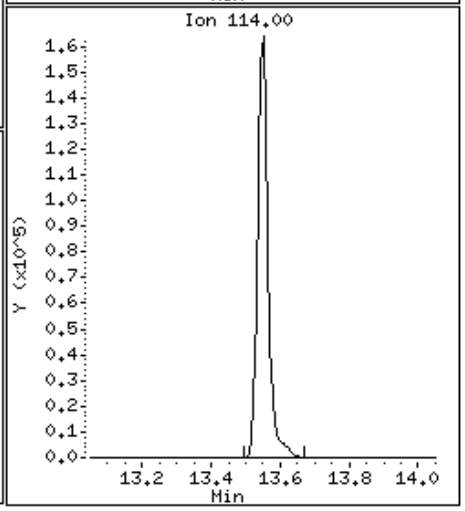












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

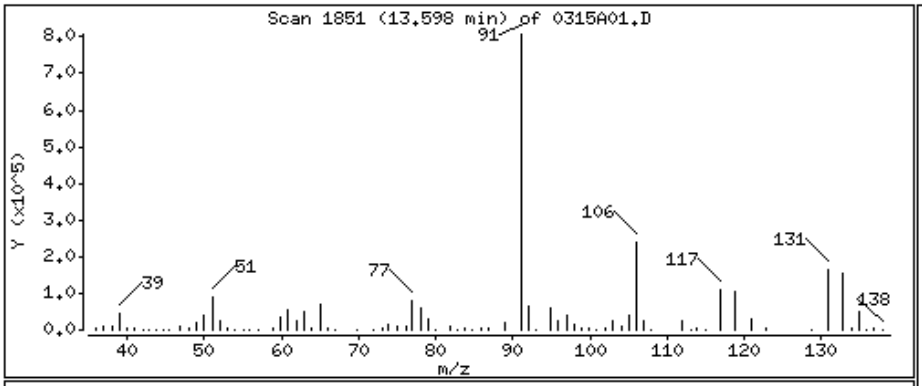
Operator: PD

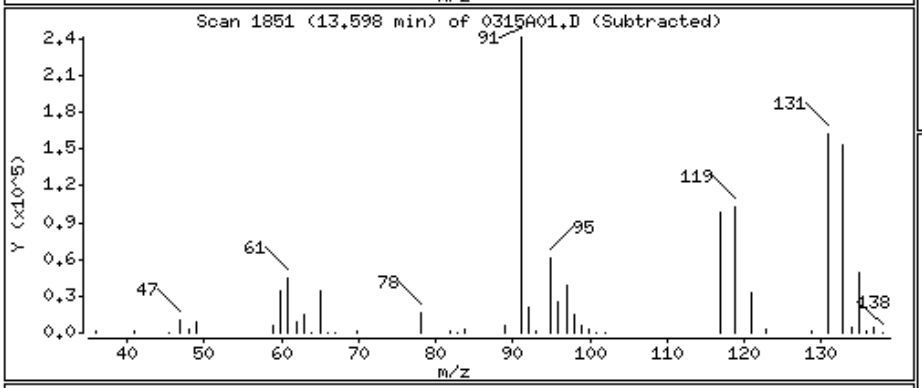
Column phase: Rtx-502.2

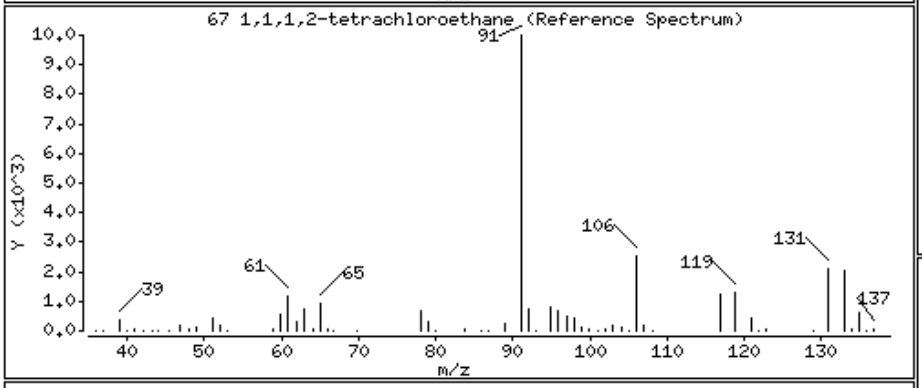
Column diameter: 0.18

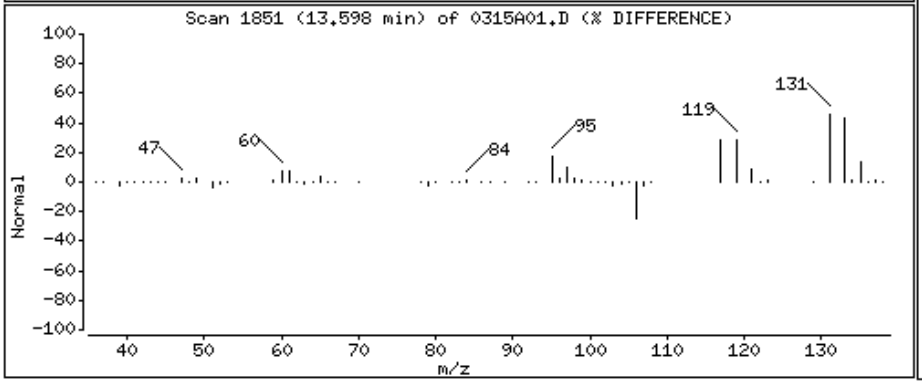
67 1,1,1,2-tetrachloroethane

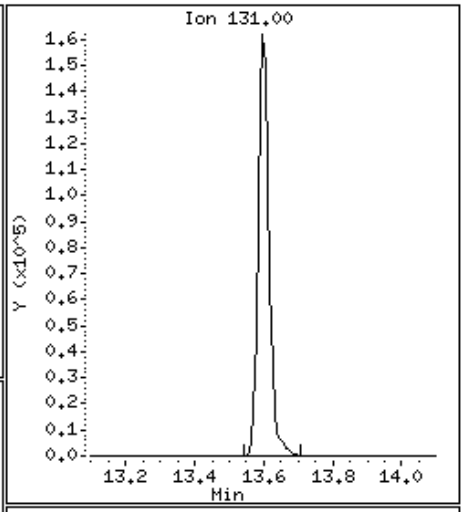
Concentration: 109.512 ngs

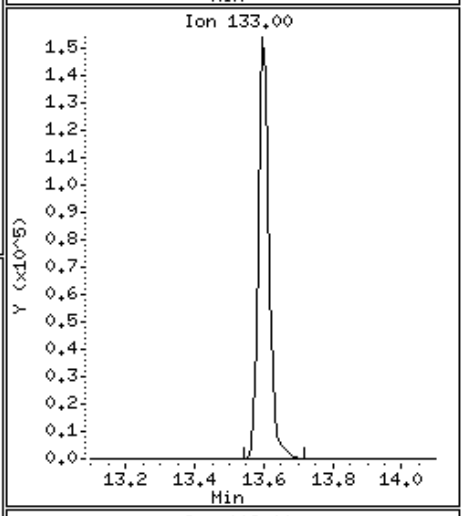


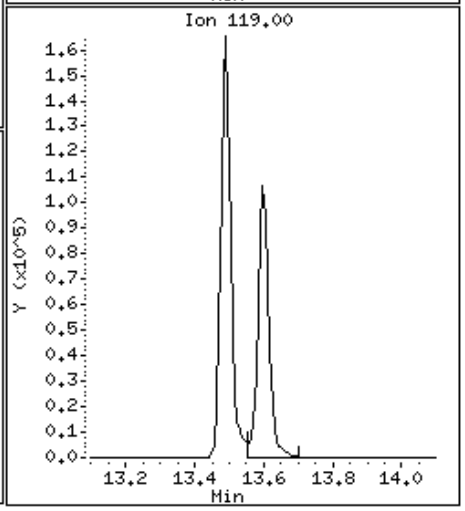












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

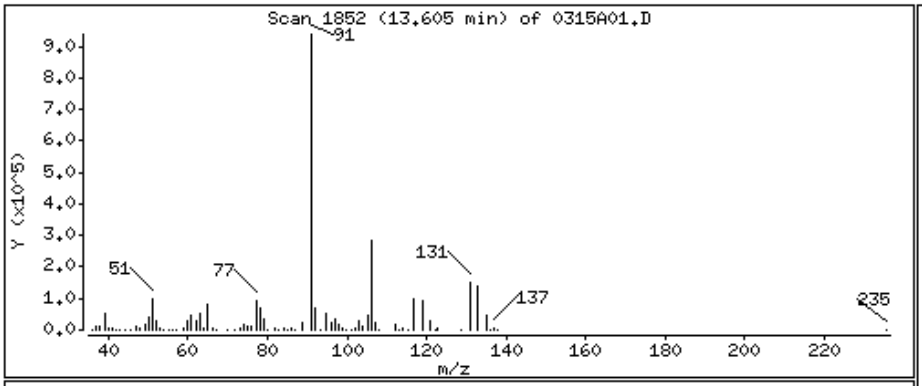
Operator: PD

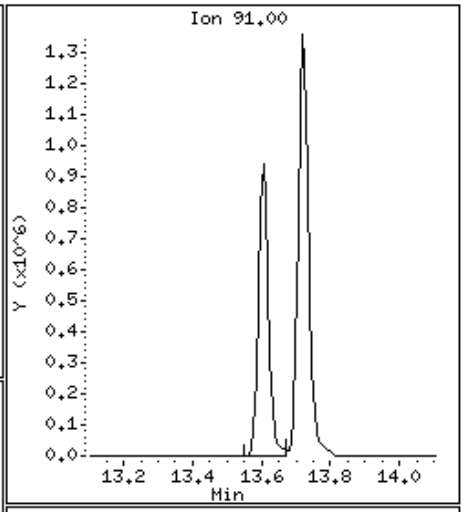
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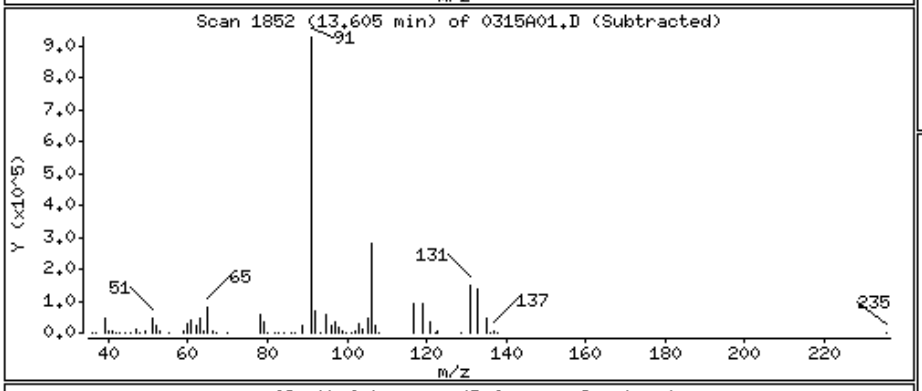
Column diameter: 0.18

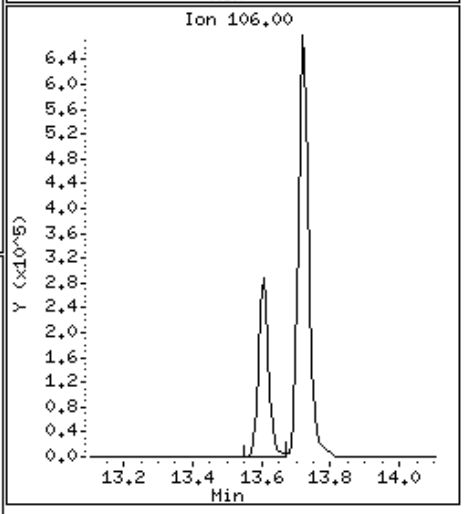
68 ethyl benzene

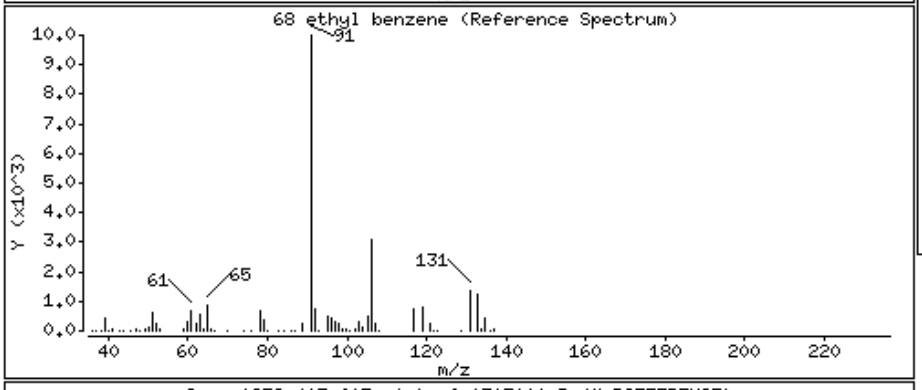
Concentration: 105.407 ngs

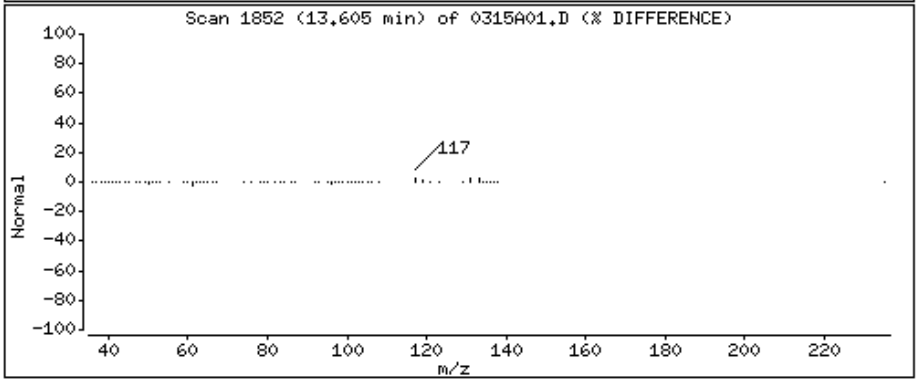












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

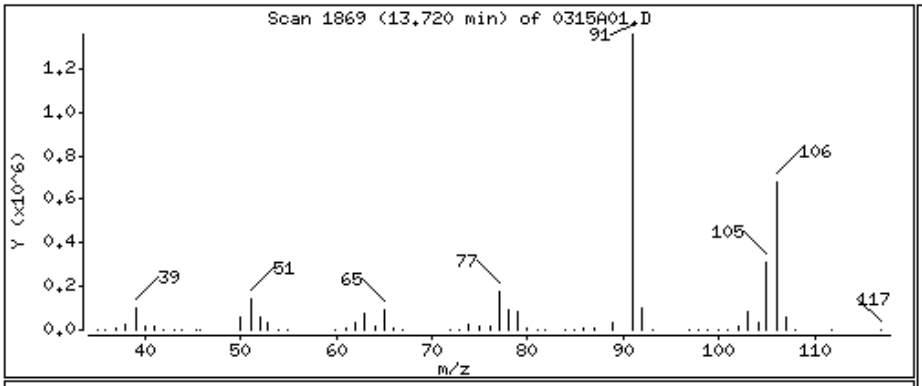
Operator: PD

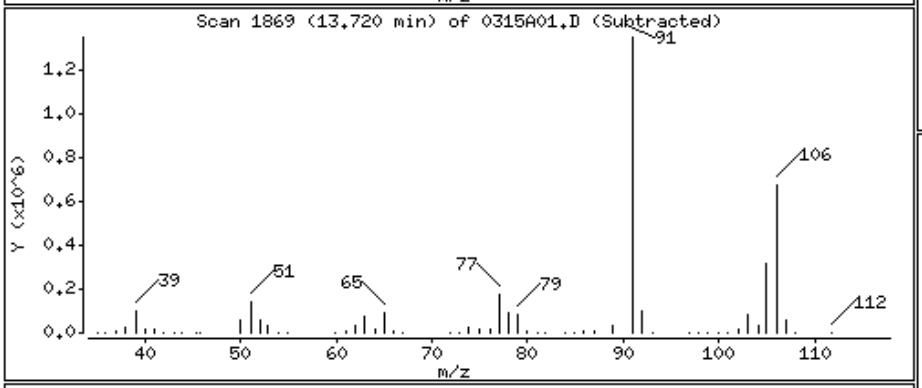
Column phase: Rtx-502.2

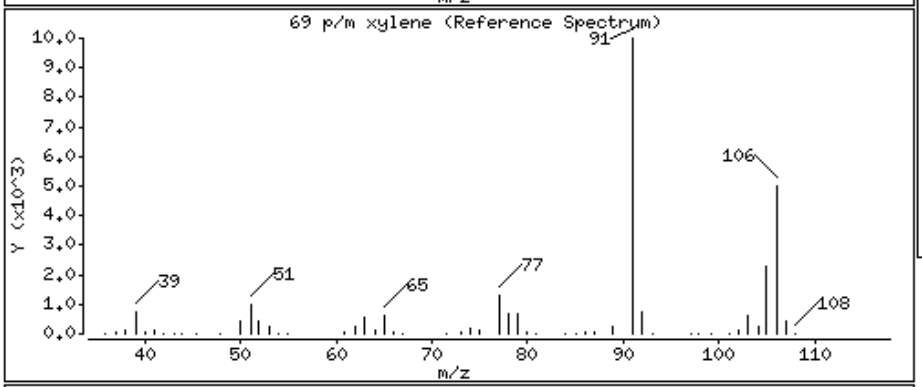
Column diameter: 0.18

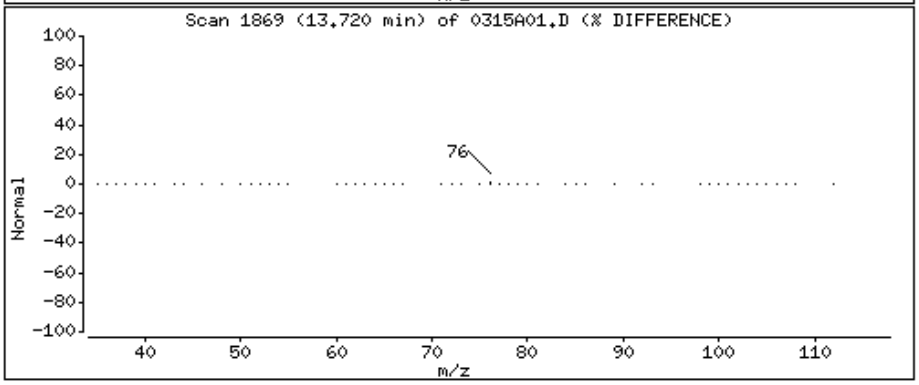
69 p/m xylene

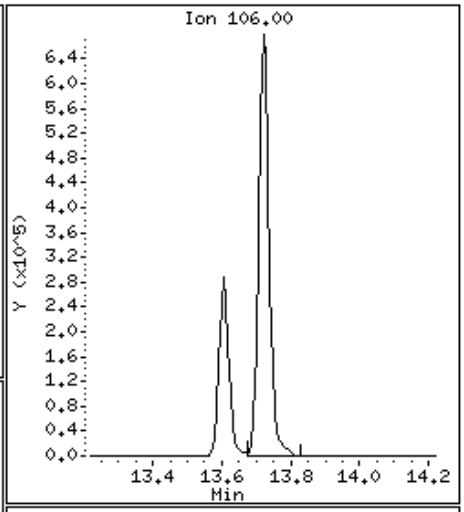
Concentration: 207.833 ngs

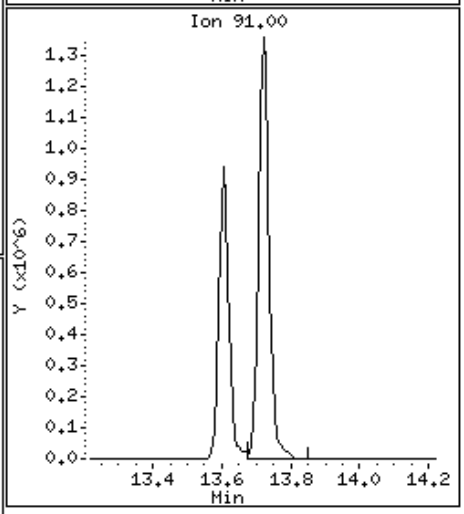












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

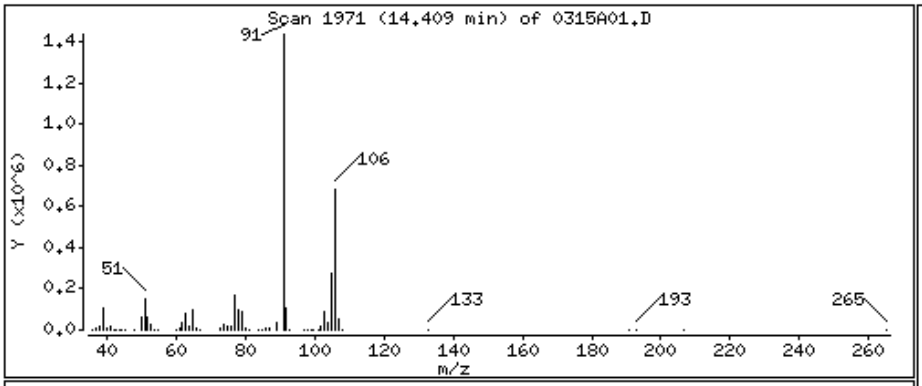
Operator: PD

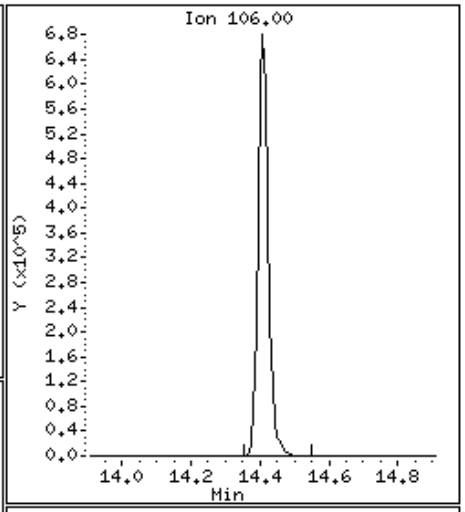
Column phase: Rtx-502.2

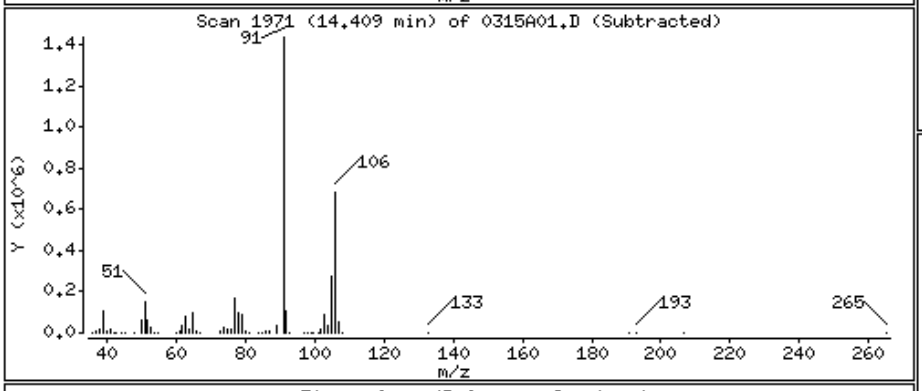
Column diameter: 0.18

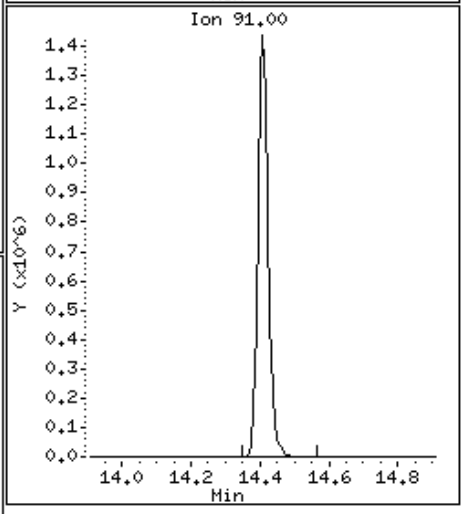
70 o xylene

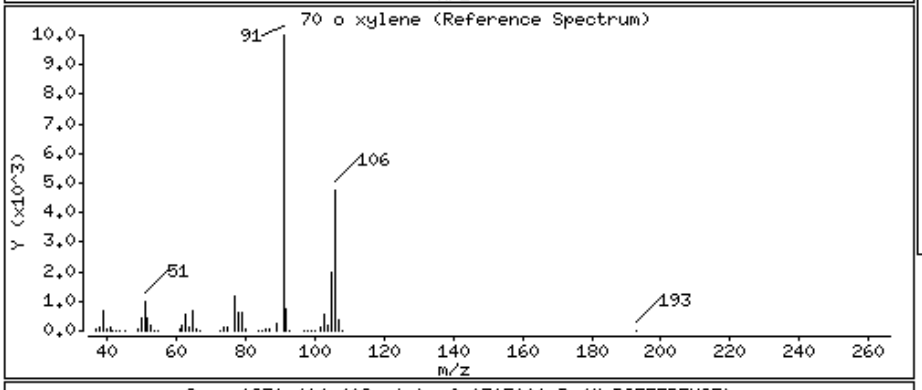
Concentration: 204.938 ngs

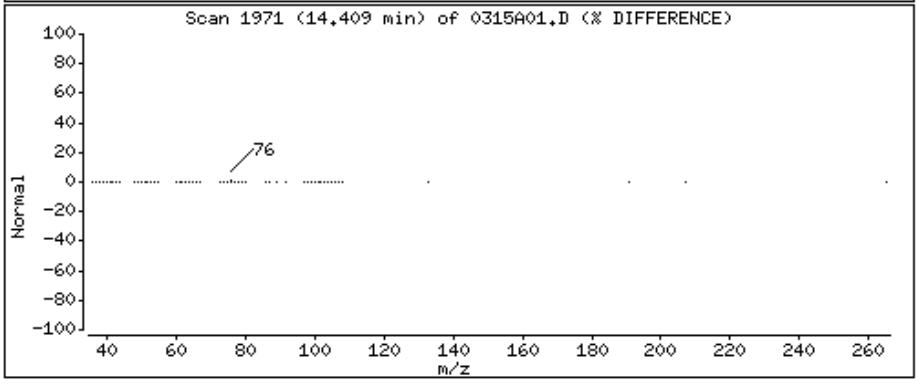












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

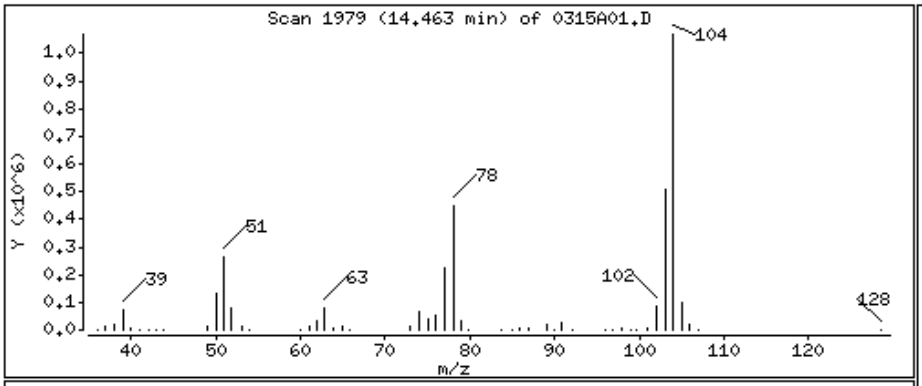
Operator: PD

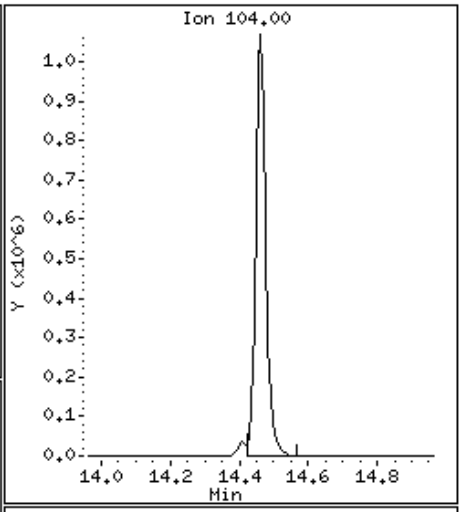
Column phase: Rtx-502.2

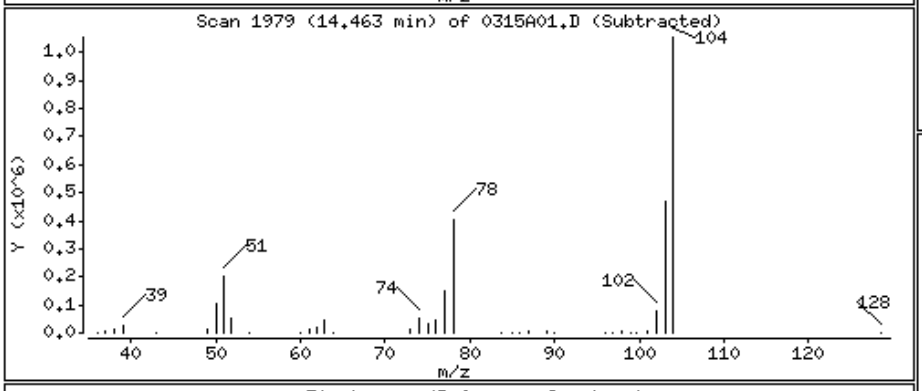
Column diameter: 0.18

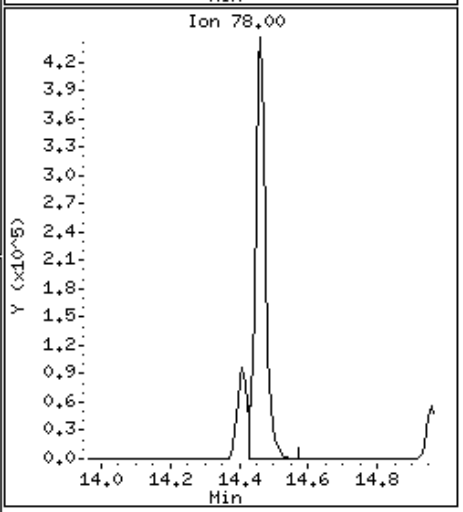
71 styrene

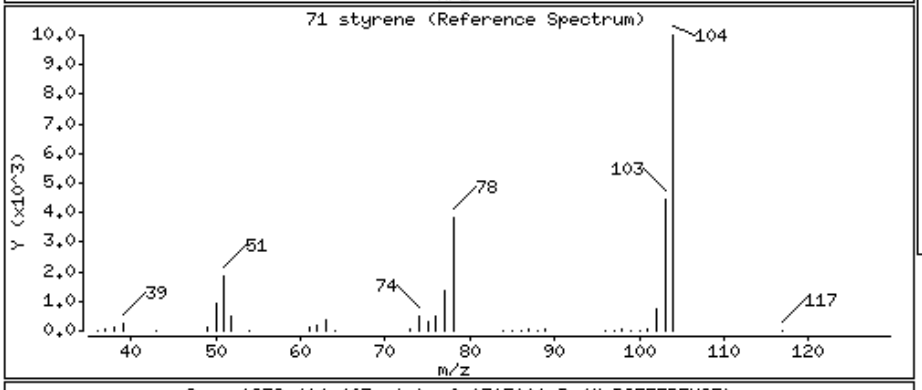
Concentration: 210.627 ngs

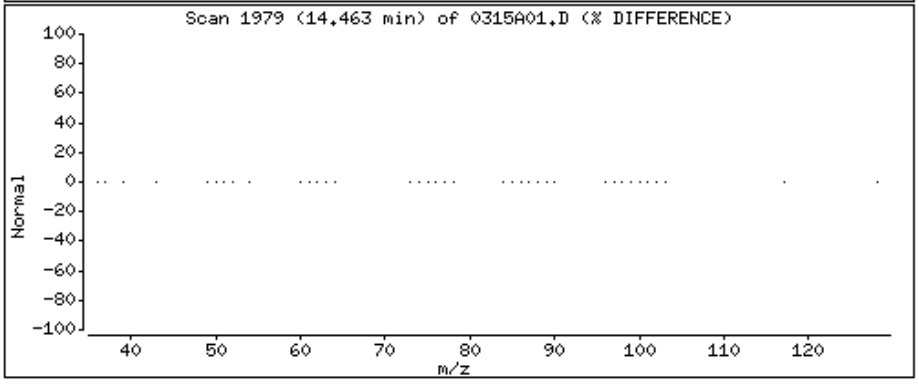












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

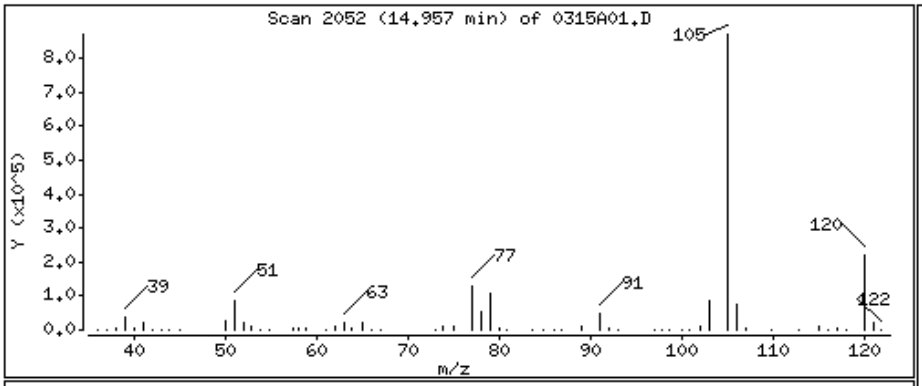
Operator: PD

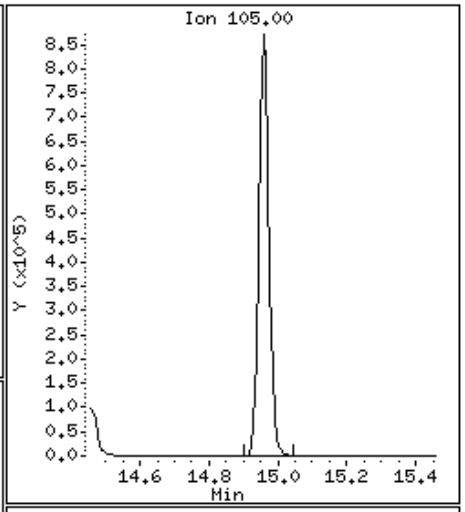
Column phase: Rtx-502.2

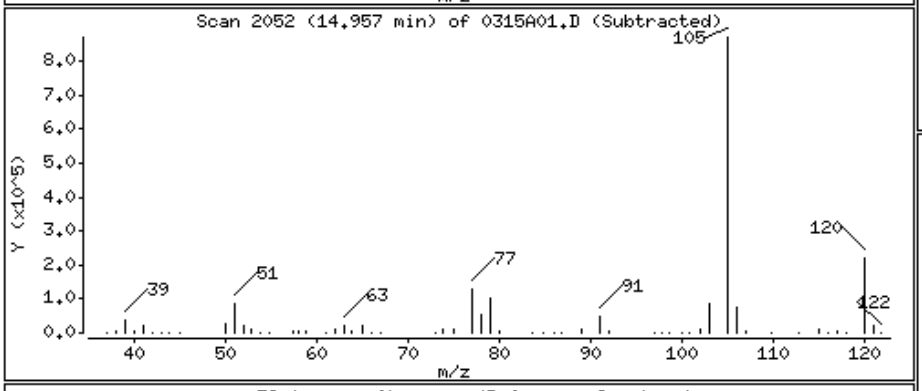
Column diameter: 0.18

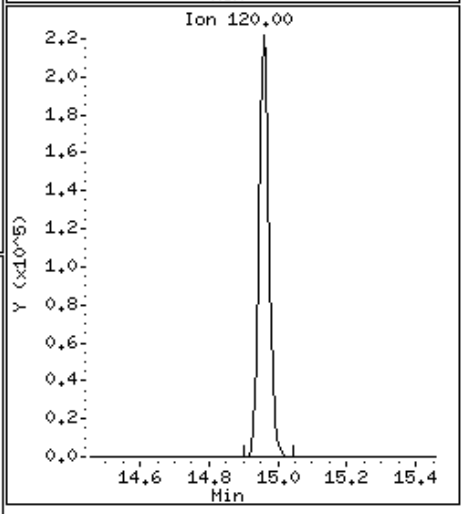
72 isopropylbenzene

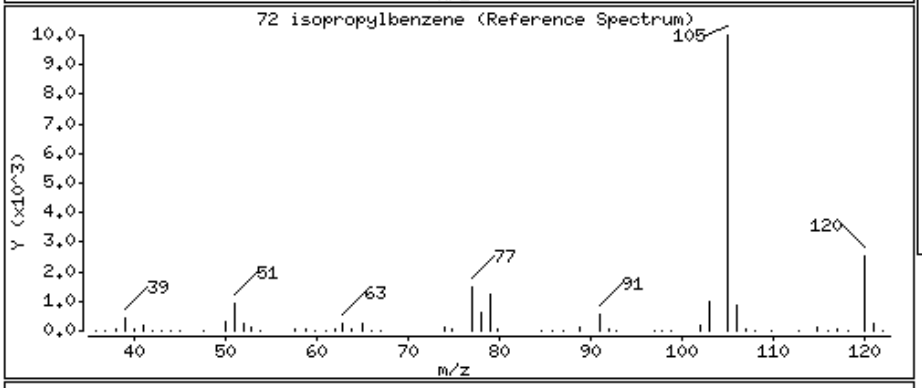
Concentration: 103.674 ngs

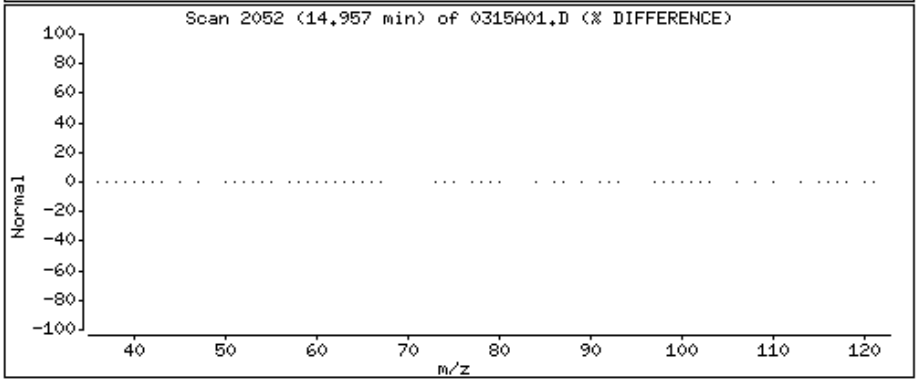












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

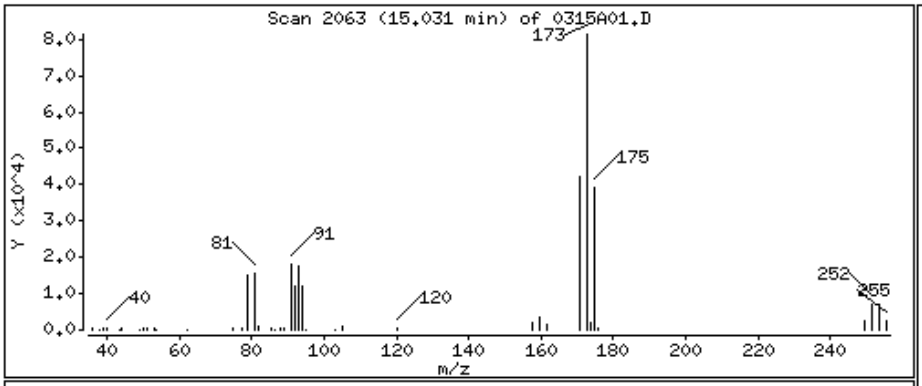
Operator: PD

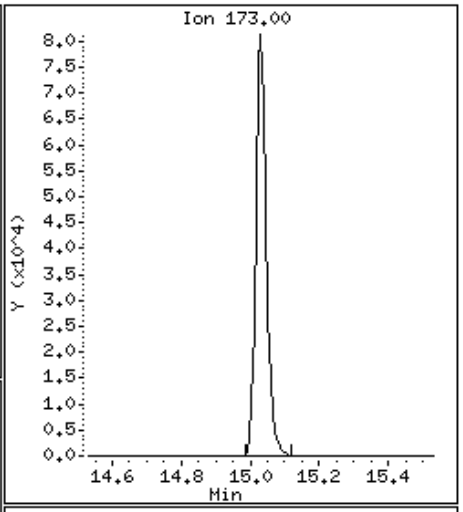
Column phase: Rtx-502.2

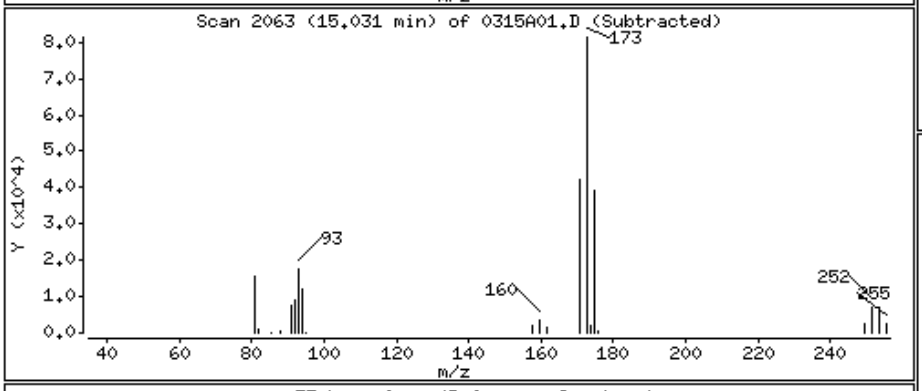
Column diameter: 0.18

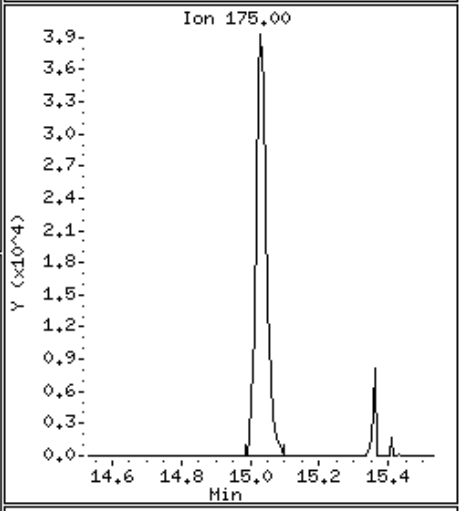
73 bromoform

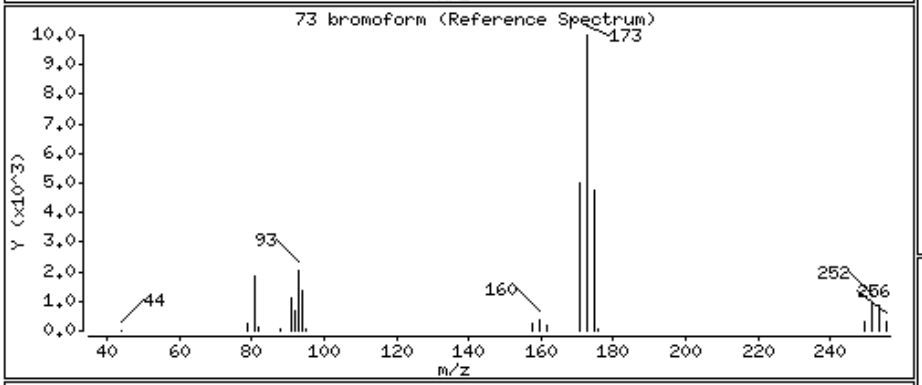
Concentration: 112.557 ngs

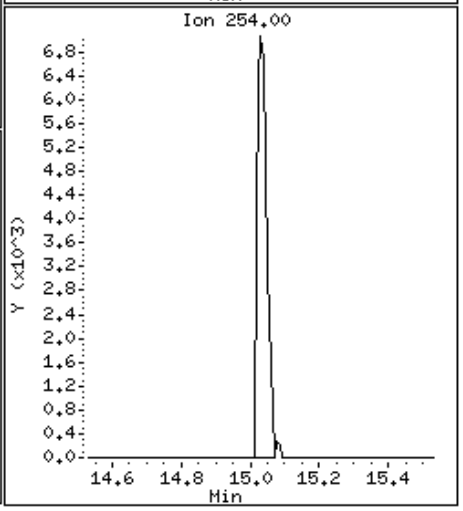


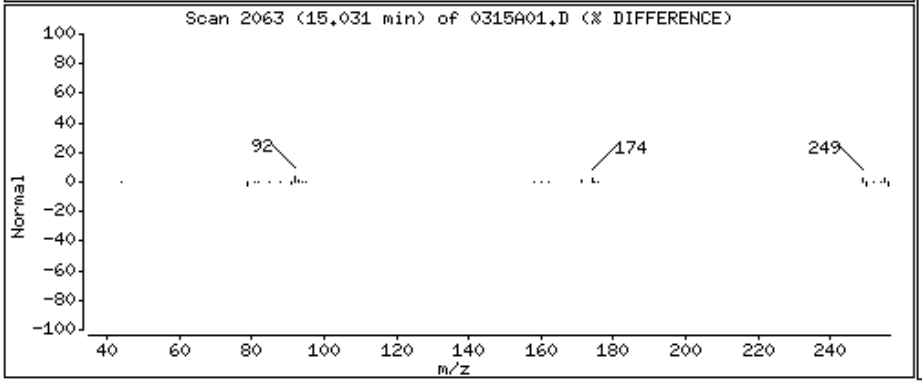












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

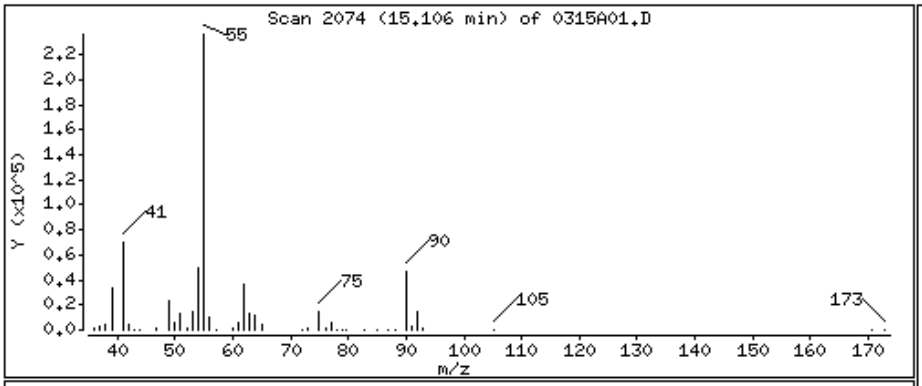
Operator: PD

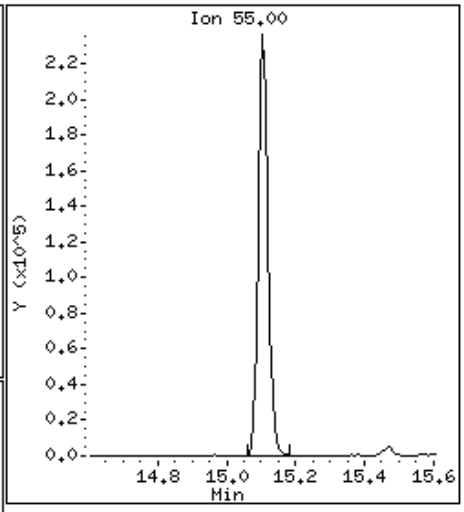
Column phase: Rtx-502.2

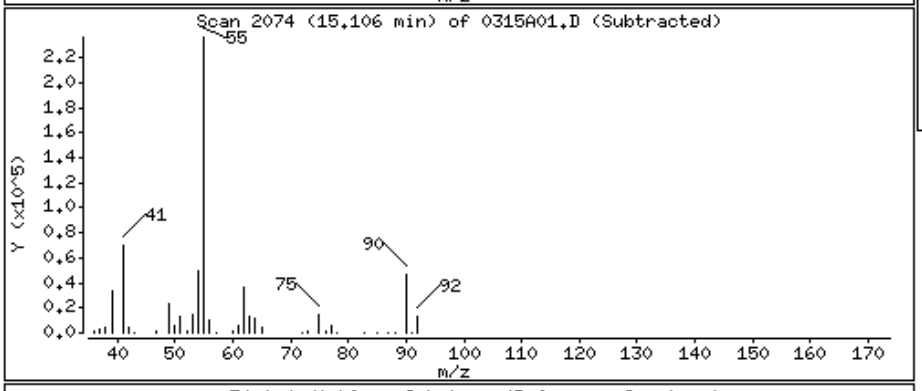
Column diameter: 0.18

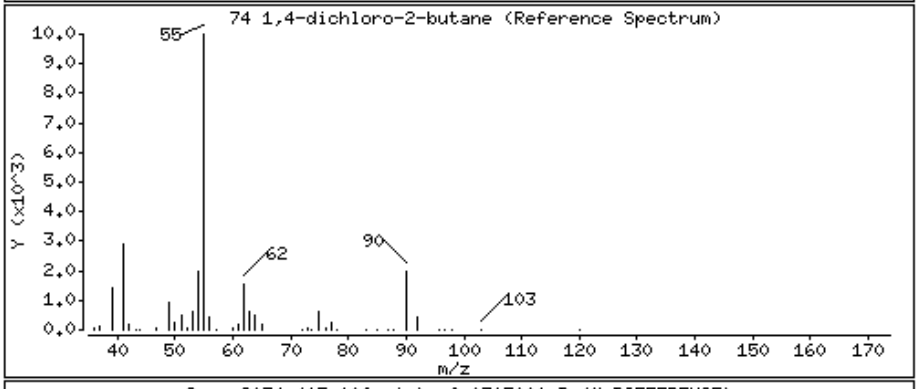
74 1,4-dichloro-2-butane

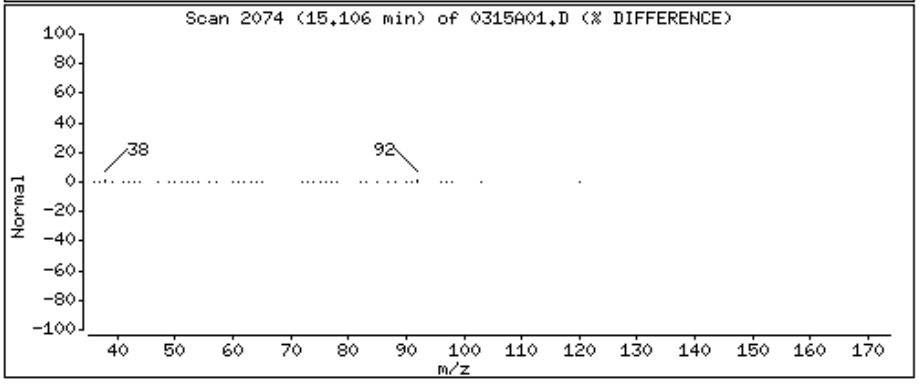
Concentration: 97.047 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

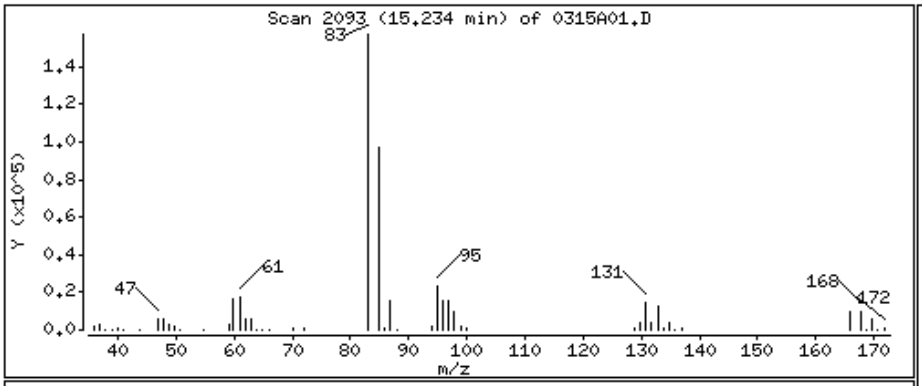
Operator: PD

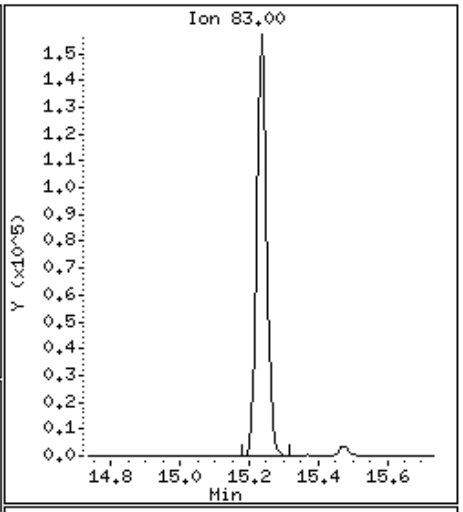
Column phase: Rtx-502.2

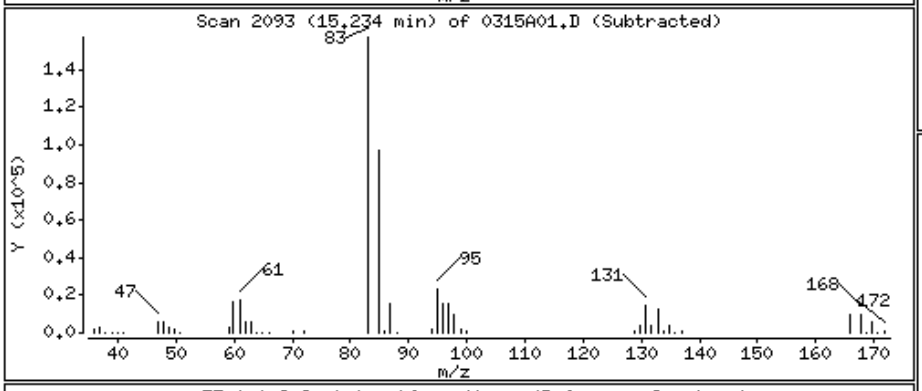
Column diameter: 0.18

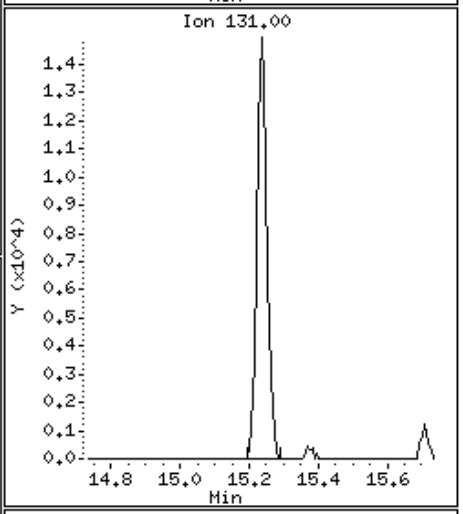
75 1,1,2,2,-tetrachloroethane

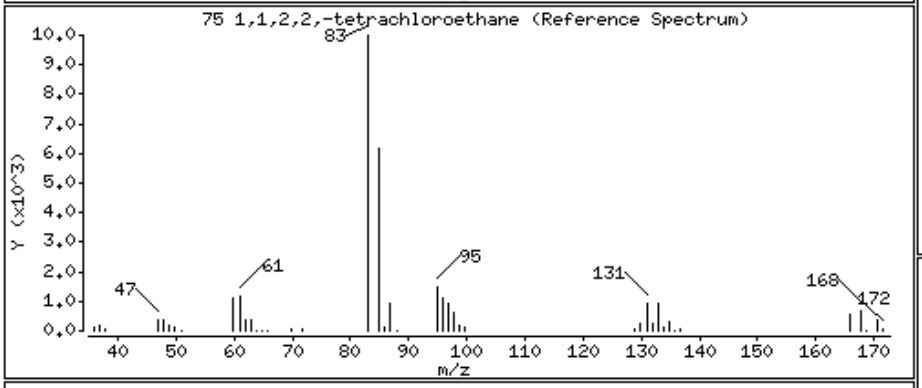
Concentration: 96.951 ngs

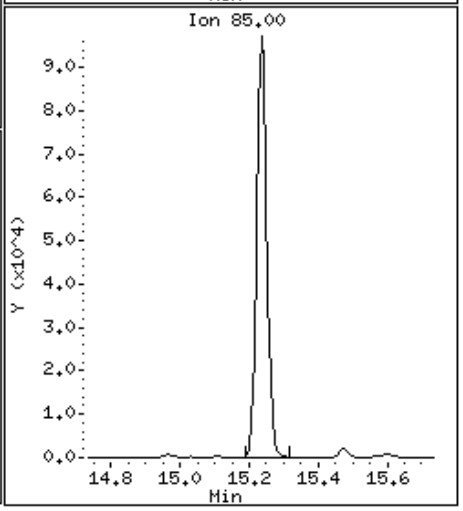


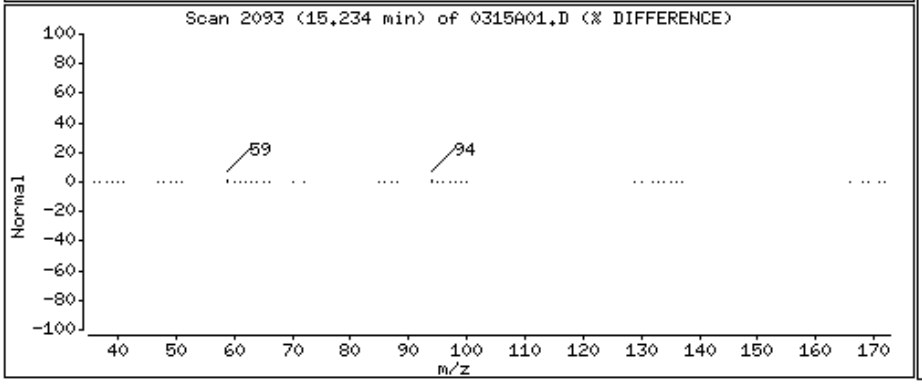












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

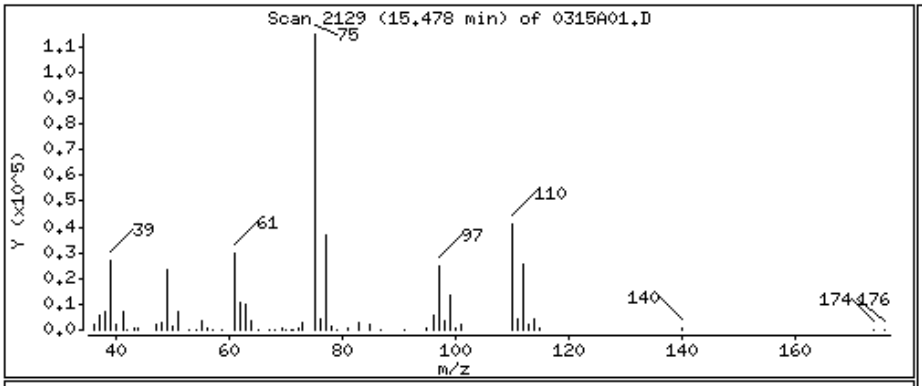
Operator: PD

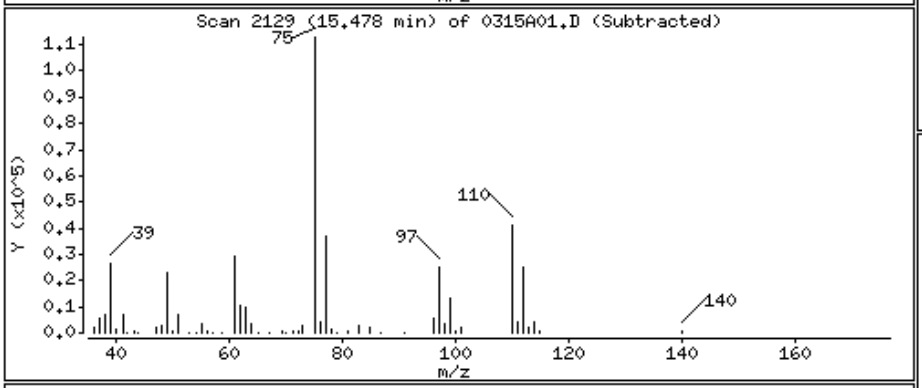
Column phase: Rtx-502.2

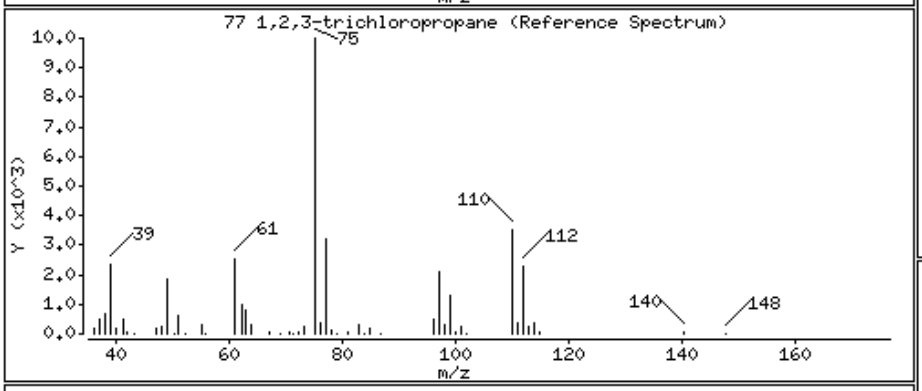
Column diameter: 0.18

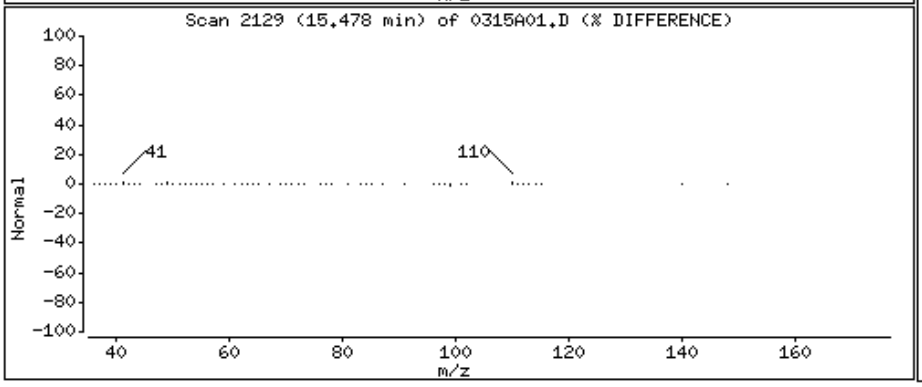
77 1,2,3-trichloropropane

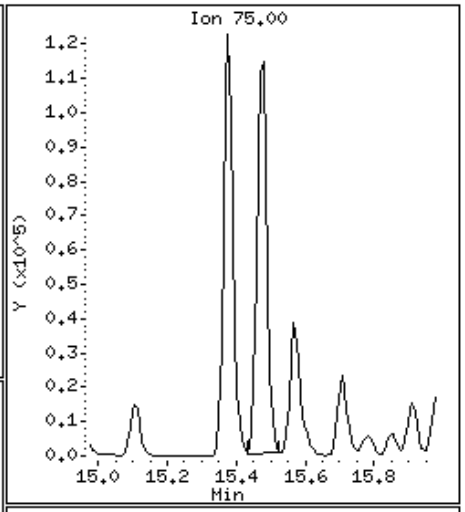
Concentration: 94.376 ngs

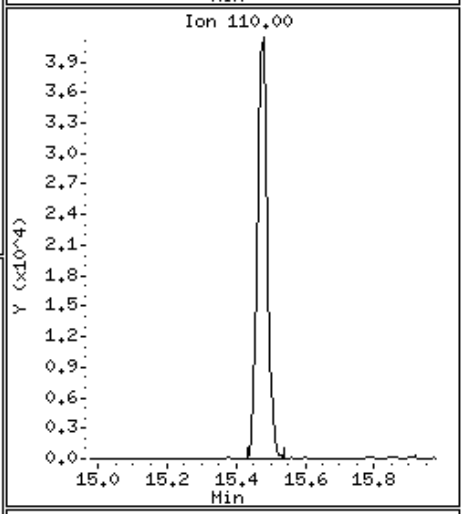


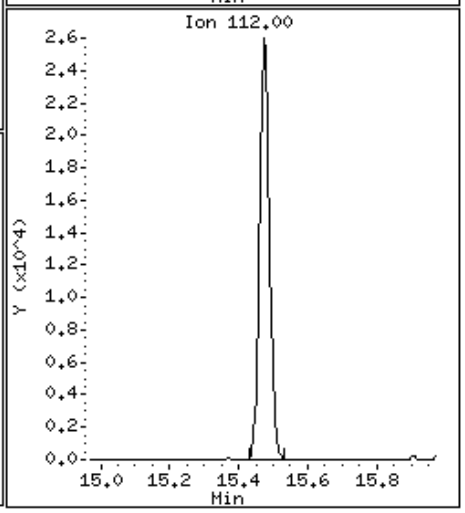












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

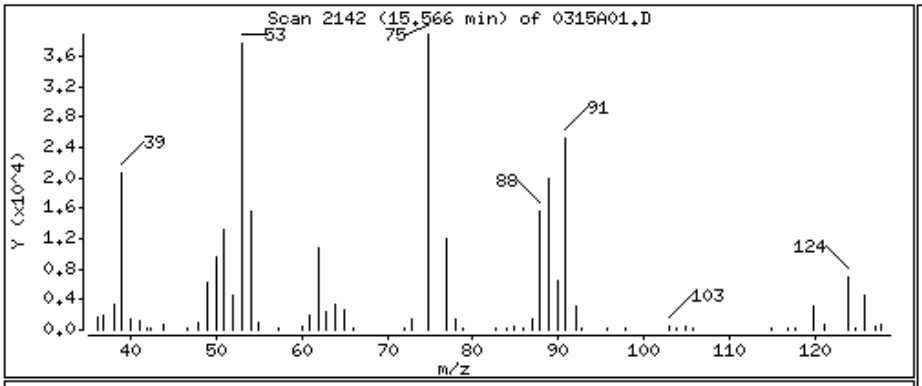
Operator: PD

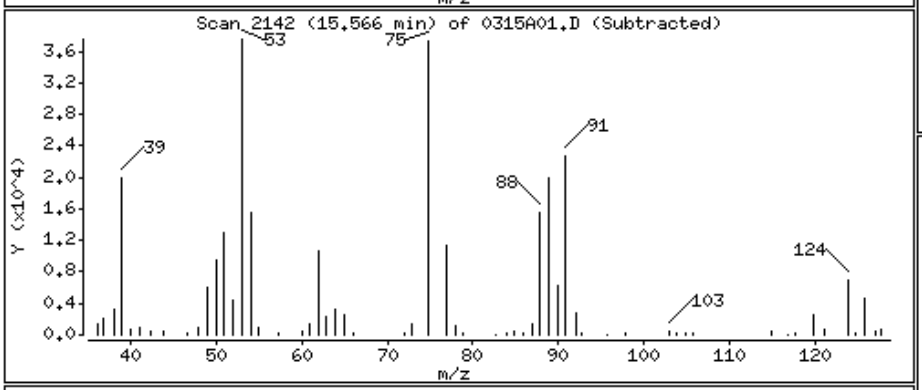
Column phase: Rtx-502.2

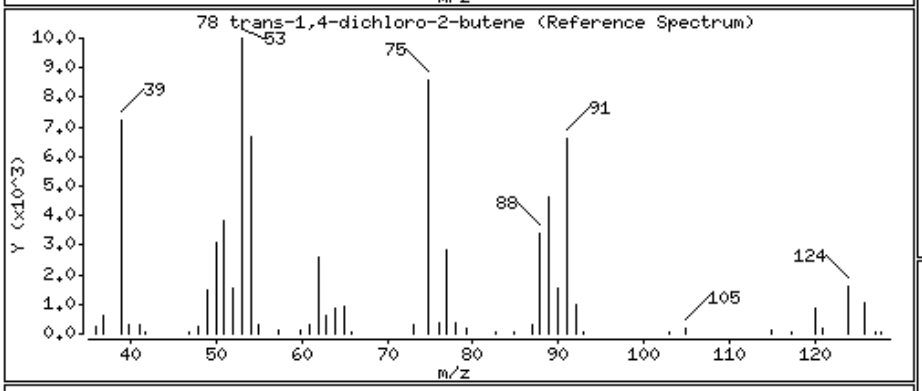
Column diameter: 0.18

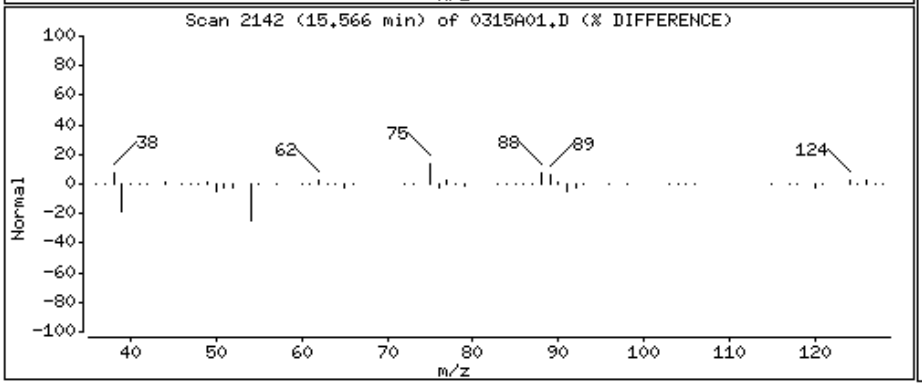
78 trans-1,4-dichloro-2-butene

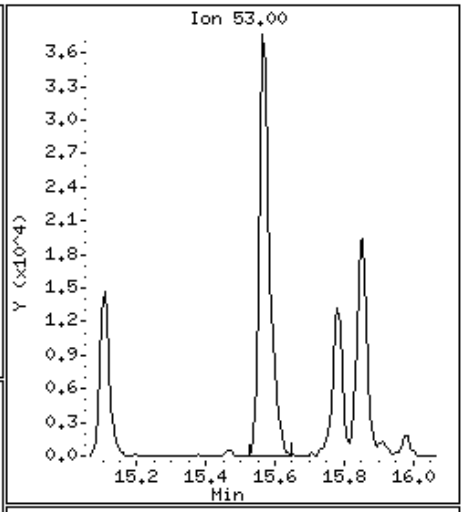
Concentration: 110.808 ngs

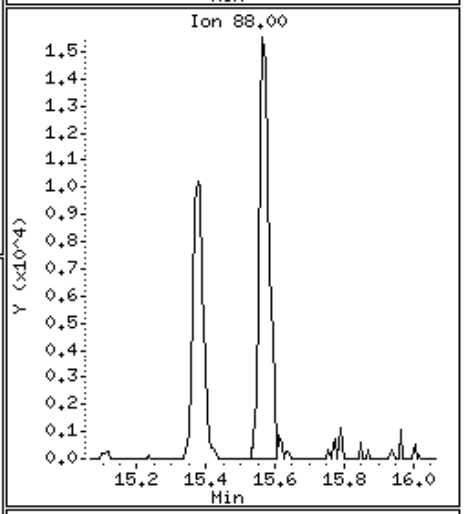


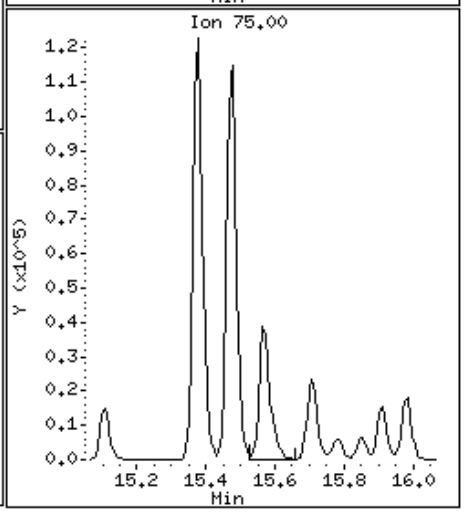












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

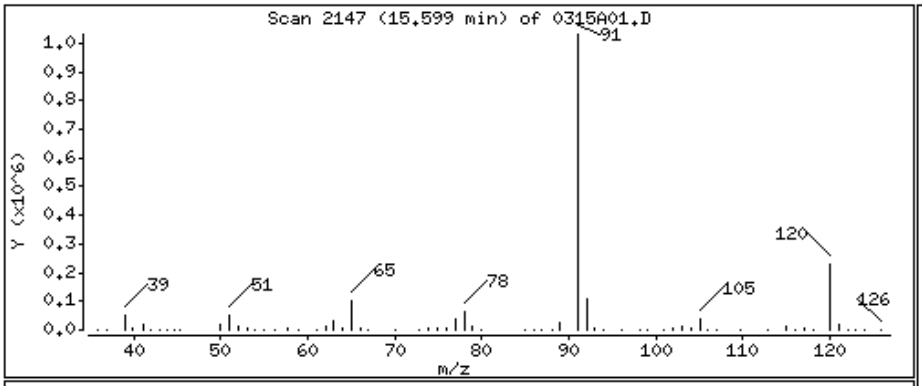
Operator: PD

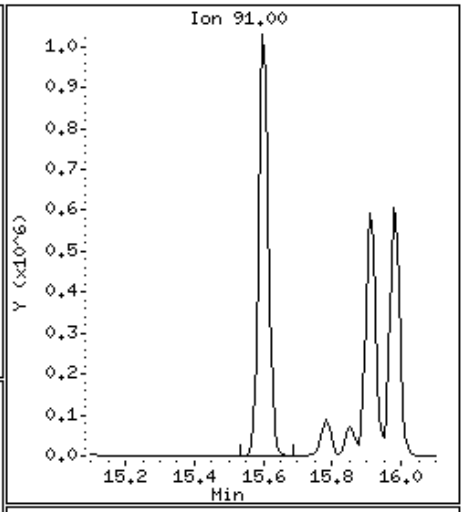
Column phase: Rtx-502.2

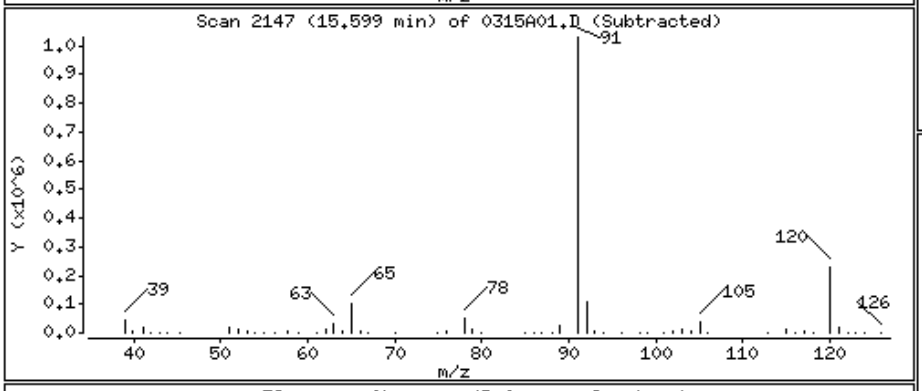
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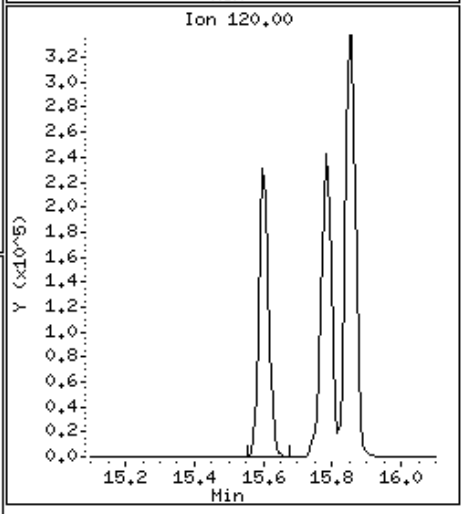
79 n-propylbenzene

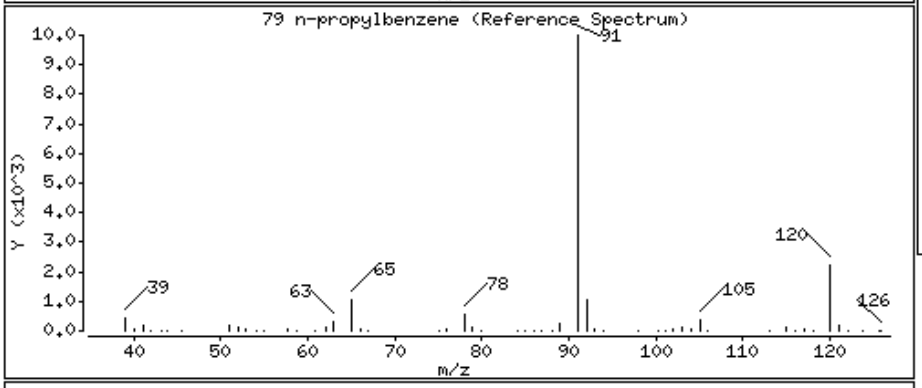
Concentration: 108.779 ngs

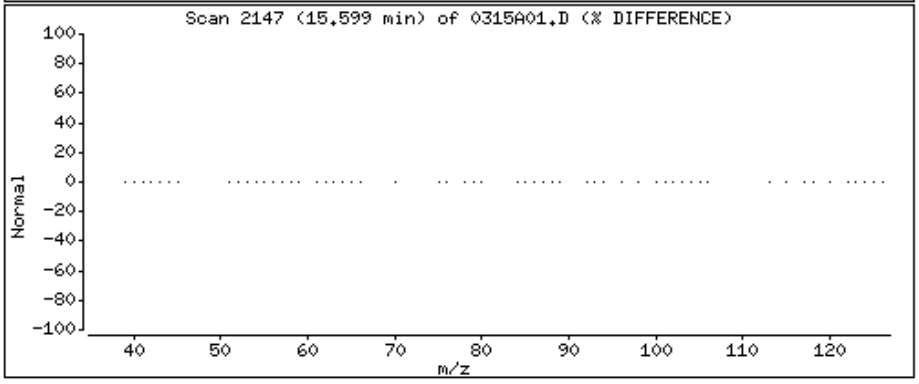












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

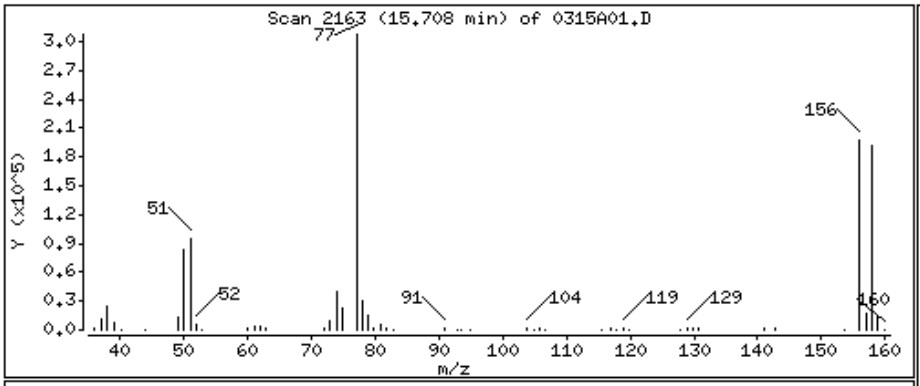
Operator: PD

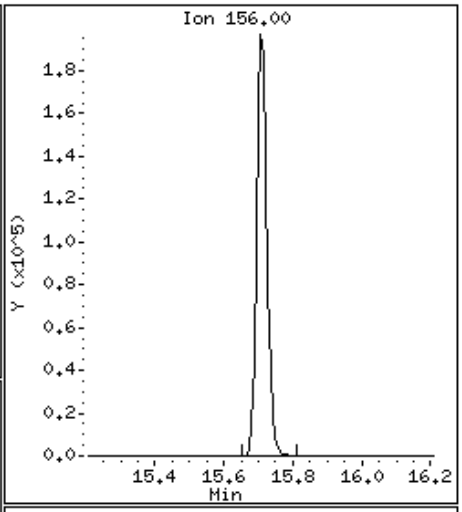
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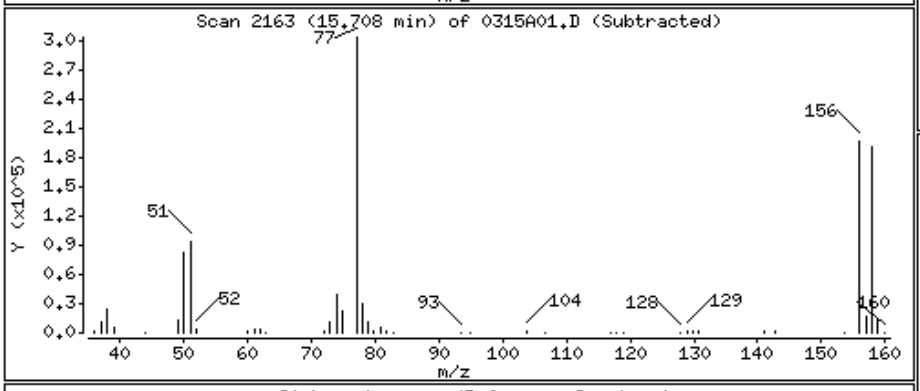
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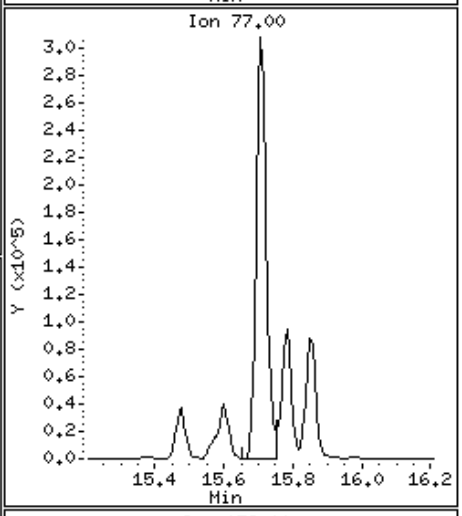
80 bromobenzene

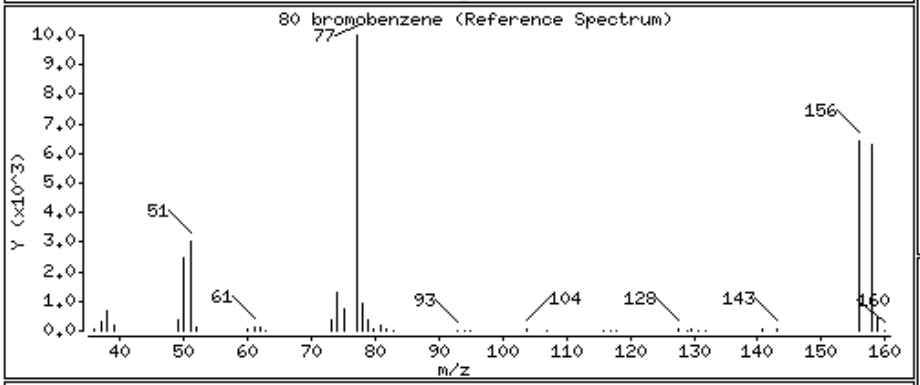
Concentration: 101.164 ngs

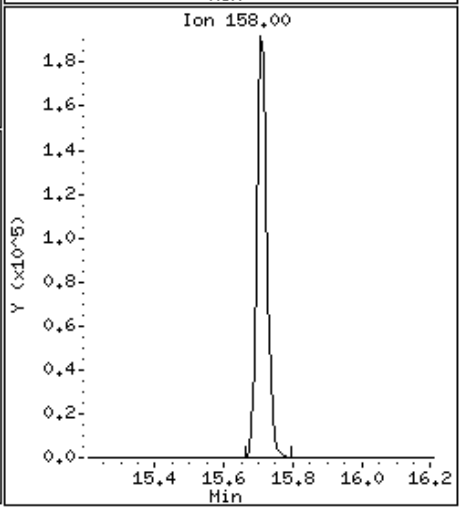


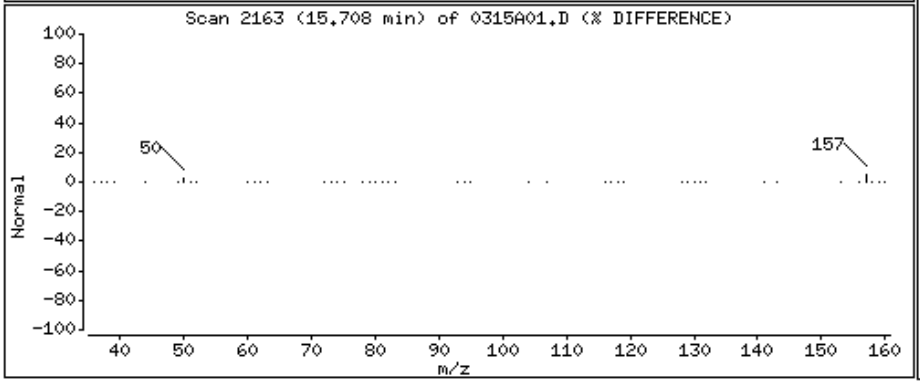












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

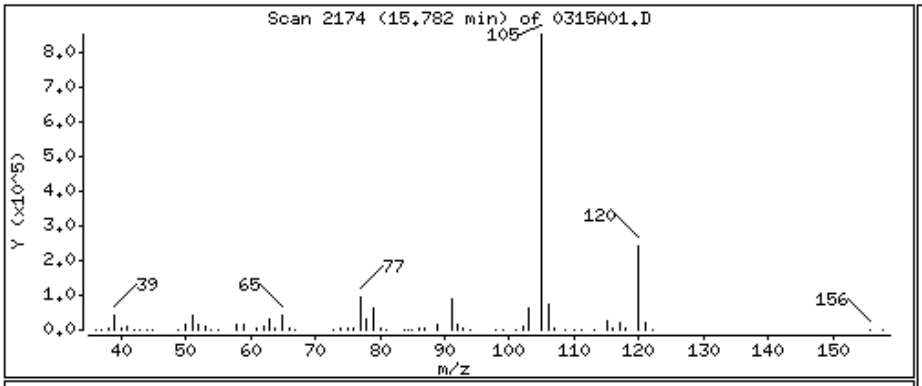
Operator: PD

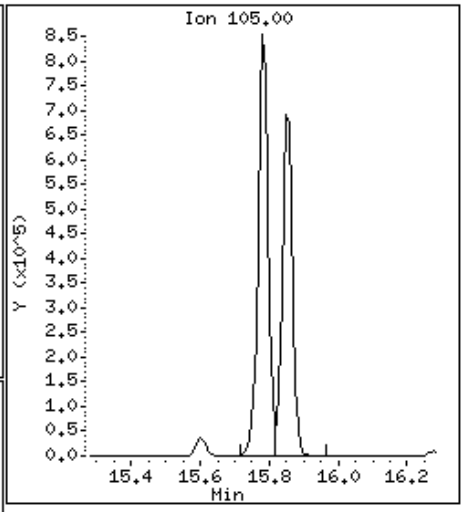
Column phase: Rtx-502.2

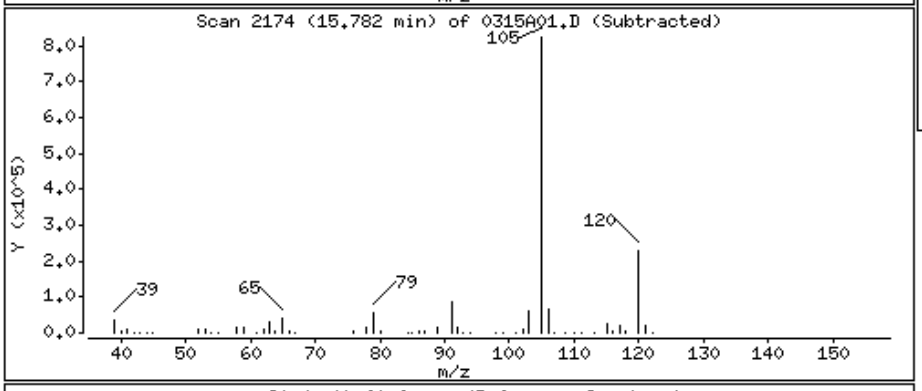
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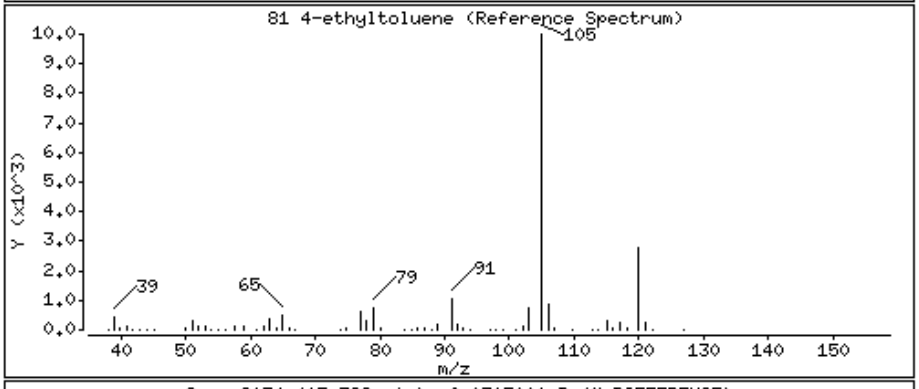
81 4-ethyltoluene

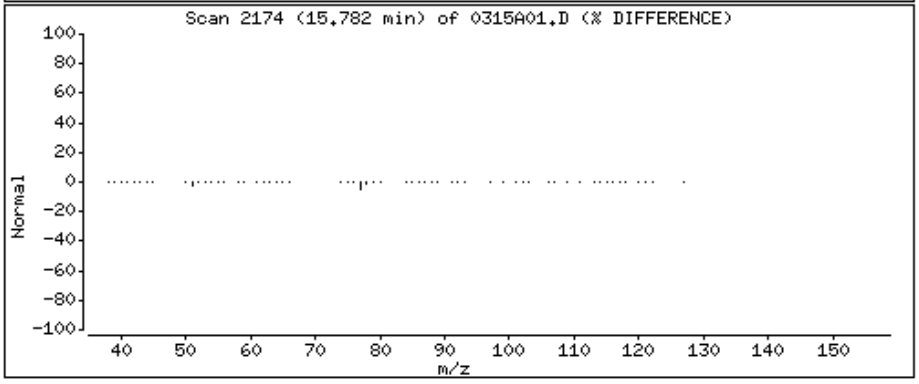
Concentration: 104.915 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

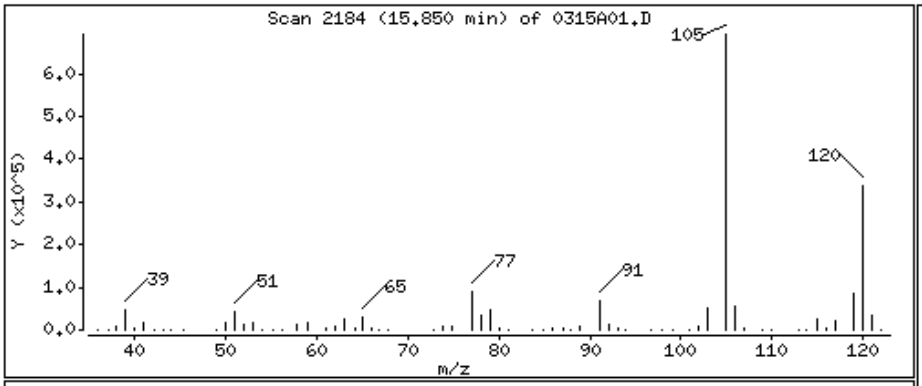
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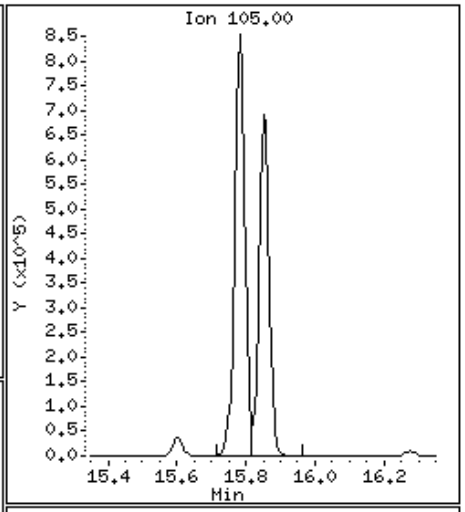
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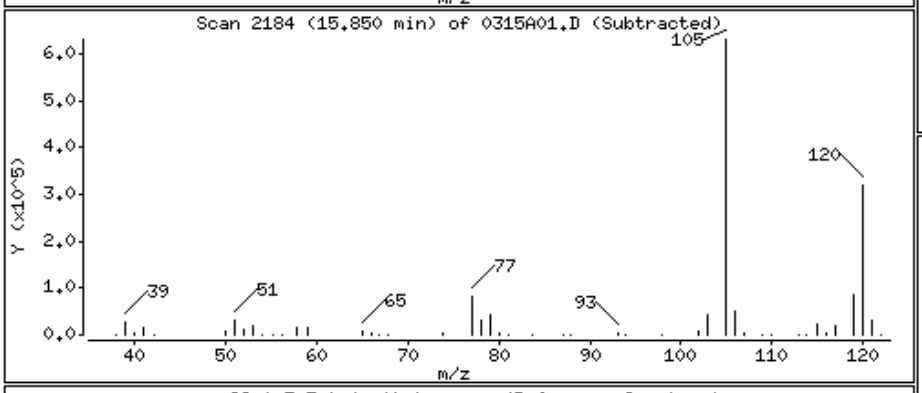
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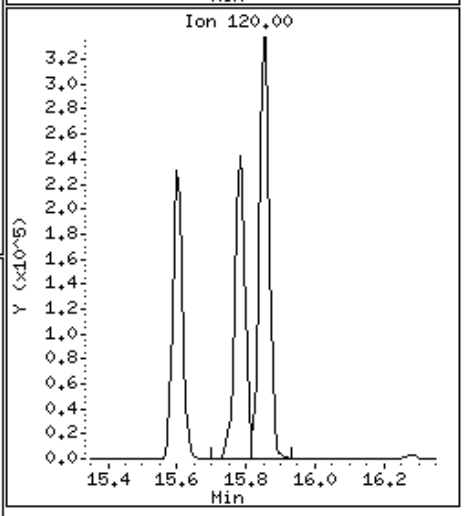
82 1,3,5-trimethybenzene

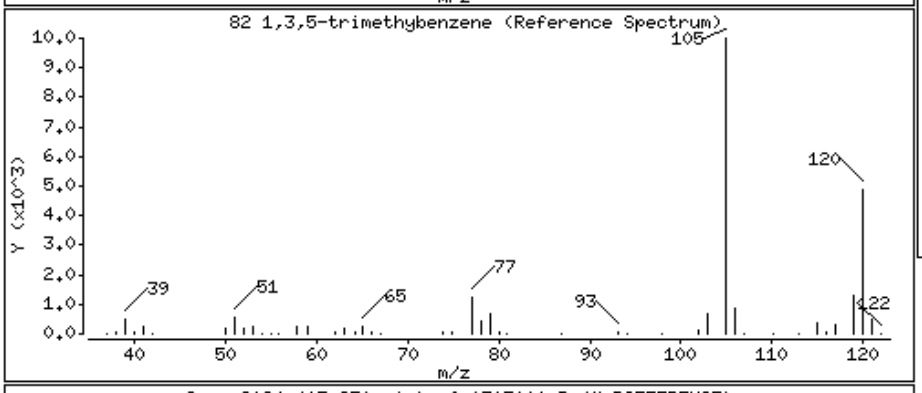
Concentration: 104.189 ngs

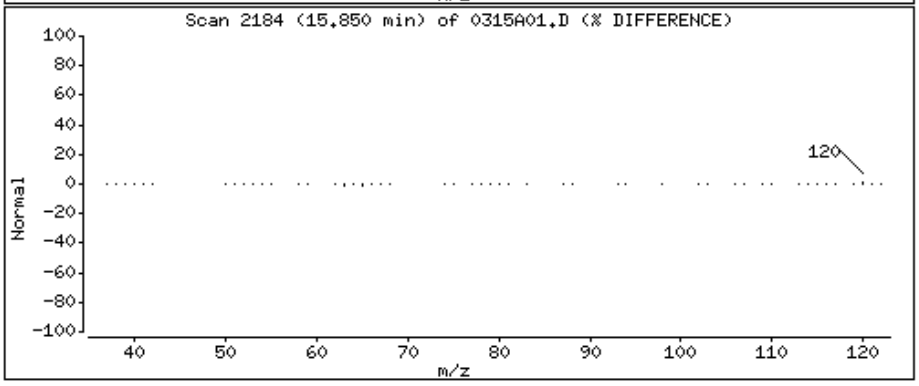












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

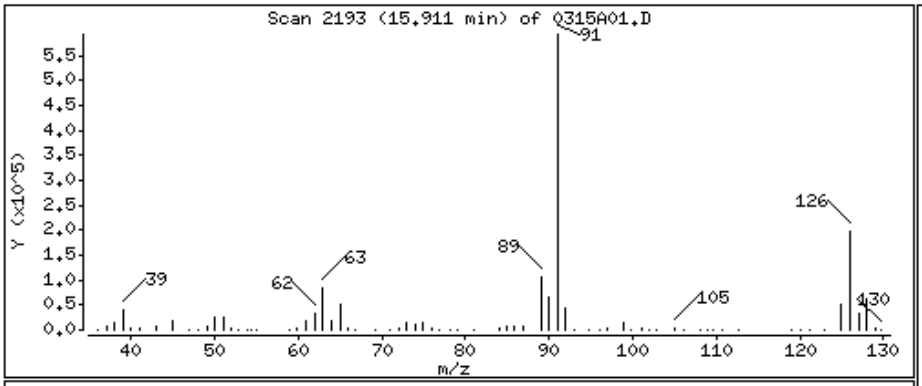
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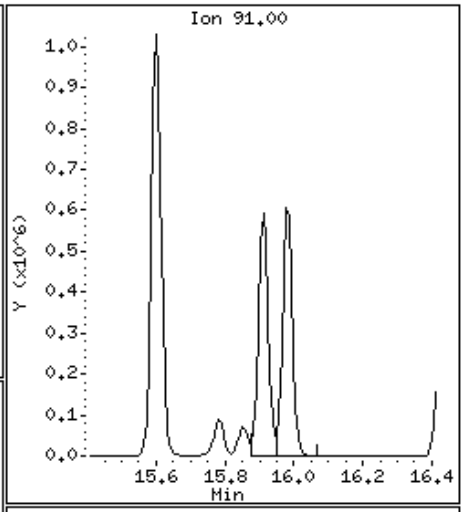
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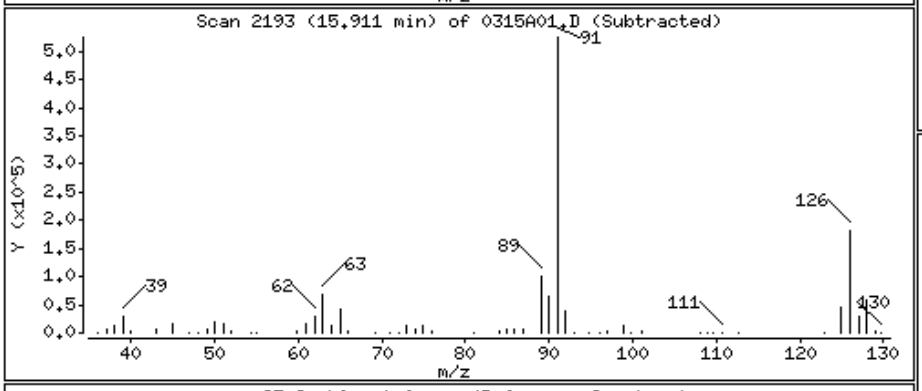
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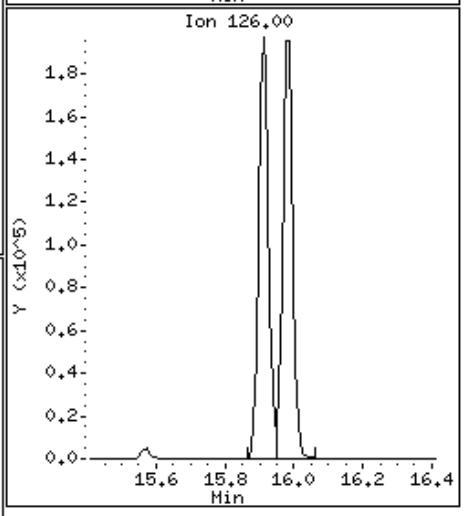
83 2-chlorotoluene

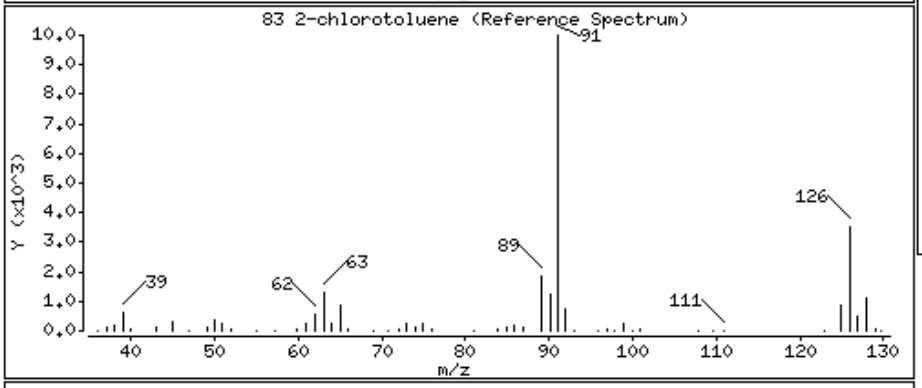
Concentration: 102.218 ngs

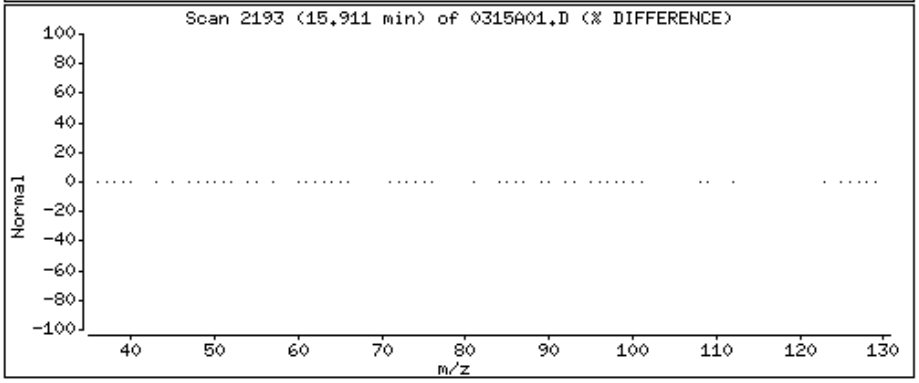












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

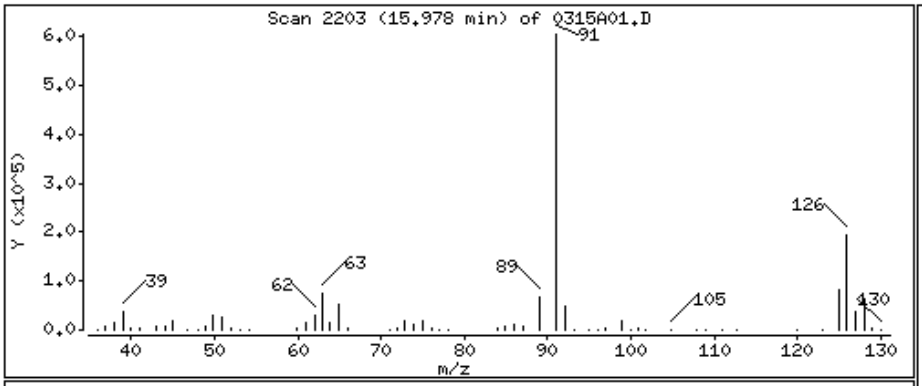
Operator: PD

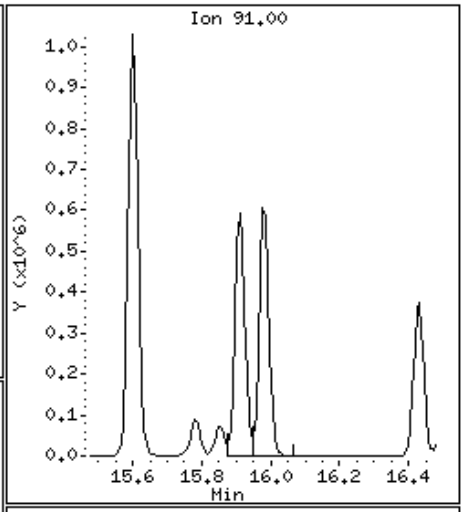
Column phase: Rtx-502.2

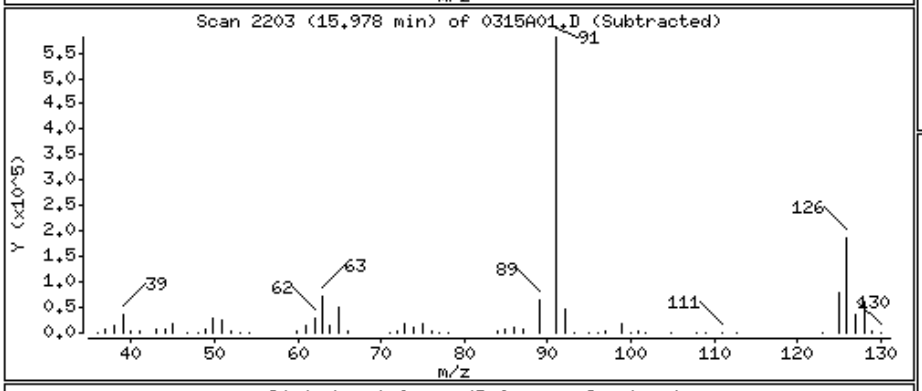
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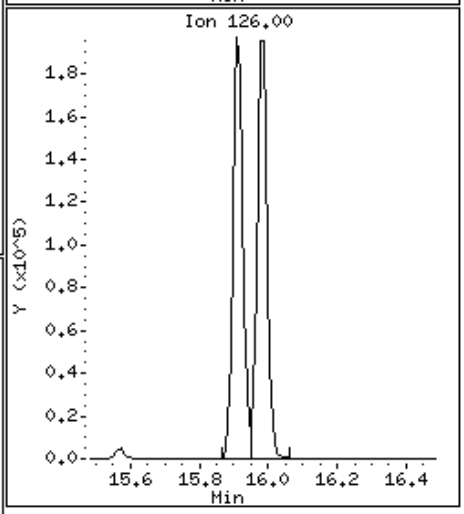
84 4-chorotoluene

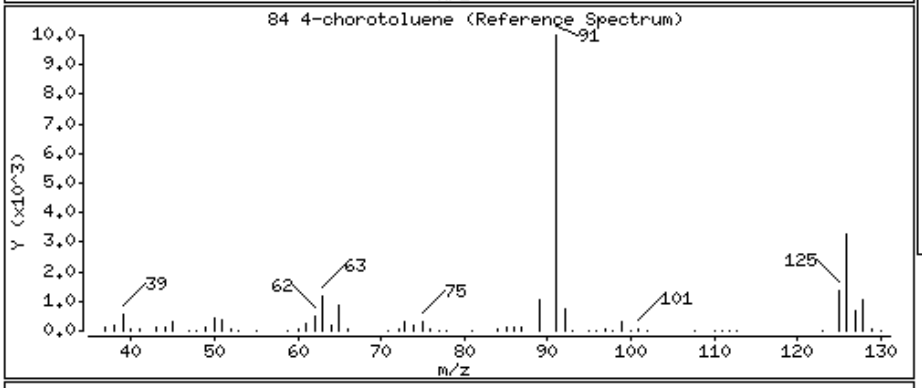
Concentration: 100.343 ngs

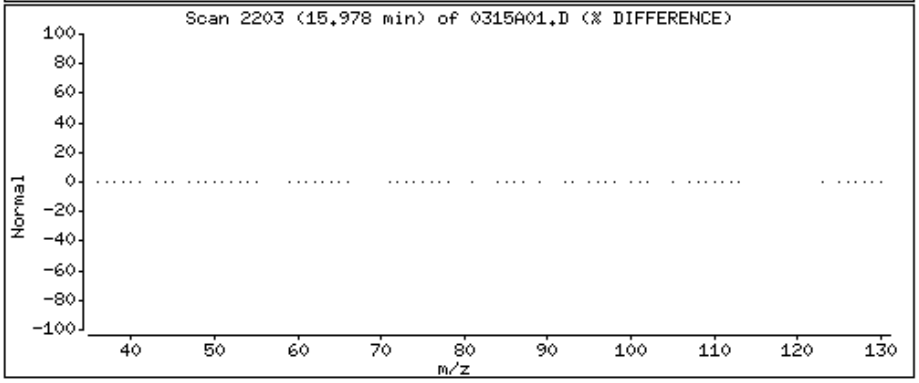












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

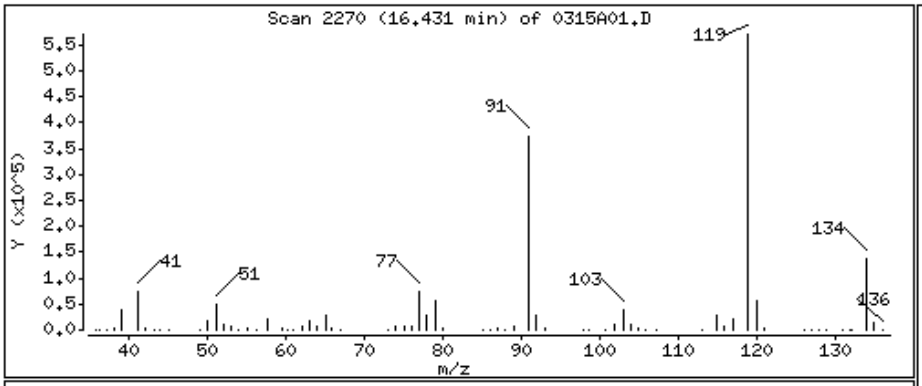
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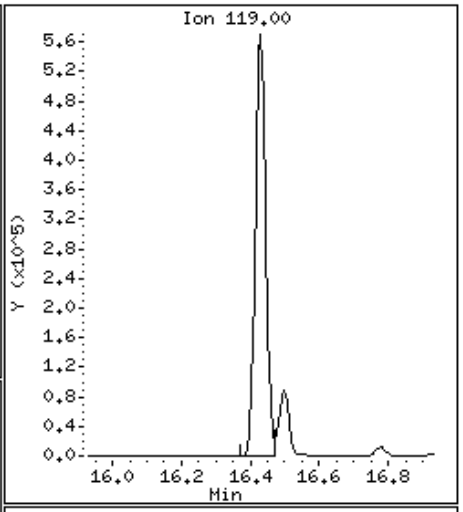
Column phase: Rtx-502.2

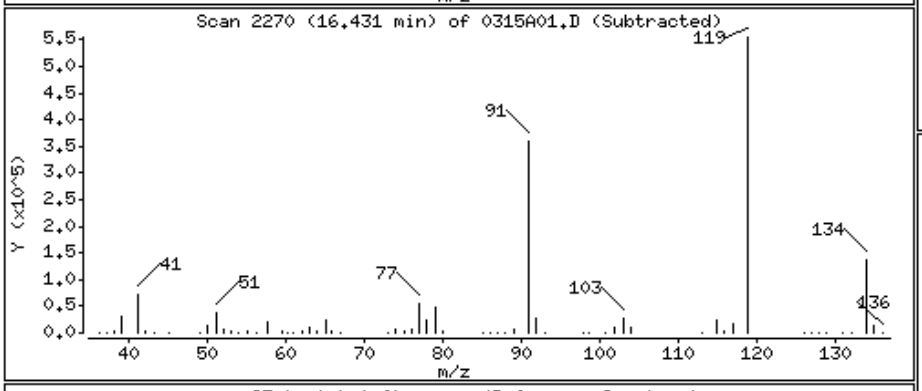
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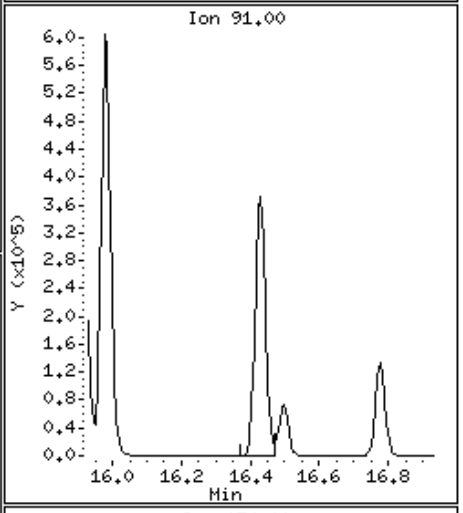
85 tert-butylbenzene

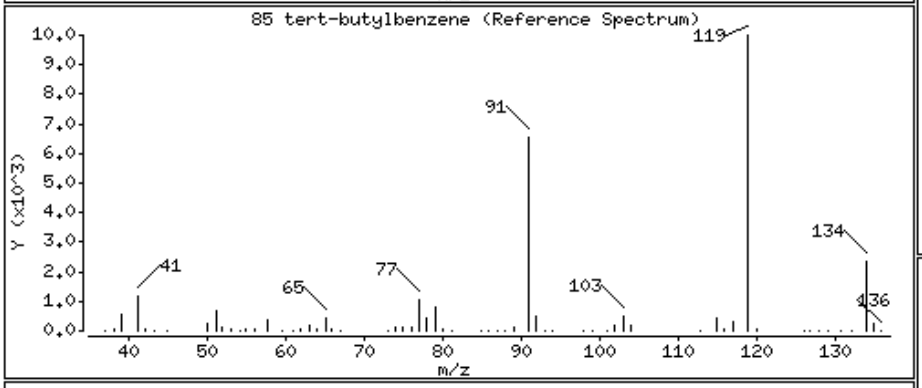
Concentration: 104.365 ngs

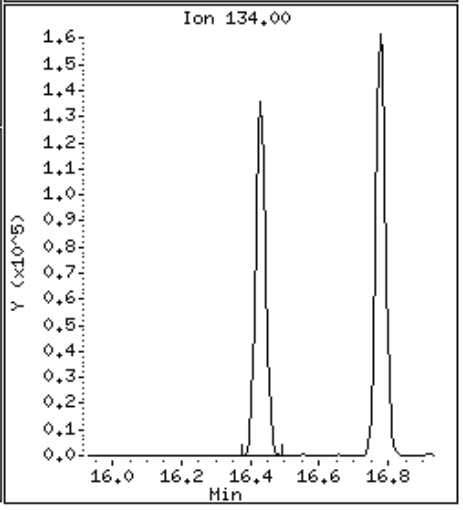


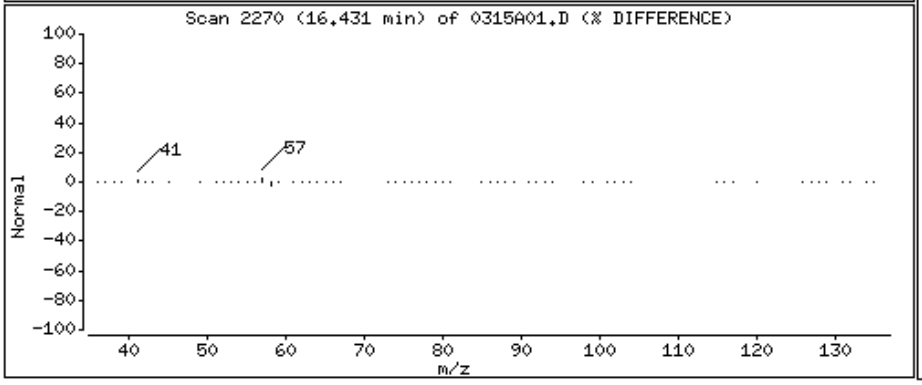












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Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

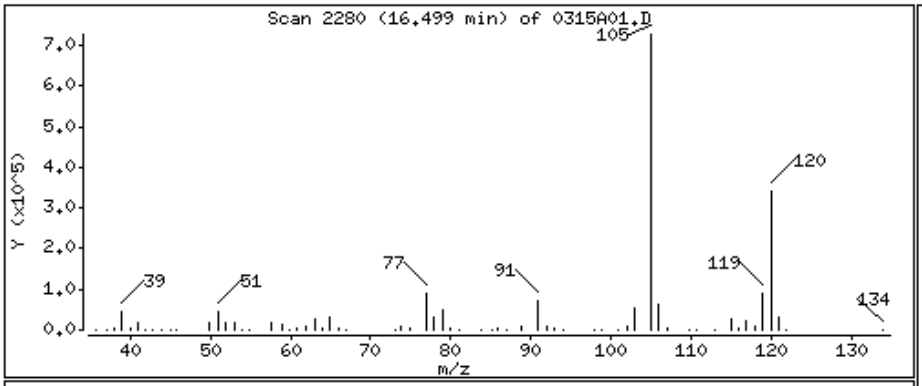
Operator: PD

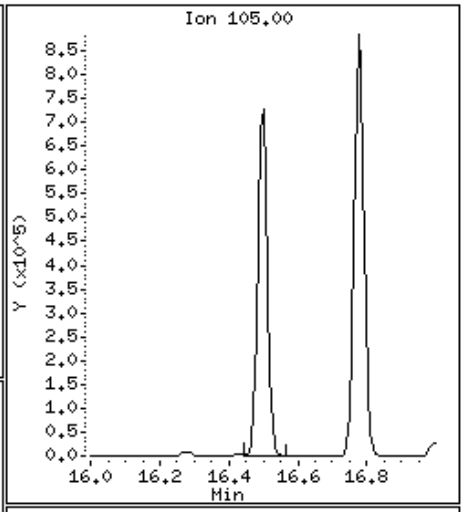
Column phase: Rtx-502.2

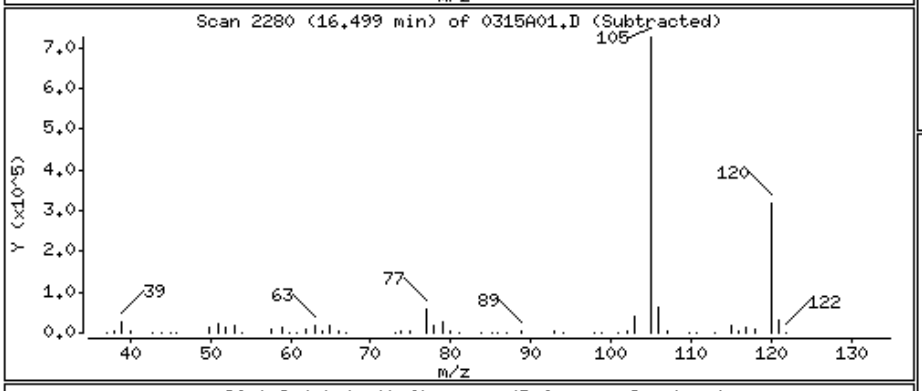
Column diameter: 0.18

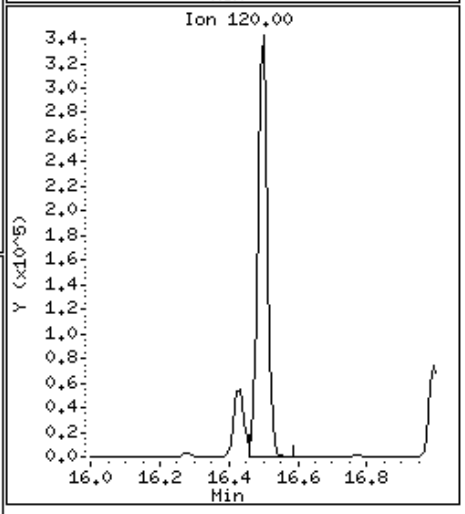
86 1,2,4-trimethylbenzene

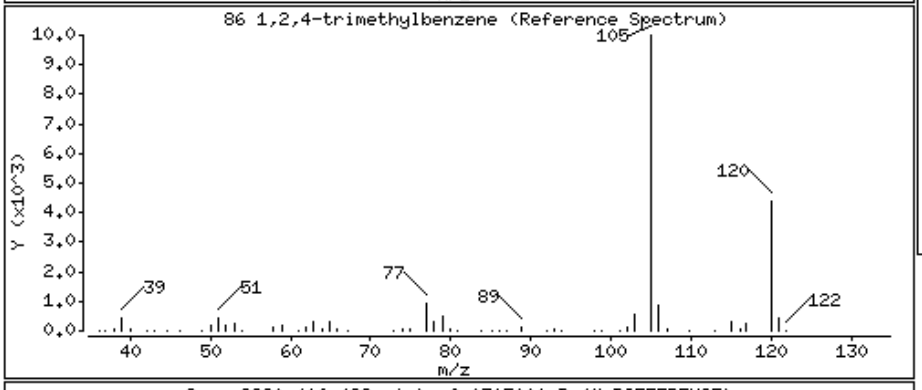
Concentration: 103.451 ngs

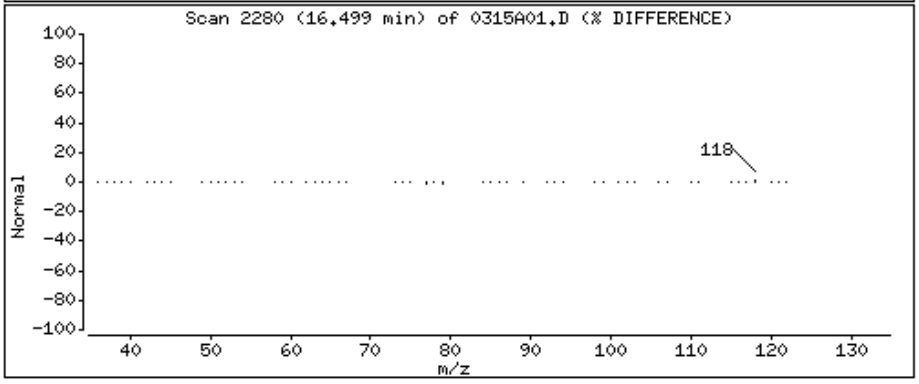












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

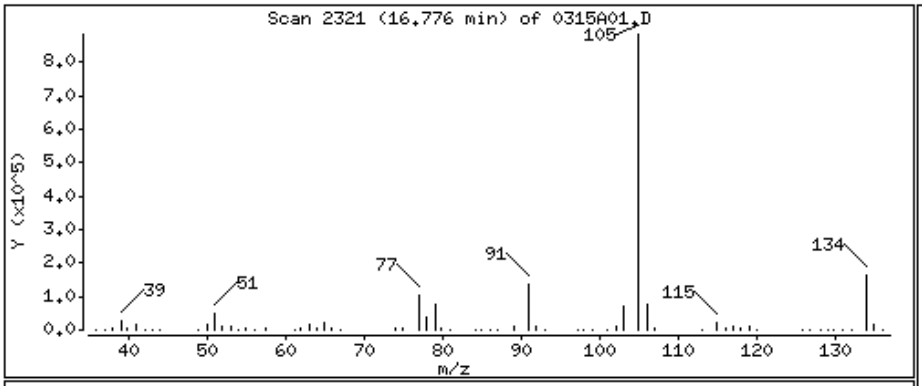
Operator: PD

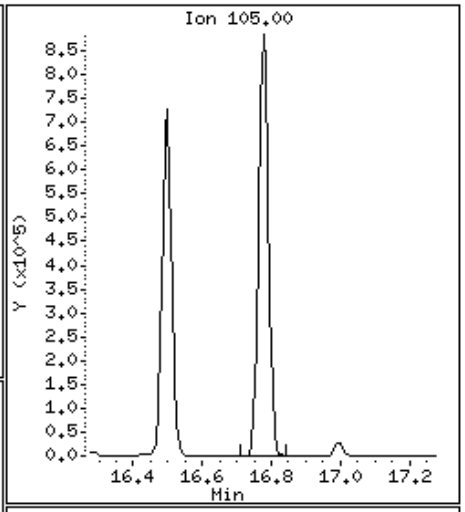
Column phase: Rtx-502.2

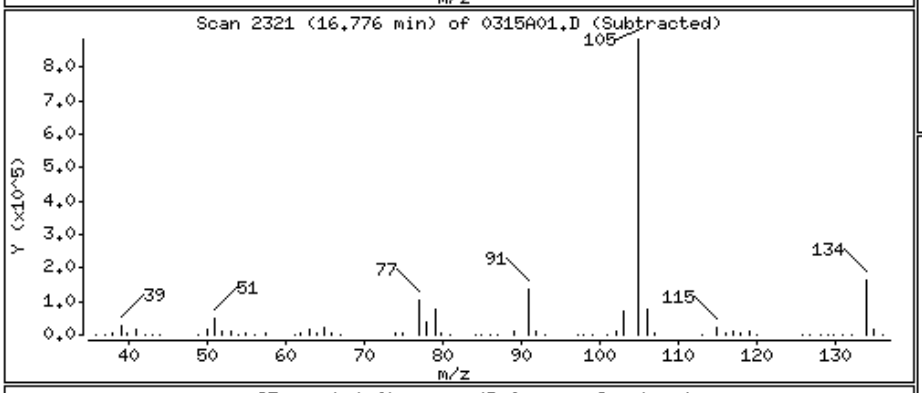
Column diameter: 0.18

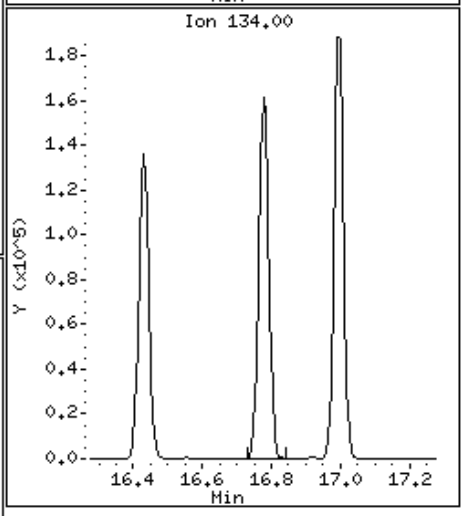
87 sec-butylbenzene

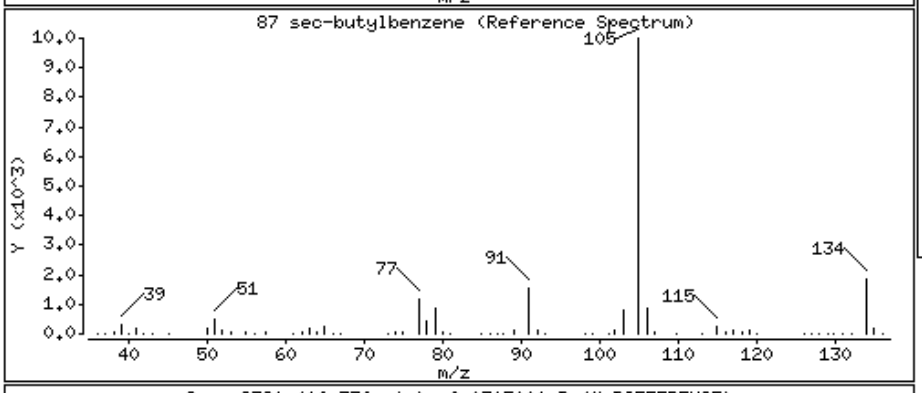
Concentration: 108.570 ngs

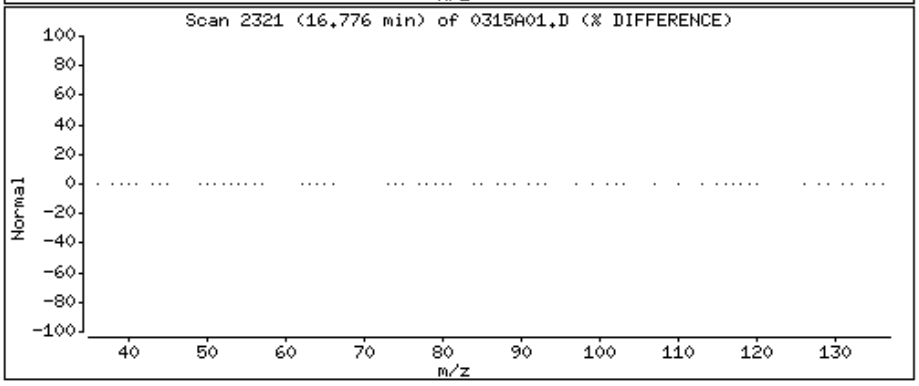












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

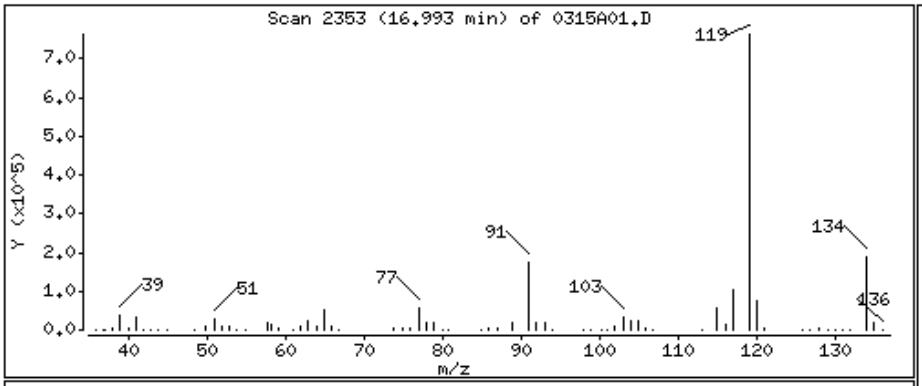
Operator: PD

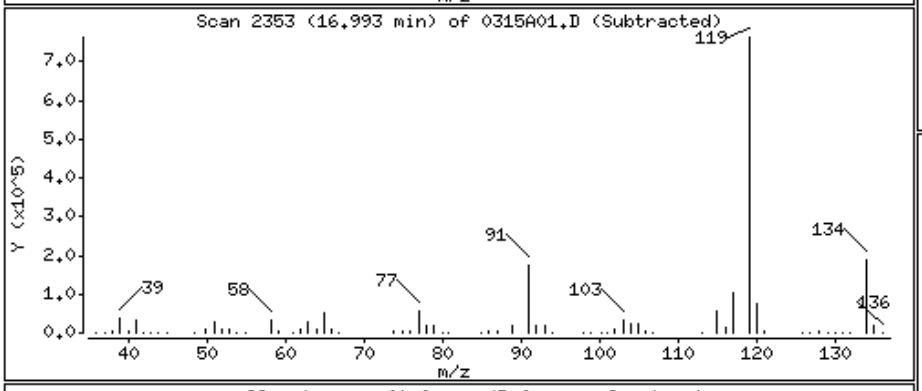
Column phase: Rtx-502.2

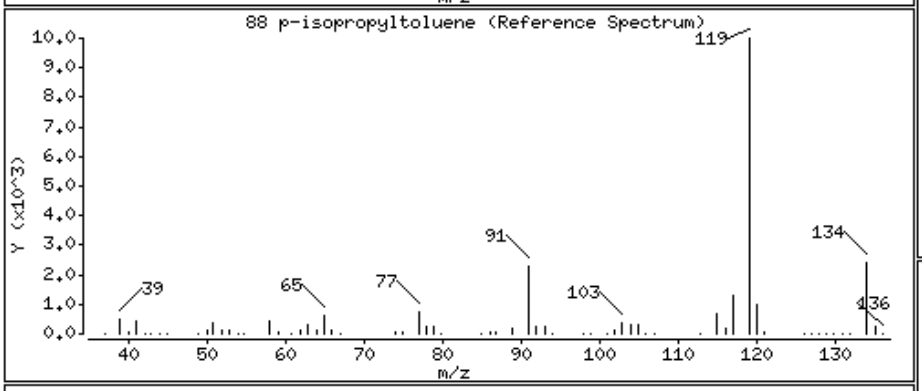
Column diameter: 0.18

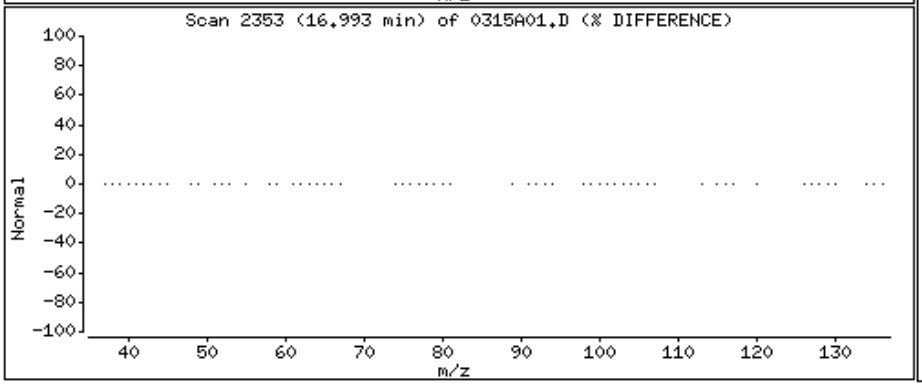
88 p-isopropyltoluene

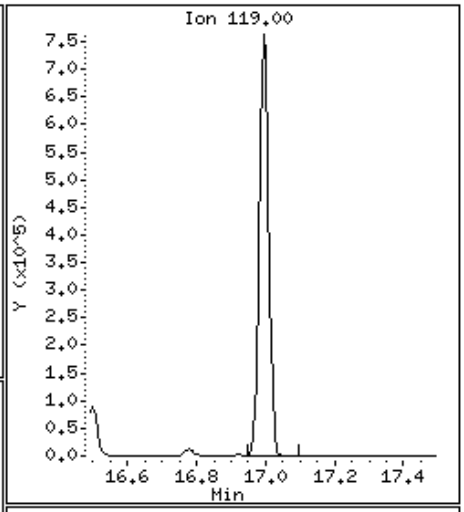
Concentration: 105.651 ngs

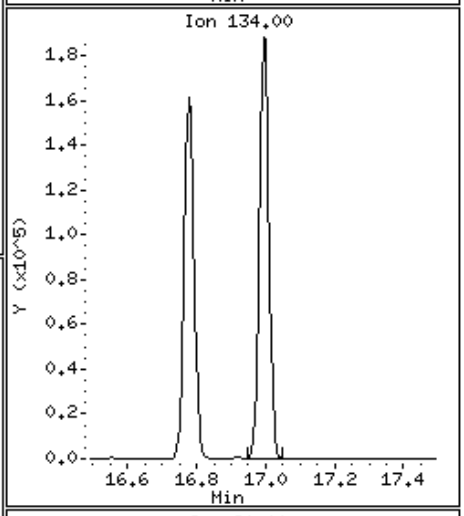


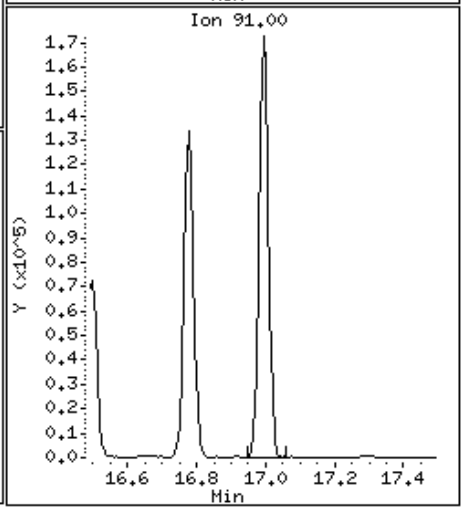












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

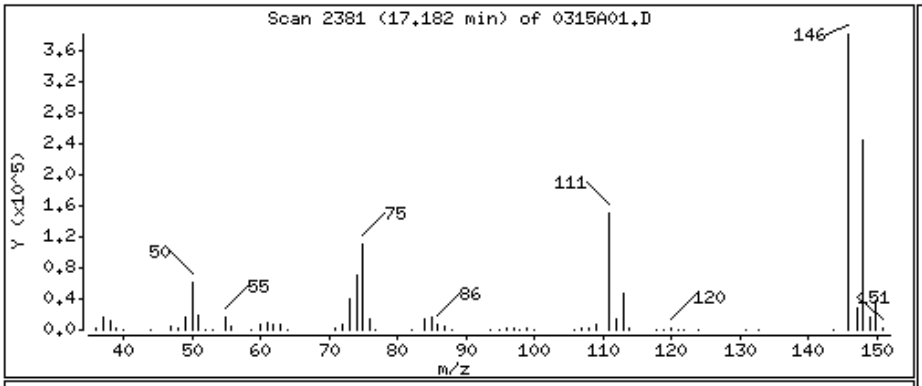
Operator: PD

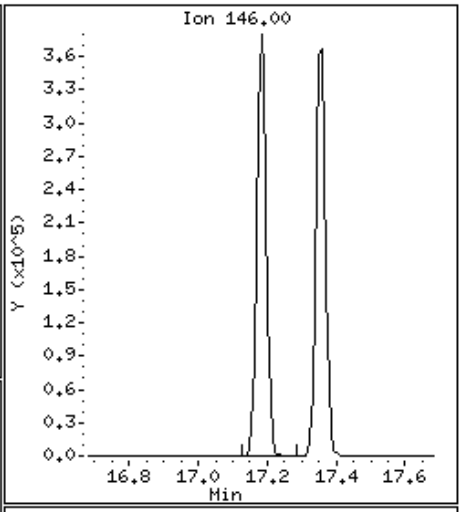
Column phase: Rtx-502.2

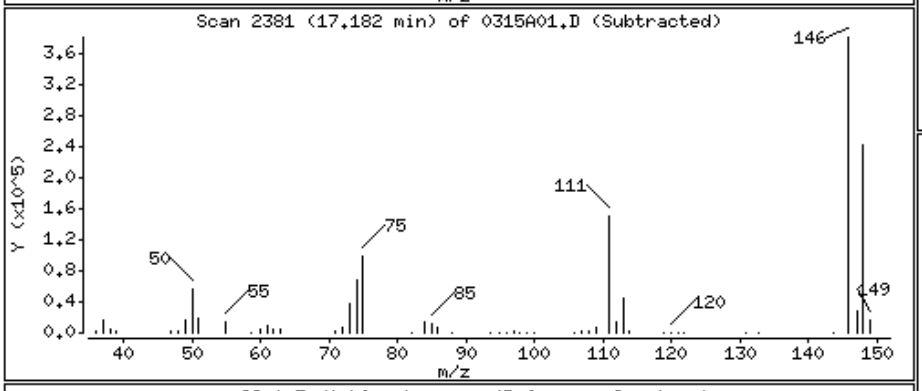
Column diameter: 0.18

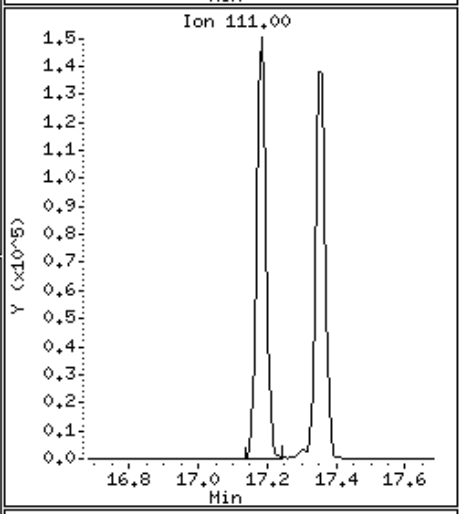
89 1,3-dichlorobenzene

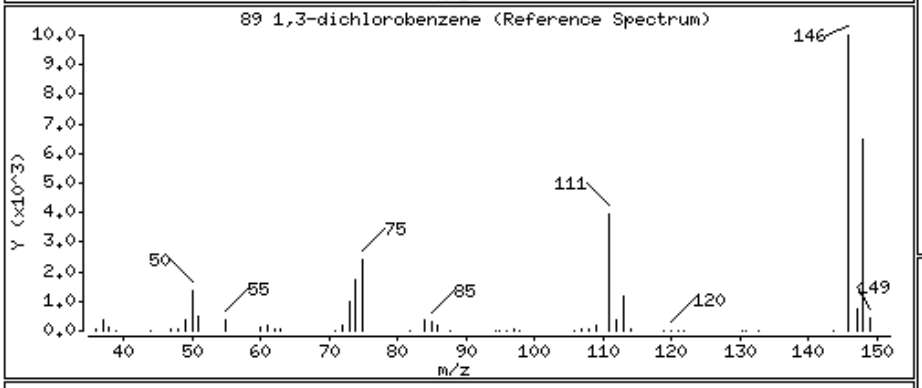
Concentration: 99.254 ngs

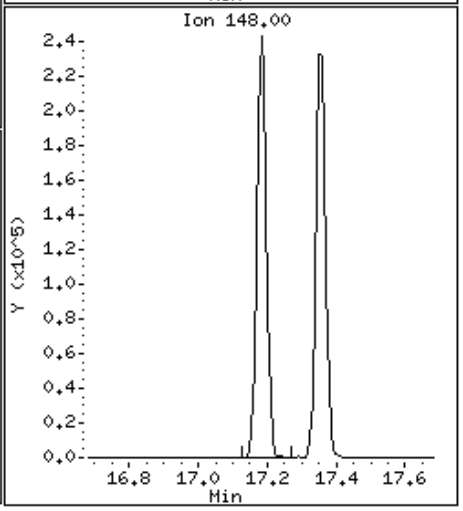


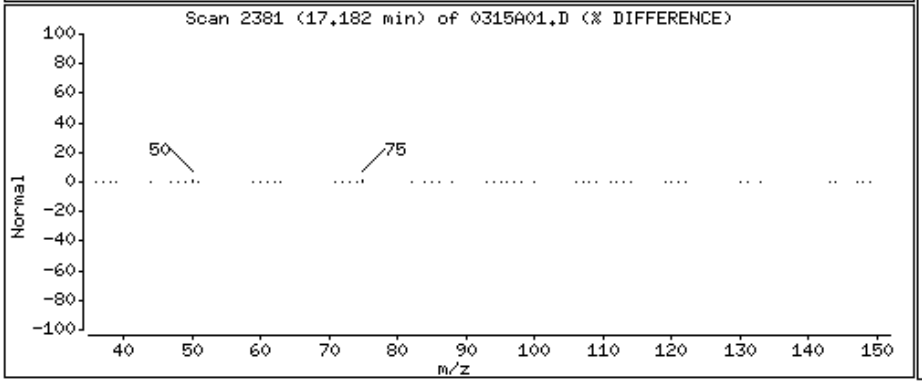












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

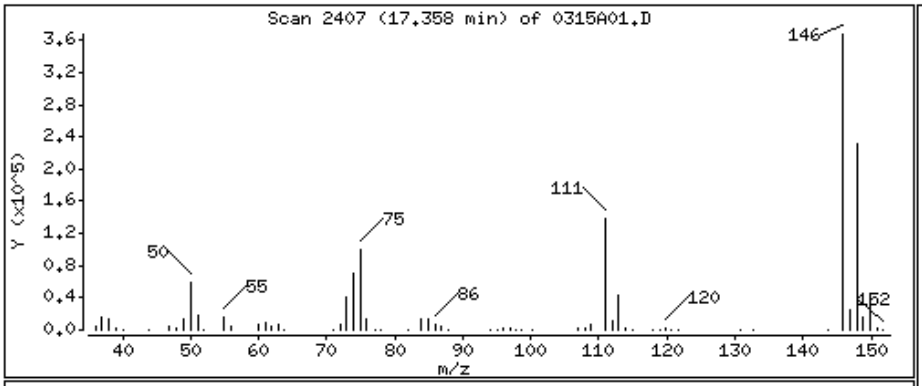
Operator: PD

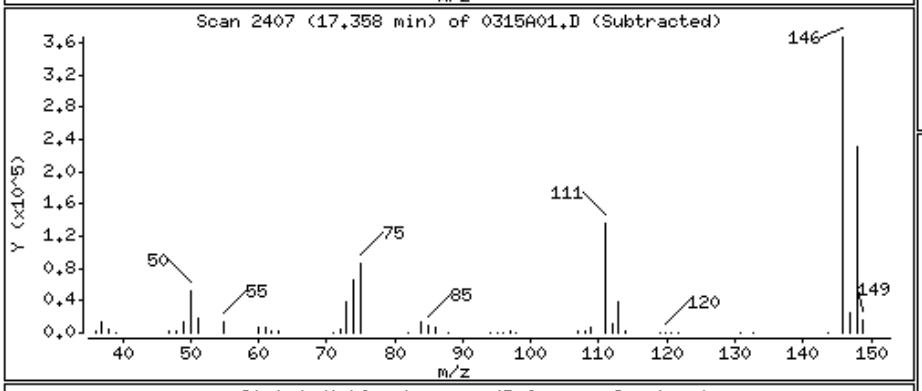
Column phase: Rtx-502.2

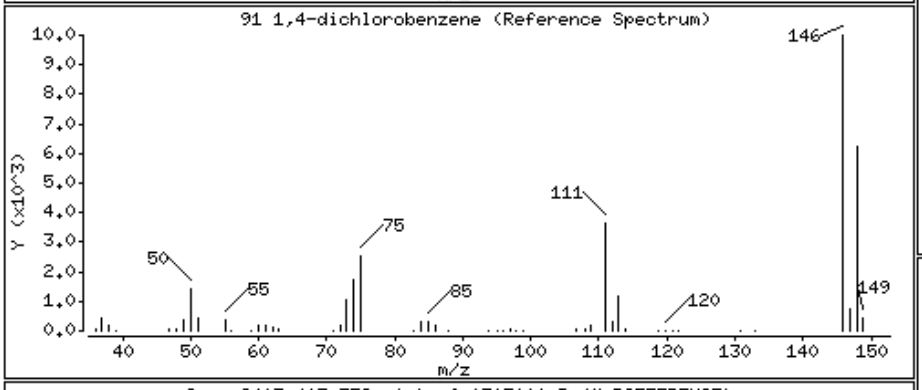
Column diameter: 0.18

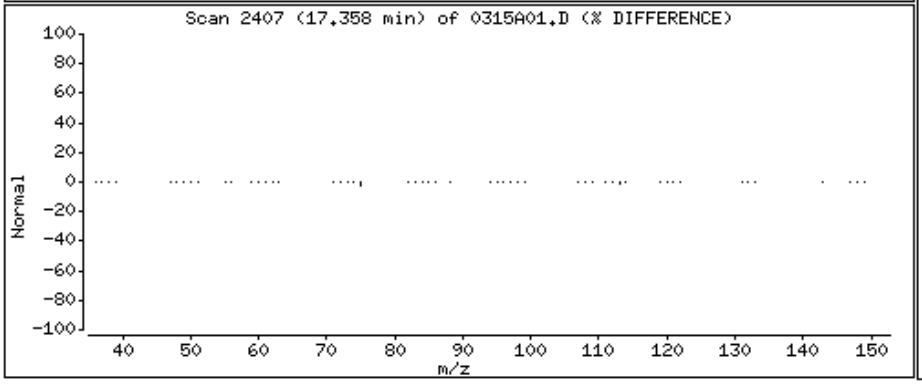
91 1,4-dichlorobenzene

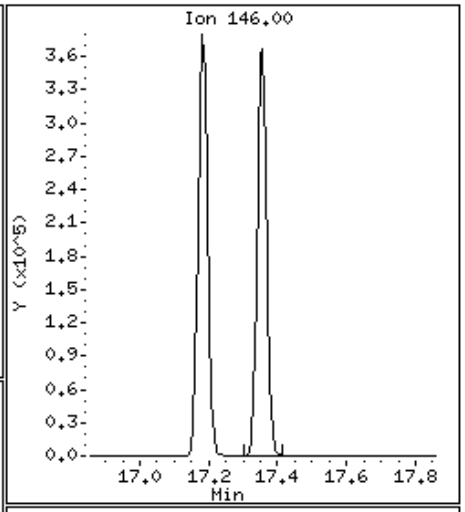
Concentration: 96.881 ngs

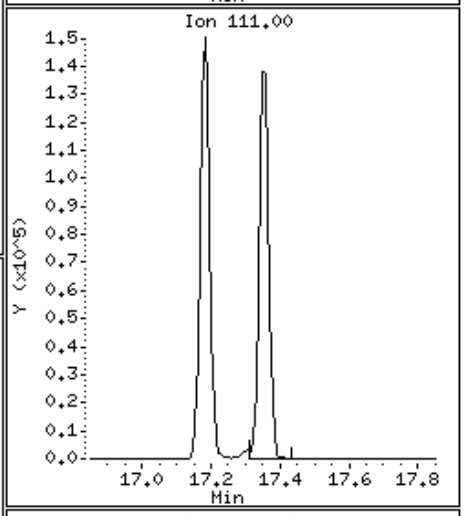


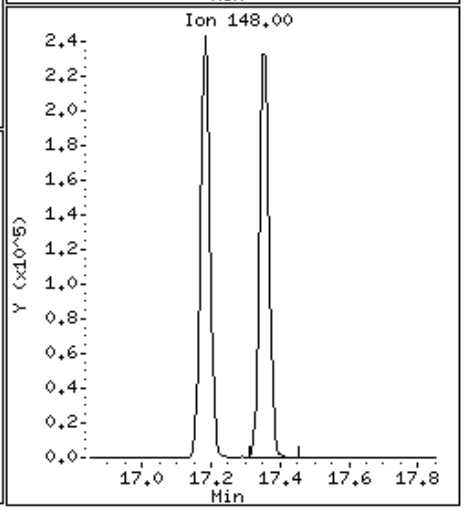












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

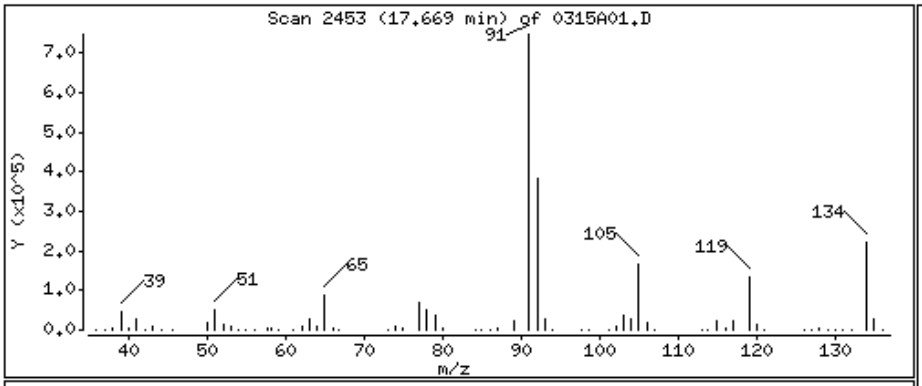
Operator: PD

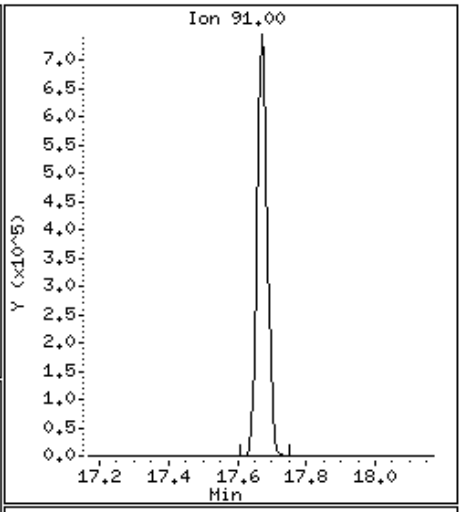
Column phase: Rtx-502.2

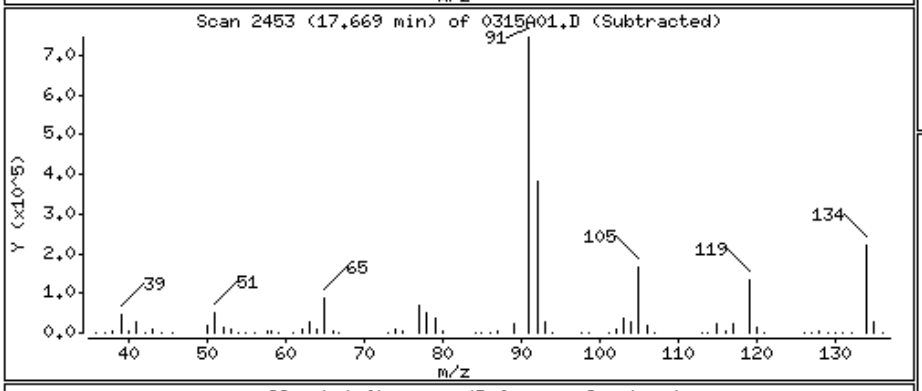
Column diameter: 0.18

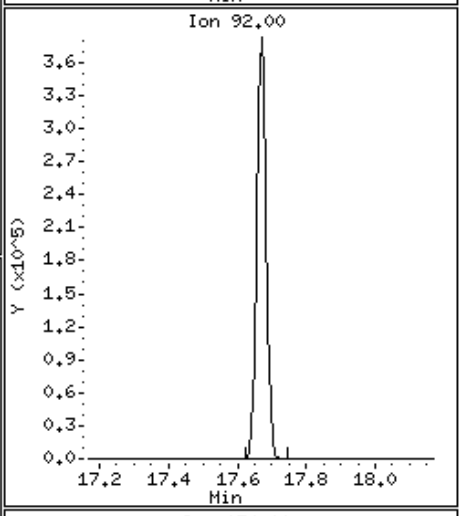
92 n-butylbenzene

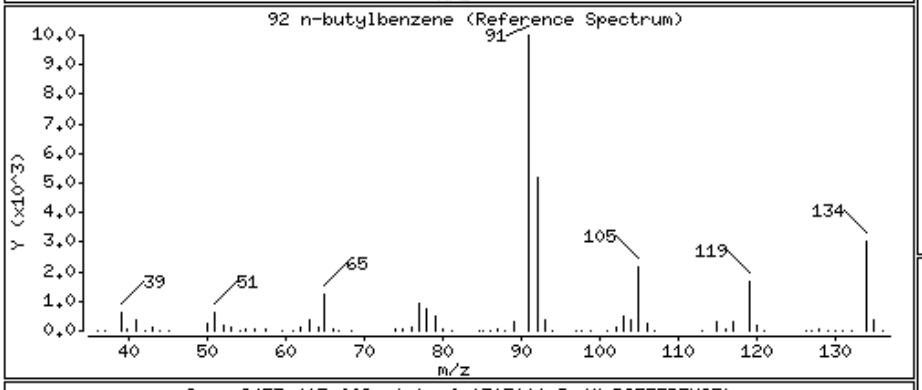
Concentration: 109.842 ngs

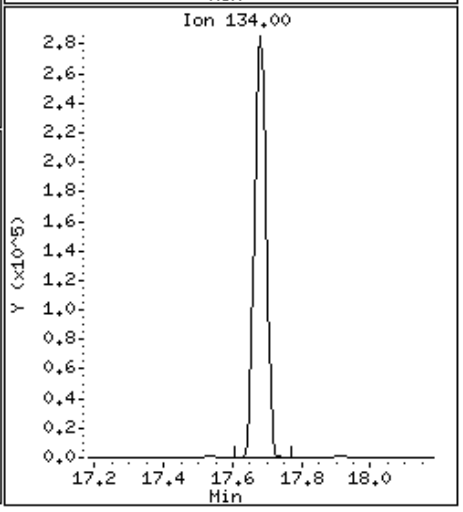


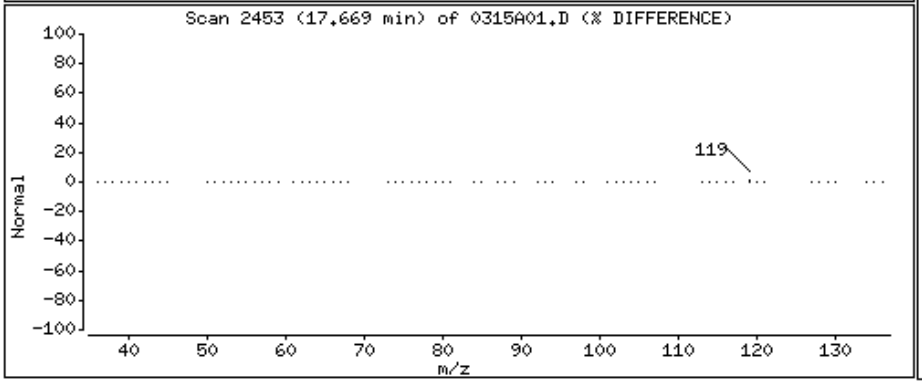












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

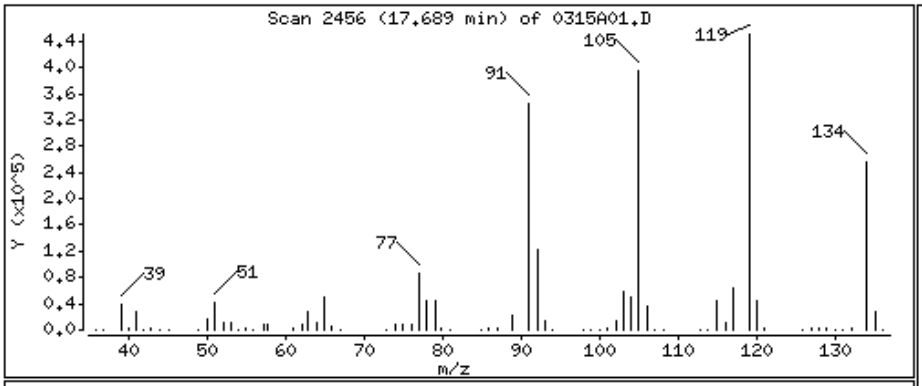
Operator: PD

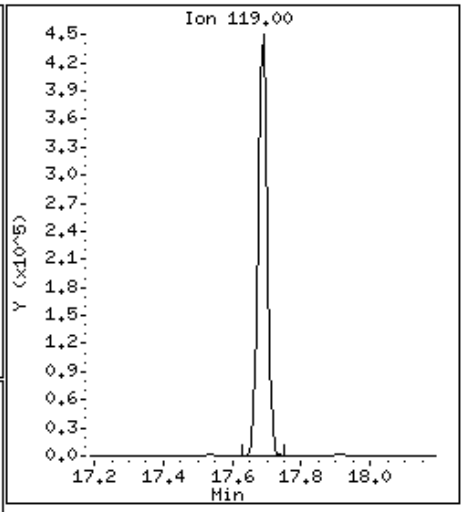
Column phase: Rtx-502.2

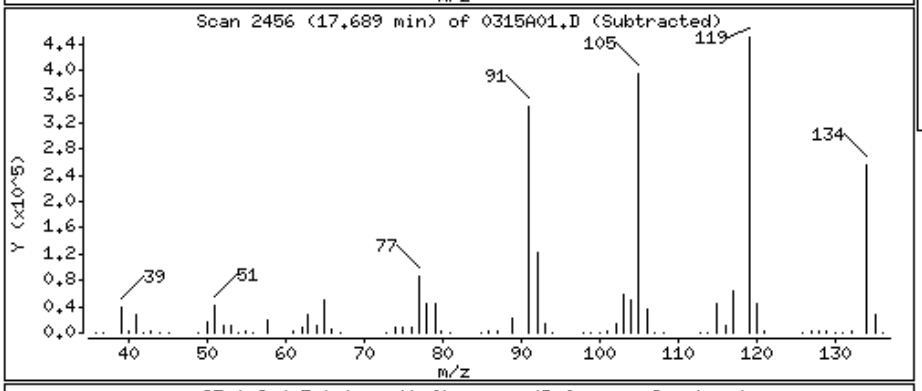
Column diameter: 0.18

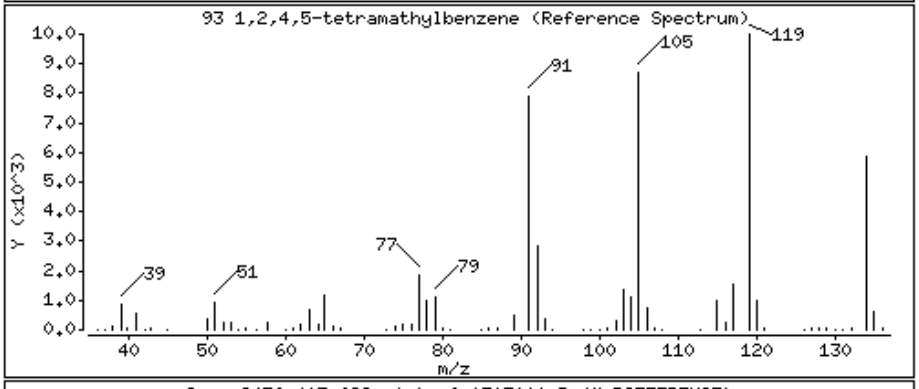
93 1,2,4,5-tetramathylbenzene

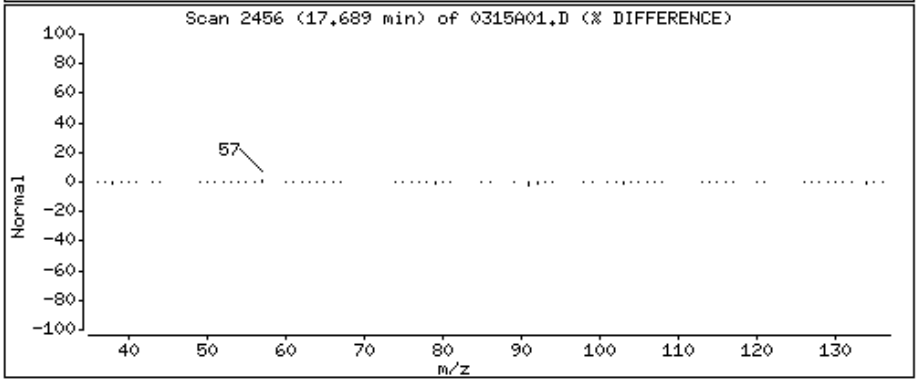
Concentration: 107.274 ngs











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Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

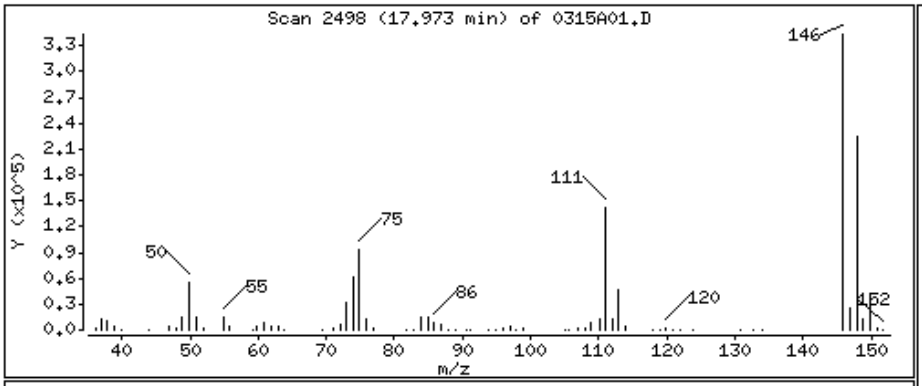
Operator: PD

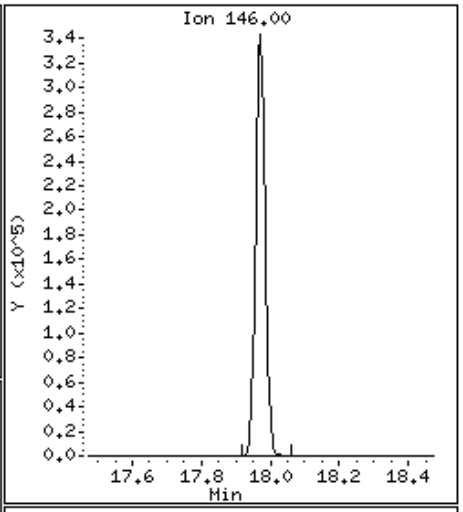
Column phase: Rtx-502.2

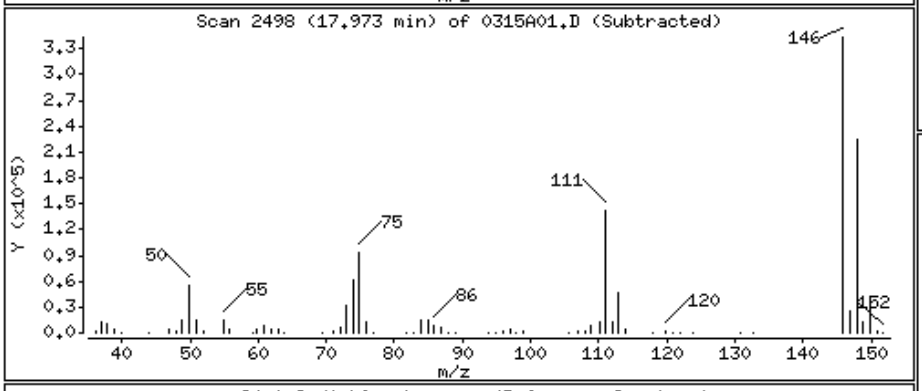
Column diameter: 0.18

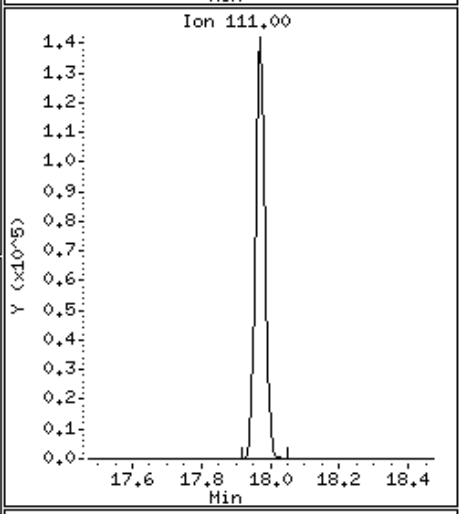
94 1,2-dichlorobenzene

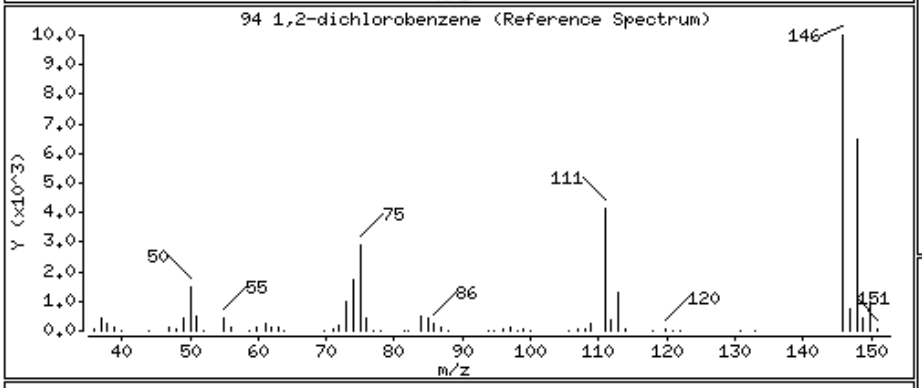
Concentration: 97.921 ngs

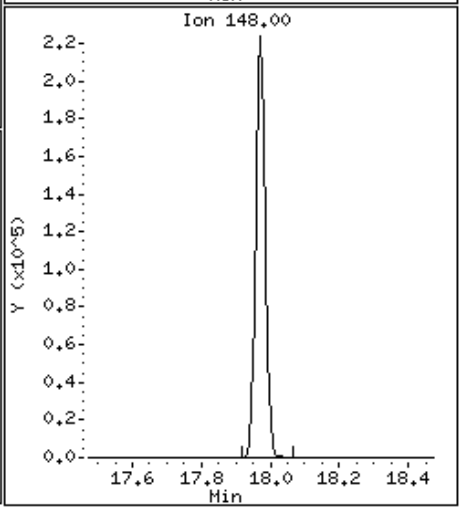


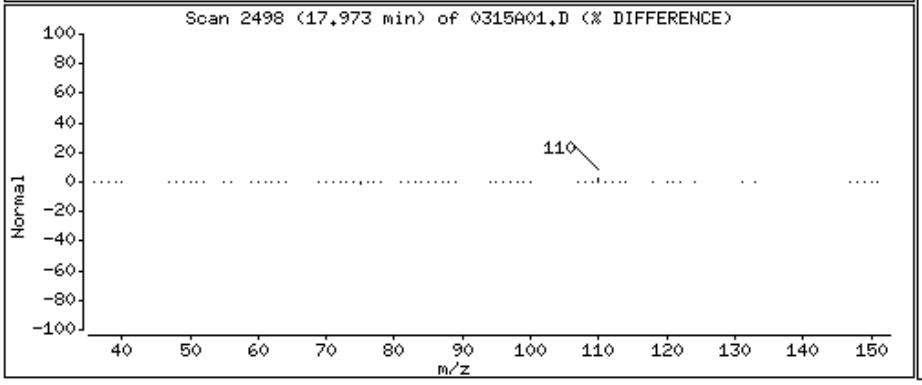












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Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

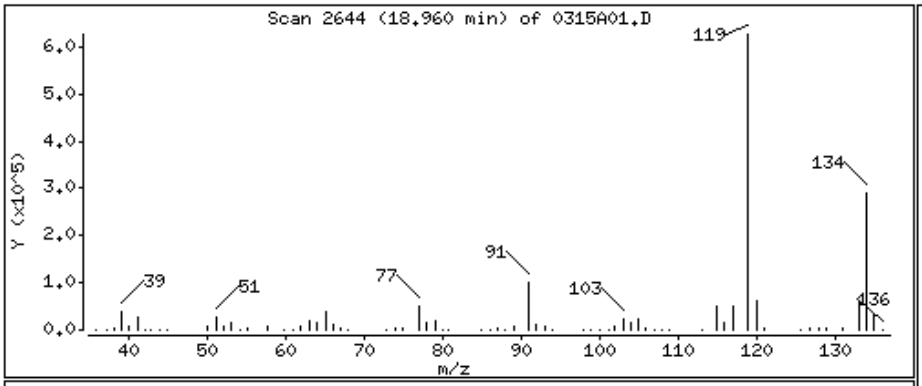
Operator: PD

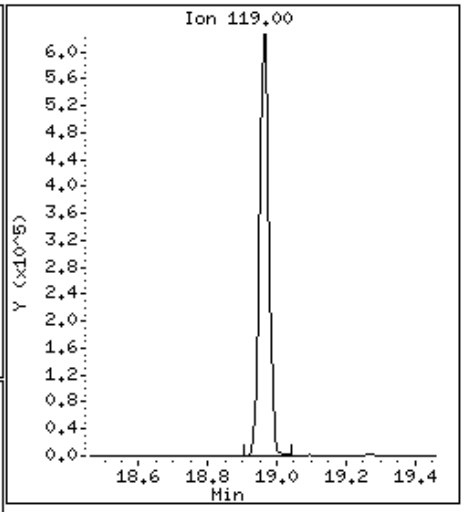
Column phase: Rtx-502.2

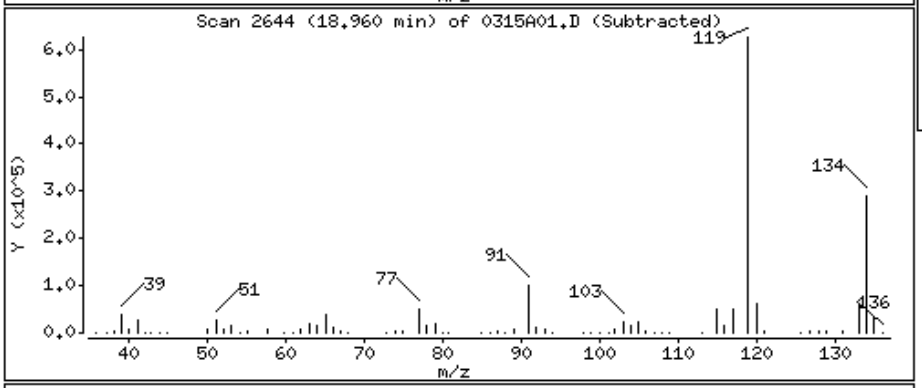
Column diameter: 0.18

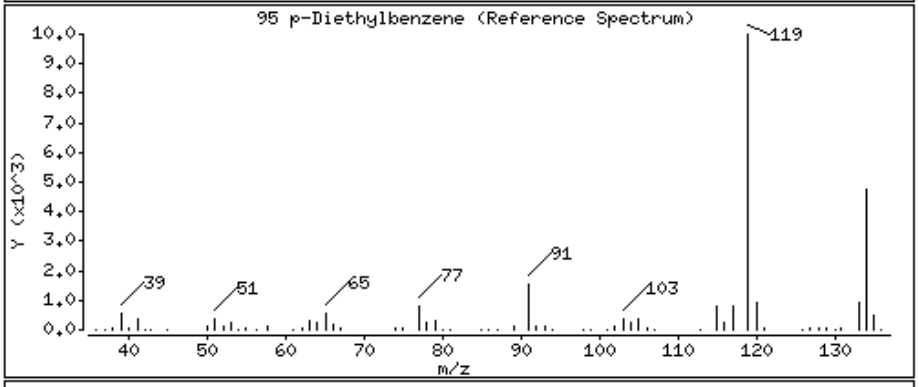
95 p-Diethylbenzene

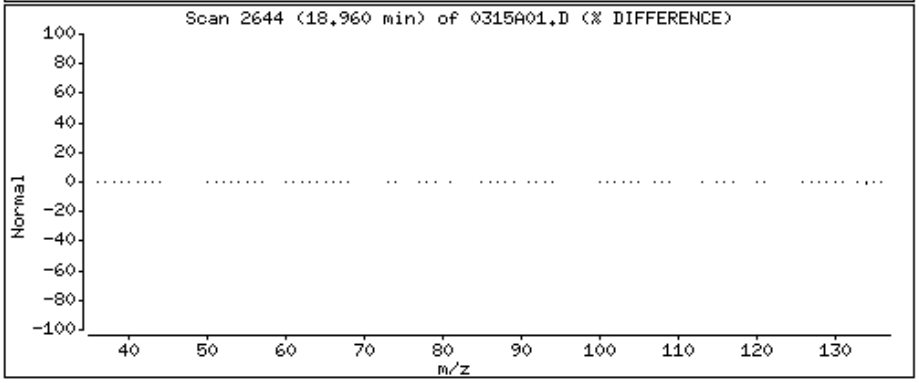
Concentration: 96.004 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

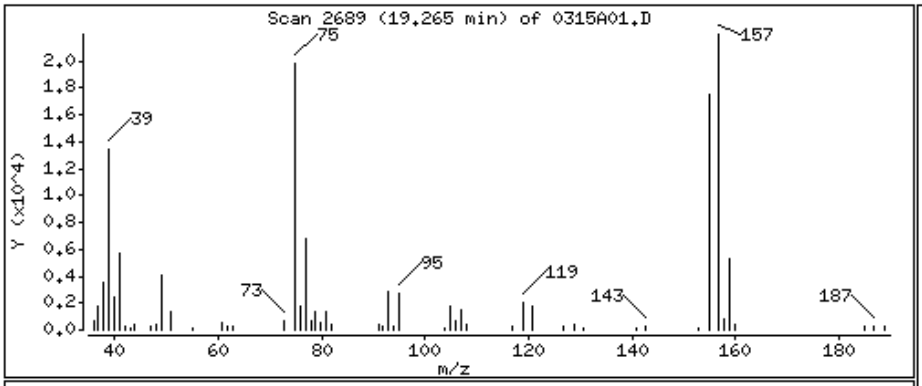
Operator: PD

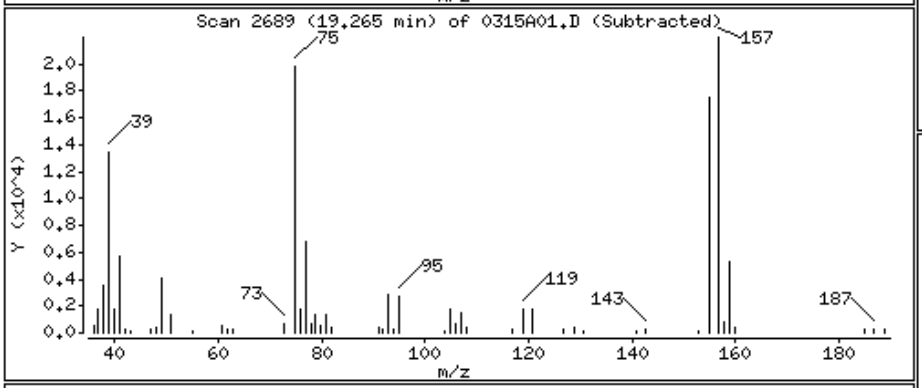
Column phase: Rtx-502.2

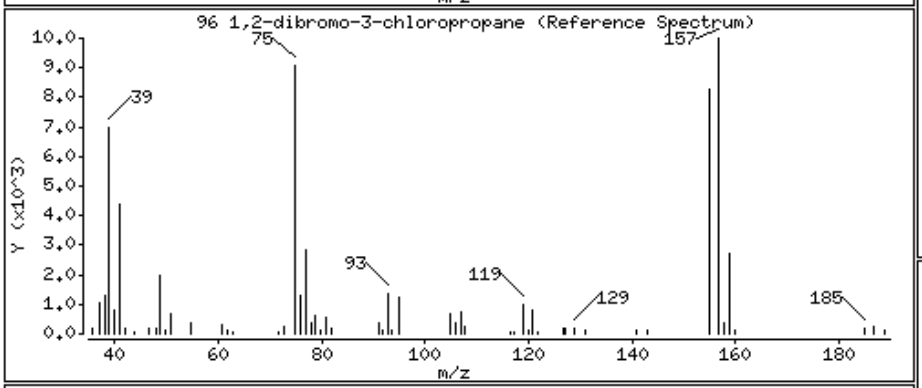
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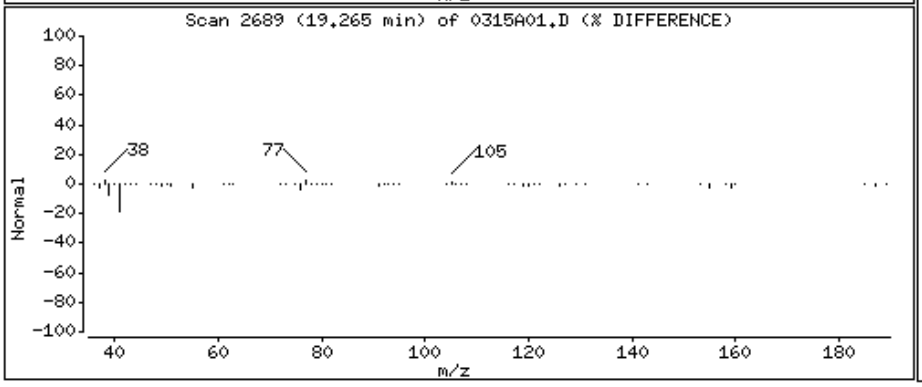
96 1,2-dibromo-3-chloropropane

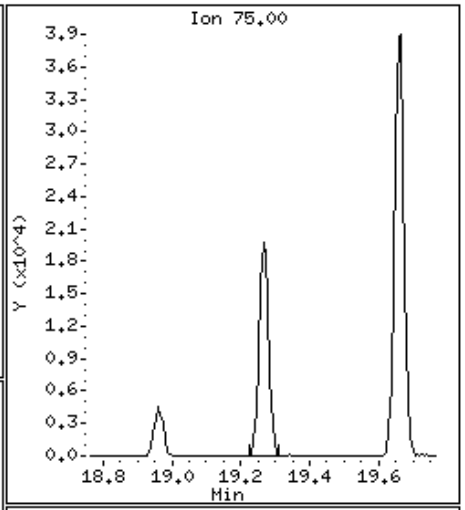
Concentration: 105.260 ngs

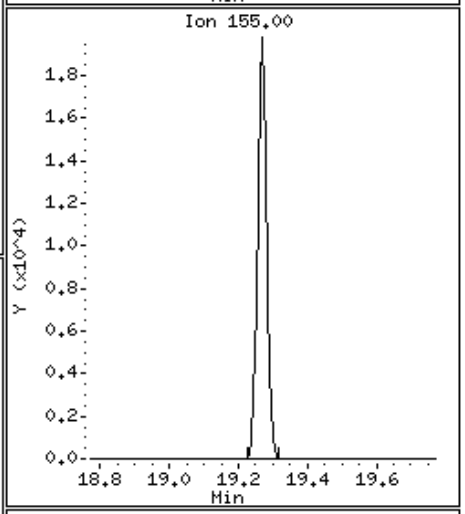


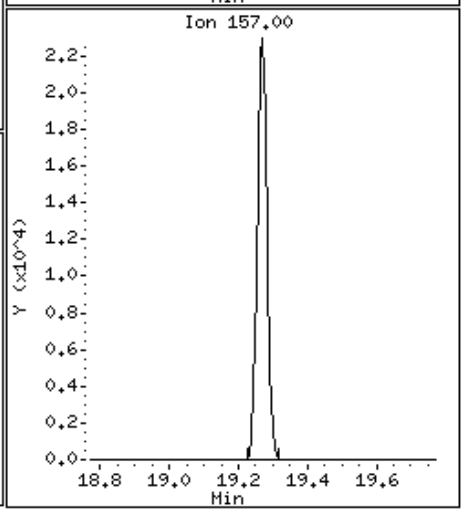












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

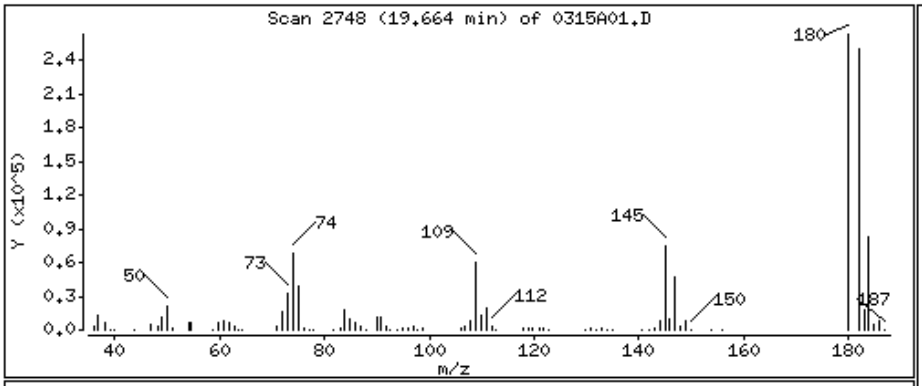
Operator: PD

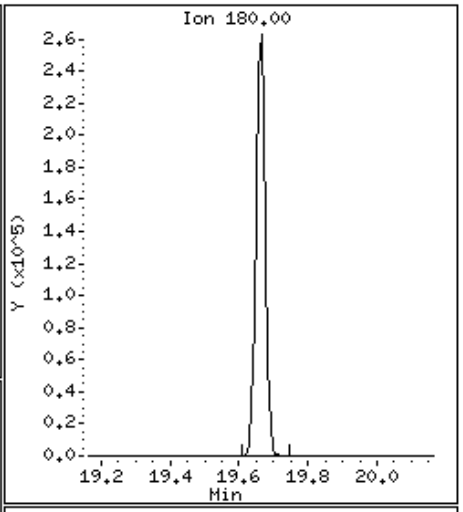
Column phase: Rtx-502.2

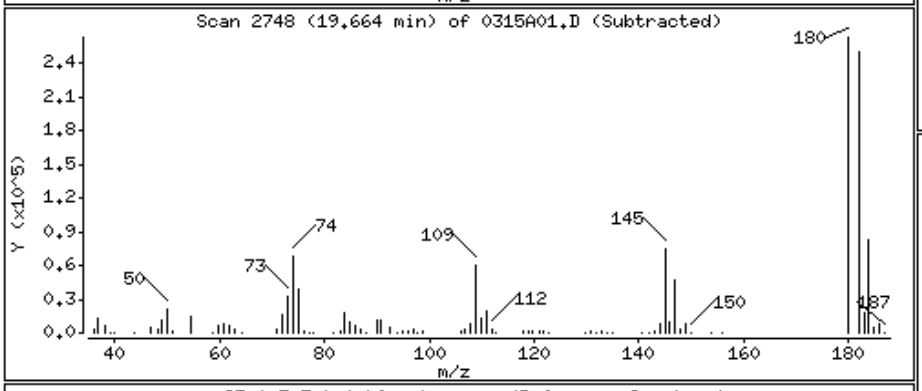
Column diameter: 0.18

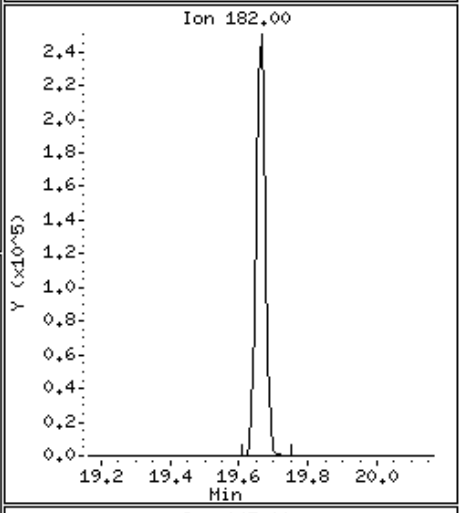
97 1,3,5-trichlorobenzene

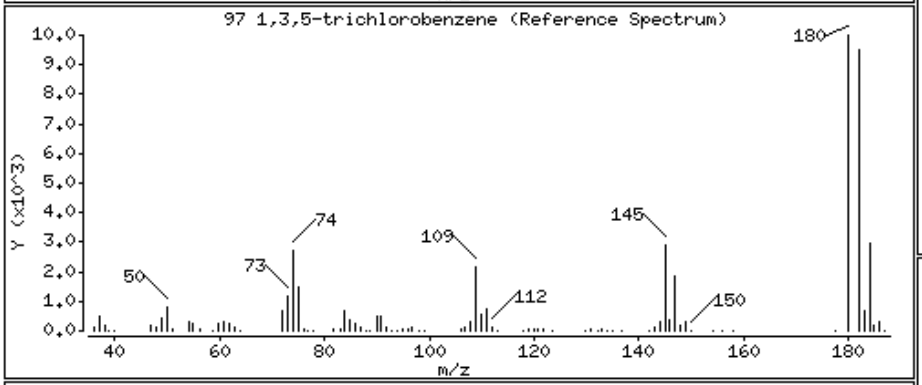
Concentration: 99.395 ngs

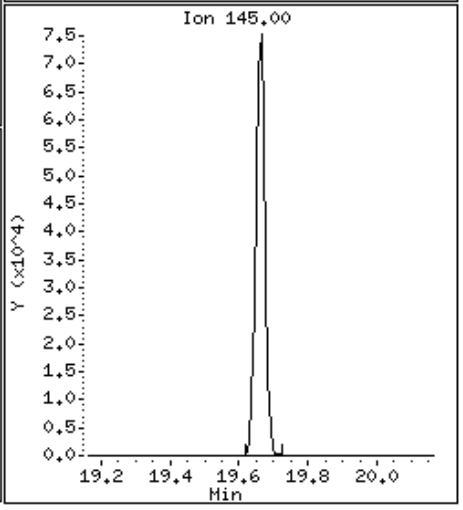


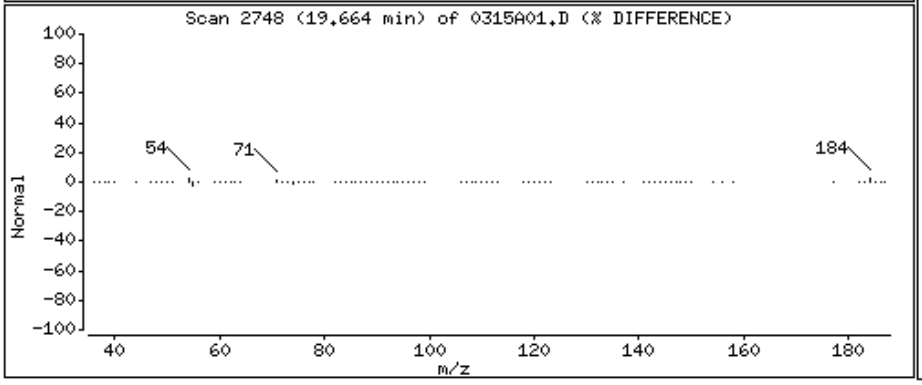












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

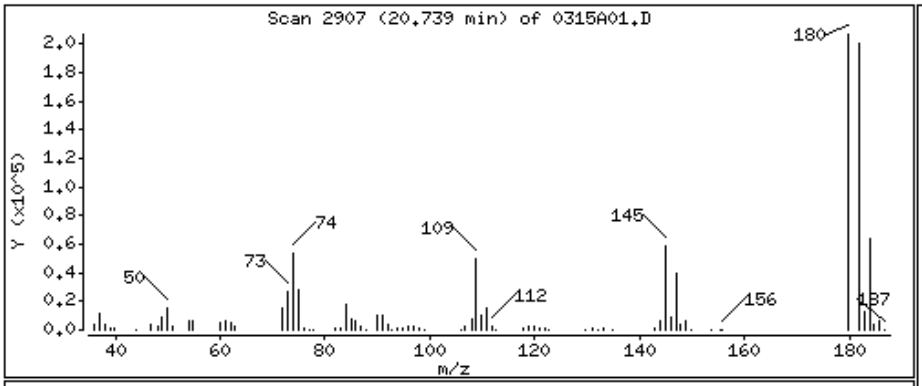
Operator: PD

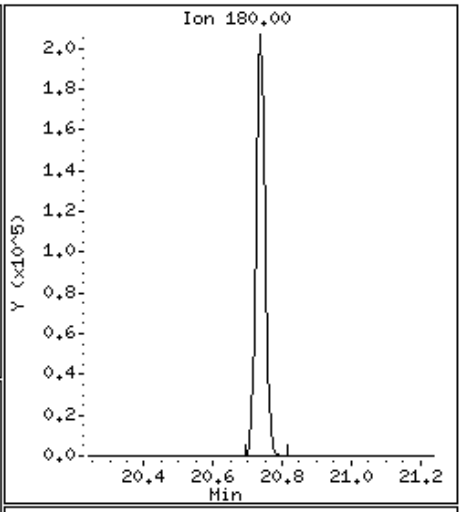
Column phase: Rtx-502.2

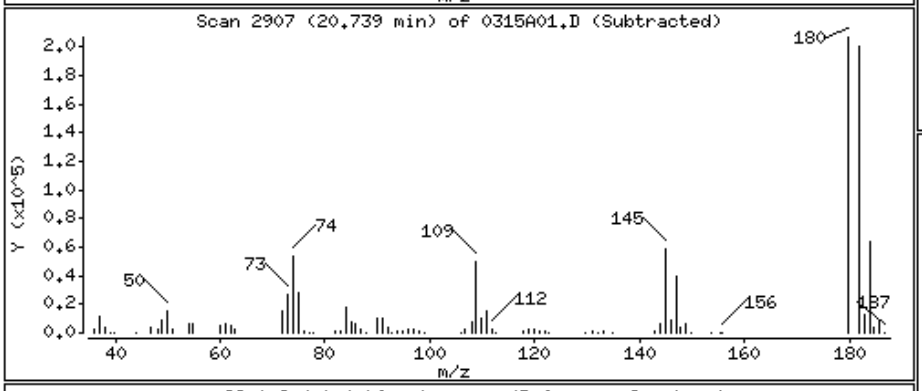
Column diameter: 0.18

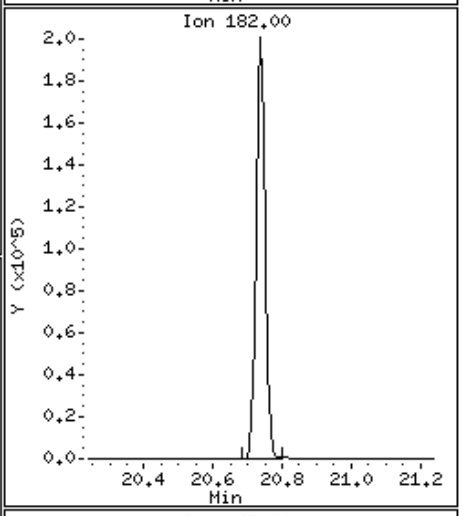
98 1,2,4-trichlorobenzene

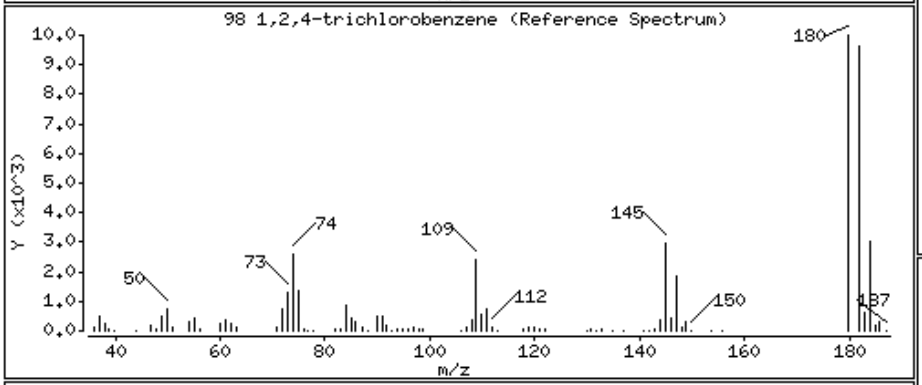
Concentration: 100.872 ngs

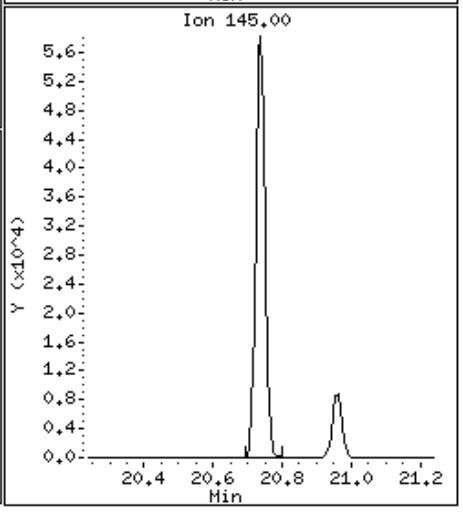


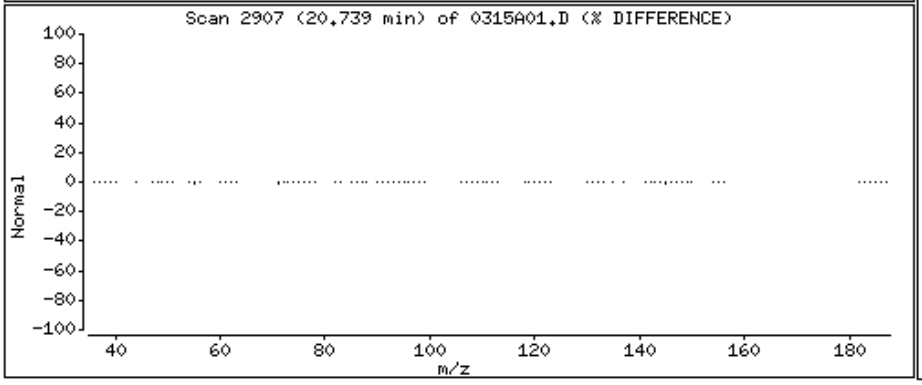












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

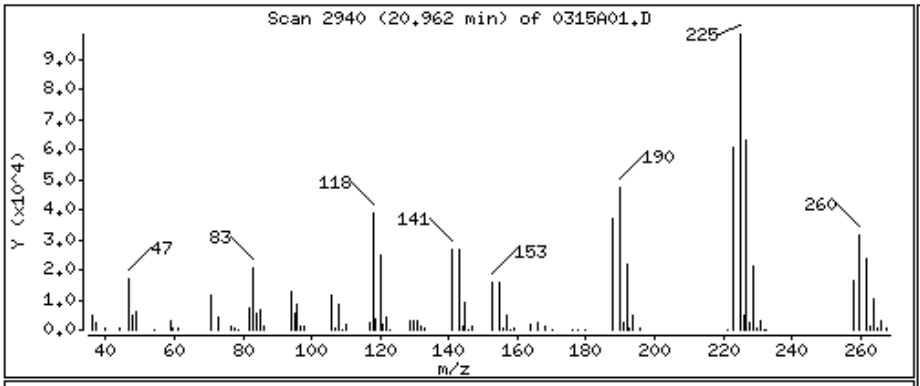
Operator: PD

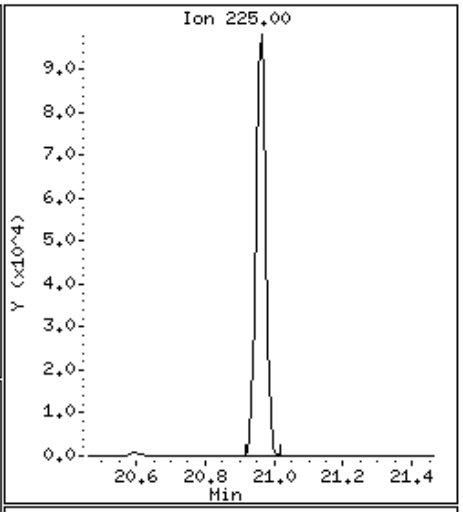
Column phase: Rtx-502.2

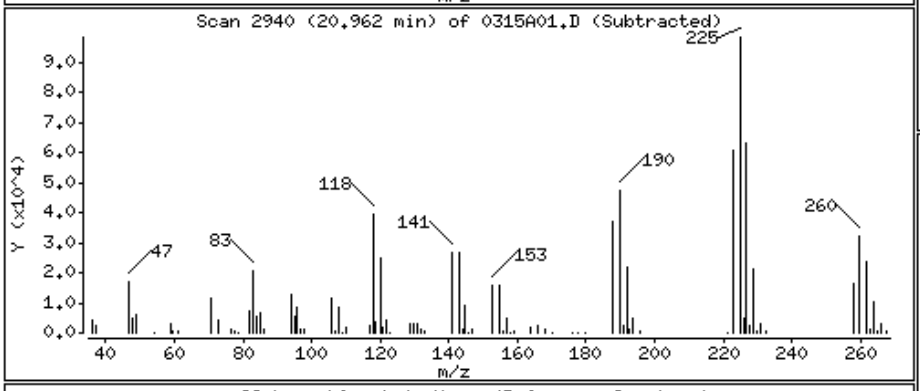
Column diameter: 0.18

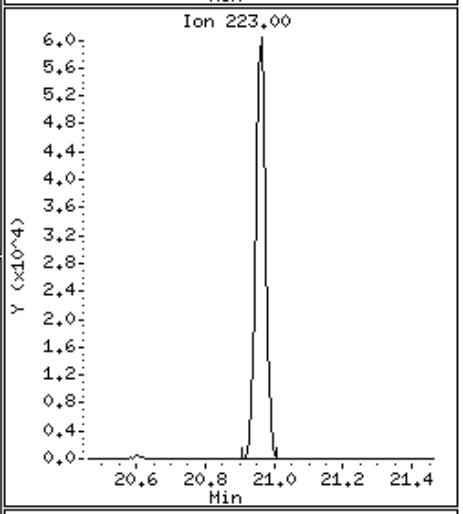
99 hexachlorobutadiene

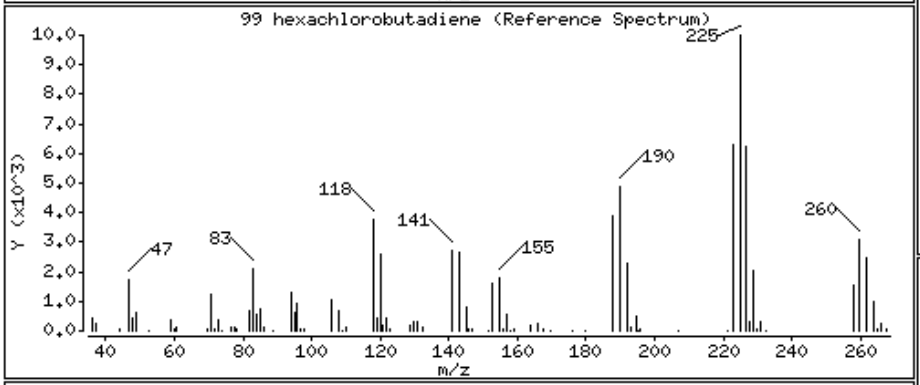
Concentration: 105.487 ngs

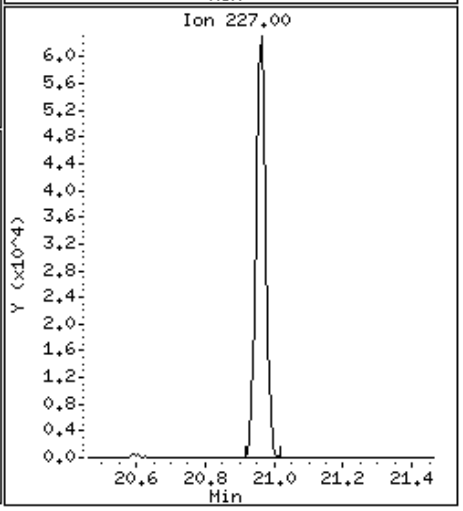


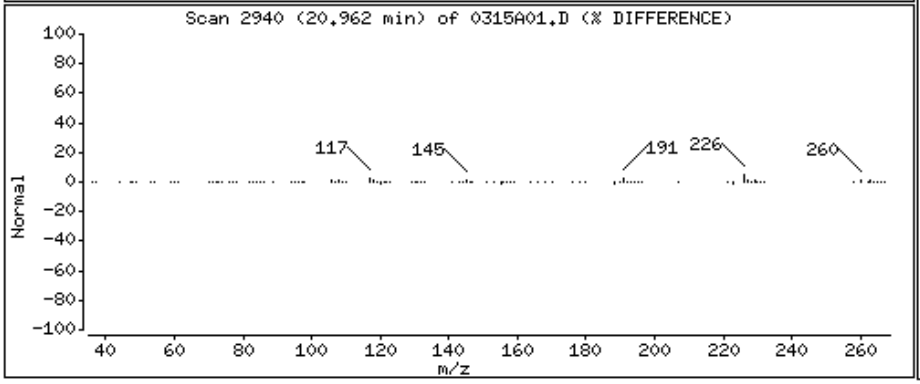












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

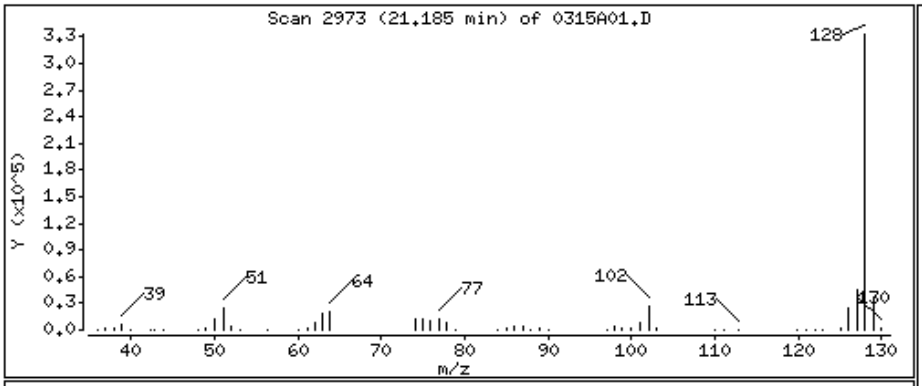
Operator: PD

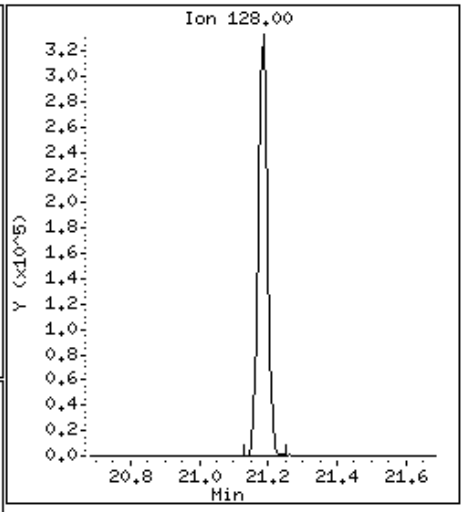
Column phase: Rtx-502.2

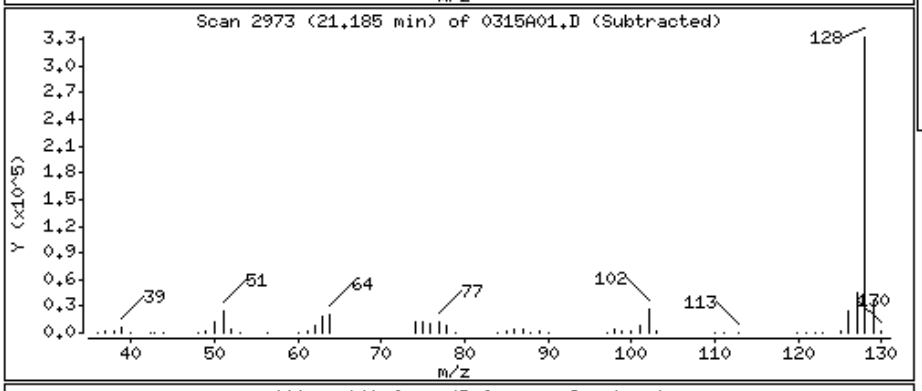
Column diameter: 0.18

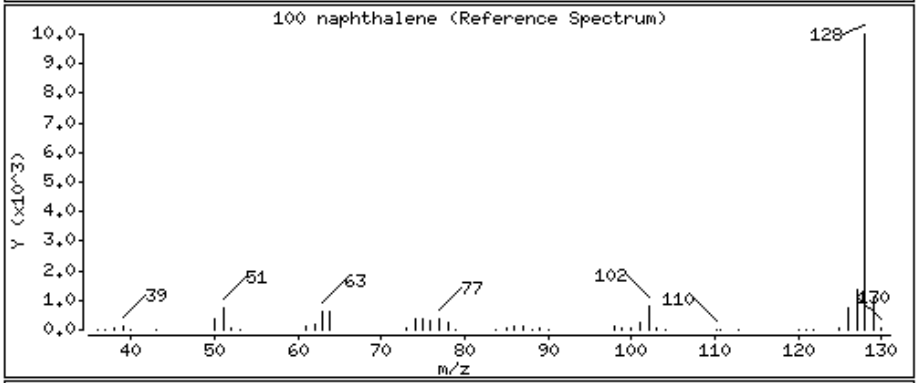
100 naphthalene

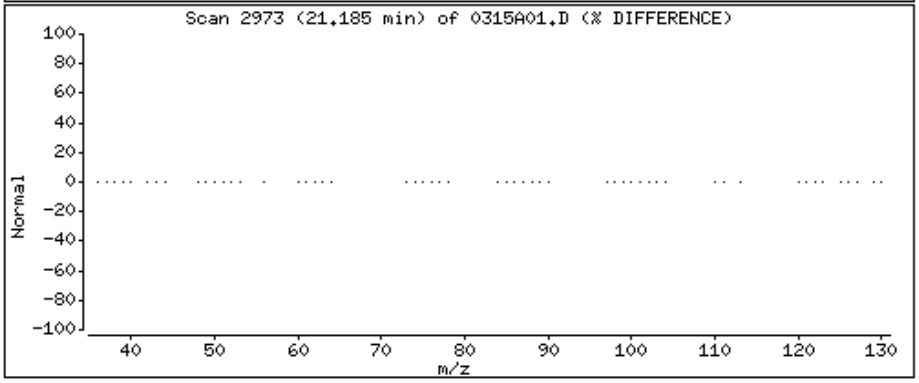
Concentration: 87.776 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A01.D

Date : 15-MAR-2016 08:28

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-1,31,10

Purge Volume: 10.0

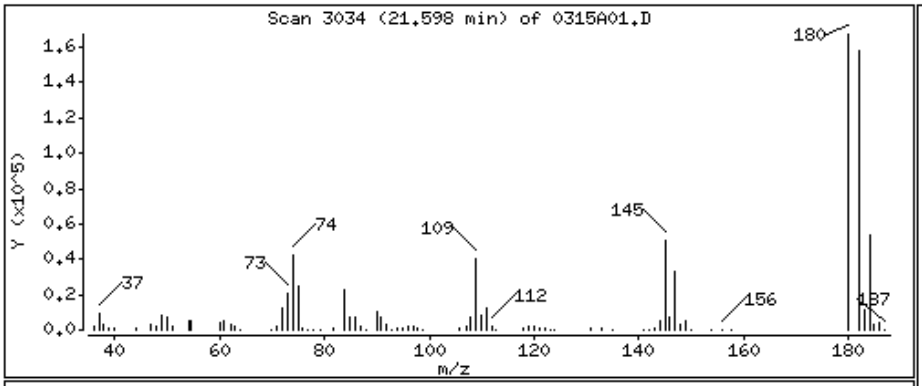
Operator: PD

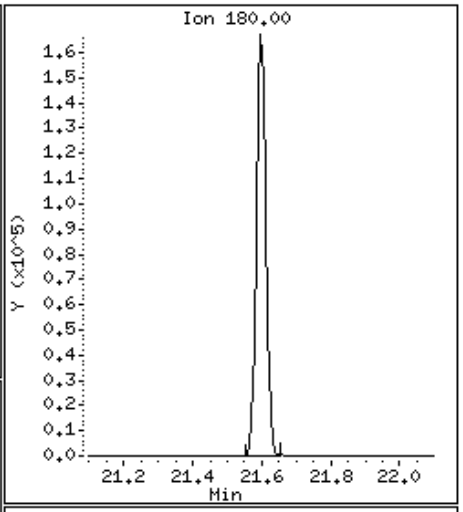
Column phase: Rtx-502.2

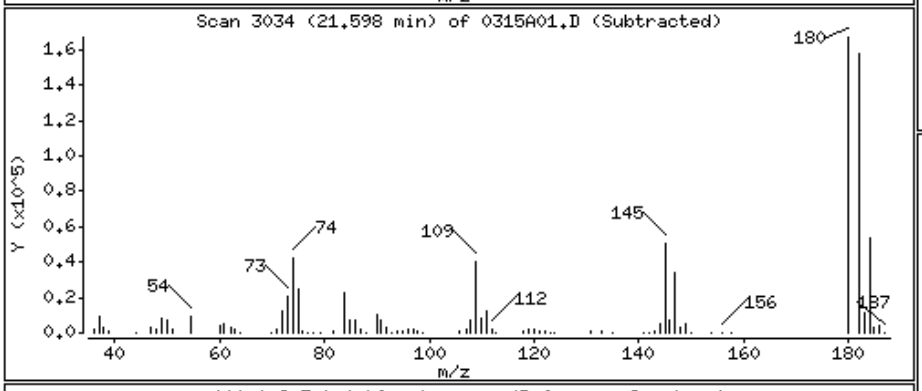
Column diameter: 0.18

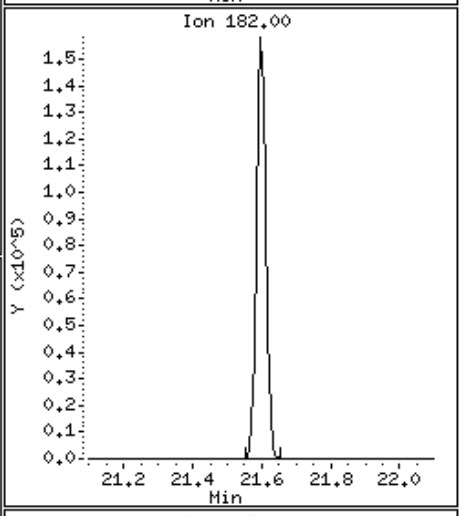
101 1,2,3-trichlorobenzene

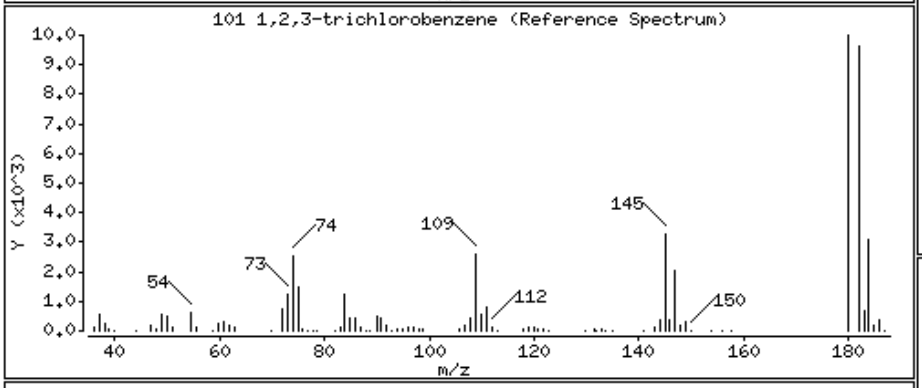
Concentration: 97.870 ngs

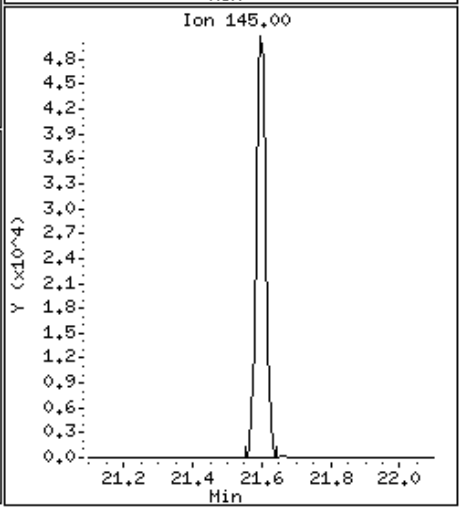


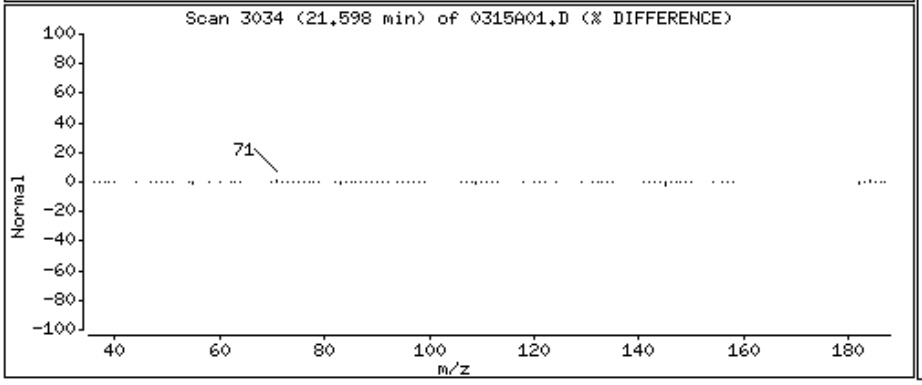












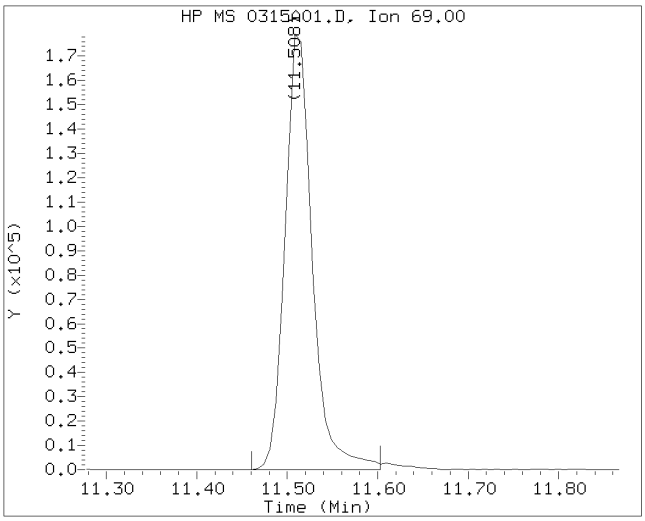
Alpha Analytical Labs

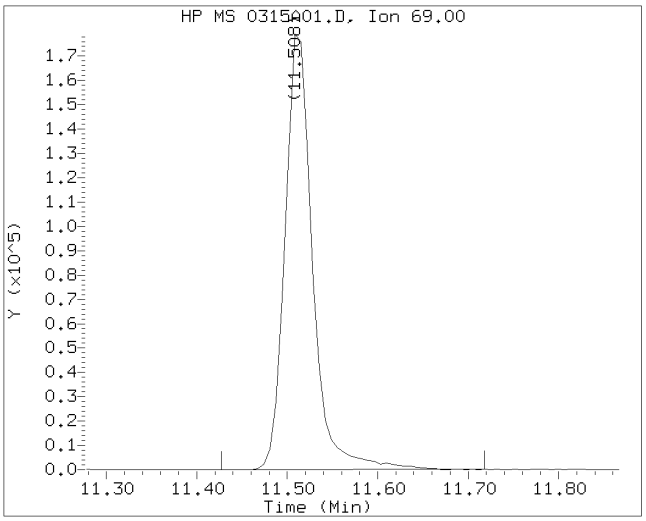
Manual Integration

Sample Info : wg873931-1,31,10
wg873931,ical12094

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0315A01.D
Injection Date : 15-MAR-2016 08:28
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 57: ethyl-methacrylate





Original Peak Response = 374393 Manual Peak Response = 378334 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Alpha Analytical Labs

gc/ms voa

Data file : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D
Lab Smp Id:
Inj Date : 15-MAR-2016 09:00
Operator : PD Inst ID: Gonzo.i
Smp Info : wg873931-2,31,10
Misc Info : wg873931,ical12094
Comment :
Method : \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Meth Date : 15-Mar-2016 08:59 Gonzo.i Quant Type: ISTD
Cal Date : 27-FEB-2016 19:10 Cal File: 0227A09.D
Als bottle: 2 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: curve.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76524

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	2.825	2.825	(0.313)	348263	87.0302	87.030	
2	chloromethane	50	3.183	3.176	(0.352)	287909	94.8725	94.872	
3	vinyl chloride	62	3.339	3.339	(0.370)	286738	104.553	104.552	
4	bromomethane	94	3.954	3.954	(0.438)	180175	73.6573	73.657	
5	chloroethane	64	4.062	4.055	(0.450)	205169	99.3398	99.339	
6	trichlorofluoromethane	101	4.400	4.394	(0.487)	437052	91.8996	91.899	
7	ethyl ether	74	4.772	4.772	(0.528)	165248	96.3088	96.308	
8	acrolien	56	4.955	4.948	(0.549)	32206	101.695	101.694(QM)	M2
9	Freon 113	101	4.955	4.948	(0.549)	271742	90.6361	90.636	
10	acetone	43	5.036	5.029	(0.558)	49039	79.8257	79.825	
11	1,1,-dichloroethene	96	5.198	5.192	(0.576)	307608	94.9396	94.939	
12	Tert-Butyl Alcohol	59	5.300	5.293	(0.587)	86912	414.090	414.089	
14	Methyl Acetate	43	5.604	5.597	(0.620)	154829	89.6011	89.601	
13	iodomethane	142	5.611	5.604	(0.621)	107115	47.1921	47.192(R)	
15	methylene chloride	84	5.814	5.807	(0.644)	365277	94.1318	94.131	
16	carbon disulfide	76	5.868	5.861	(0.650)	986902	86.3196	86.319	
17	acrylonitrile	53	5.963	5.956	(0.660)	86889	87.3506	87.350	
20	methyl tert butyl ether	73	5.990	5.983	(0.663)	748915	77.2977	77.297	
21	halothane	117	6.091	6.084	(0.674)	257173	96.9127	96.912	
22	trans-1,2-dichloroethene	96	6.186	6.179	(0.685)	334299	94.4682	94.468	
23	Diisopropyl Ether	45	6.537	6.530	(0.724)	1237206	95.9559	95.955	
26	vinyl acetate	43	6.686	6.686	(0.740)	547338	107.682	107.681	
24	1,1-dichloroethane	63	6.720	6.713	(0.744)	674050	95.1345	95.134	
25	Ethyl-Tert-Butyl-Ether	59	7.051	7.051	(0.781)	981020	80.8116	80.811	
27	2-butanone	43	7.234	7.227	(0.801)	96361	86.3063	86.306	
29	Ethyl Acetate	43	7.423	7.416	(0.822)	216089	87.2313	87.231	
28	2,2-dichloropropane	77	7.430	7.423	(0.823)	449742	97.1206	97.120	
30	cis-1,2-dichloroethene	96	7.491	7.491	(0.829)	383786	95.7156	95.715	

							CONCENTRATIONS		
		QUANT SIG					ON-COLUMN	FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ngs)	(ngs)	REVIEW CODE
	31 chloroform	83	7.694	7.687	(0.852)	638147	95.9175	95.917	
	32 bromochloromethane	128	7.917	7.910	(0.876)	161951	103.987	103.987	
	33 tetrahydrofuran	42	7.951	7.951	(0.880)	63690	84.6383	84.638	
$	34 dibromofluoromethane	113	7.978	7.971	(0.883)	353870	98.2761	98.276	
	35 1,1,1-trichloroethane	97	8.214	8.208	(0.909)	510712	101.192	101.191	
	36 Cyclohexane	56	8.241	8.241	(0.912)	609999	94.4508	94.450	
	37 1,1-dichloropropene	75	8.411	8.410	(0.931)	466969	94.3251	94.325	
	39 Tertiary-Amyl Methyl Ether	73	8.526	8.519	(0.944)	777894	76.8063	76.806	
	38 carbontetrachloride	117	8.553	8.552	(0.947)	400460	93.0058	93.005	
$	40 1,2-dichloroethane-d4	65	8.620	8.613	(0.954)	378146	99.9249	99.924	
	41 1,2-dichloroethane	62	8.742	8.735	(0.968)	441817	93.6718	93.671	
	42 benzene	78	8.776	8.769	(0.972)	1543767	95.5683	95.568	
*	43 fluorobenzene	96	9.033	9.033	(1.000)	1613937	100.000		
	44 trichloroethene	95	9.574	9.574	(1.060)	360236	93.2004	93.200	
	46 methyl cyclohexane	83	9.662	9.662	(1.070)	562021	90.7754	90.775	
	47 1,2-dichloropropane	63	9.810	9.804	(1.086)	382362	94.6602	94.660	
	48 bromodichloromethane	83	10.142	10.135	(1.123)	465247	102.400	102.400	
	49 1,4-dioxane	88	10.142	10.142	(1.123)	123060	4332.88	4332.876(R)	
	176 methy;-methylacrlate	69	Compound Not Detected.						
	50 dibromomethane	93	10.230	10.223	(1.133)	171177	89.8093	89.809	
	51 2-chloroethylvinylether	63	10.500	10.500	(1.162)	86622	66.4915	66.491(R)	
	52 4-methyl-2-pentanone	58	10.541	10.541	(1.167)	89501	84.9994	84.999(Q)	
	53 cis-1,3-dichloropropene	75	10.872	10.865	(1.204)	517274	99.6428	99.642	
$	55 toluene-d8	98	11.231	11.230	(0.833)	1538365	97.0863	97.086	
	56 toluene	92	11.345	11.345	(0.841)	988798	96.4588	96.458	
	57 ethyl-methacrylate	69	11.515	11.508	(0.854)	340086	90.0028	90.002	
	58 trans-1,3-dichloropropene	75	11.575	11.575	(0.858)	397308	100.277	100.277	
	60 2-hexanone	43	11.785	11.778	(0.874)	145919	88.9357	88.935	
	59 1,1,2-trichloroethane	83	11.819	11.819	(0.876)	224623	89.6018	89.601	
	61 1,3-dichloropropane	76	12.191	12.184	(0.904)	462695	89.8423	89.842	
	62 tetrachloroethene	166	12.313	12.306	(0.913)	366794	95.1128	95.112	
	63 chlorodibromomethane	129	12.624	12.617	(0.936)	301867	91.9924	91.992	
	64 1,2-dibromoethane	107	12.928	12.928	(0.958)	239248	88.8665	88.866	
*	65 chlorobenzene-d5	117	13.489	13.489	(1.000)	1102186	100.000		
	66 chlorobenzene	112	13.550	13.550	(1.004)	990561	91.2718	91.271	
	67 1,1,1,2-tetrachloroethane	131	13.604	13.597	(1.009)	322932	98.8719	98.871	
	68 ethyl benzene	91	13.611	13.604	(1.009)	1741939	95.1972	95.197	
	69 p/m xylene	106	13.726	13.719	(1.018)	1329296	189.103	189.102	
	70 o xylene	106	14.409	14.409	(1.068)	1300119	187.312	187.312	
	71 styrene	104	14.463	14.463	(1.072)	2044564	195.797	195.796	
	72 isopropylbenzene	105	14.963	14.957	(1.109)	1630222	93.7728	93.772	
	73 bromoform	173	15.031	15.031	(0.869)	156109	98.8403	98.840	
	74 1,4-dichloro-2-butane	55	15.105	15.105	(0.873)	432300	86.6724	86.672	
	75 1,1,2,2,-tetrachloroethane	83	15.241	15.234	(0.881)	288332	85.0224	85.022	
$	76 4-bromofluorobenzene	95	15.376	15.376	(0.889)	514603	97.8746	97.874	
	77 1,2,3-trichloropropane	75	15.477	15.477	(0.894)	212830	83.7507	83.750	
	78 trans-1,4-dichloro-2-butene	53	15.572	15.565	(0.900)	71667	96.2537	96.253	
	79 n-propylbenzene	91	15.606	15.599	(0.902)	1843460	94.5849	94.584	
	80 bromobenzene	156	15.714	15.707	(0.908)	373688	89.3896	89.389	
	81 4-ethyltoluene	105	15.788	15.782	(0.912)	1598473	93.1864	93.186	
	82 1,3,5-trimethybenzene	105	15.856	15.849	(0.916)	1306782	91.1247	91.124	
	83 2-chlorotoluene	91	15.910	15.910	(0.919)	1107103	90.8553	90.855	
	84 4-chorotoluene	91	15.985	15.978	(0.924)	1105174	89.8662	89.866	
	85 tert-butylbenzene	119	16.431	16.431	(0.950)	1082985	90.4432	90.443	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
86	1,2,4-trimethylbenzene	105	16.499	16.498	(0.953)	1297299	91.7919	91.791	
87	sec-butylbenzene	105	16.783	16.776	(0.970)	1603643	94.3246	94.324	
88	p-isopropyltoluene	119	16.999	16.992	(0.982)	1321900	91.8721	91.872	
89	1,3-dichlorobenzene	146	17.188	17.181	(0.993)	684908	89.7370	89.737	
* 90	1,4-dichlorobenzene-d4	152	17.303	17.303	(1.000)	517174	100.000		
91	1,4-dichlorobenzene	146	17.357	17.357	(1.003)	669357	88.3706	88.370	
92	n-butylbenzene	91	17.675	17.668	(1.021)	1404562	95.1419	95.141	
93	1,2,4,5-tetramathylbenzene	119	17.689	17.689	(1.022)	763093	93.9908	93.990	
94	1,2-dichlorobenzene	146	17.973	17.973	(1.039)	635159	89.6004	89.600	
95	p-Diethylbenzene	119	18.967	18.960	(1.096)	1117504	85.6466	85.646	
96	1,2-dibromo-3-chloropropane	75	19.271	19.264	(1.114)	36967	96.2073	96.207	
97	1,3,5-trichlorobenzene	180	19.663	19.663	(1.136)	463405	89.3061	89.306	
98	1,2,4-trichlorobenzene	180	20.739	20.738	(1.199)	356559	90.8826	90.882	
99	hexachlorobutadiene	225	20.962	20.962	(1.211)	177644	91.3753	91.375	
100	naphthalene	128	21.185	21.185	(1.224)	608101	81.9089	81.908	
101	1,2,3-trichlorobenzene	180	21.597	21.597	(1.248)	299742	87.8415	87.841	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Gonzo.i
Lab File ID: 0315A02.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: PD
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

Calibration Date: 15-MAR-2016
Calibration Time: 08:28
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	1599434	799717	3198868	1613937	0.91
65 chlorobenzene-d5	1088580	544290	2177160	1102186	1.25
90 1,4-dichlorobenze	495711	247856	991422	517174	4.33

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
43 fluorobenzene	9.03	8.53	9.53	9.03	0.00
65 chlorobenzene-d5	13.49	12.99	13.99	13.49	0.00
90 1,4-dichlorobenze	17.30	16.80	17.80	17.30	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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: LCSD
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: curve.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

	SPIKE	COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
	1	dichlorodifluorome	100.000	87.030	87.03	36-147
	2	chloromethane	100.000	94.872	94.87	64-130
	3	vinyl chloride	100.000	104.552	104.55	55-140
	4	bromomethane	100.000	73.657	73.66	39-139
	5	chloroethane	100.000	99.339	99.34	55-138
	6	trichlorofluoromet	100.000	91.899	91.90	62-150
	7	ethyl ether	100.000	96.308	96.31	59-134
	8	acrolien	100.000	101.694	101.69	70-130
	10	acetone	100.000	79.825	79.83	58-148
	11	1,1,-dichloroethen	100.000	94.939	94.94	61-145
	12	Tert-Butyl Alcohol	500.000	414.089	82.82	70-130
	14	Methyl Acetate	100.000	89.601	89.60	40-160
	13	iodomethane	100.000	47.192	47.19*	70-130
	15	methylene chloride	100.000	94.131	94.13	70-130
	16	carbon disulfide	100.000	86.319	86.32	51-130
	17	acrylonitrile	100.000	87.350	87.35	70-130
	20	methyl tert butyl	100.000	77.297	77.30	63-130
	22	trans-1,2-dichloro	100.000	94.468	94.47	70-130
	23	Diisopropyl Ether	100.000	95.955	95.96	70-130
	26	vinyl acetate	100.000	107.681	107.68	70-130
	24	1,1-dichloroethane	100.000	95.134	95.13	70-130
	25	Ethyl-Tert-Butyl-E	100.000	80.811	80.81	70-130
	27	2-butanone	100.000	86.306	86.31	63-138
	29	Ethyl Acetate	100.000	87.231	87.23	70-130
	28	2,2-dichloropropan	100.000	97.120	97.12	63-133
	30	cis-1,2-dichloroet	100.000	95.715	95.72	70-130
	31	chloroform	100.000	95.917	95.92	70-130
	32	bromochloromethane	100.000	103.987	103.99	70-130
	33	tetrahydrofuran	100.000	84.638	84.64	58-130
$	34	dibromofluorometha	100.000	98.276	98.28	70-130
	35	1,1,1-trichloroeth	100.000	101.191	101.19	67-130
	36	Cyclohexane	100.000	94.450	94.45	40-160
	37	1,1-dichloropropen	100.000	94.325	94.33	70-130
	39	Tertiary-Amyl Meth	100.000	76.806	76.81	66-130
	38	carbontetrachlorid	100.000	93.005	93.01	63-132
$	40	1,2-dichloroethane	100.000	99.924	99.92	70-130
	41	1,2-dichloroethane	100.000	93.671	93.67	70-130
	42	benzene	100.000	95.568	95.57	70-130
	44	trichloroethene	100.000	93.200	93.20	70-130
	46	methyl cyclohexane	100.000	90.775	90.78	40-160

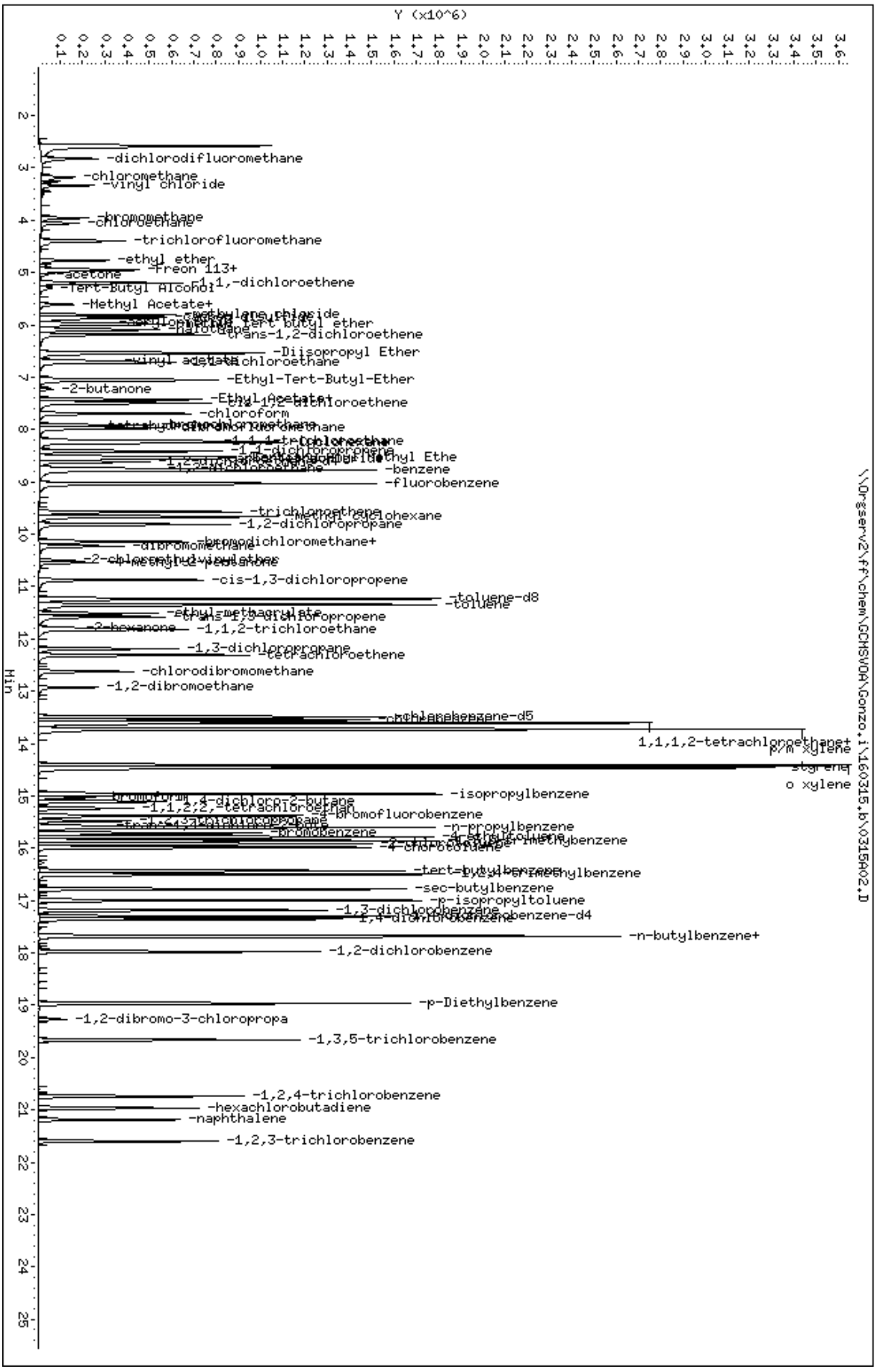
SPIKE		COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
	176	methy;-methylacrl	100.000	0.000	*	70-130
	47	1,2-dichloropropan	100.000	94.660	94.66	70-130
	48	bromodichlorometha	100.000	102.400	102.40	67-130
	49	1,4-dioxane	10000.000	4332.876	43.33*	56-162
	50	dibromomethane	100.000	89.809	89.81	70-130
	51	2-chloroethylvinyl	100.000	66.491	66.49*	70-130
	52	4-methyl-2-pentano	100.000	84.999	85.00	59-130
	53	cis-1,3-dichloropr	100.000	99.642	99.64	70-130
$	55	toluene-d8	100.000	97.086	97.09	70-130
	56	toluene	100.000	96.458	96.46	70-130
	57	ethyl-methacrylate	100.000	90.002	90.00	40-160
	58	trans-1,3-dichloro	100.000	100.277	100.28	70-130
	60	2-hexanone	100.000	88.935	88.94	57-130
	59	1,1,2-trichloroeth	100.000	89.601	89.60	70-130
	61	1,3-dichloropropan	100.000	89.842	89.84	70-130
	62	tetrachloroethene	100.000	95.112	95.11	70-130
	63	chlorodibromometha	100.000	91.992	91.99	63-130
	64	1,2-dibromoethane	100.000	88.866	88.87	70-130
	66	chlorobenzene	100.000	91.271	91.27	75-130
	67	1,1,1,2-tetrachlor	100.000	98.871	98.87	64-130
	68	ethyl benzene	100.000	95.197	95.20	70-130
	69	p/m xylene	200.000	189.102	94.55	70-130
	70	o xylene	200.000	187.312	93.66	70-130
	71	styrene	200.000	195.796	97.90	70-130
	72	isopropylbenzene	100.000	93.772	93.77	70-130
	73	bromoform	100.000	98.840	98.84	54-136
	74	1,4-dichloro-2-but	100.000	86.672	86.67	40-160
	75	1,1,2,2,-tetrachlo	100.000	85.022	85.02	67-130
$	76	4-bromofluorobenze	100.000	97.874	97.87	70-130
	77	1,2,3-trichloropro	100.000	83.750	83.75	64-130
	78	trans-1,4-dichloro	100.000	96.253	96.25	70-130
	79	n-propylbenzene	100.000	94.584	94.58	69-130
	175	cyclohexanone	100.000	0.000	*	70-130
	80	bromobenzene	100.000	89.389	89.39	70-130
	81	4-ethyltoluene	100.000	93.186	93.19	40-160
	82	1,3,5-trimethybenz	100.000	91.124	91.12	64-130
	83	2-chlorotoluene	100.000	90.855	90.86	70-130
	84	4-chorotoluene	100.000	89.866	89.87	70-130
	85	tert-butylbenzene	100.000	90.443	90.44	70-130
	86	1,2,4-trimethylben	100.000	91.791	91.79	70-130
	87	sec-butylbenzene	100.000	94.324	94.32	70-130
	88	p-isopropyltoluene	100.000	91.872	91.87	70-130
	89	1,3-dichlorobenzen	100.000	89.737	89.74	70-130
	91	1,4-dichlorobenzen	100.000	88.370	88.37	70-130
	92	n-butylbenzene	100.000	95.141	95.14	53-136
	94	1,2-dichlorobenzen	100.000	89.600	89.60	70-130
	95	p-Diethylbenzene	100.000	85.646	85.65	40-160
	96	1,2-dibromo-3-chlo	100.000	96.207	96.21	41-144
	97	1,3,5-trichloroben	100.000	89.306	89.31	40-160
	98	1,2,4-trichloroben	100.000	90.882	90.88	70-130
	99	hexachlorobutadien	100.000	91.375	91.38	63-130
	100	naphthalene	100.000	81.908	81.91	70-130
	101	1,2,3-trichloroben	100.000	87.841	87.84	70-130

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa00267
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id:
Level: LOW Operator: PD
Data Type: MS DATA SampleType: LCSD
SpikeList File: curveall.spk Quant Type: ISTD
Sublist File: curve.sub
Method File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\v10ml8260.m
Misc Info: wg873931,ical12094

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 34 dibromofluorometha	100.000	98.276	98.28	70-130
$ 40 1,2-dichloroethane	100.000	99.924	99.92	70-130
$ 55 toluene-d8	100.000	97.086	97.09	70-130
$ 76 4-bromofluorobenze	100.000	97.874	97.87	70-130



Data File: \\Orgserv2\ff\chem\GCMSWOA\Gonzo.i\160315.b\0315A02.D
Date : 15-MAR-2016 09:00
Client ID:
Sample Info: ug873931-2,31,10
Purge Volume: 10.0
Column phase: Rtx-502.2

Instrument: Gonzo.i
Operator: PD
Column diameter: 0.18

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Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

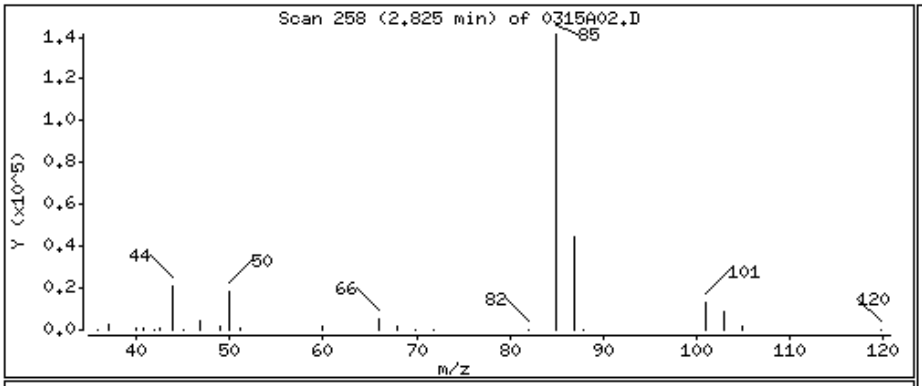
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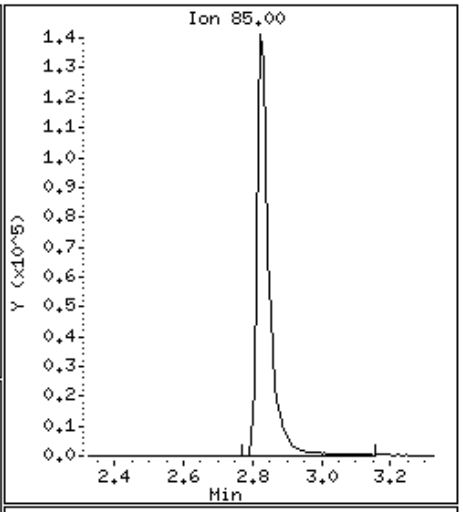
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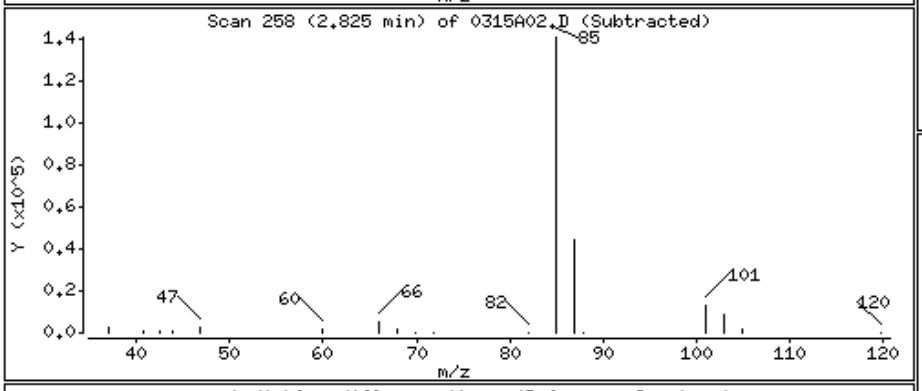
Column diameter: 0.18

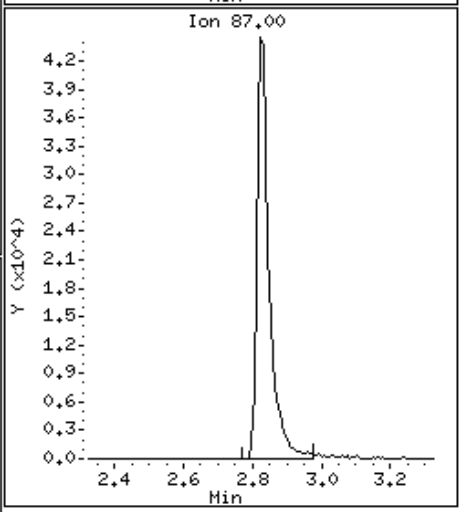
1 dichlorodifluoromethane

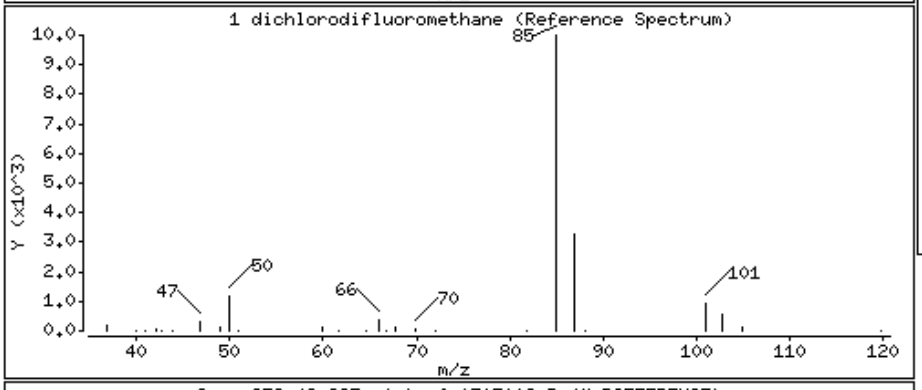
Concentration: 87.030 ngs

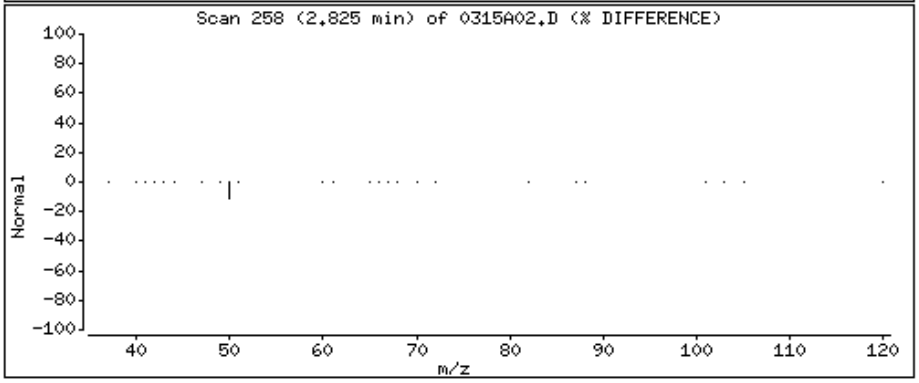












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

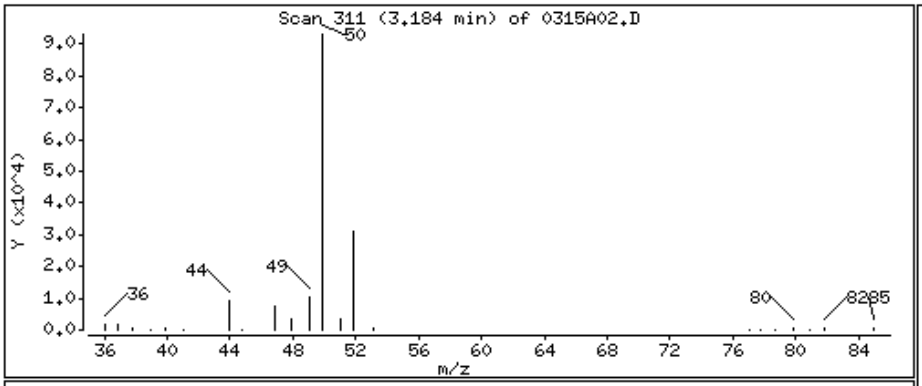
Operator: PD

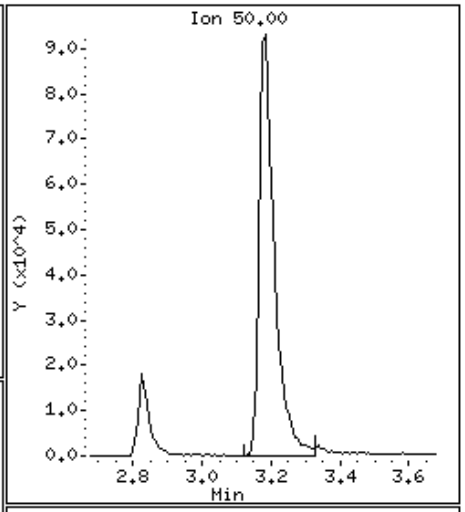
Column phase: Rtx-502.2

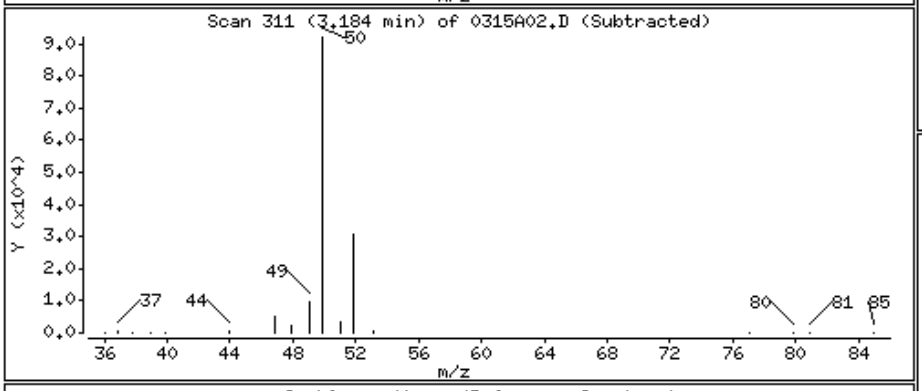
Column diameter: 0.18

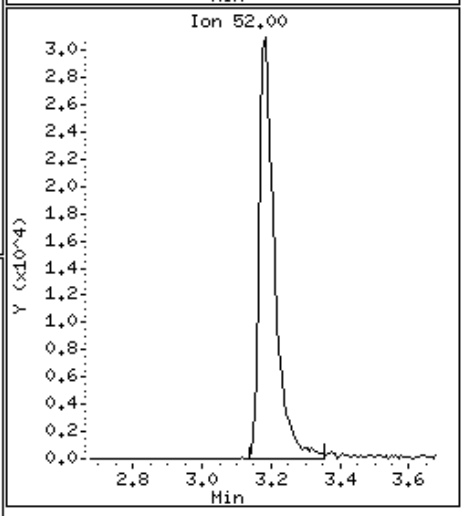
2 chloromethane

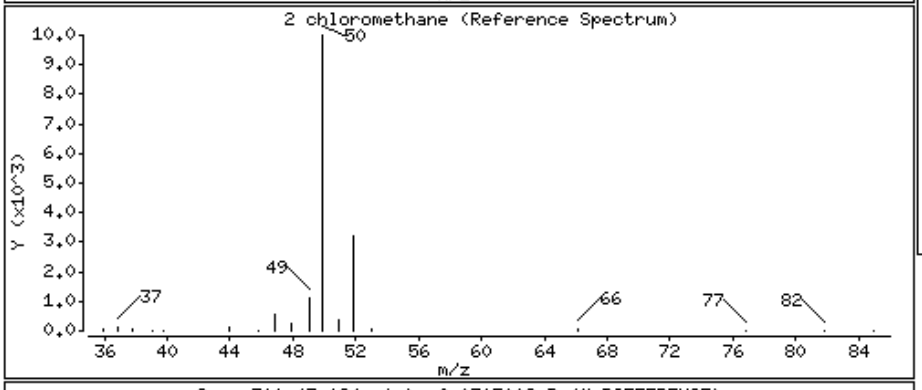
Concentration: 94.872 ngs

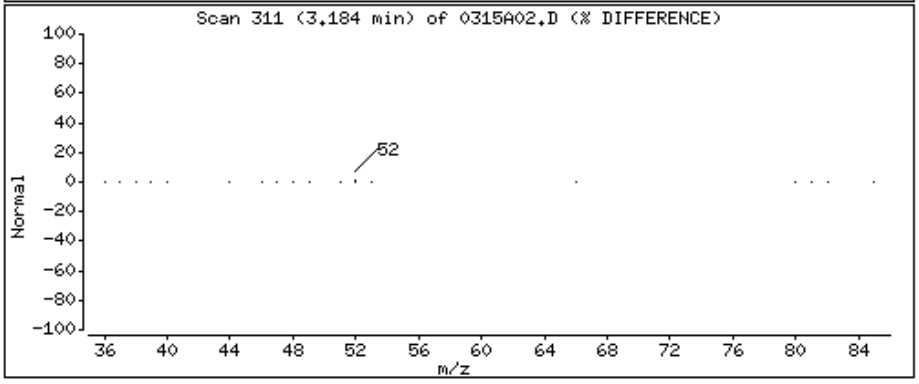












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

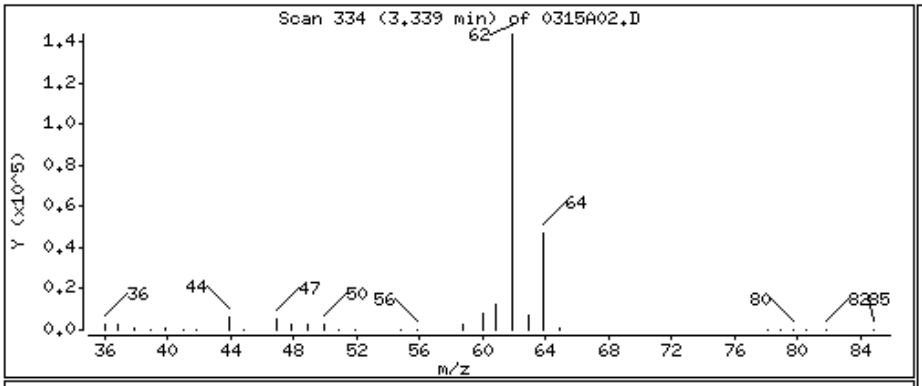
Operator: PD

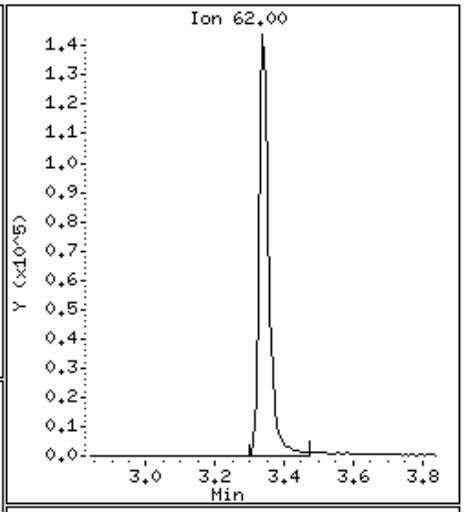
Column phase: Rtx-502.2

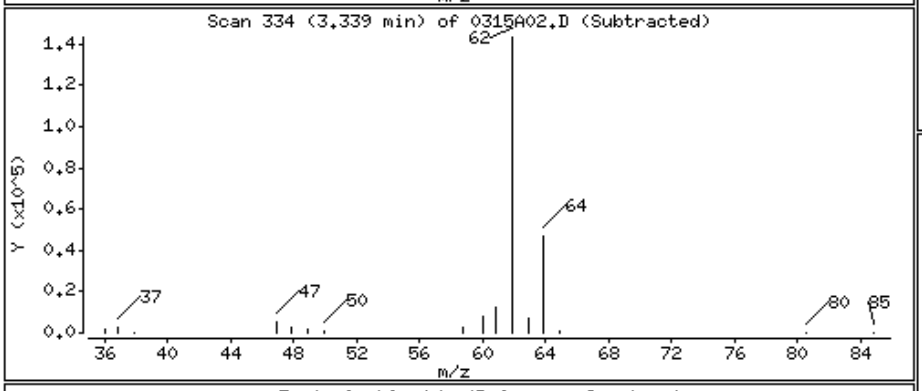
Column diameter: 0.18

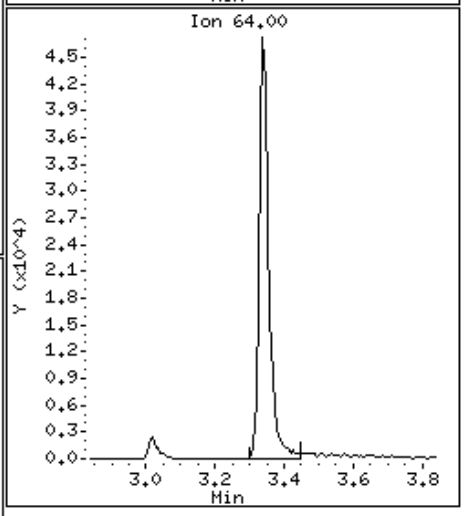
3 vinyl chloride

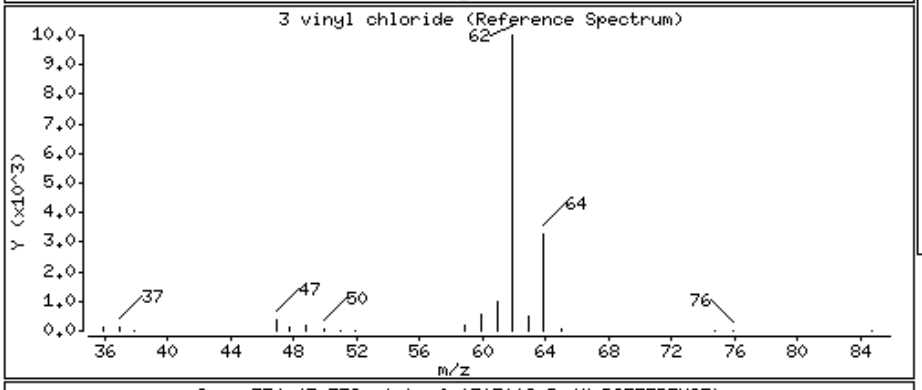
Concentration: 104.552 ngs

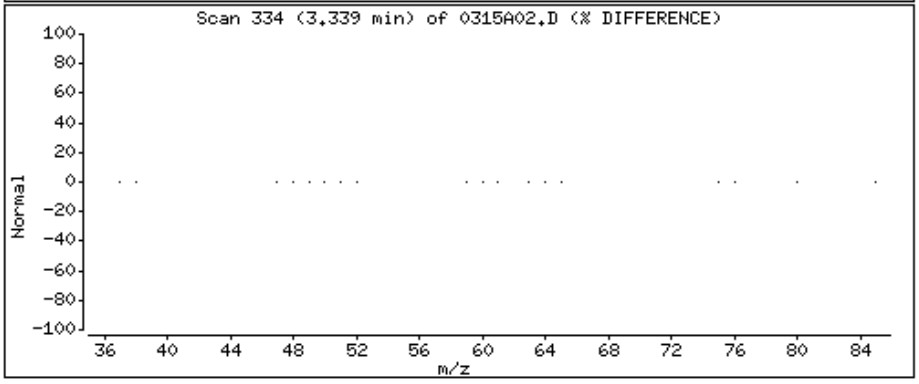












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

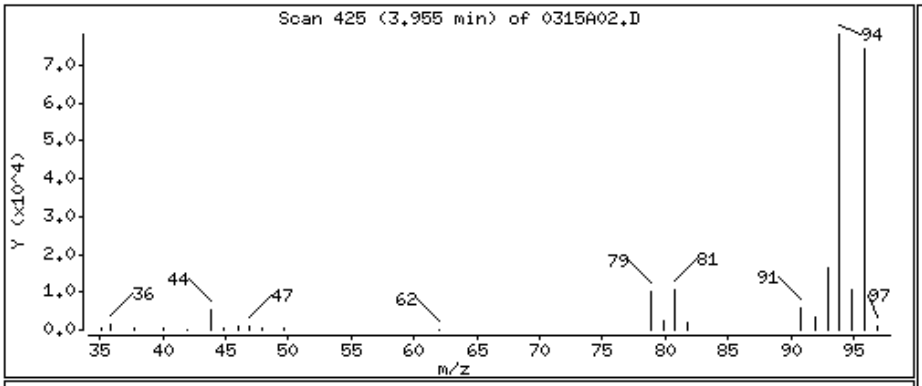
Operator: PD

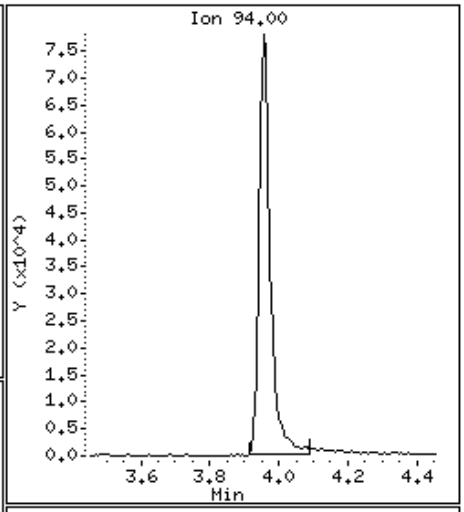
Column phase: Rtx-502.2

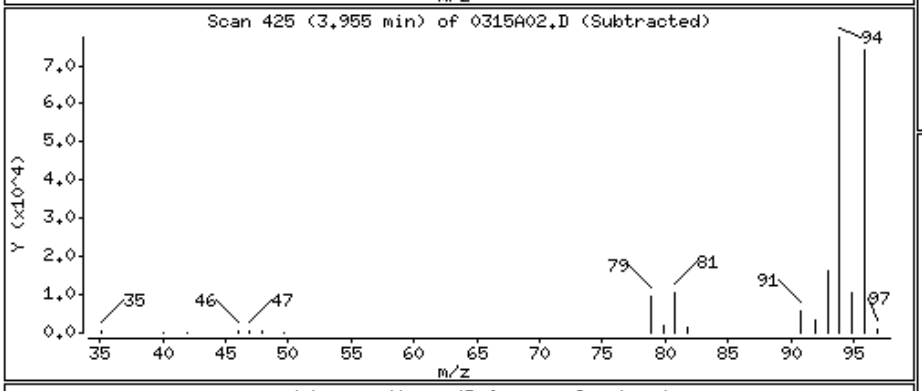
Column diameter: 0.18

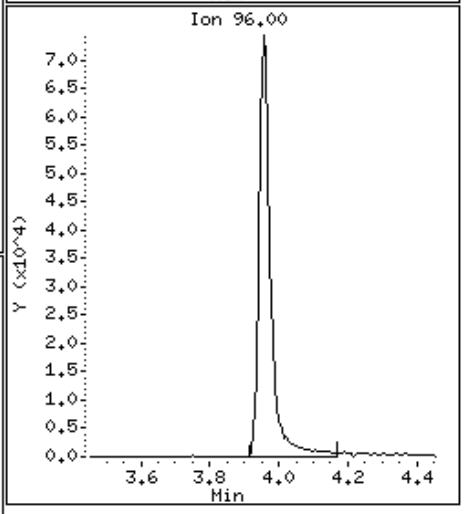
4 bromomethane

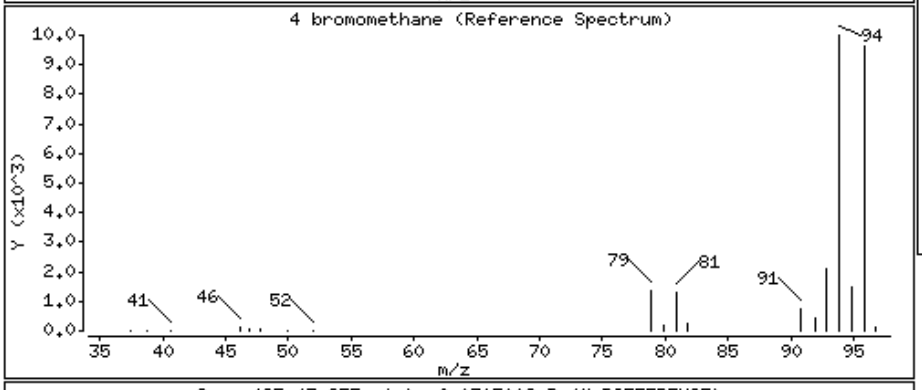
Concentration: 73.657 ngs

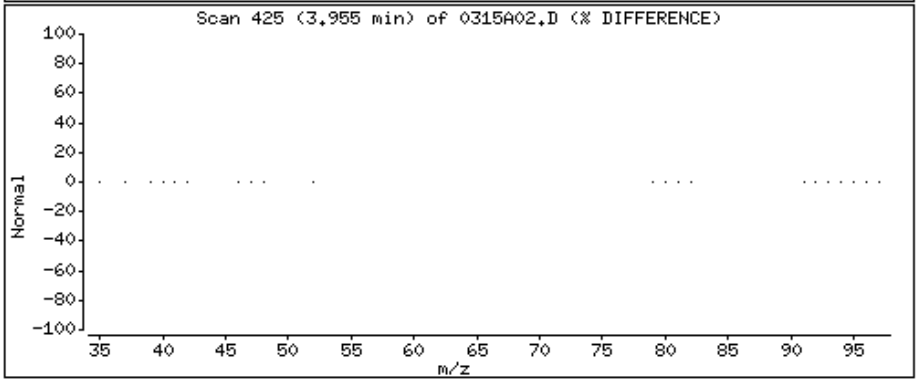












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

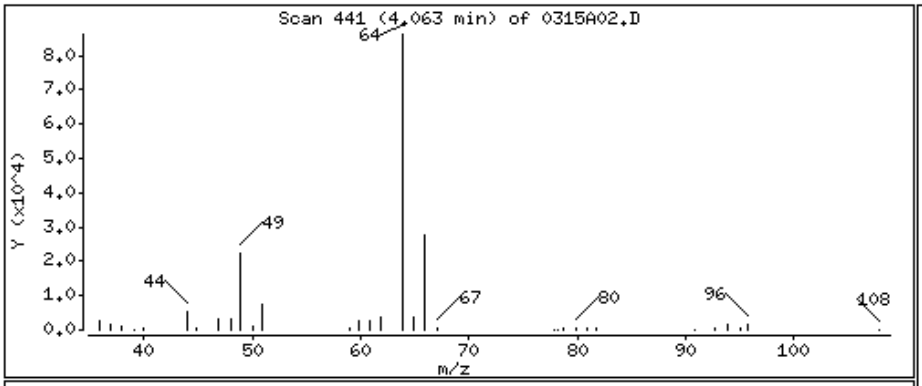
Operator: PD

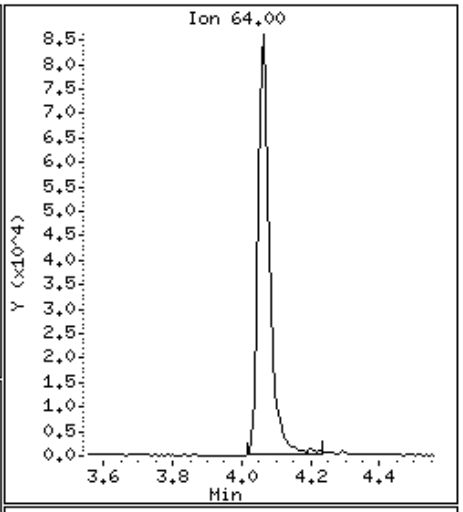
Column phase: Rtx-502.2

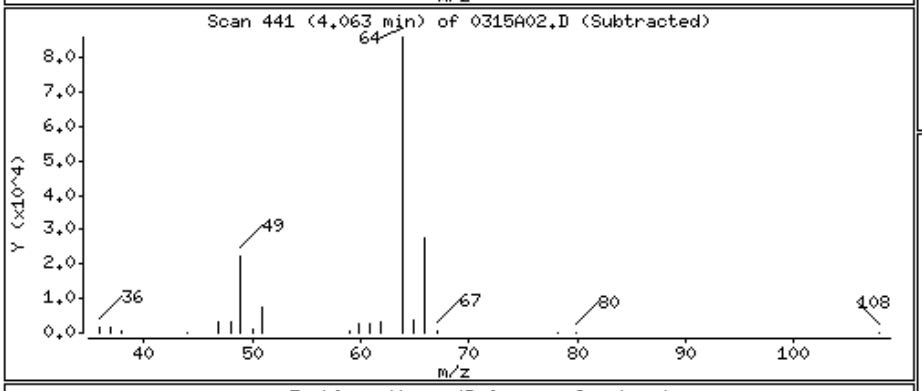
Column diameter: 0.18

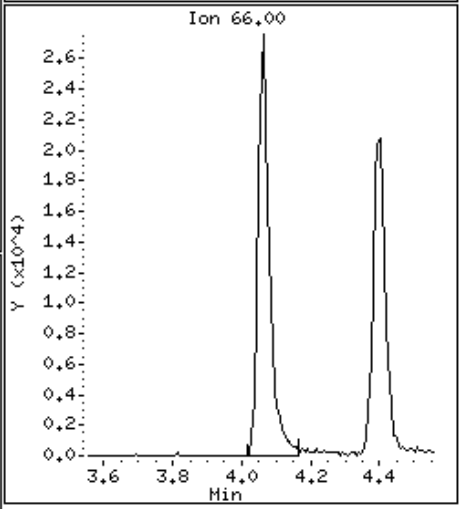
5 chloroethane

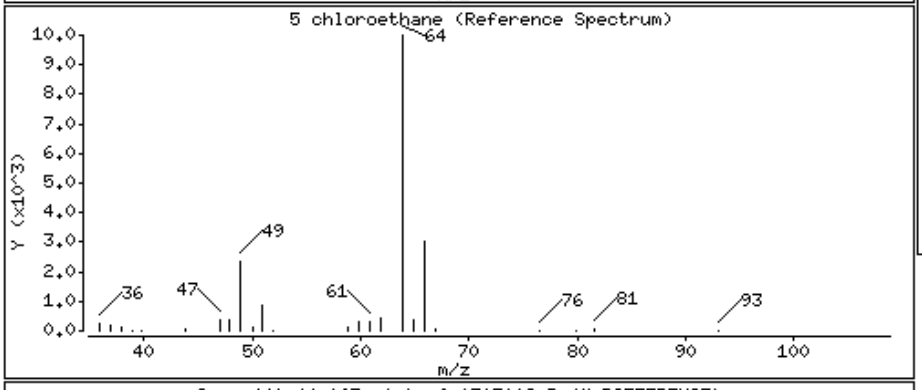
Concentration: 99.339 ngs

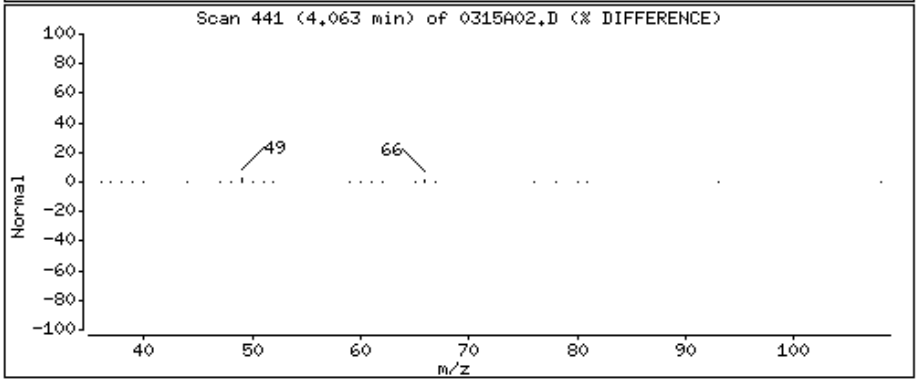












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

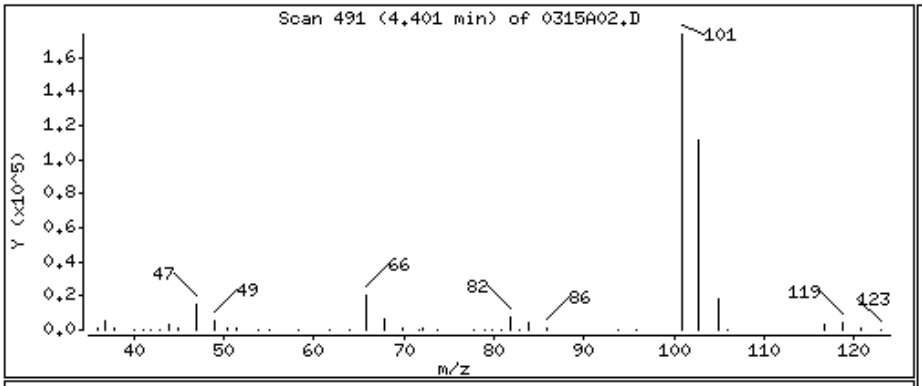
Operator: PD

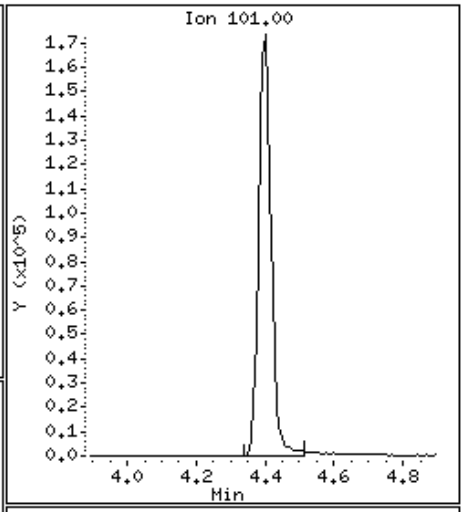
Column phase: Rtx-502.2

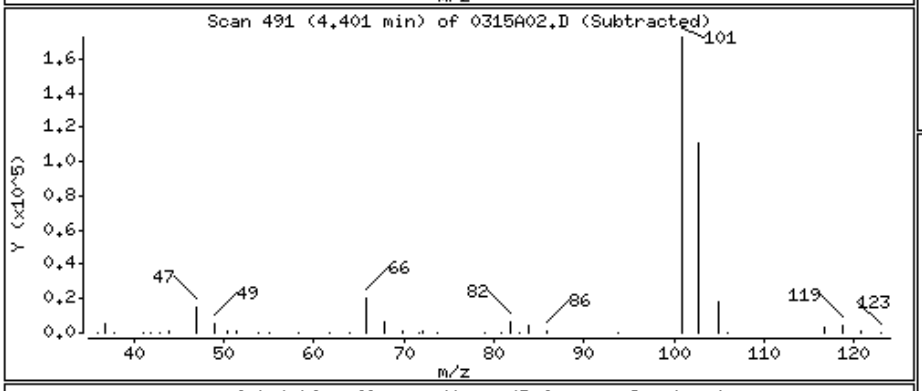
Column diameter: 0.18

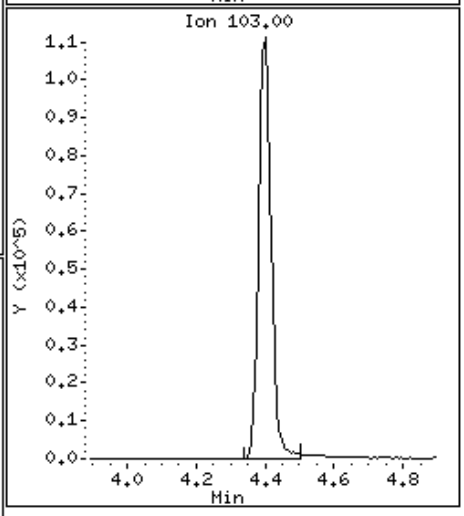
6 trichlorofluoromethane

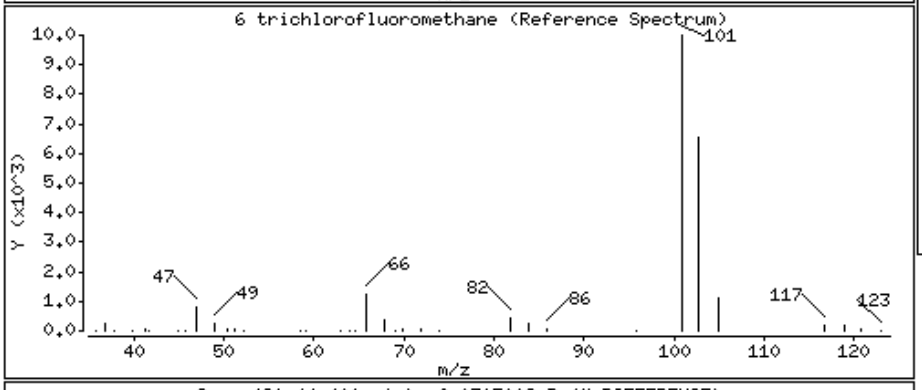
Concentration: 91.899 ngs

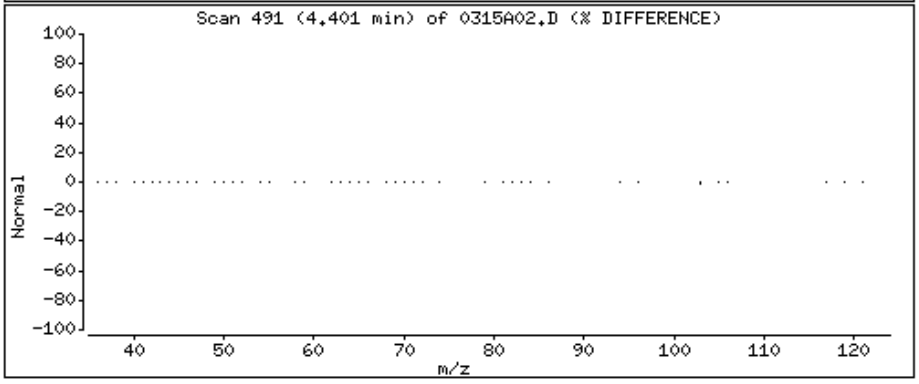












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

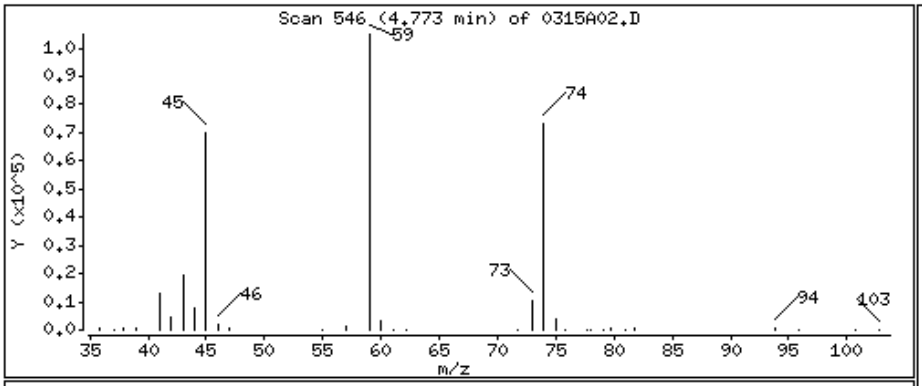
Operator: PD

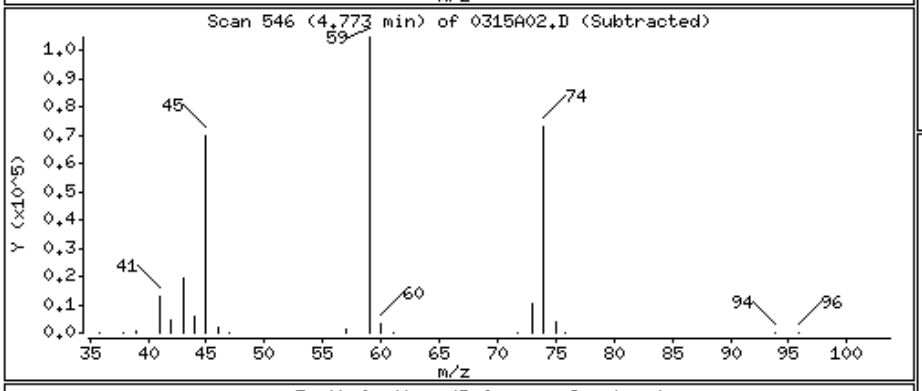
Column phase: Rtx-502.2

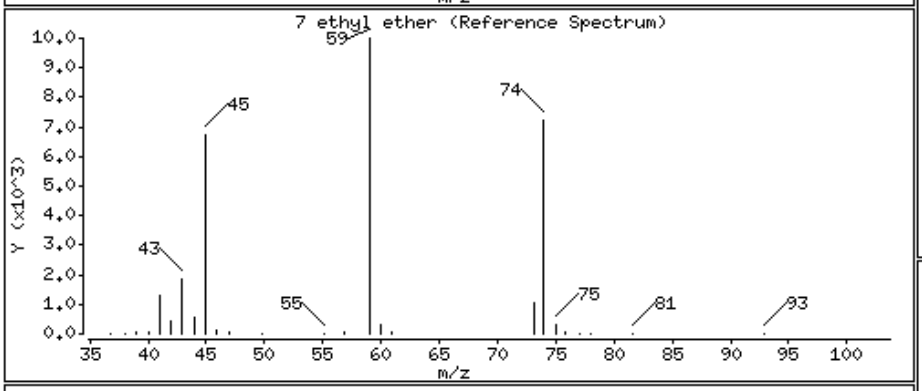
Column diameter: 0.18

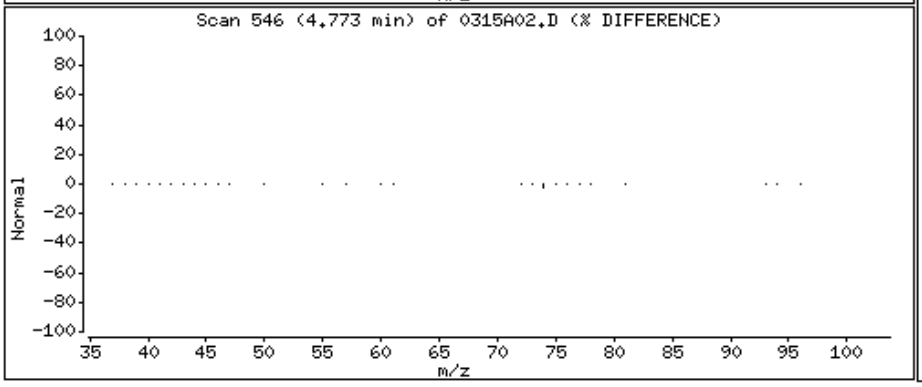
7 ethyl ether

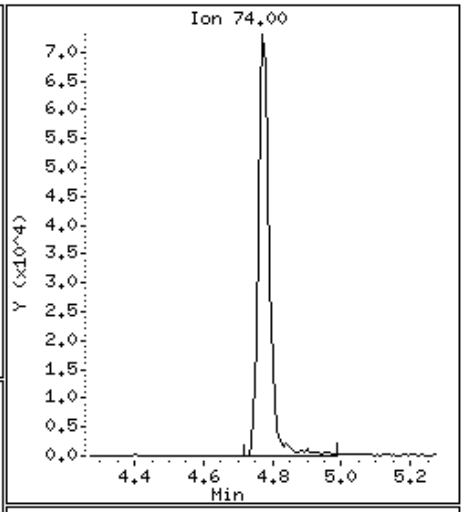
Concentration: 96.308 ngs

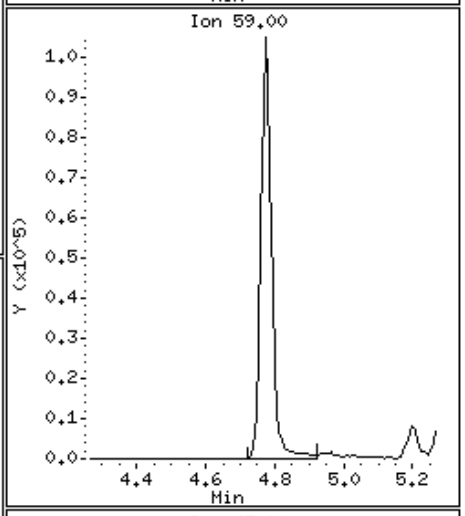


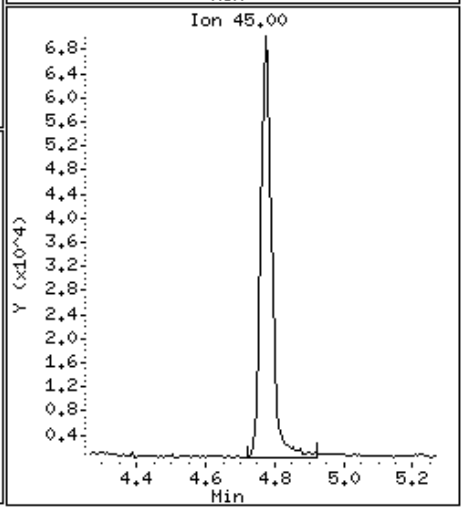












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

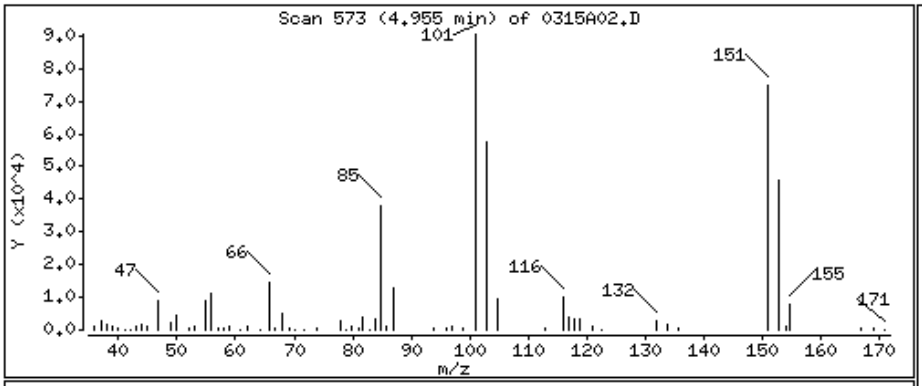
Operator: PD

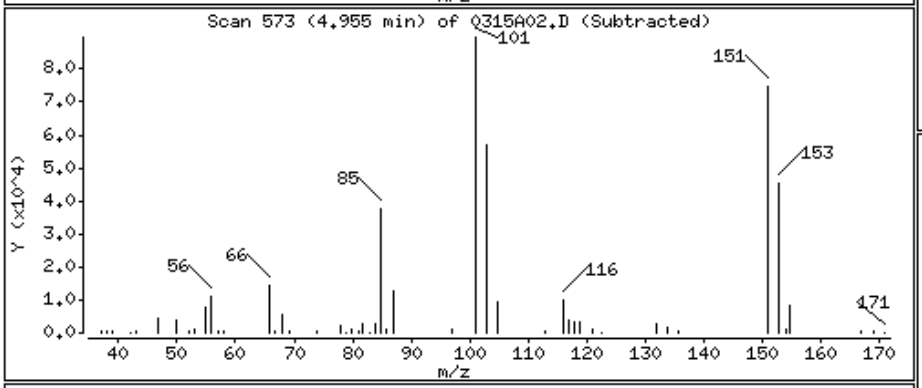
Column phase: Rtx-502.2

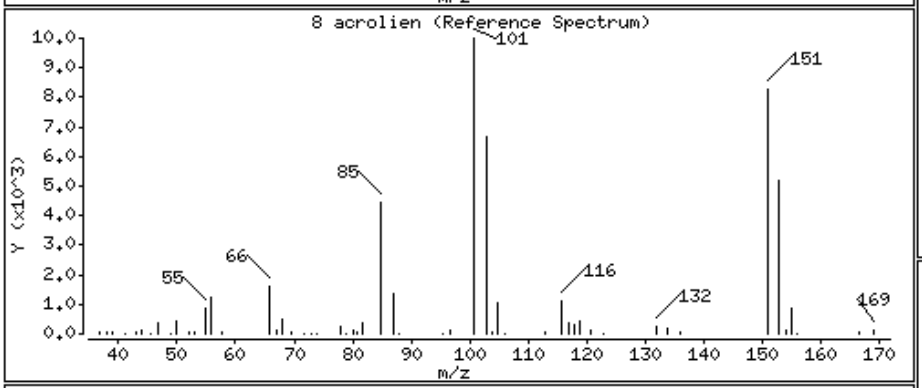
Column diameter: 0.18

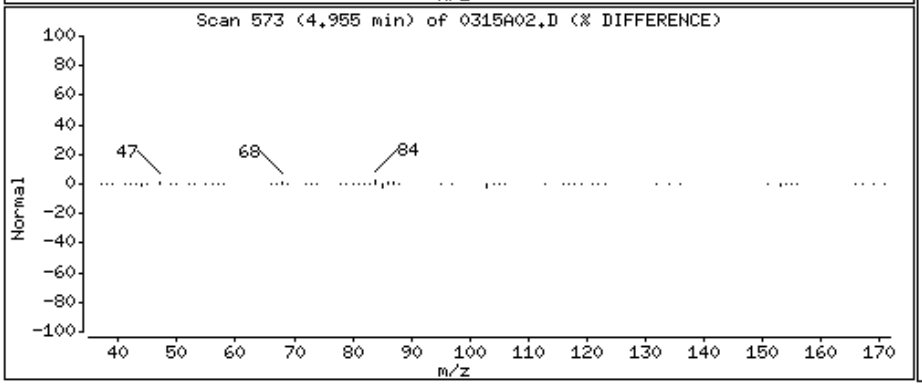
8 acrolien

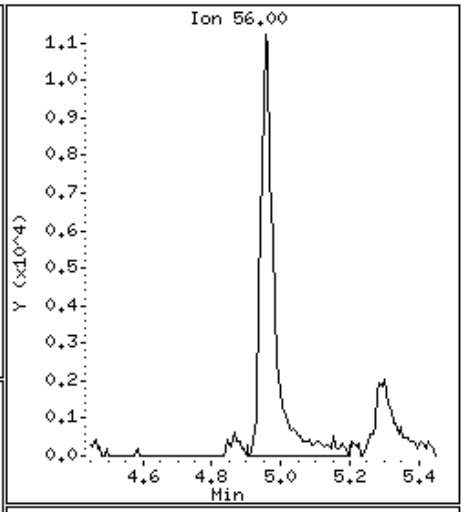
Concentration: 101.694 ngs

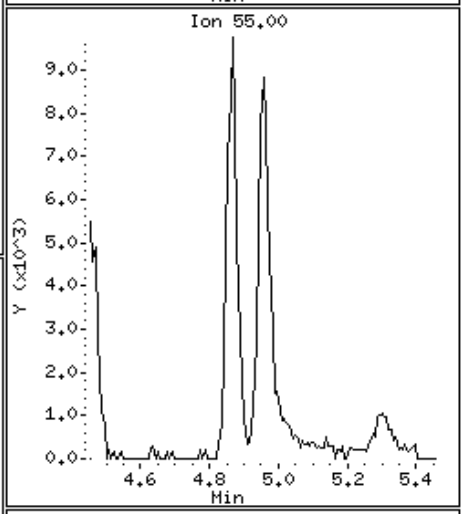


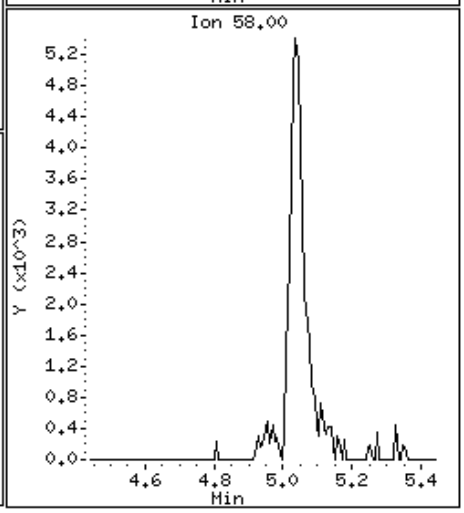












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

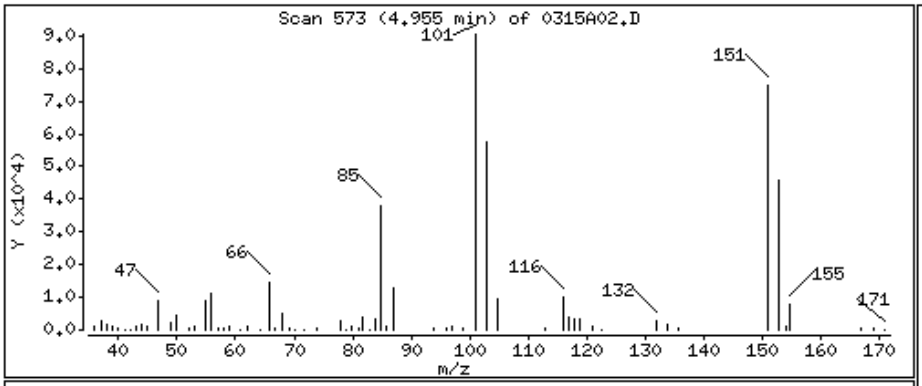
Operator: PD

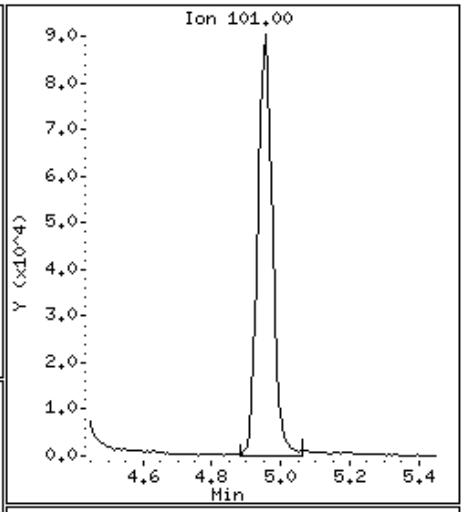
Column phase: Rtx-502.2

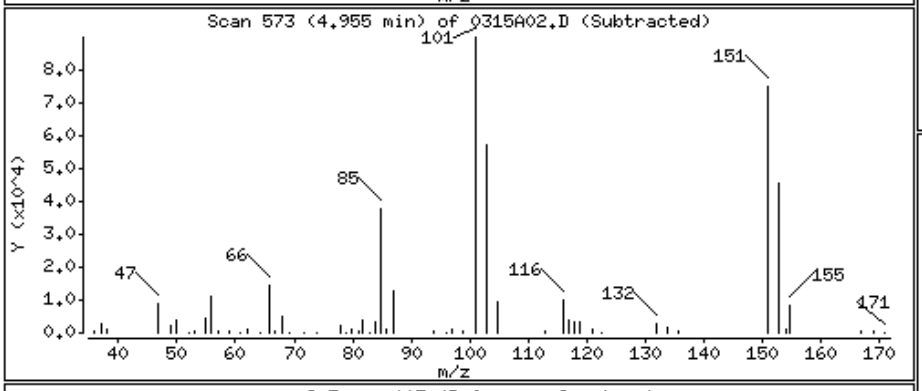
Column diameter: 0.18

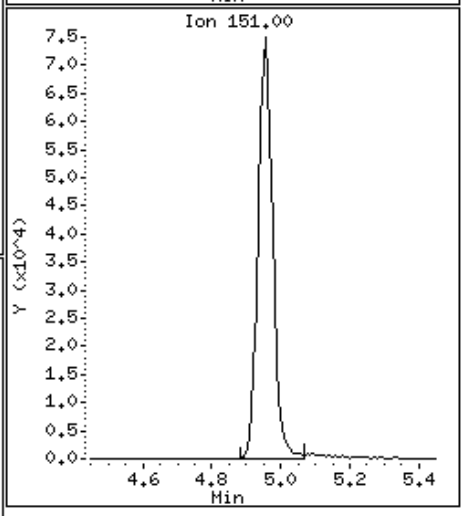
9 Freon 113

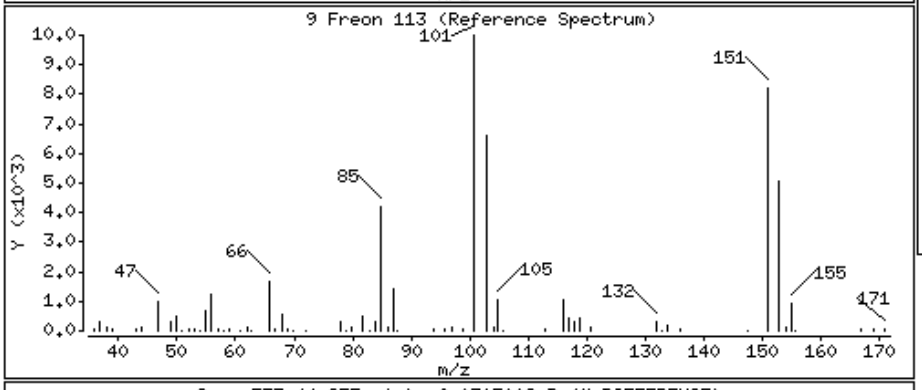
Concentration: 90.636 ngs

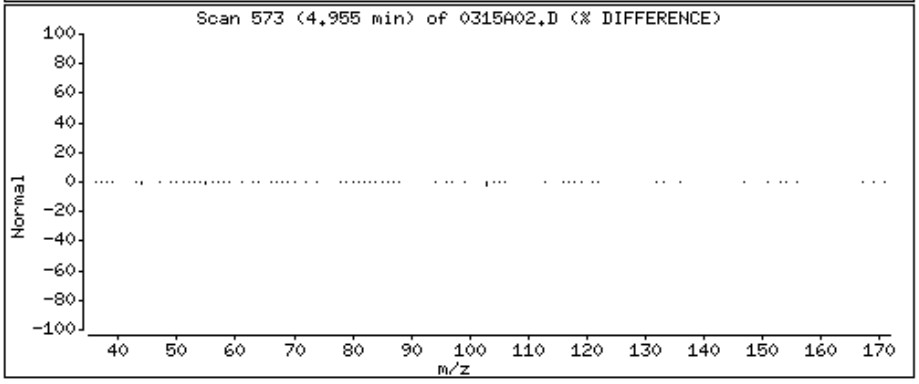












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

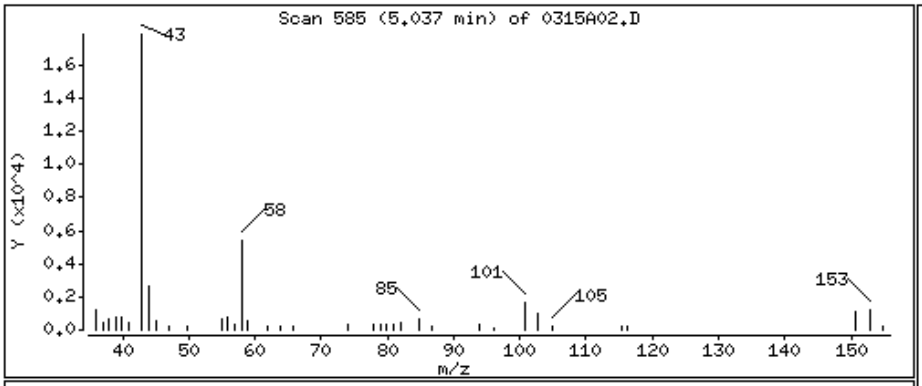
Operator: PD

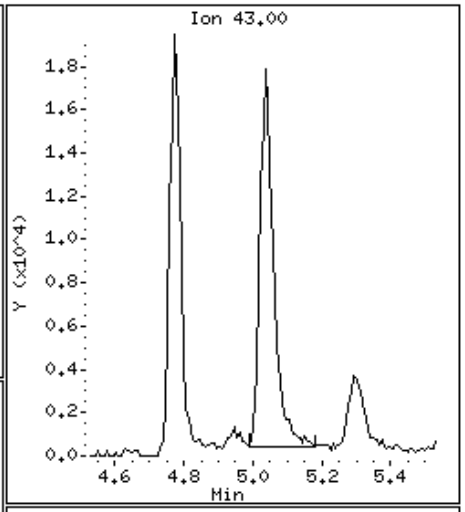
Column phase: Rtx-502.2

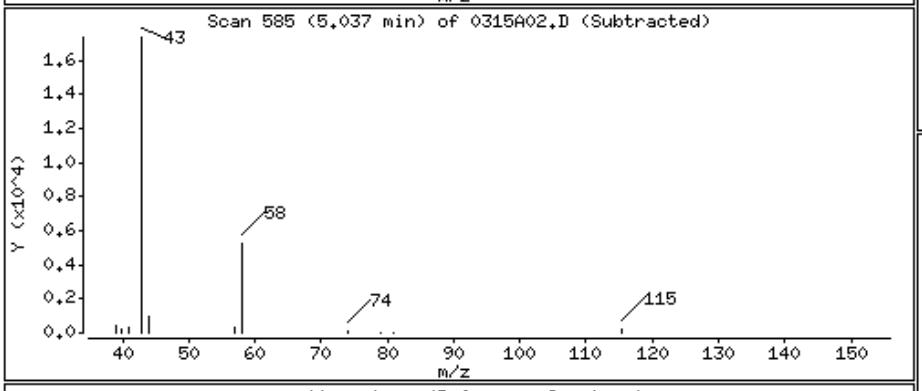
Column diameter: 0.18

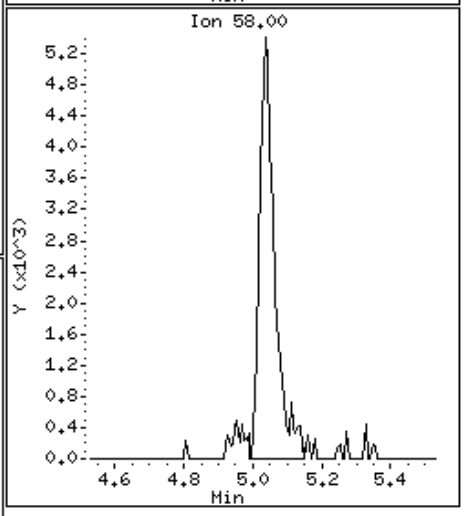
10 acetone

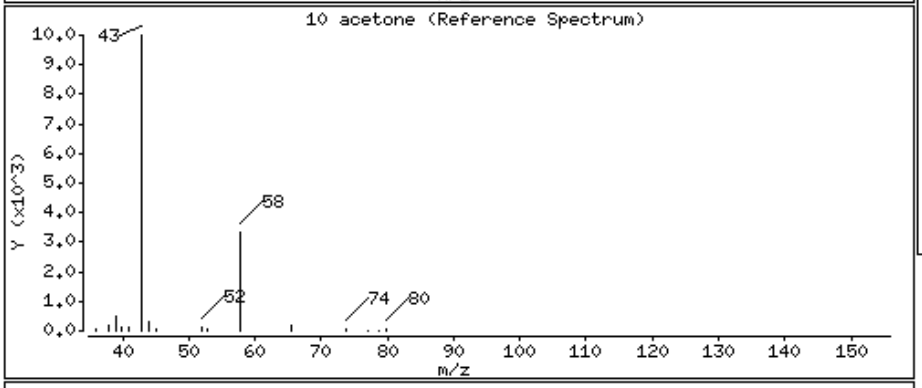
Concentration: 79.825 ngs

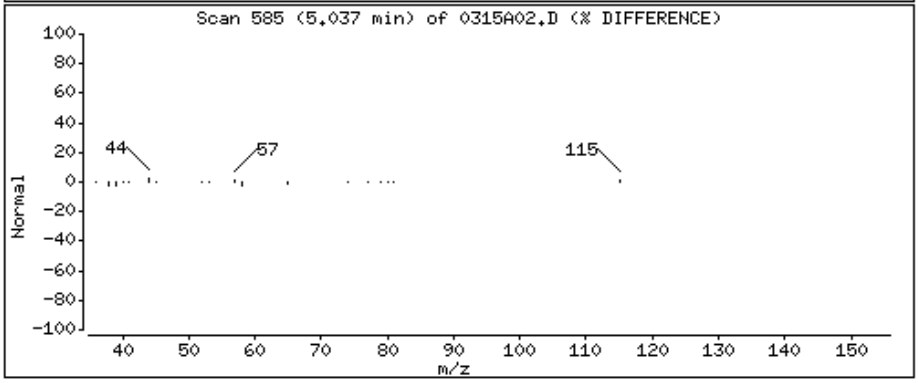












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

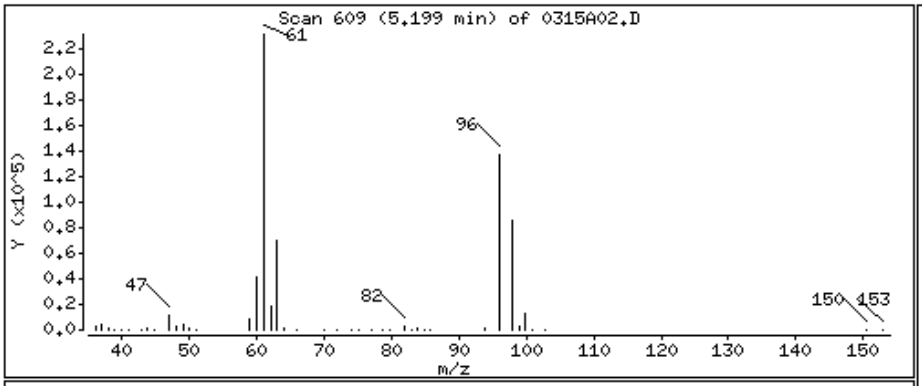
Operator: PD

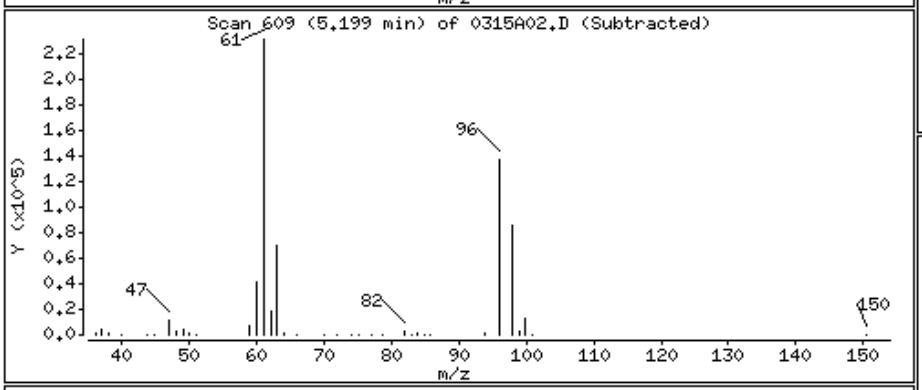
Column phase: Rtx-502.2

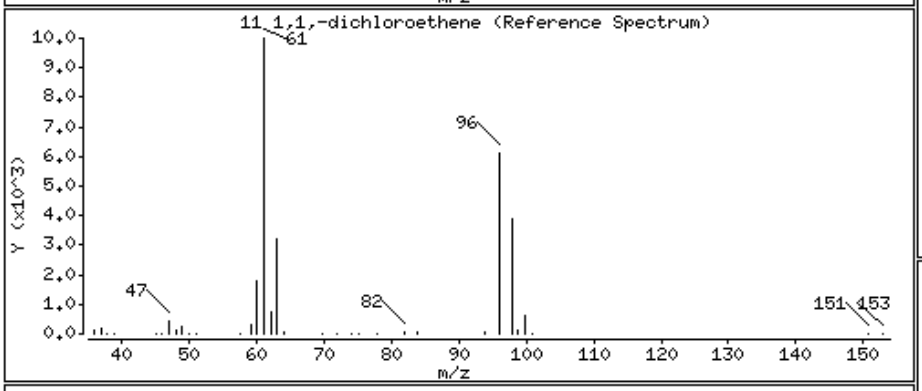
Column diameter: 0.18

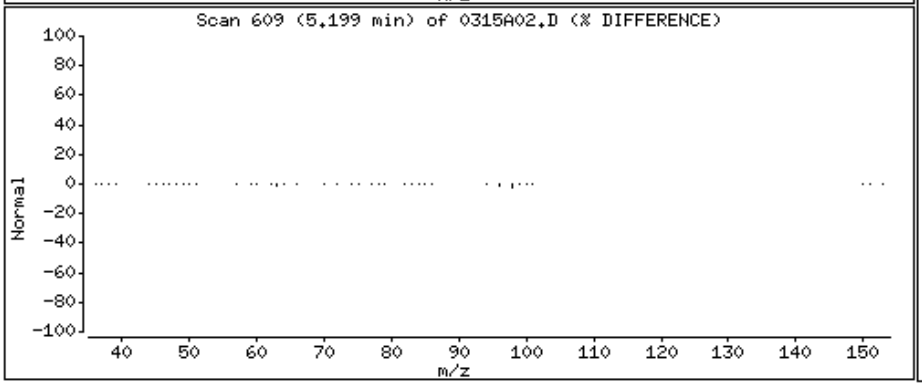
11 1,1,-dichloroethene

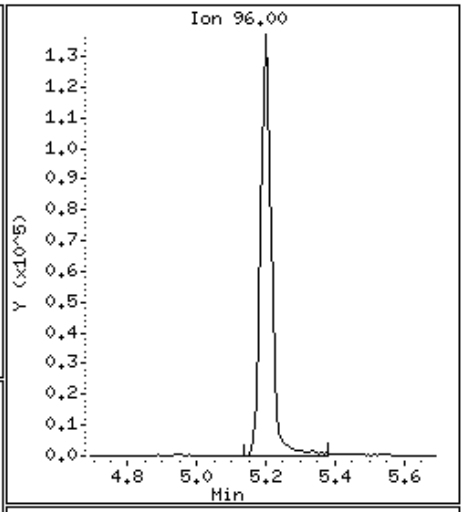
Concentration: 94.939 ngs

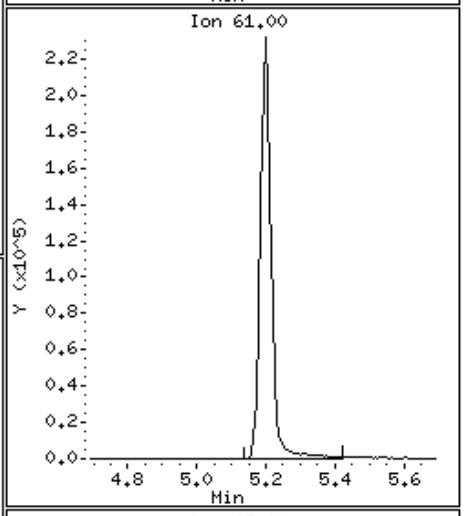


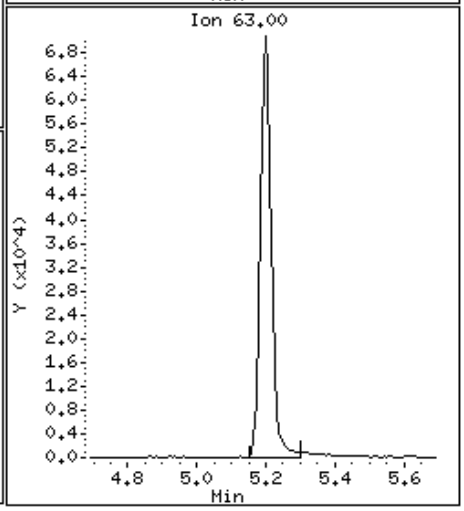












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

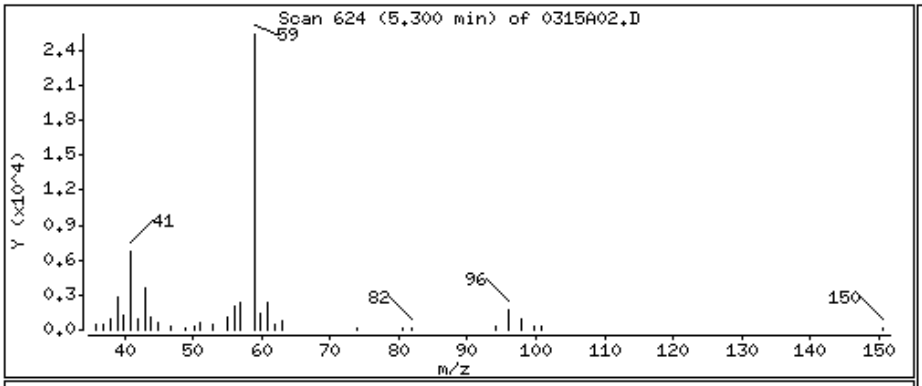
Operator: PD

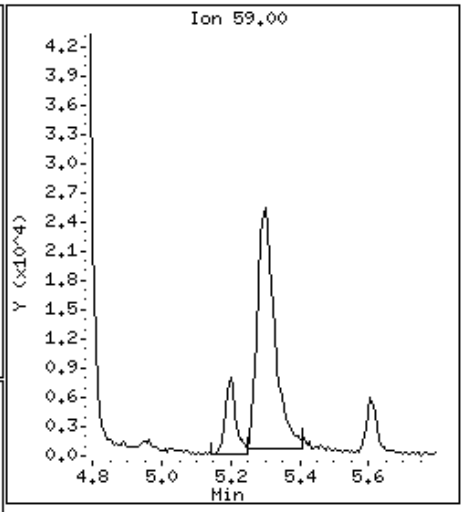
Column phase: Rtx-502.2

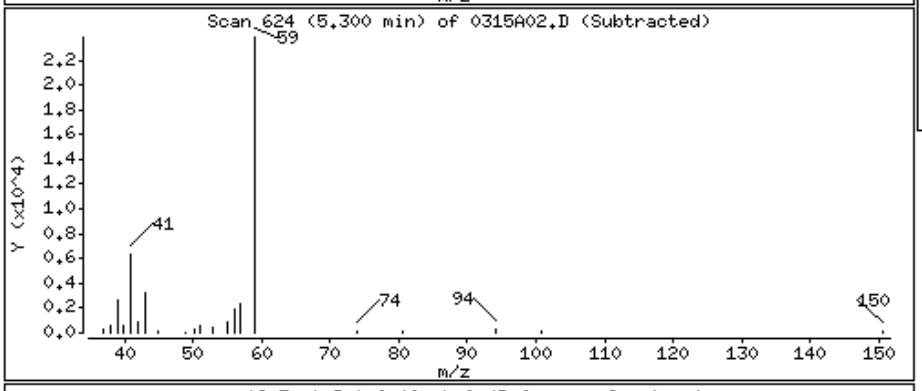
Column diameter: 0.18

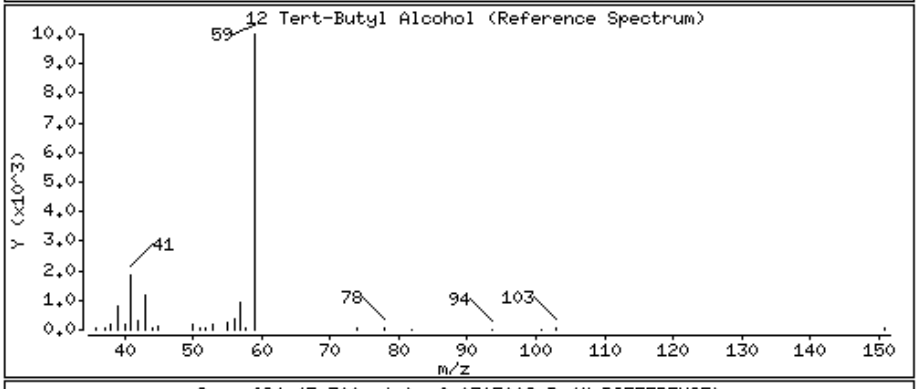
12 Tert-Butyl Alcohol

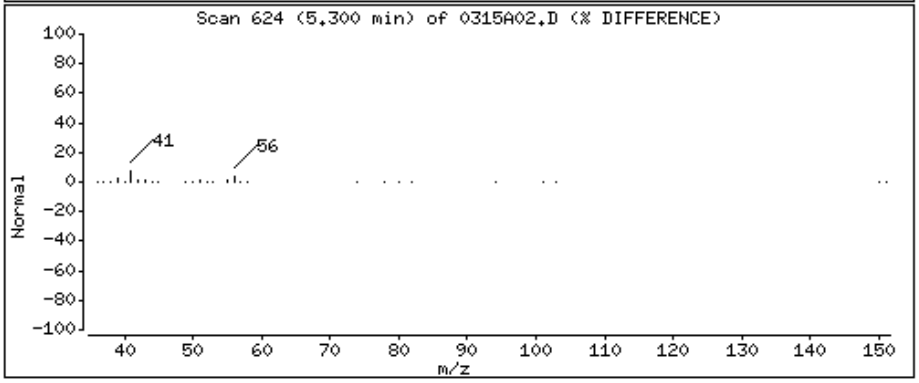
Concentration: 414.089 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

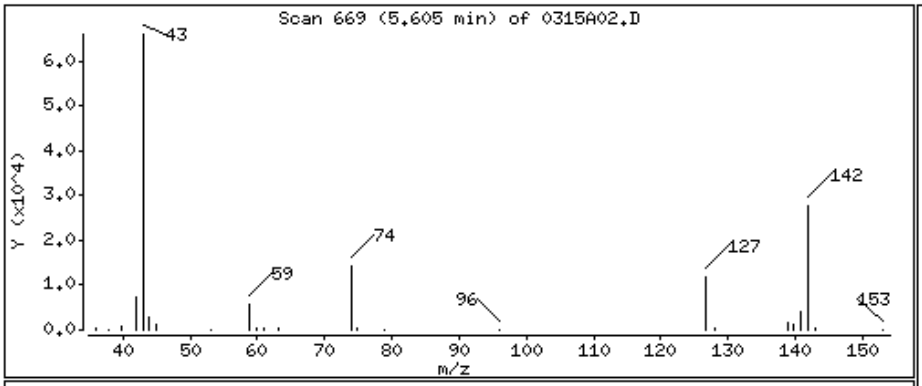
Operator: PD

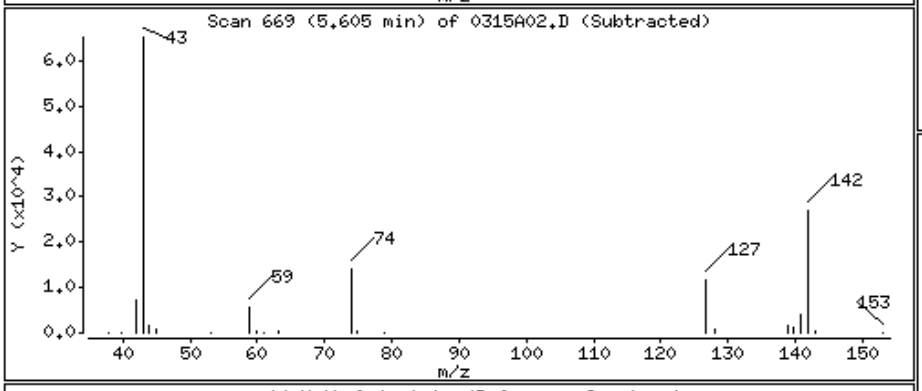
Column phase: Rtx-502.2

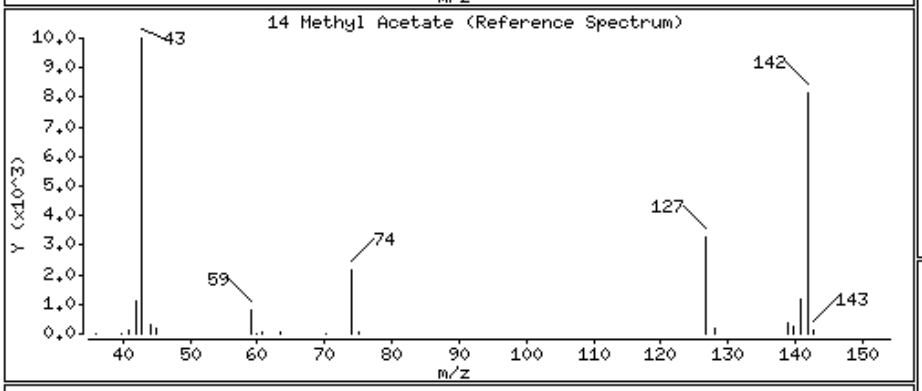
Column diameter: 0.18

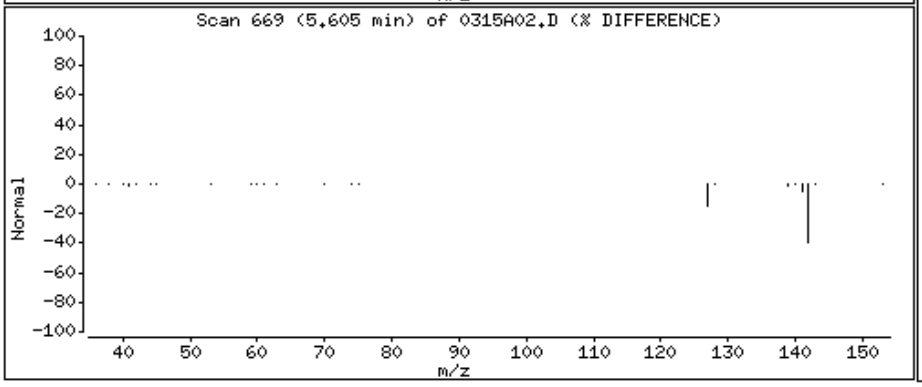
14 Methyl Acetate

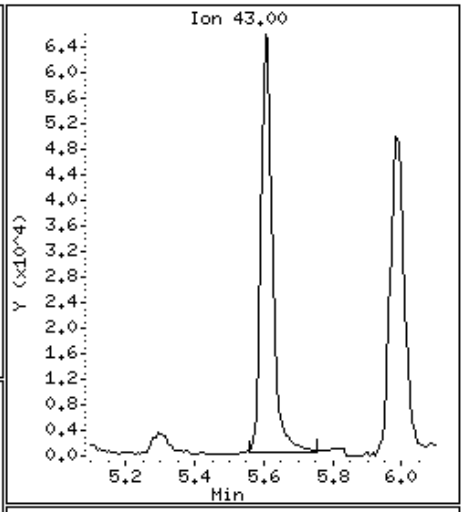
Concentration: 89.601 ngs

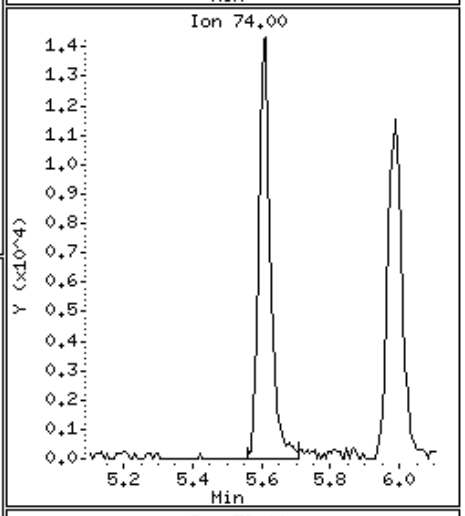


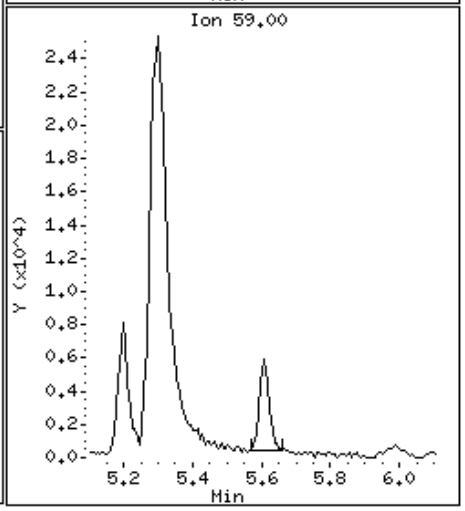












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

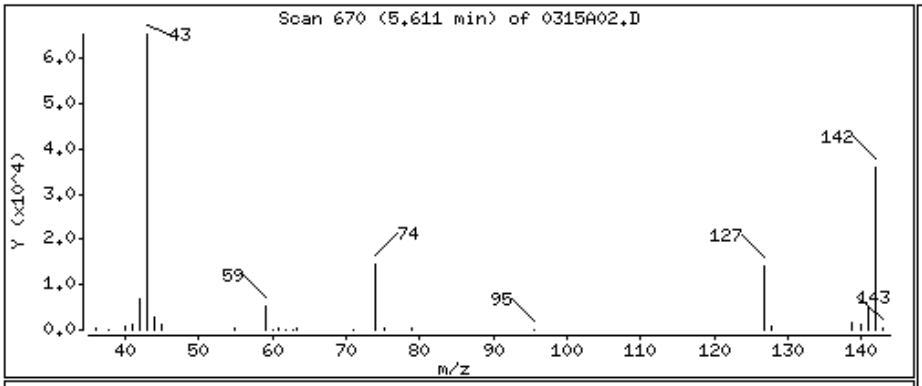
Operator: PD

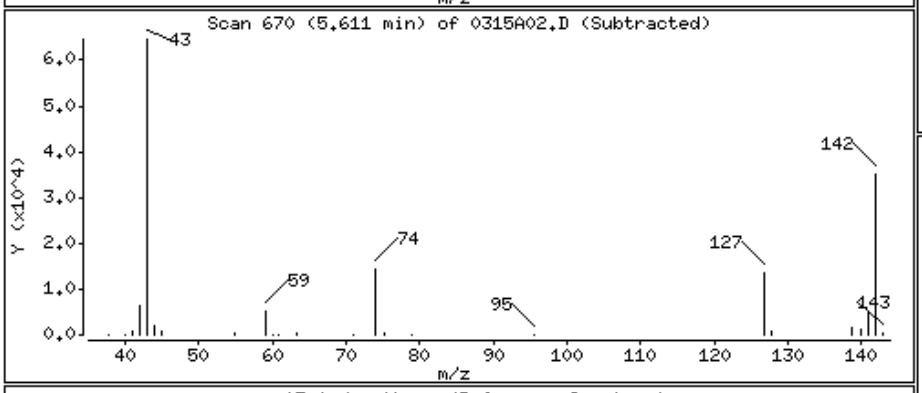
Column phase: Rtx-502.2

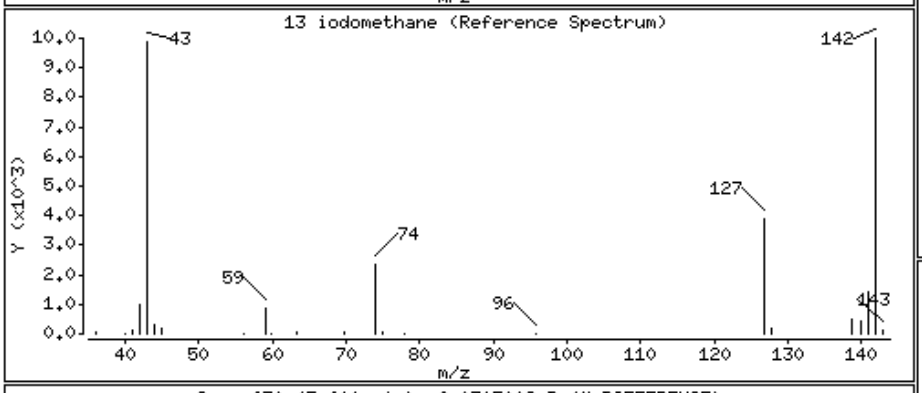
Column diameter: 0.18

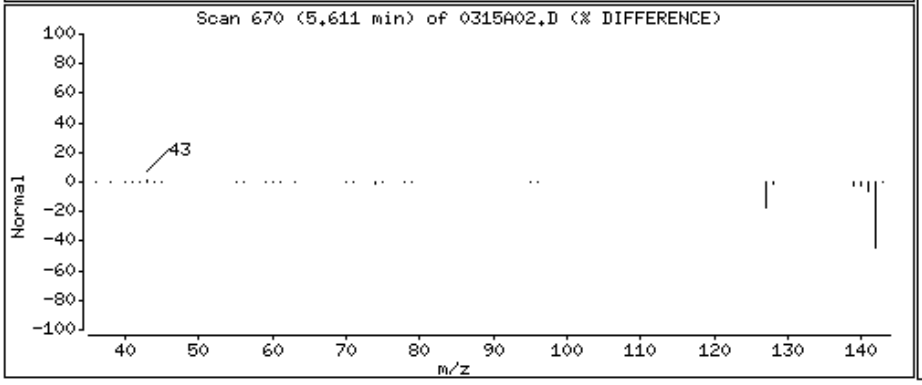
13 iodomethane

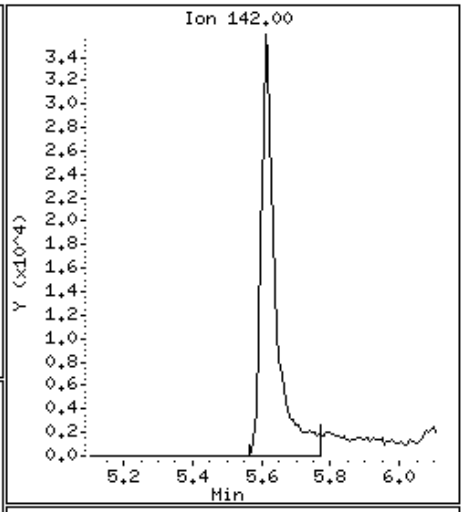
Concentration: 47.192 ngs

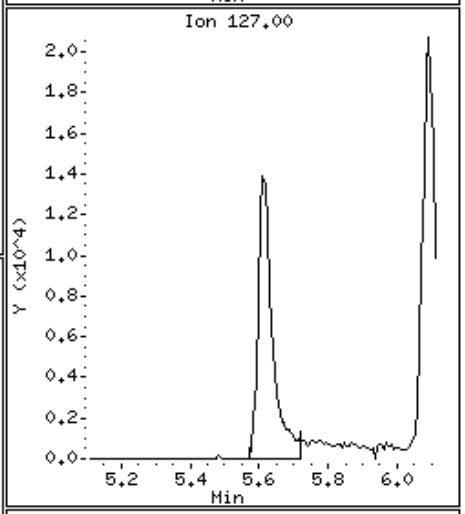


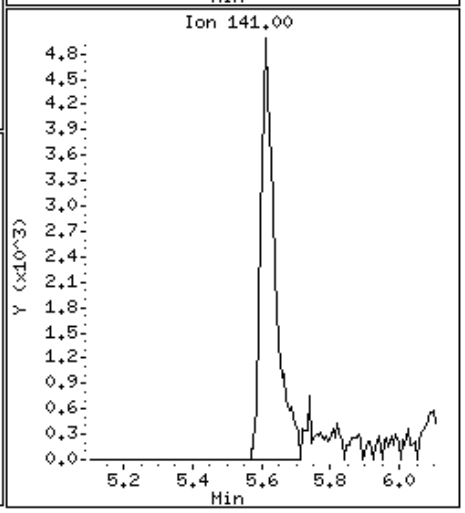












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

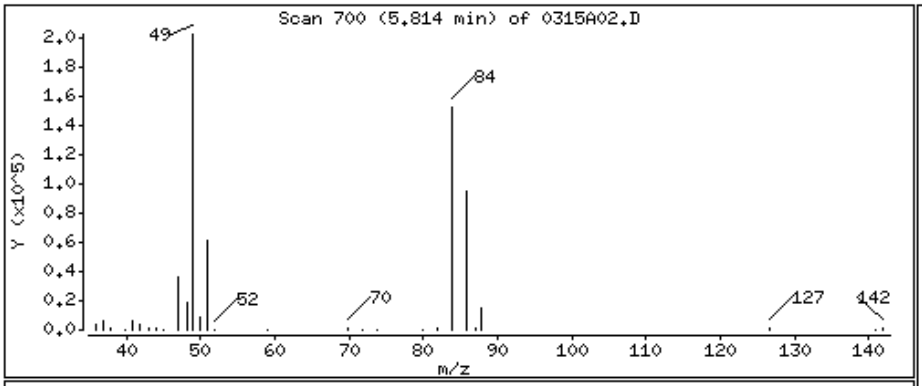
Operator: PD

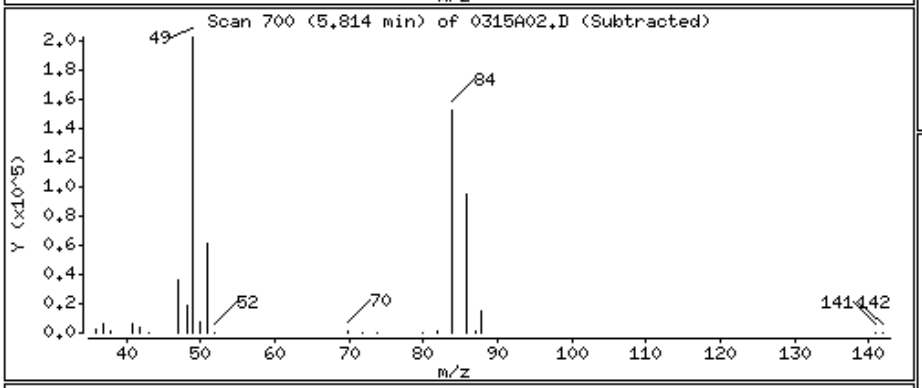
Column phase: Rtx-502.2

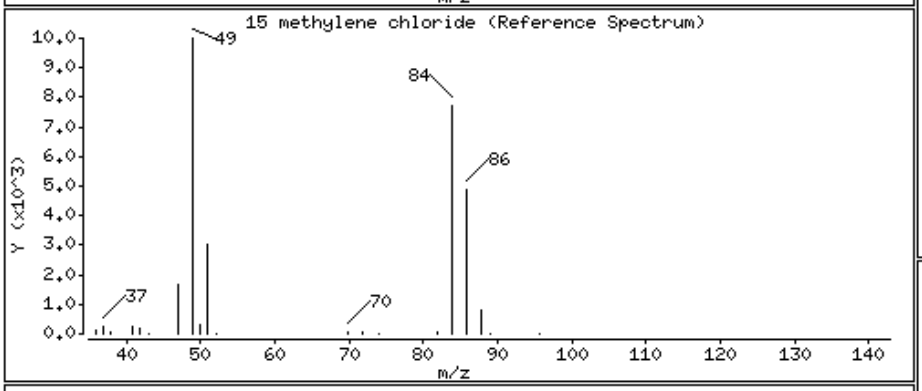
Column diameter: 0.18

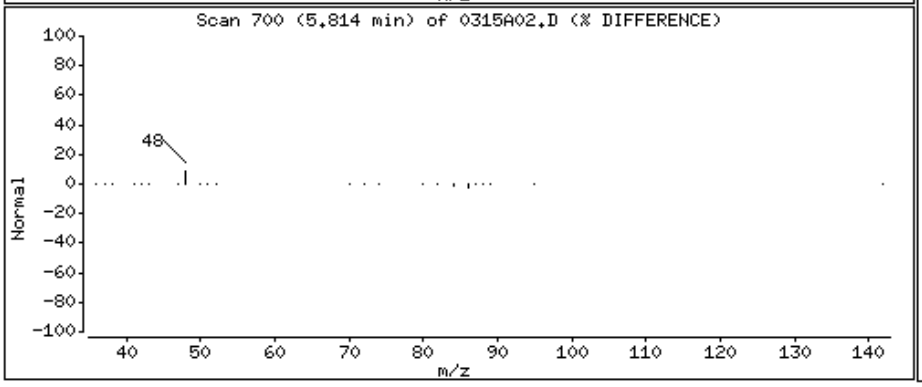
15 methylene chloride

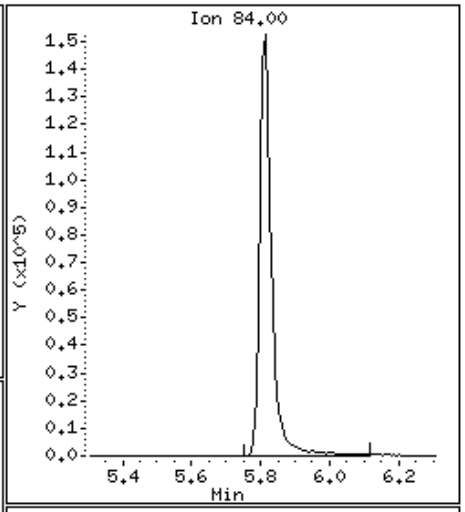
Concentration: 94.131 ngs

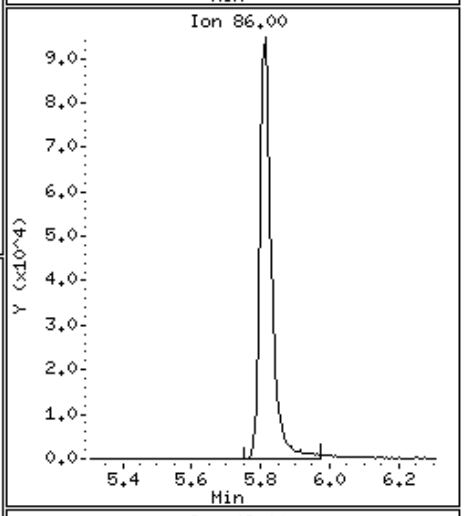


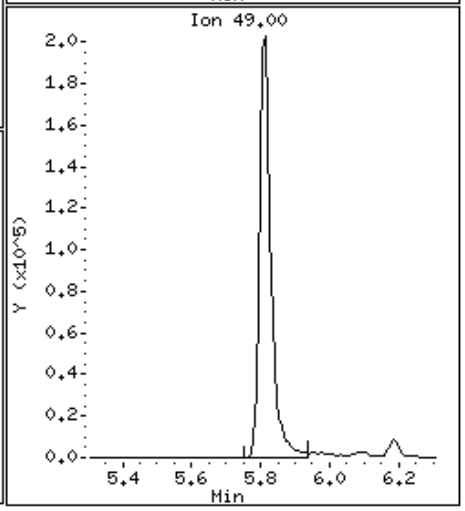












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

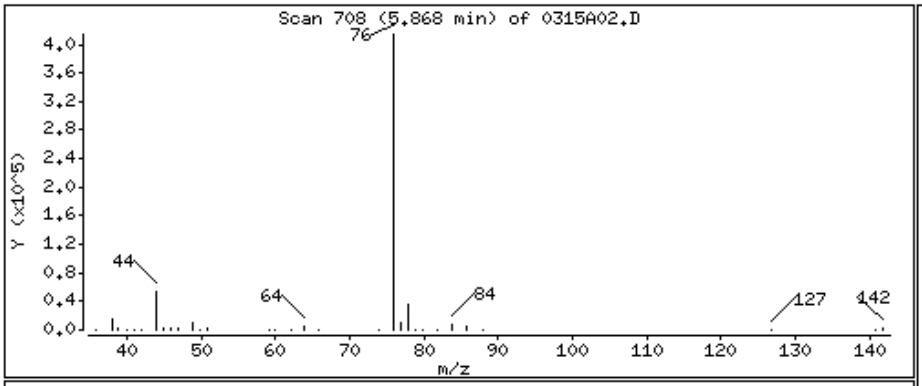
Operator: PD

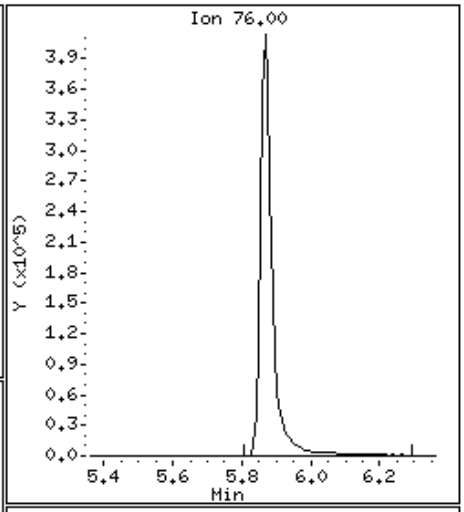
Column phase: Rtx-502.2

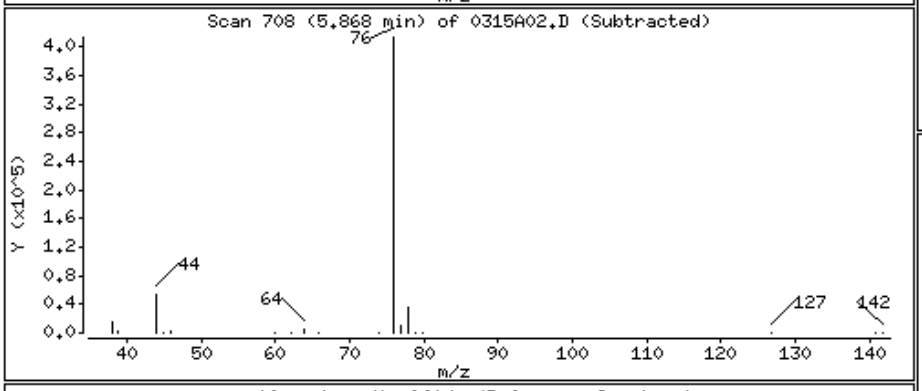
Column diameter: 0.18

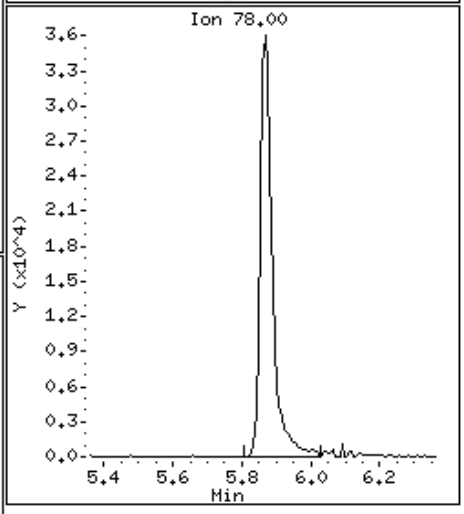
16 carbon disulfide

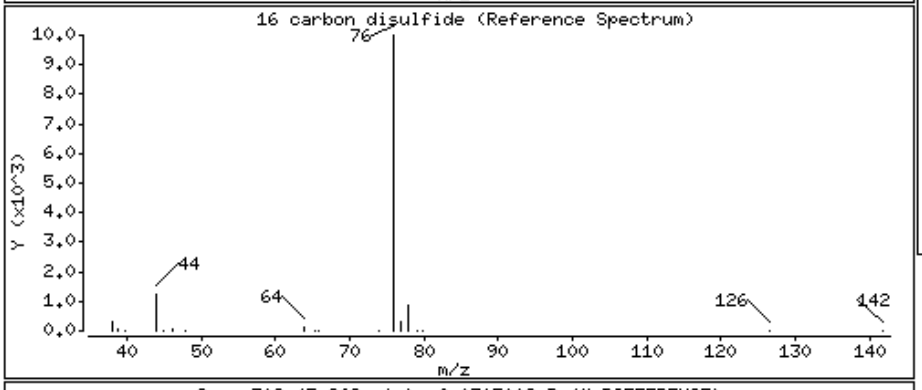
Concentration: 86.319 ngs

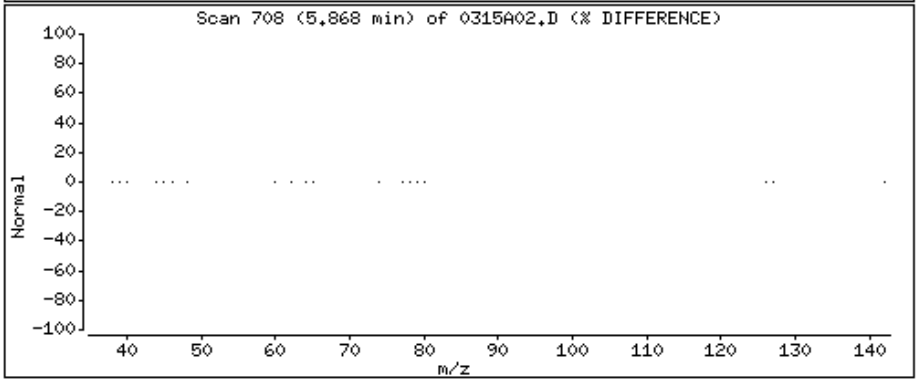












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

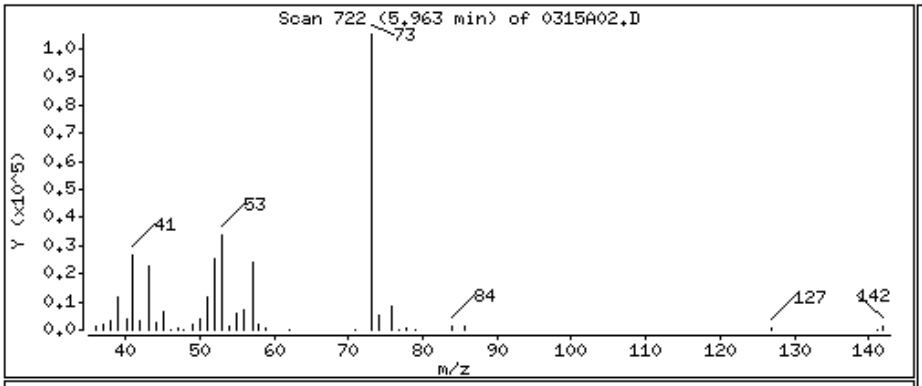
Operator: PD

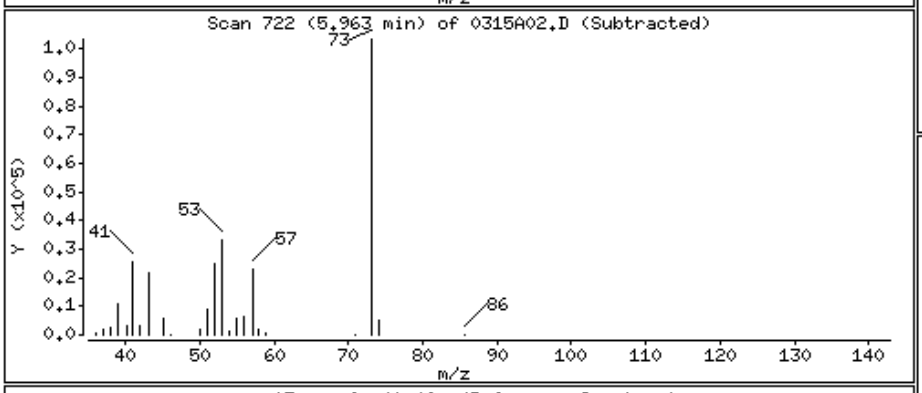
Column phase: Rtx-502.2

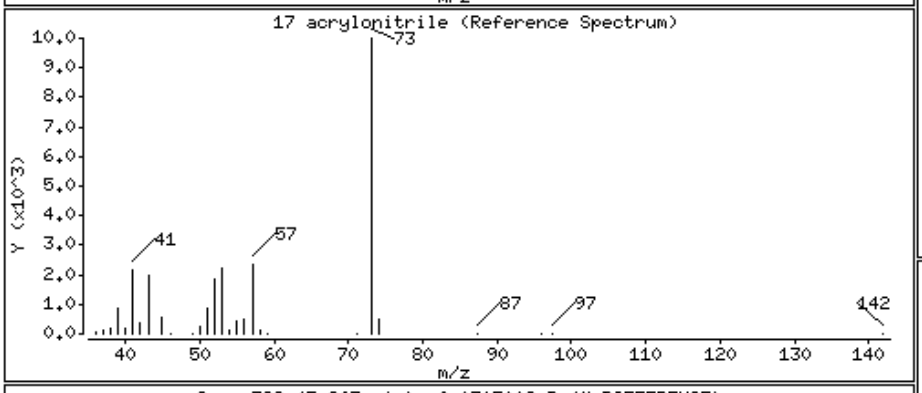
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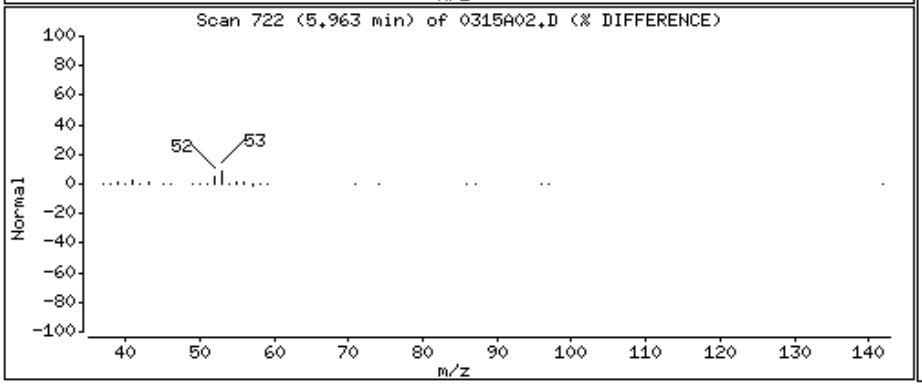
17 acrylonitrile

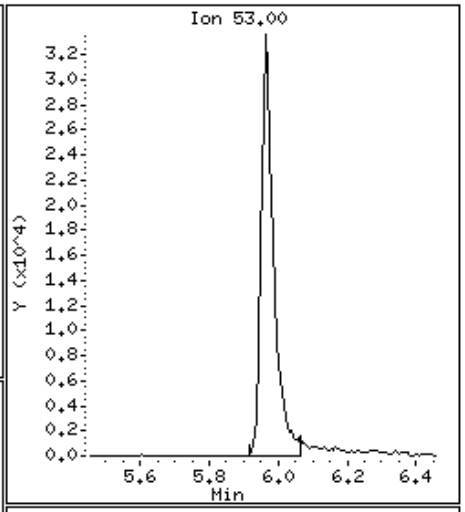
Concentration: 87.350 ngs

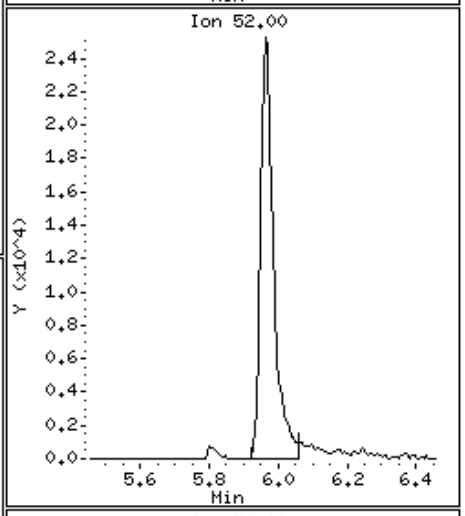


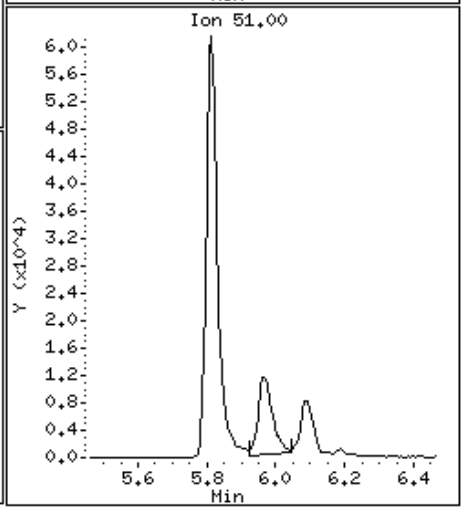












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

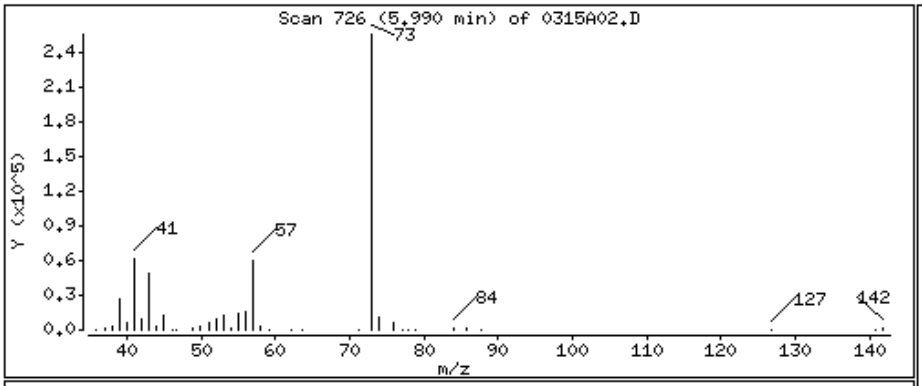
Operator: PD

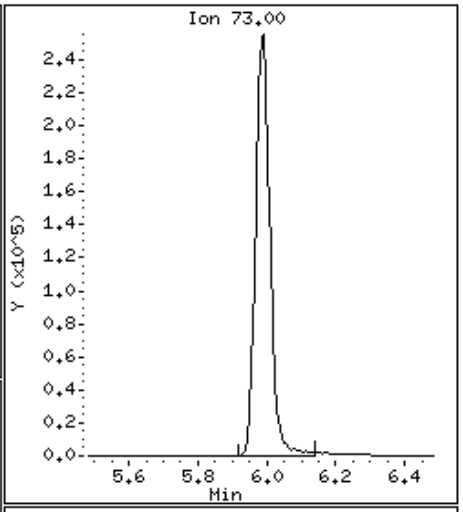
Column phase: Rtx-502.2

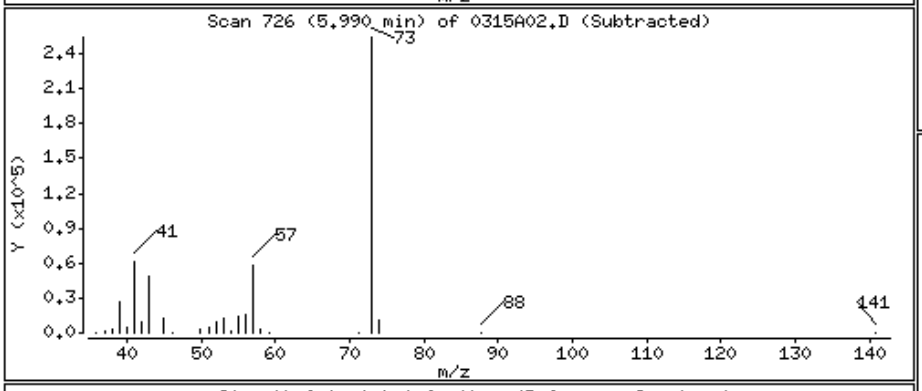
Column diameter: 0.18

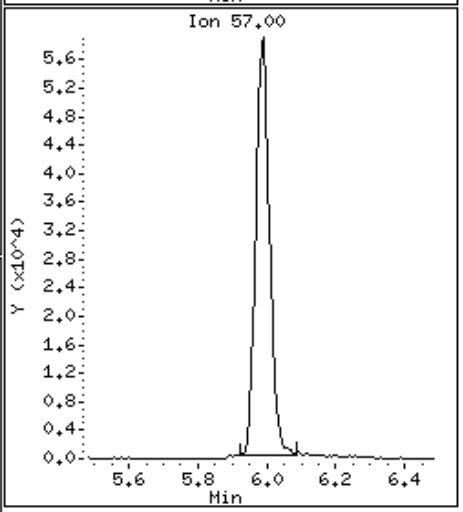
20 methyl tert butyl ether

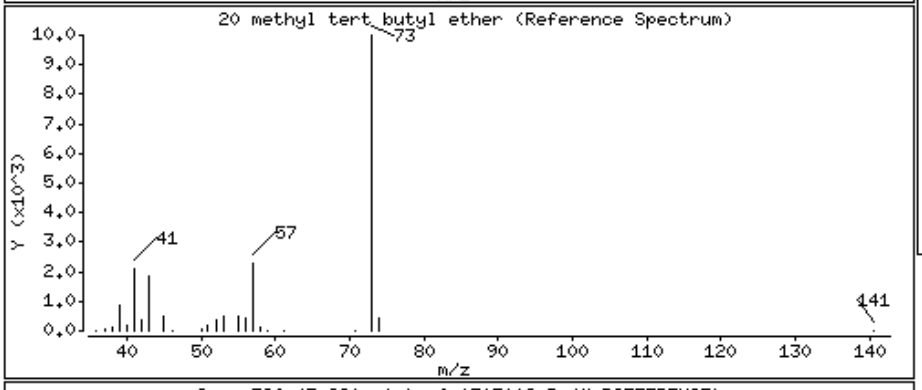
Concentration: 77.297 ngs

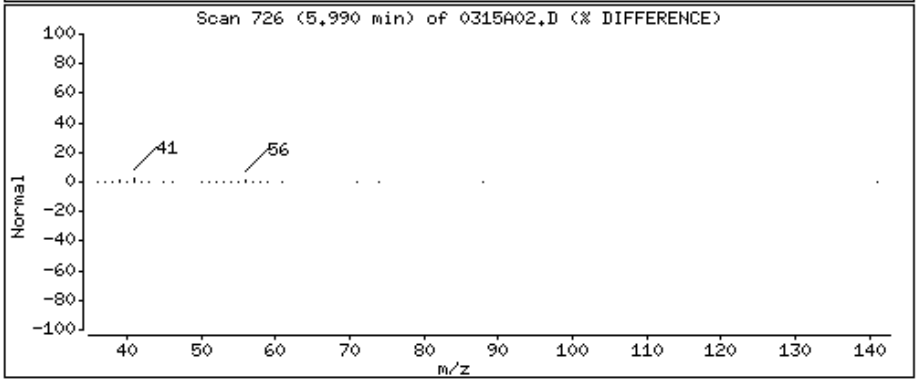












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

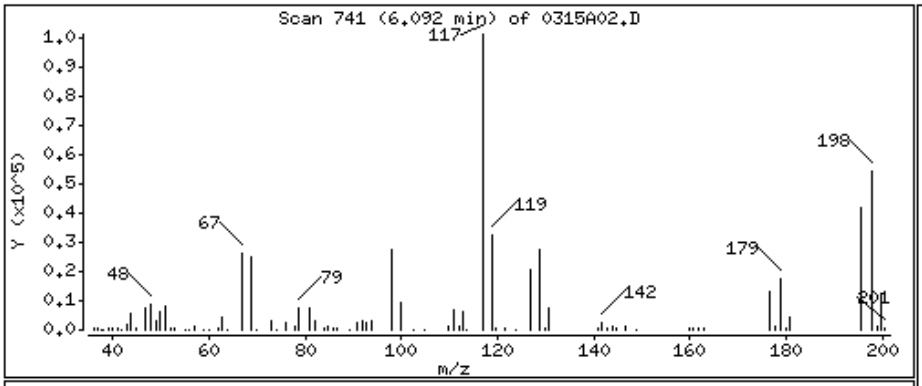
Operator: PD

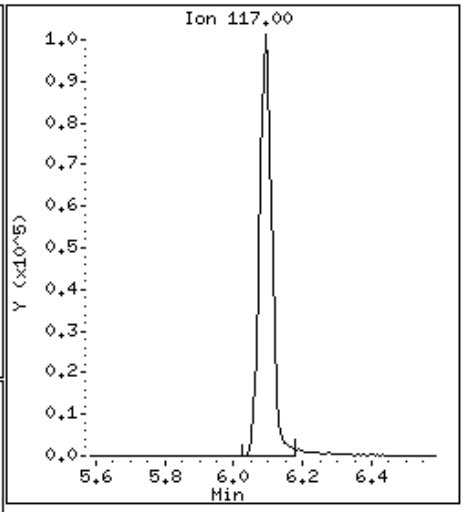
Column phase: Rtx-502.2

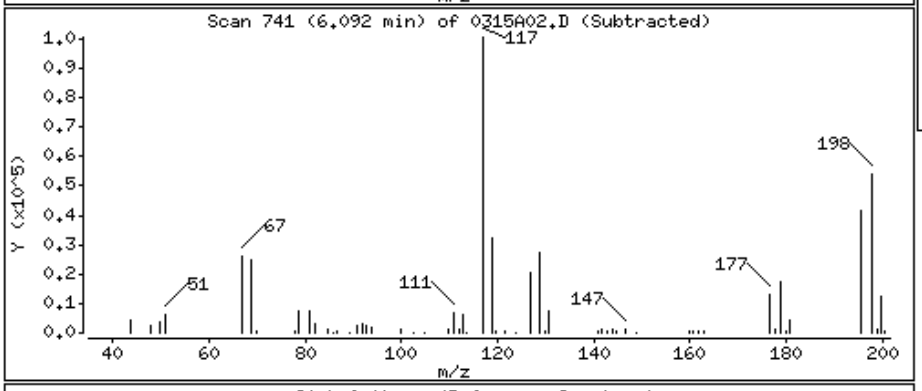
Column diameter: 0.18

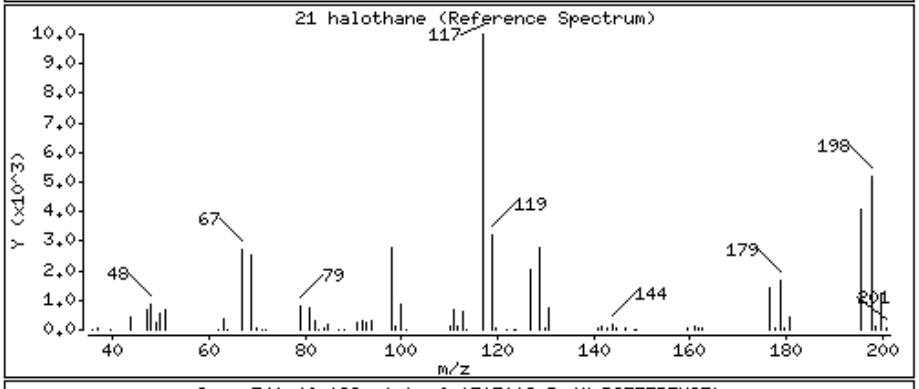
21 halothane

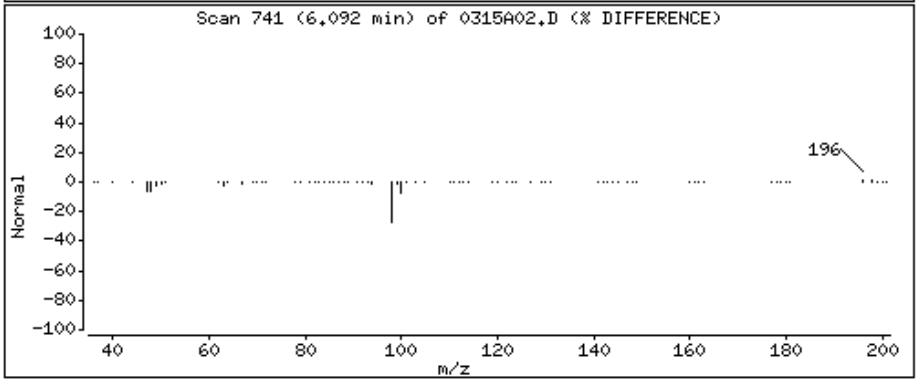
Concentration: 96.912 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

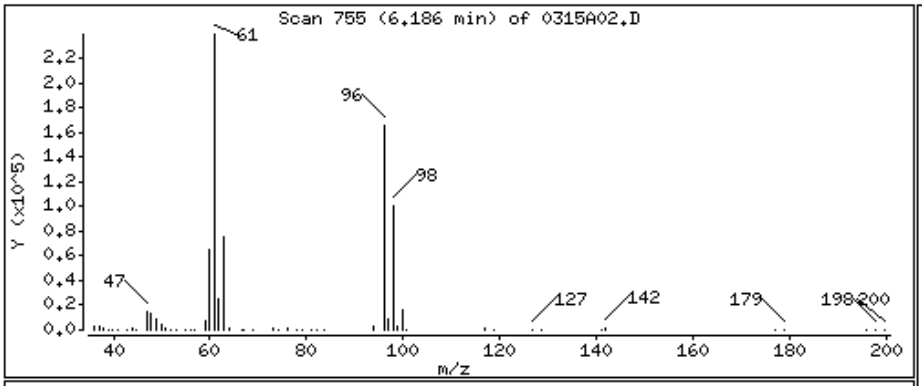
Operator: PD

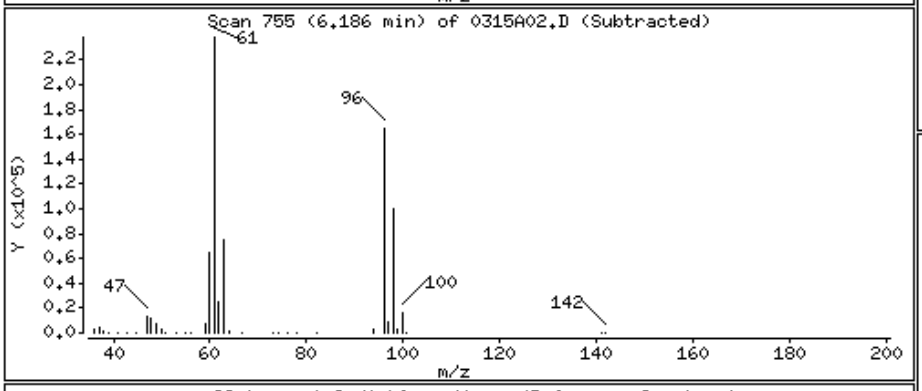
Column phase: Rtx-502.2

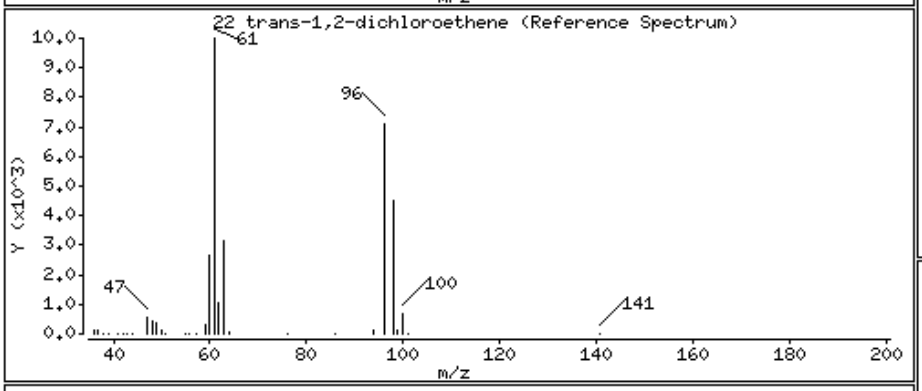
Column diameter: 0.18

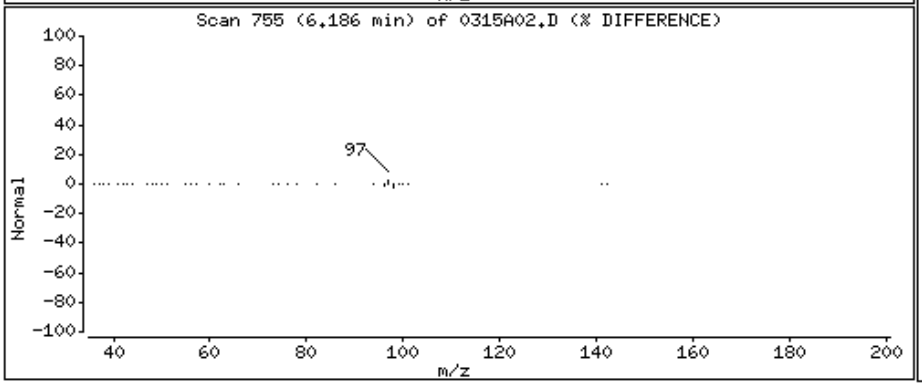
22 trans-1,2-dichloroethene

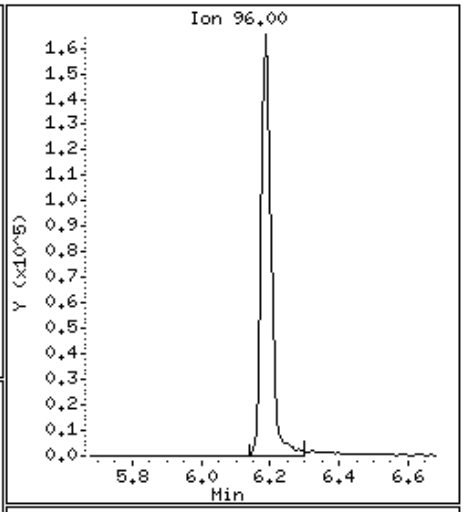
Concentration: 94.468 ngs

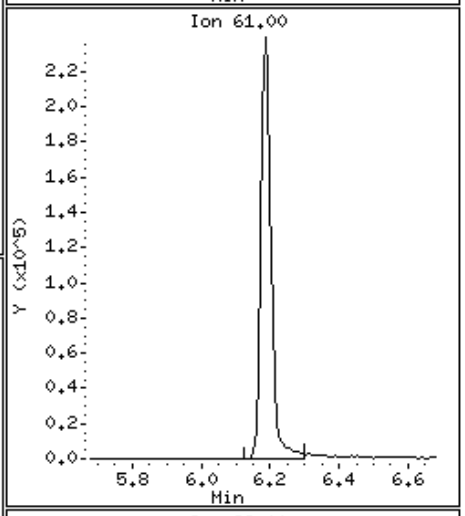


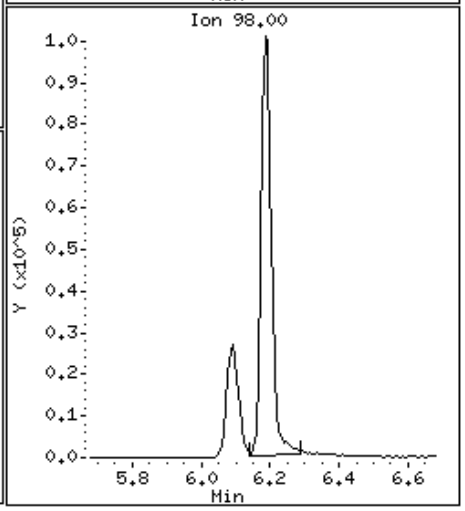












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

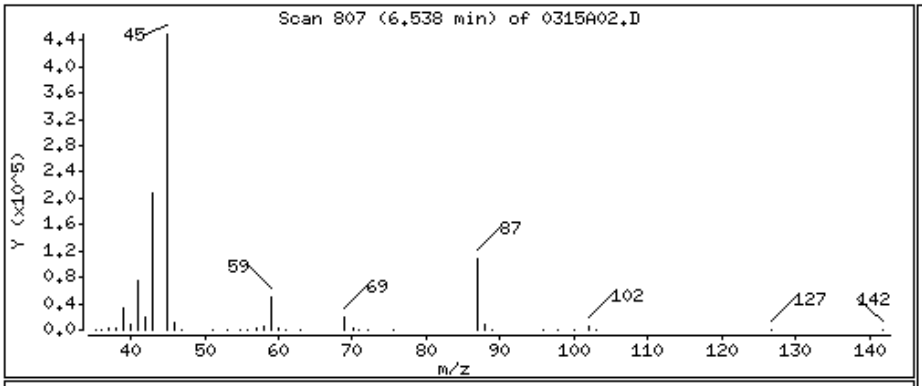
Operator: PD

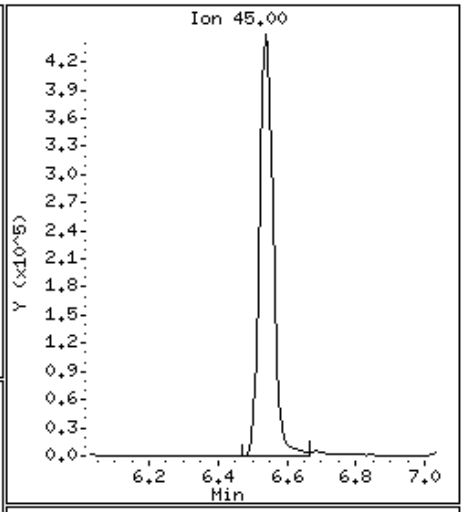
Column phase: Rtx-502.2

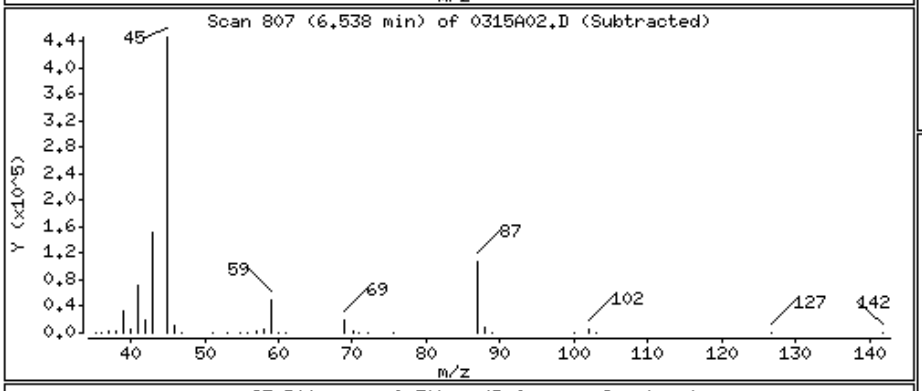
Column diameter: 0.18

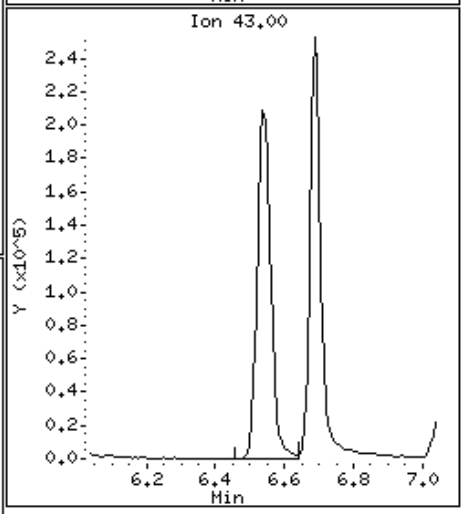
23 Diisopropyl Ether

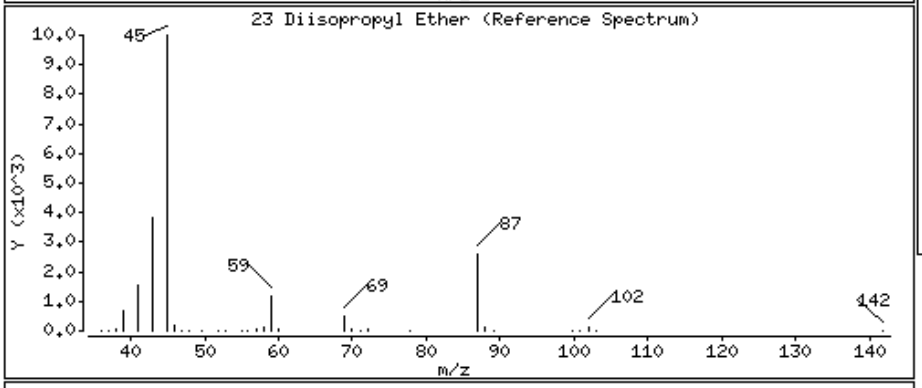
Concentration: 95.955 ngs

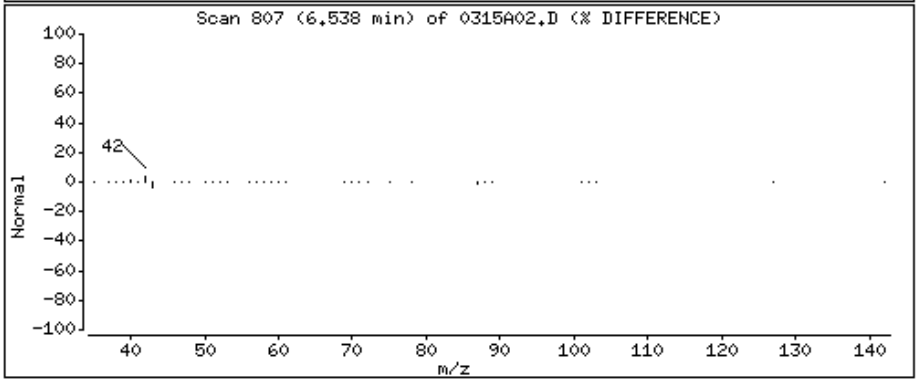












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

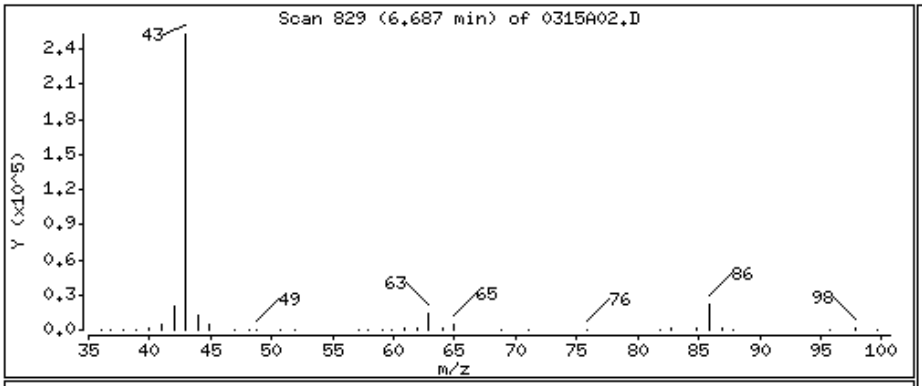
Operator: PD

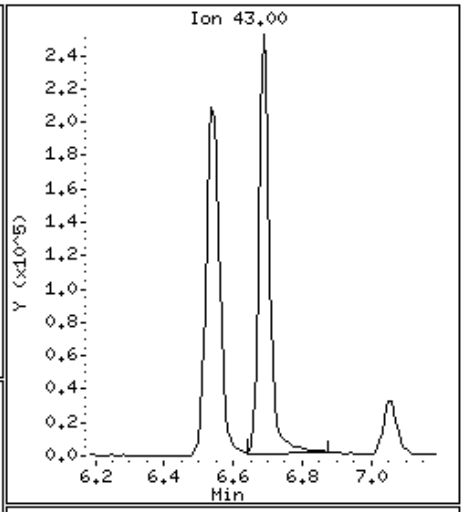
Column phase: Rtx-502.2

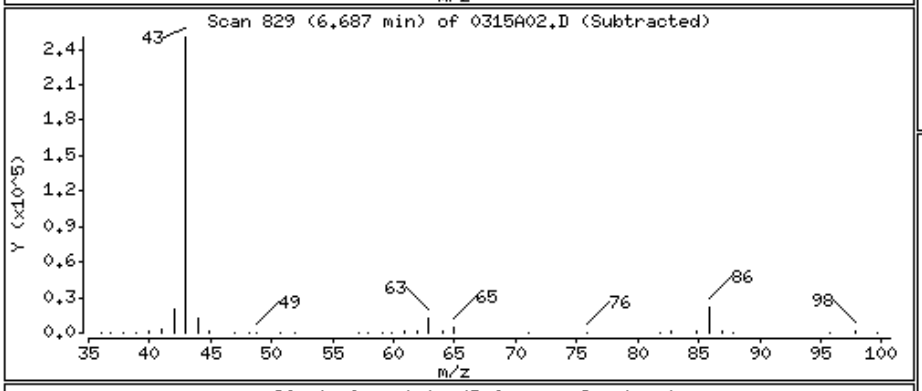
Column diameter: 0.18

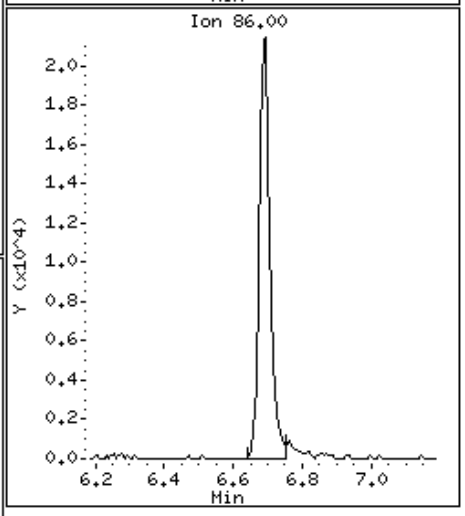
26 vinyl acetate

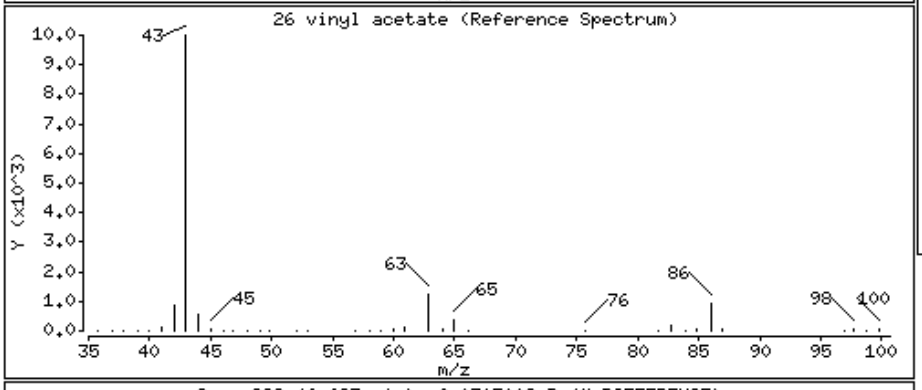
Concentration: 107.681 ngs

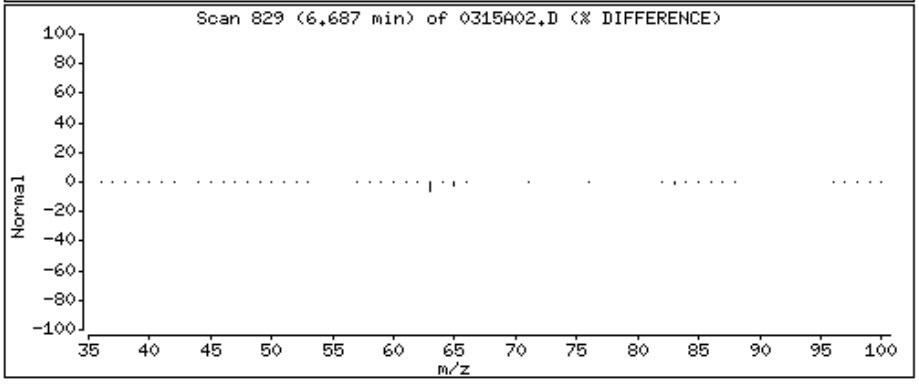












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

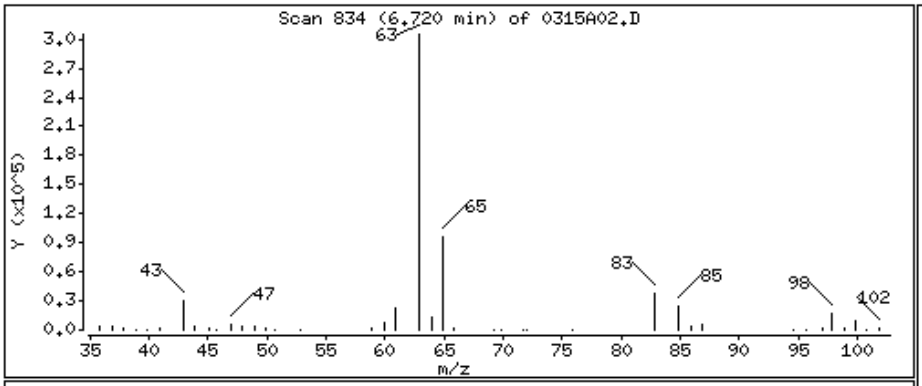
Operator: PD

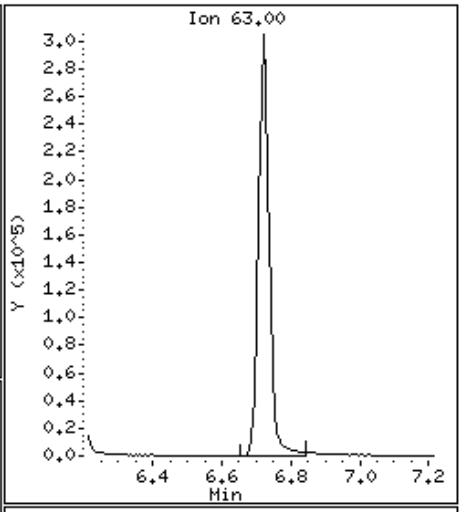
Column phase: Rtx-502.2

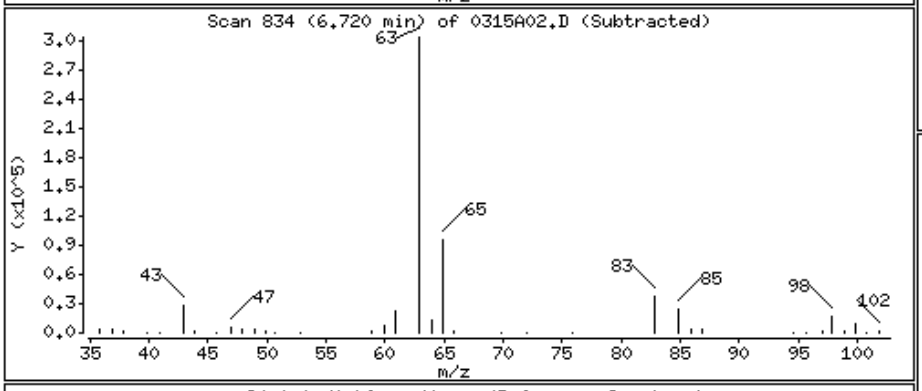
Column diameter: 0.18

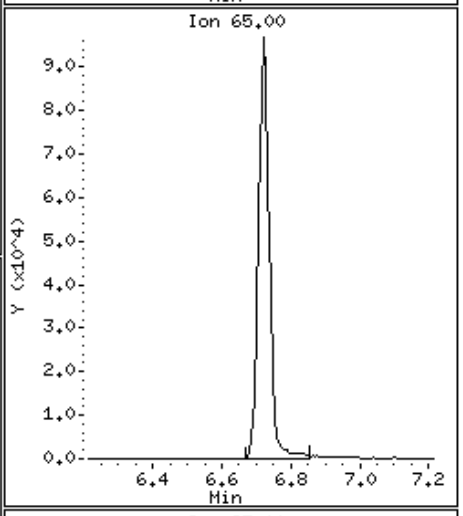
24 1,1-dichloroethane

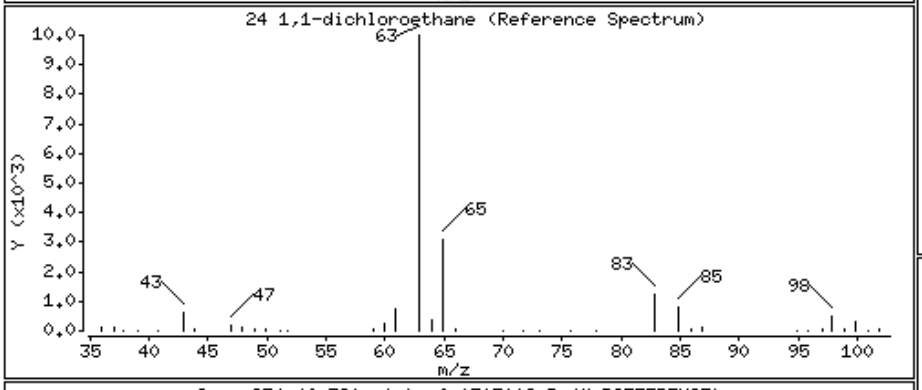
Concentration: 95.134 ngs

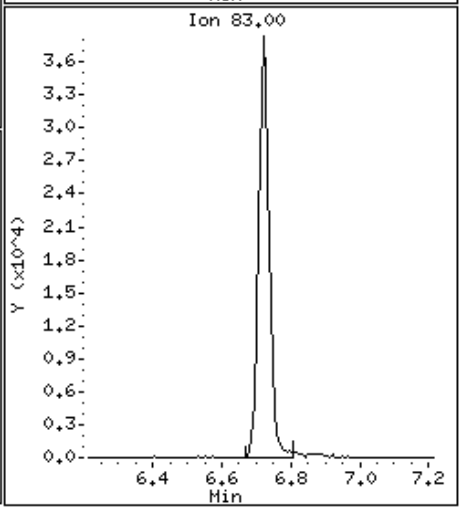


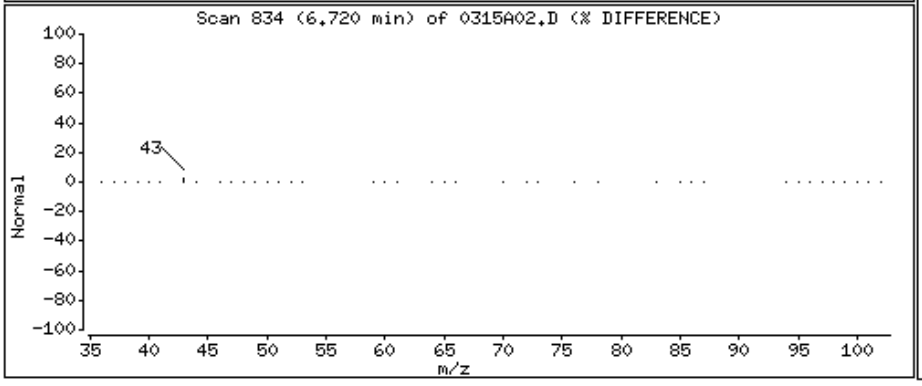












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

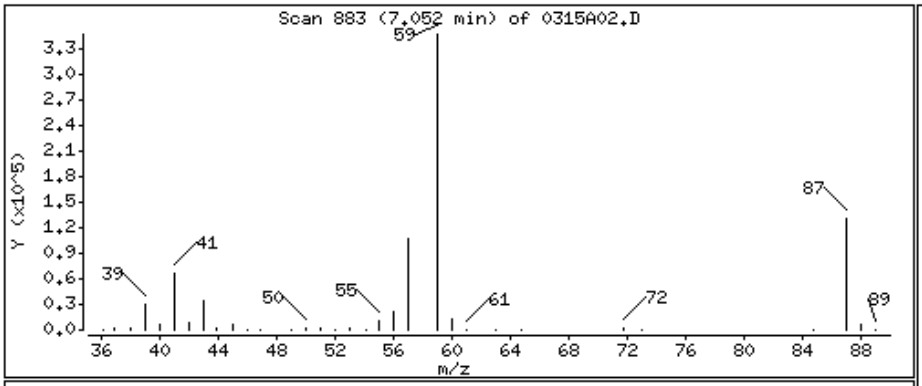
Operator: PD

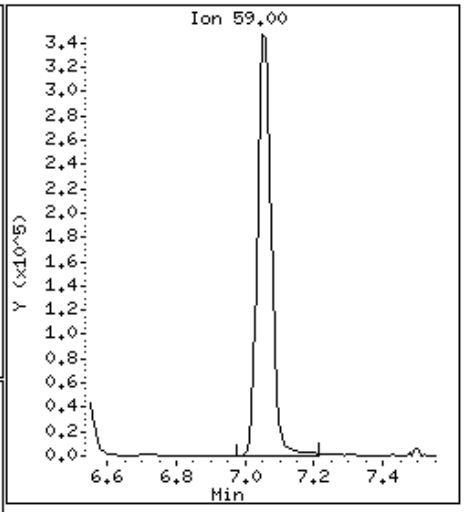
Column phase: Rtx-502.2

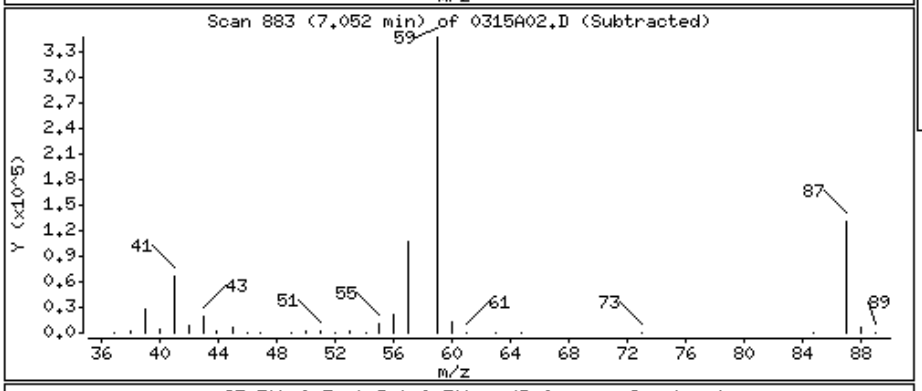
Column diameter: 0.18

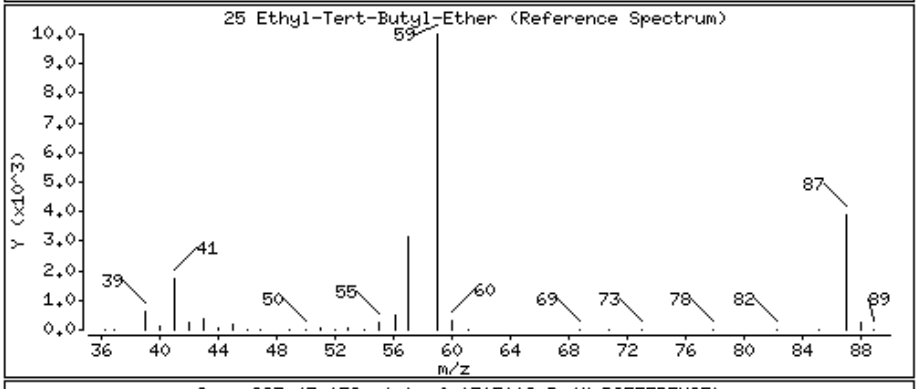
25 Ethyl-Tert-Butyl-Ether

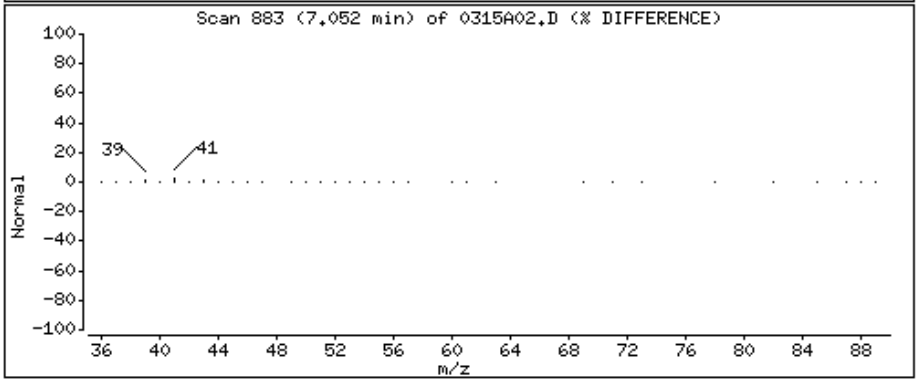
Concentration: 80.811 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

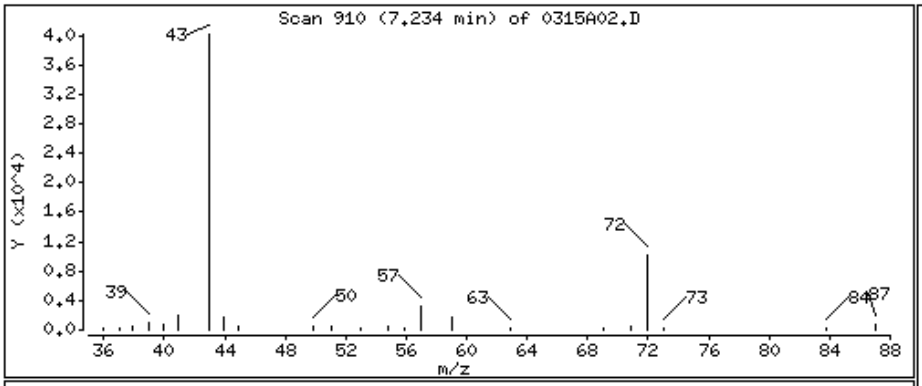
Operator: PD

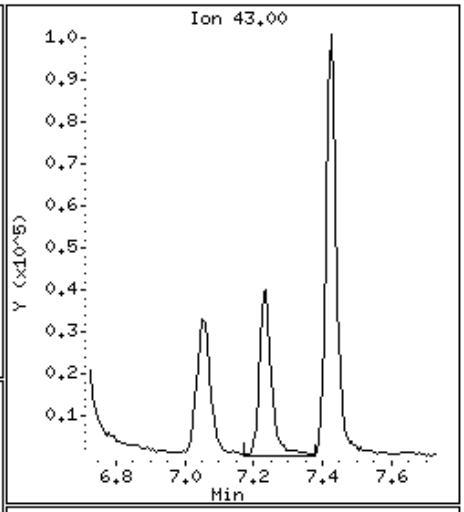
Column phase: Rtx-502.2

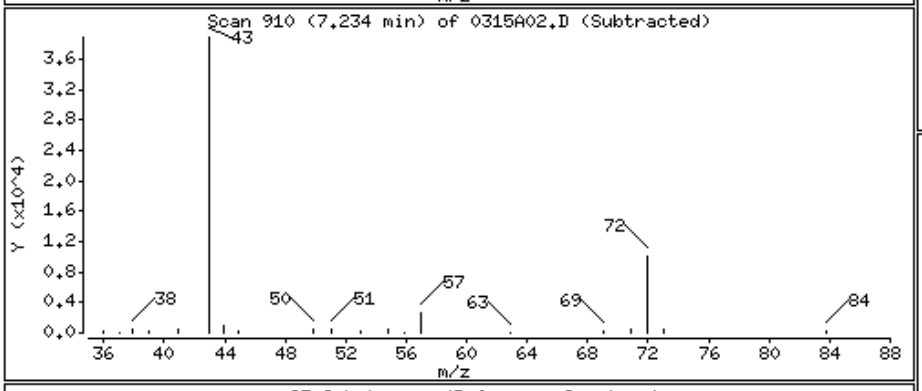
Column diameter: 0.18

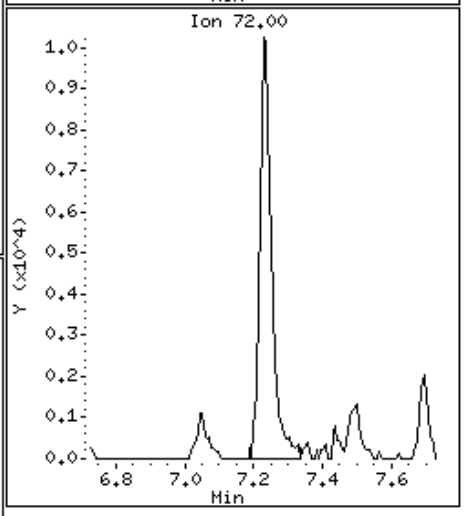
27 2-butanone

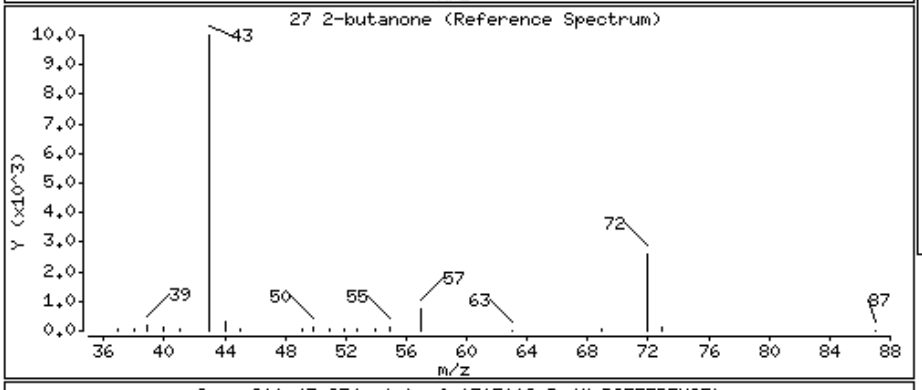
Concentration: 86.306 ngs

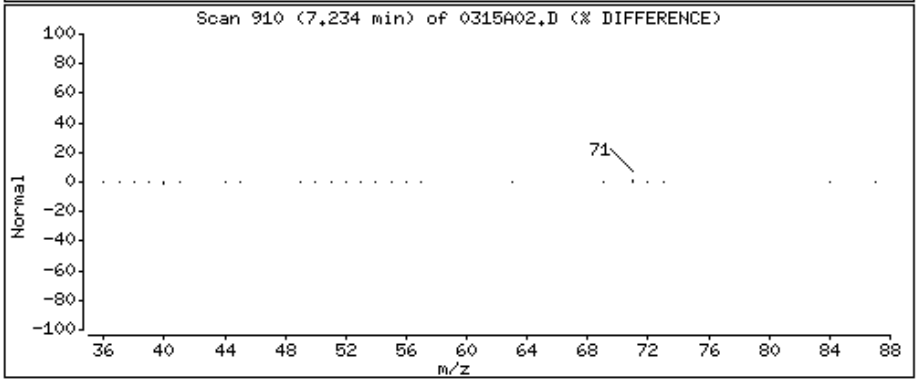












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

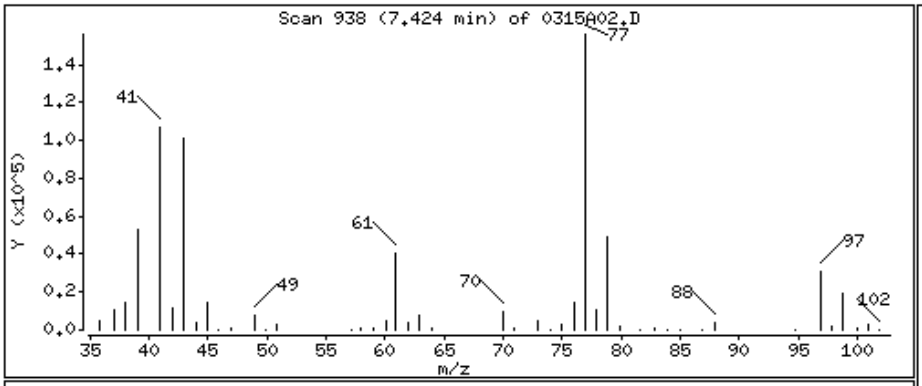
Operator: PD

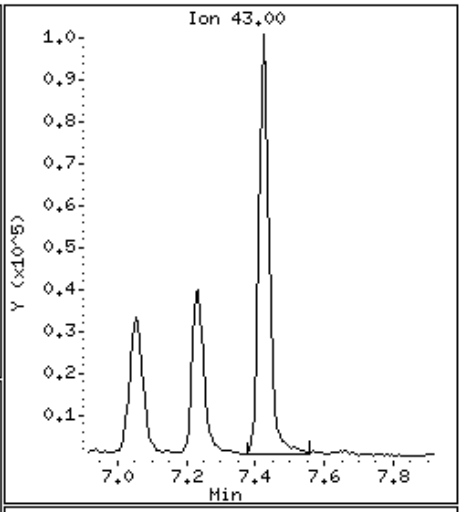
Column phase: Rtx-502.2

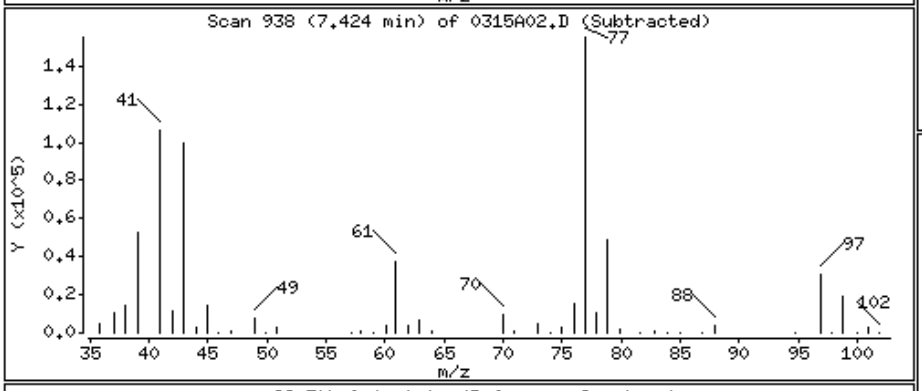
Column diameter: 0.18

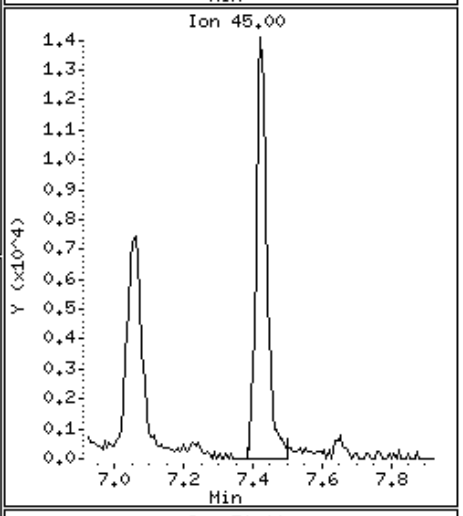
29 Ethyl Acetate

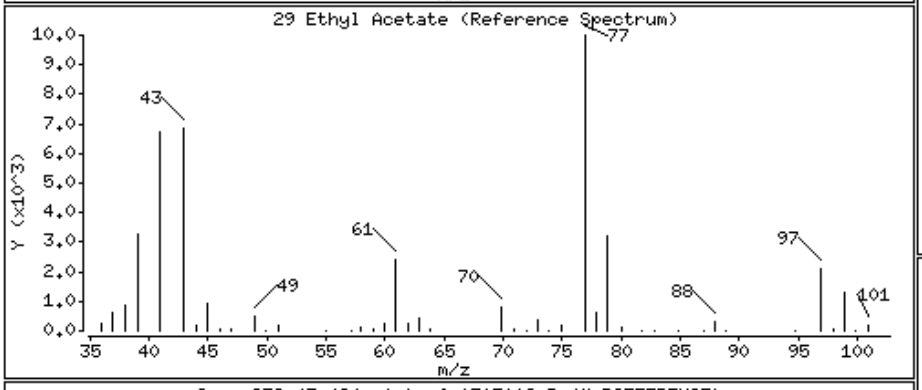
Concentration: 87.231 ngs

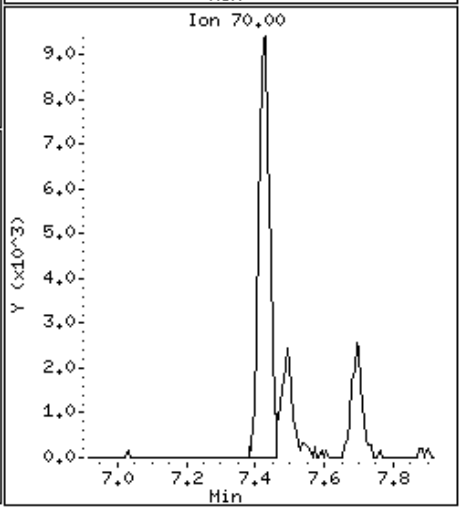


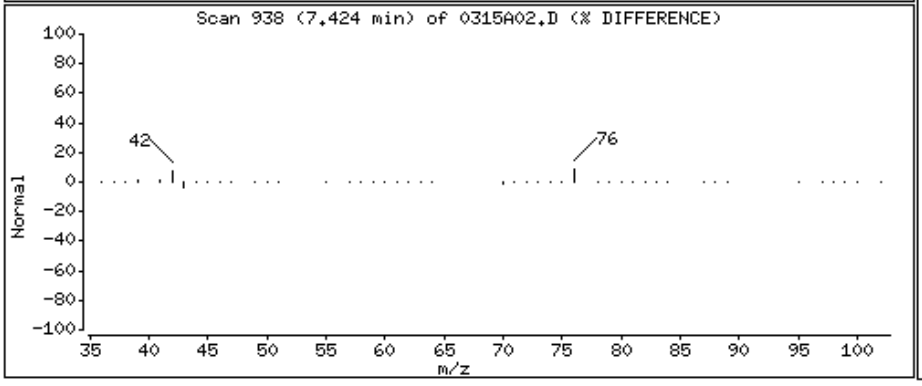












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

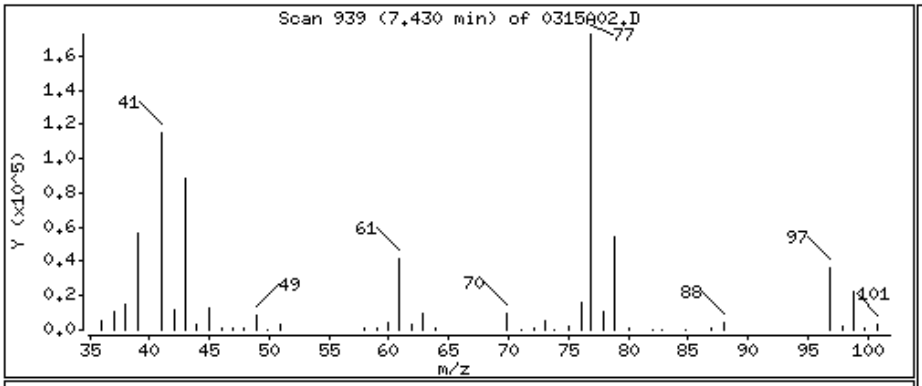
Operator: PD

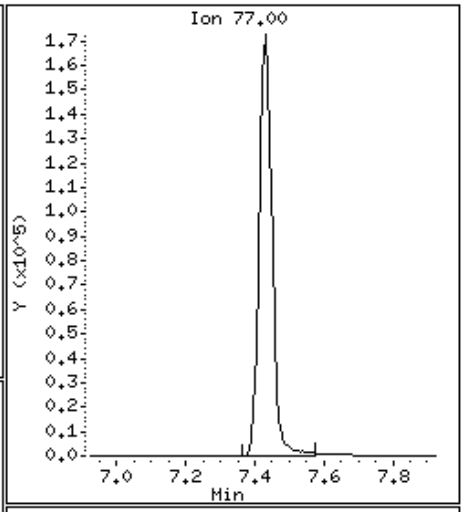
Column phase: Rtx-502.2

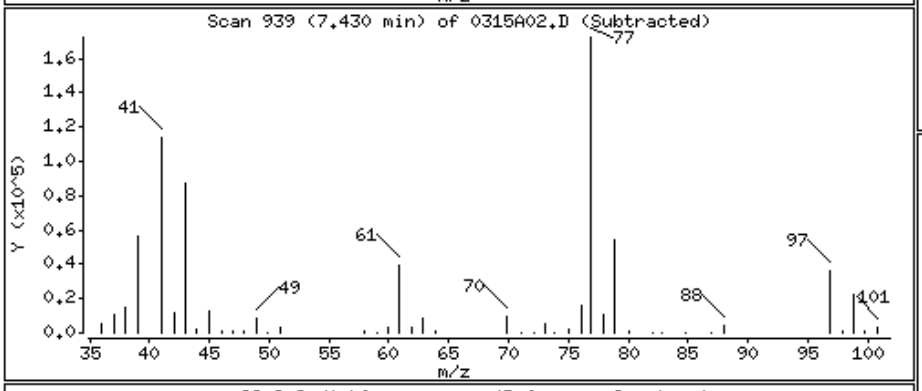
Column diameter: 0.18

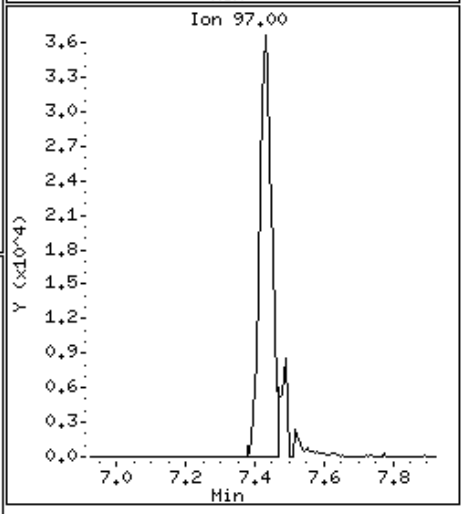
28 2,2-dichloropropane

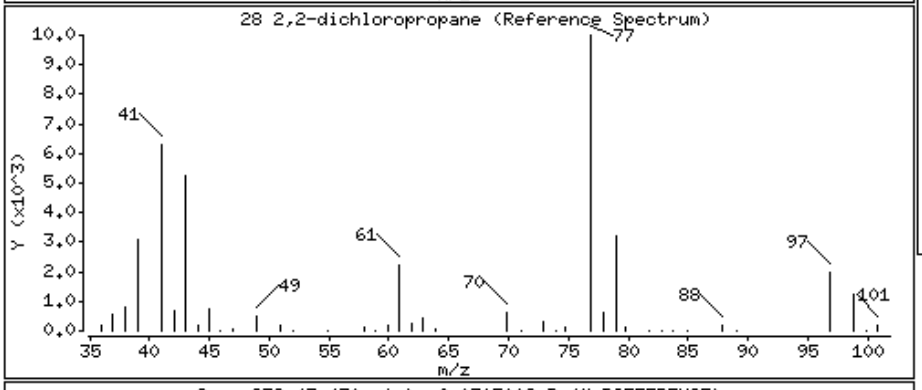
Concentration: 97.120 ngs

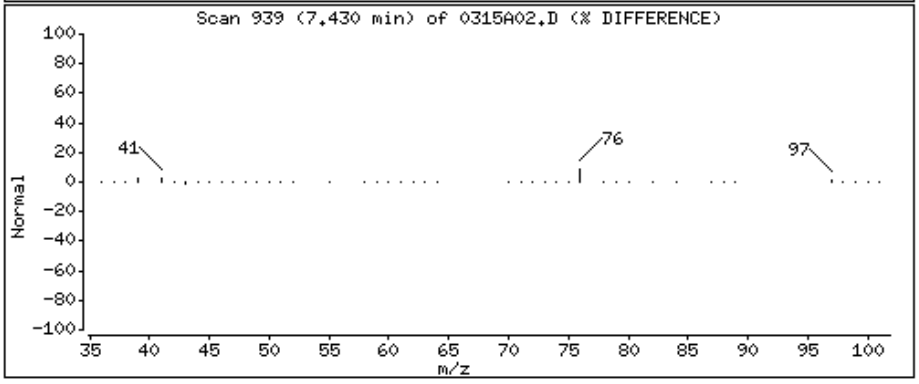












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

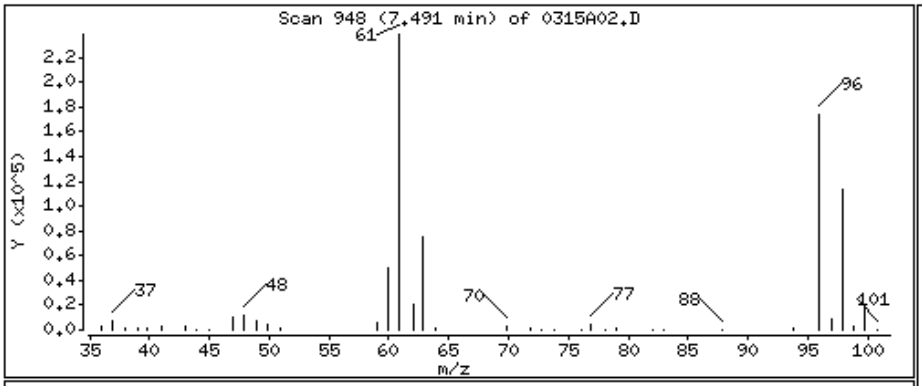
Operator: PD

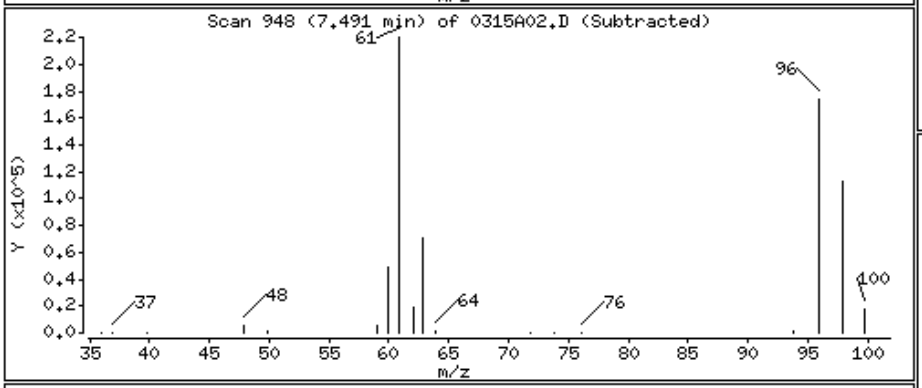
Column phase: Rtx-502.2

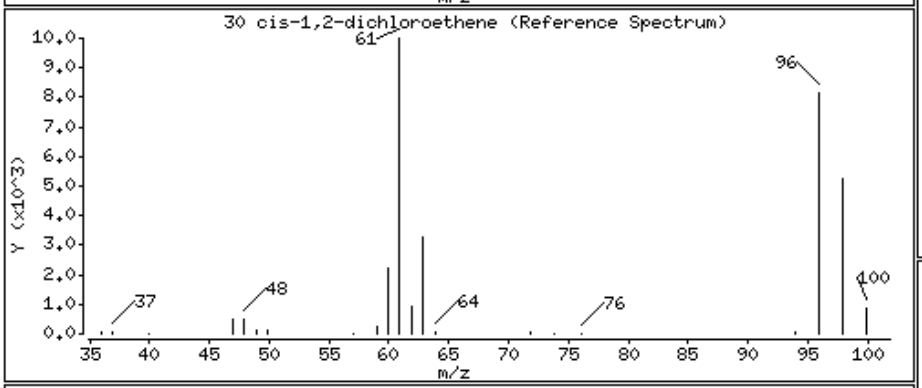
Column diameter: 0.18

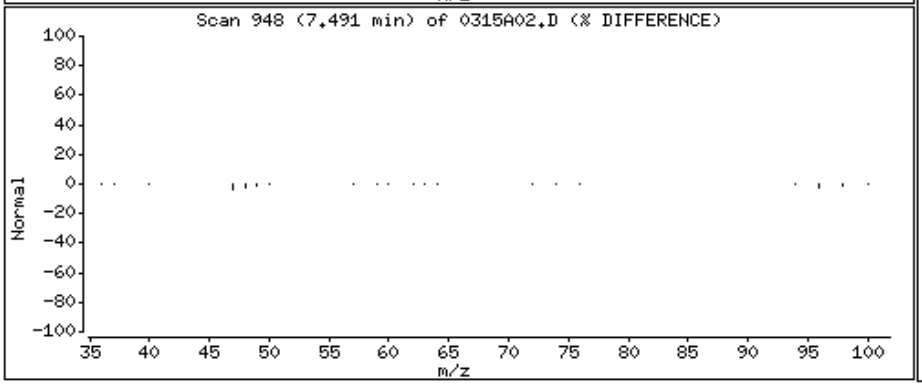
30 cis-1,2-dichloroethene

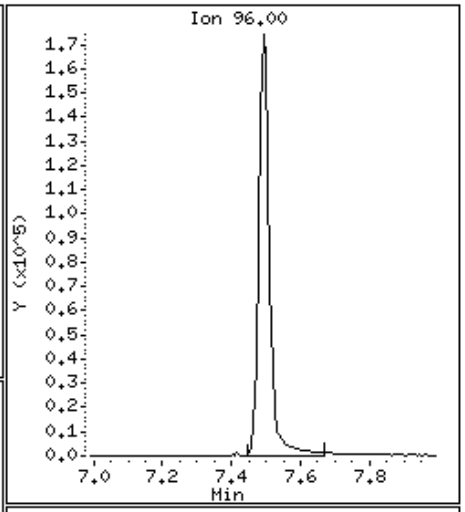
Concentration: 95.715 ngs

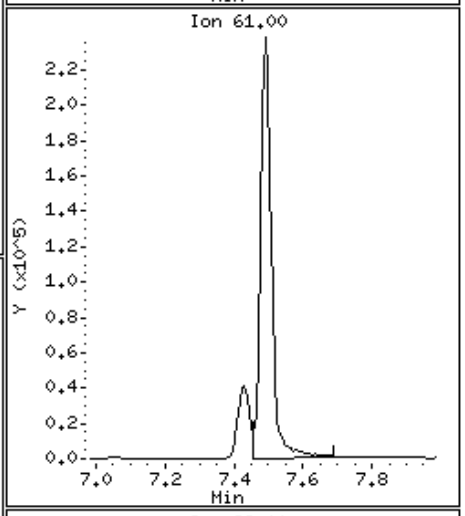


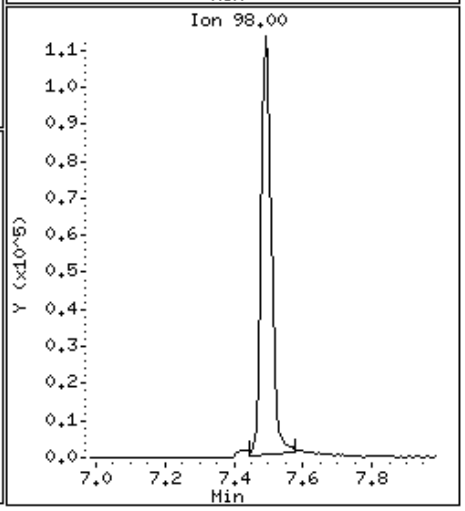












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

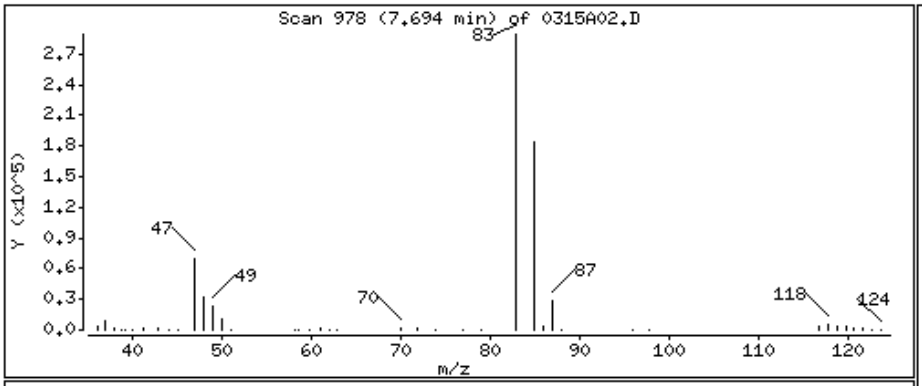
Operator: PD

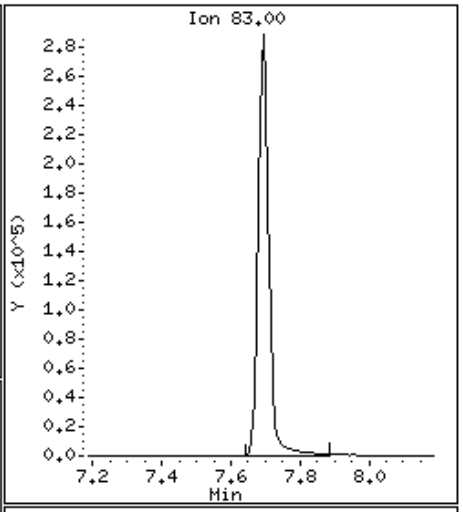
Column phase: Rtx-502.2

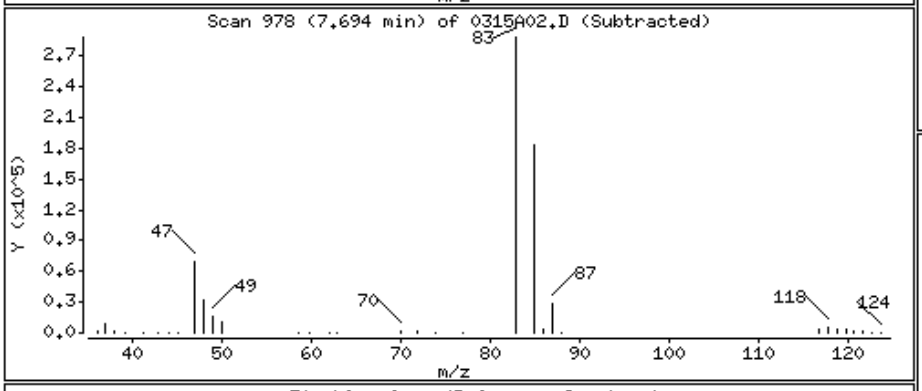
Column diameter: 0.18

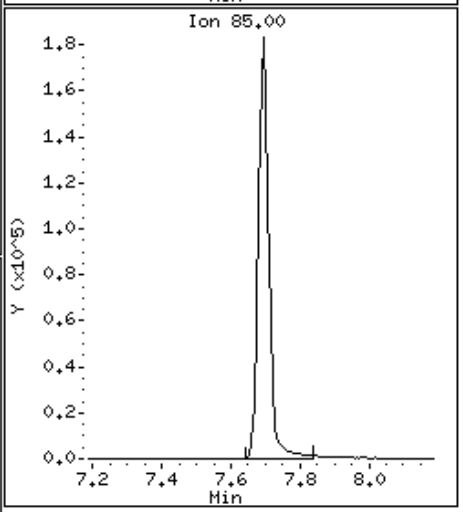
31 chloroform

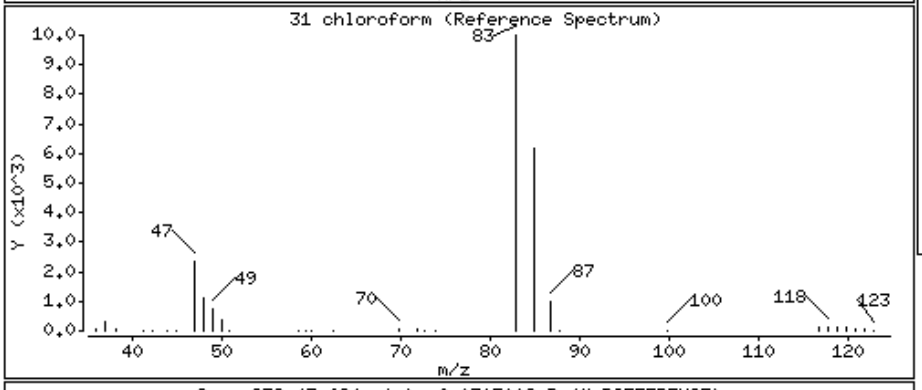
Concentration: 95.917 ngs

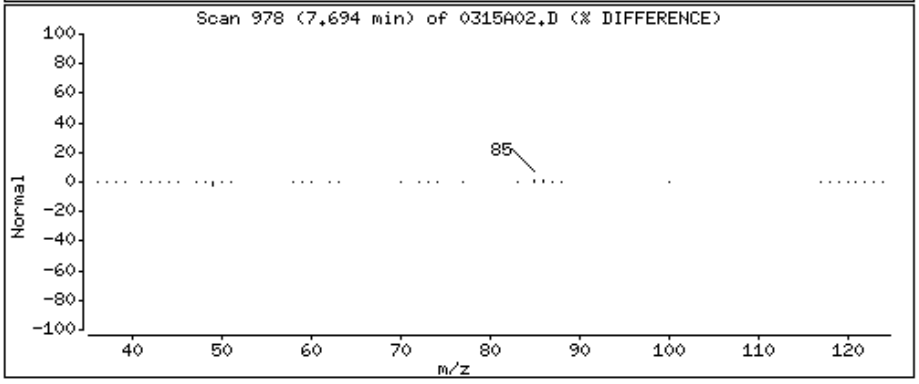












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

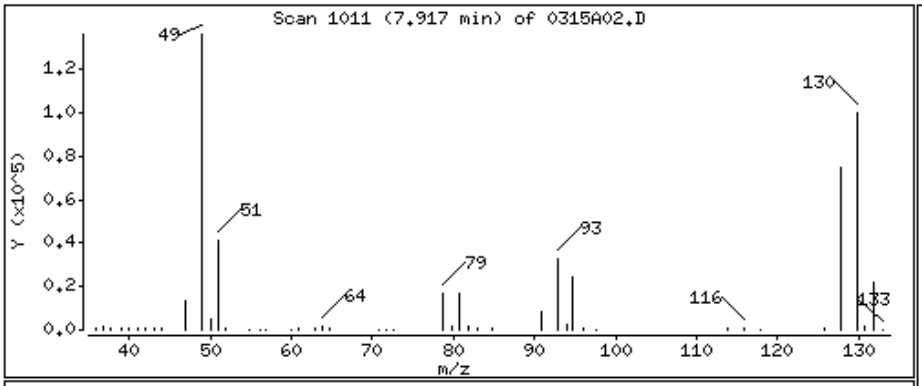
Operator: PD

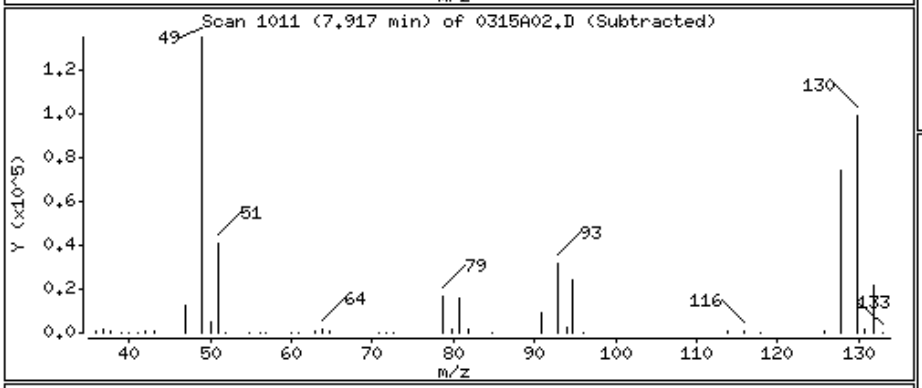
Column phase: Rtx-502.2

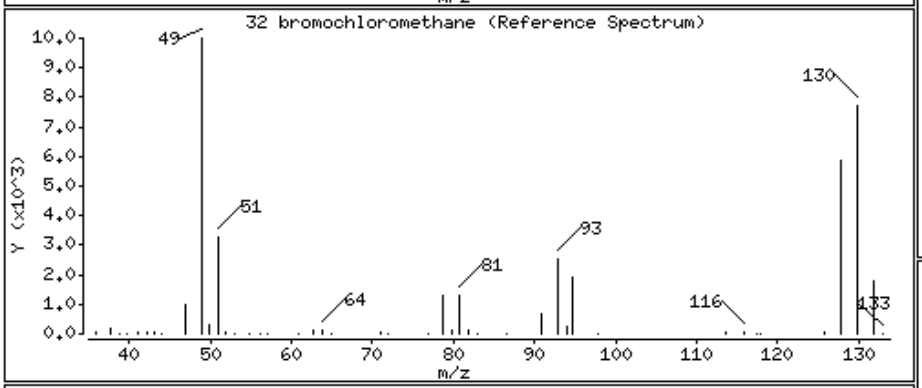
Column diameter: 0.18

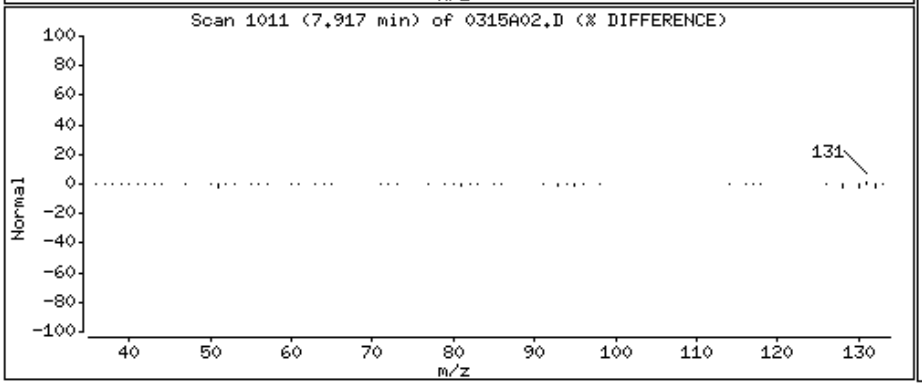
32 bromochloromethane

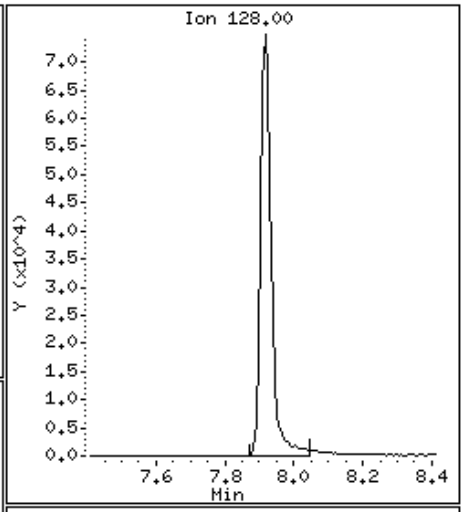
Concentration: 103.987 ngs

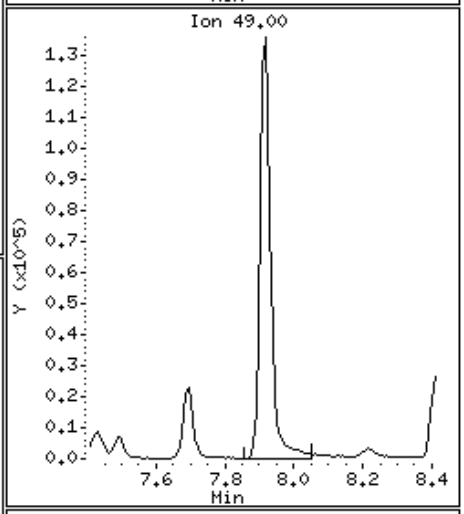


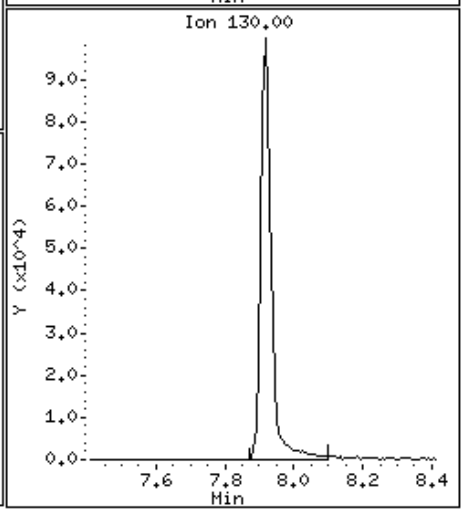












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

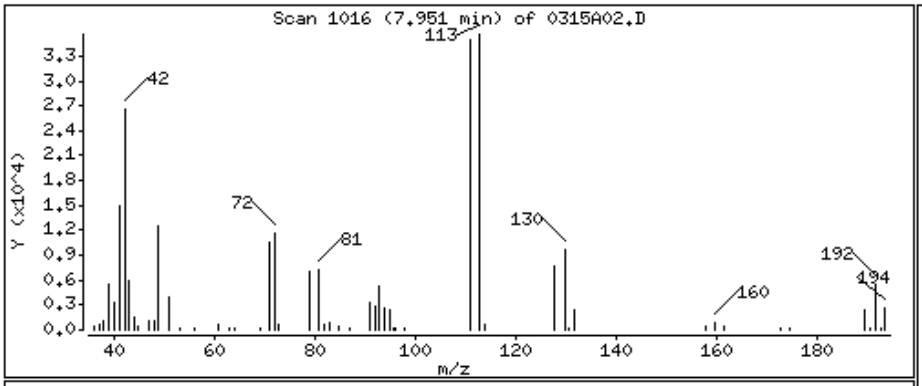
Operator: PD

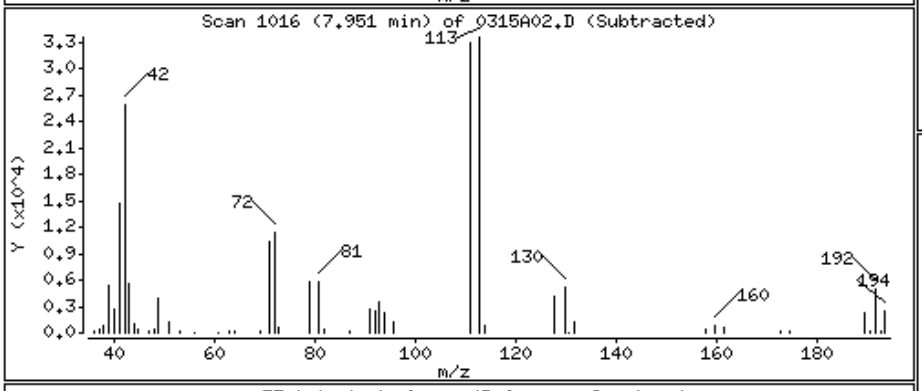
Column phase: Rtx-502.2

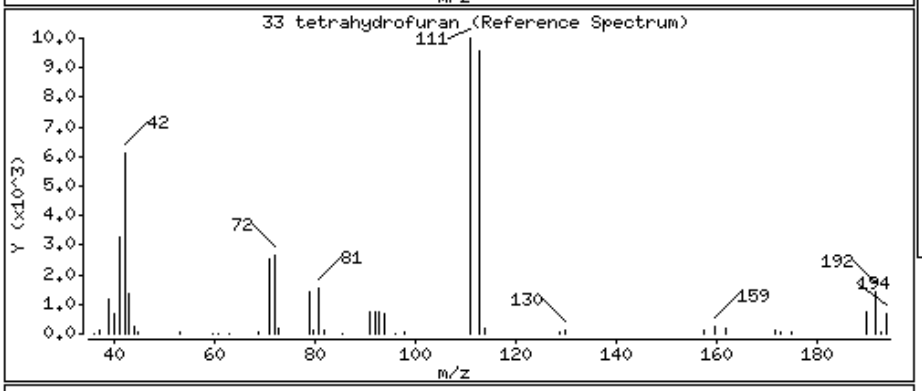
Column diameter: 0.18

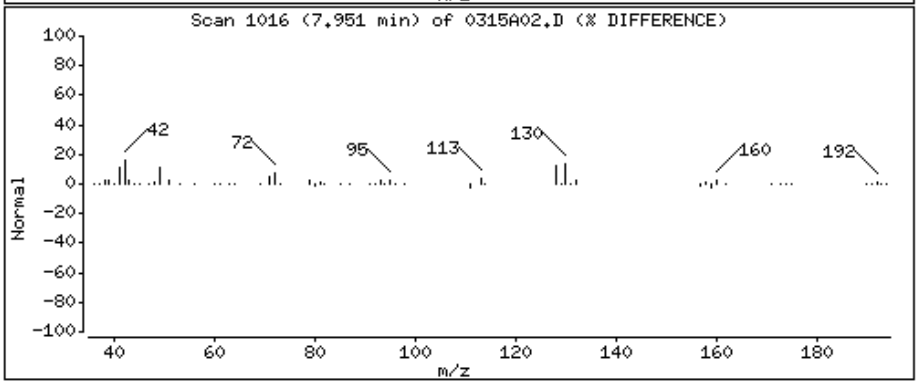
33 tetrahydrofuran

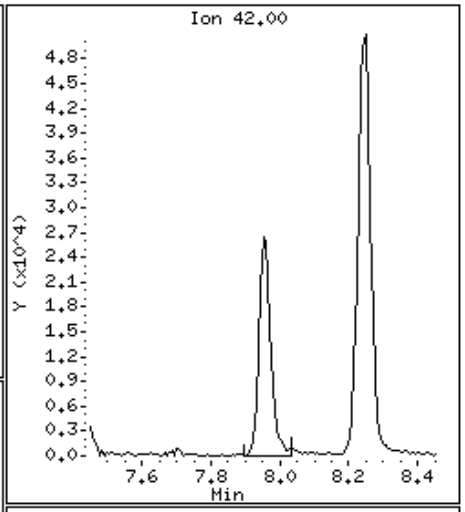
Concentration: 84.638 ngs

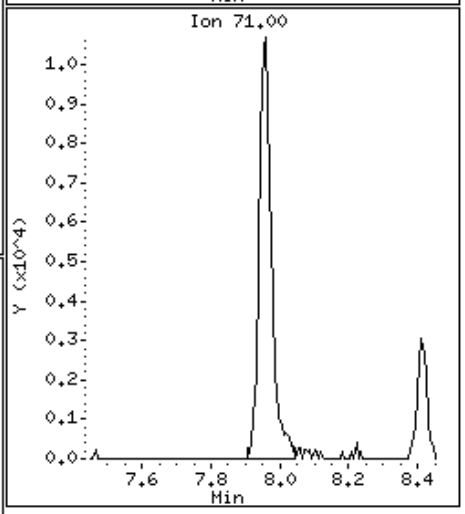












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

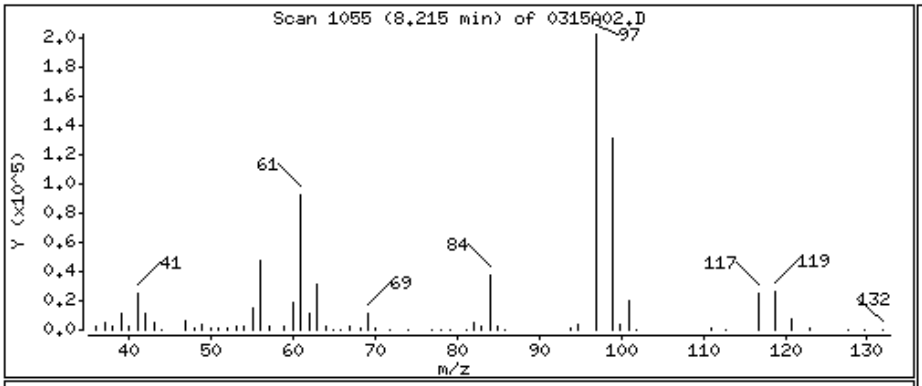
Operator: PD

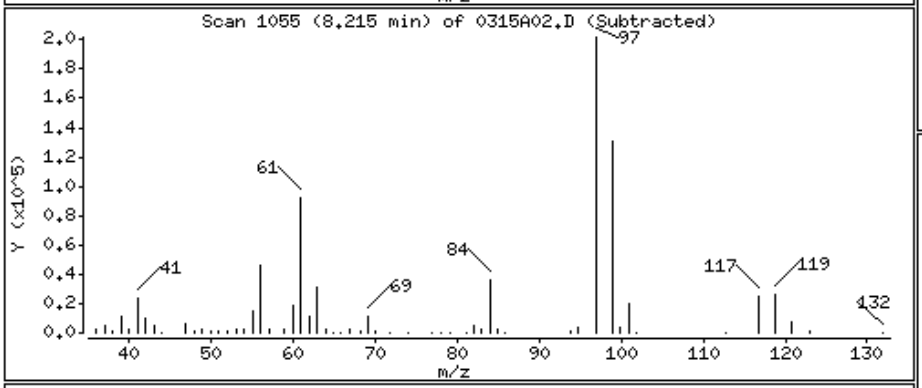
Column phase: Rtx-502.2

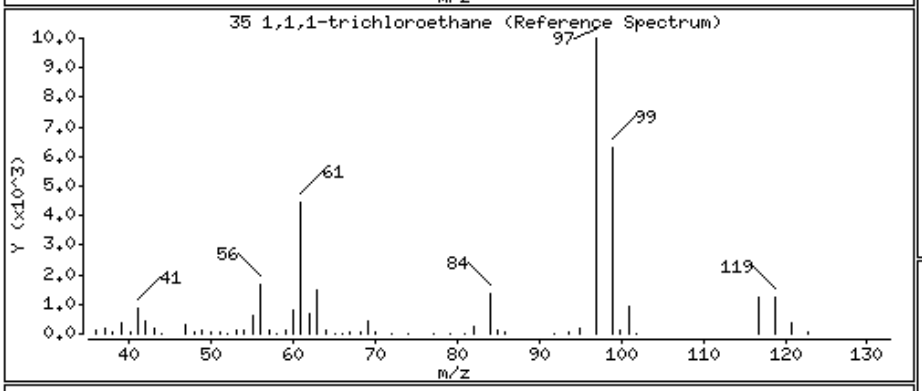
Column diameter: 0.18

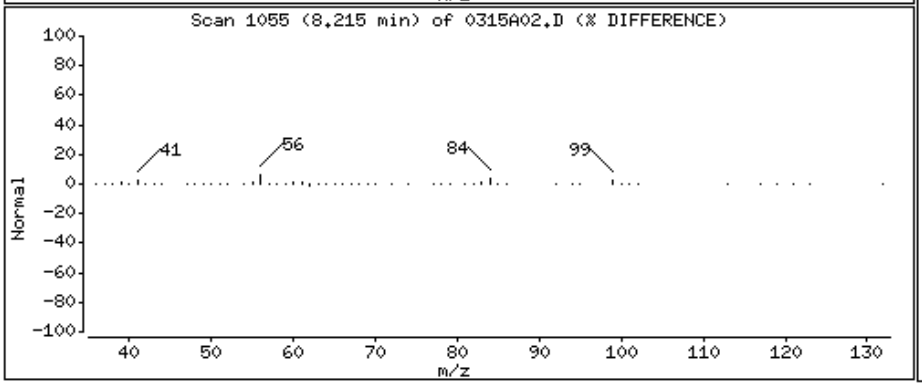
35 1,1,1-trichloroethane

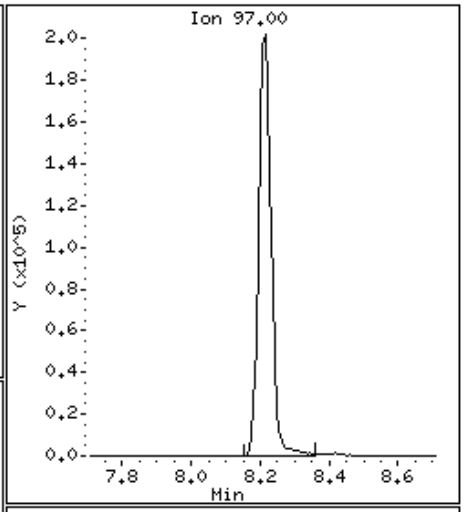
Concentration: 101.191 ngs

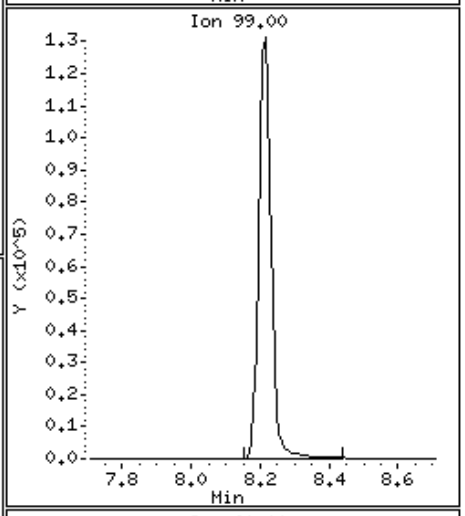


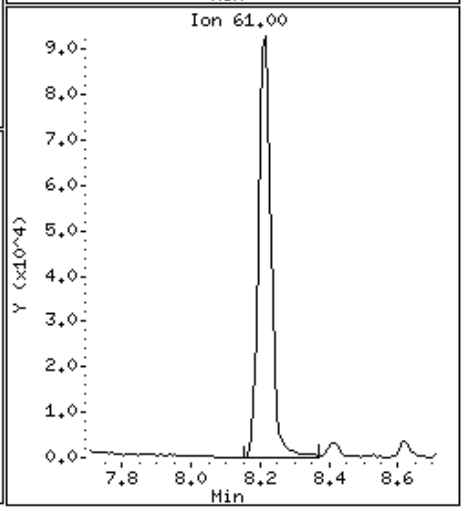












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

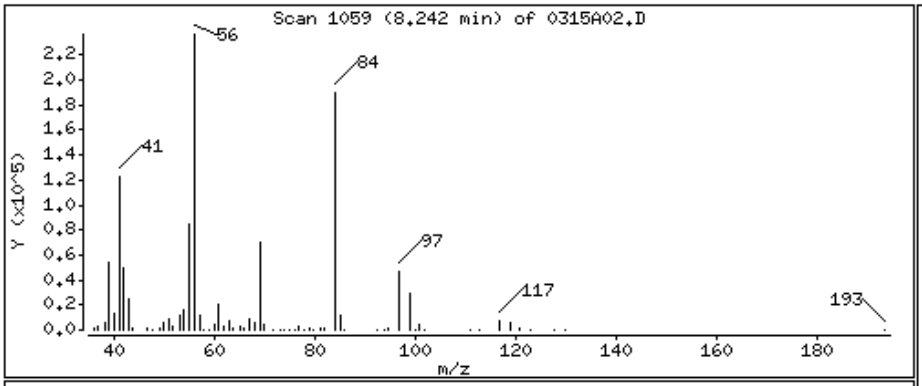
Operator: PD

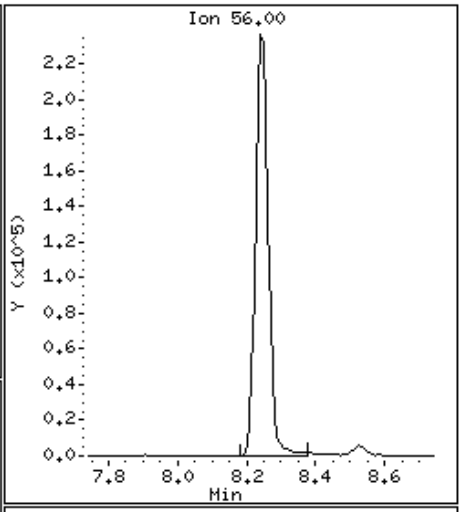
Column phase: Rtx-502.2

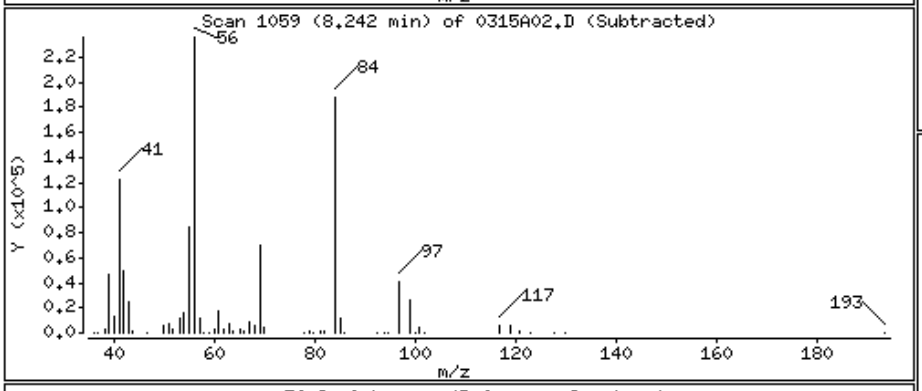
Column diameter: 0.18

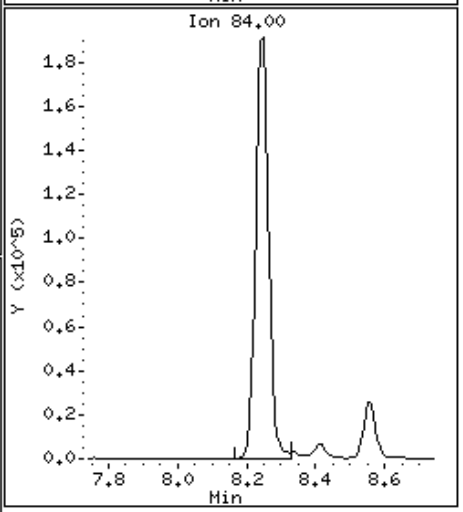
36 Cyclohexane

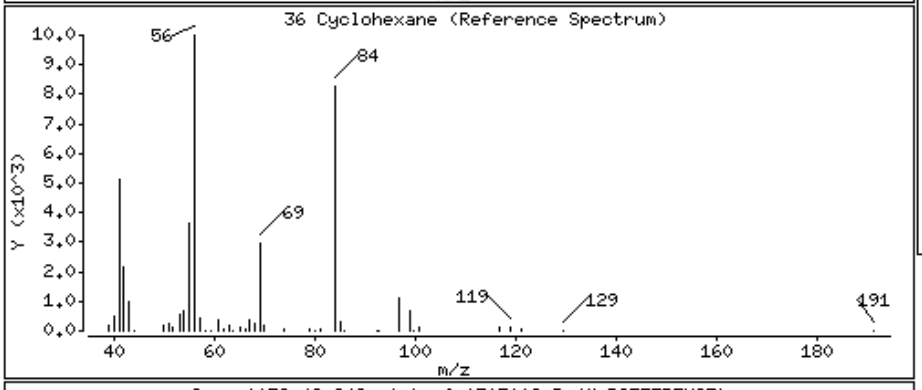
Concentration: 94.450 ngs

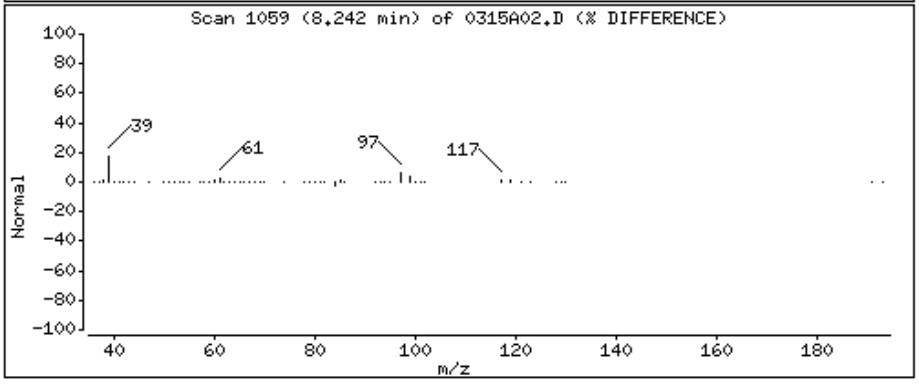












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

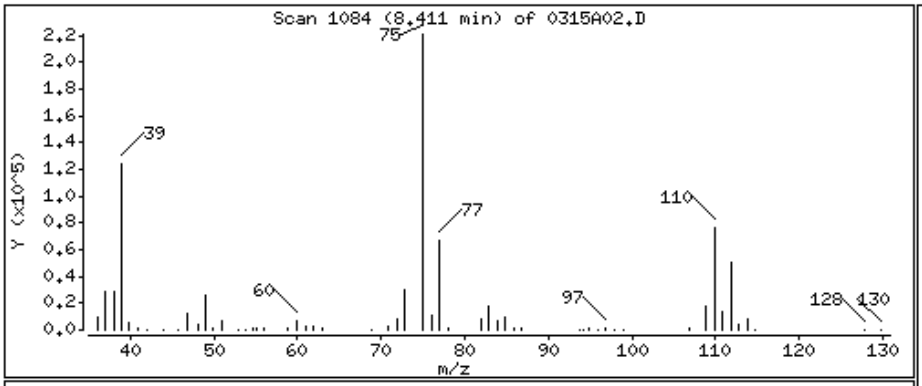
Operator: PD

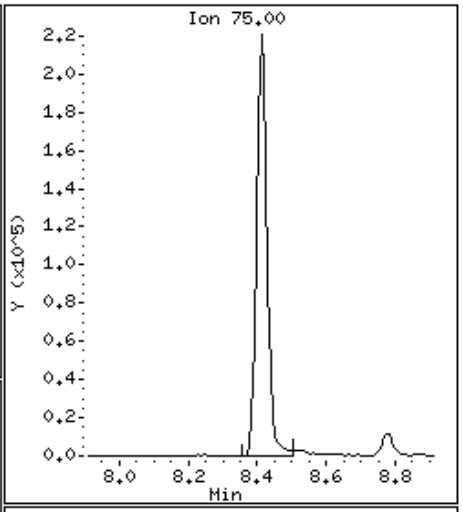
Column phase: Rtx-502.2

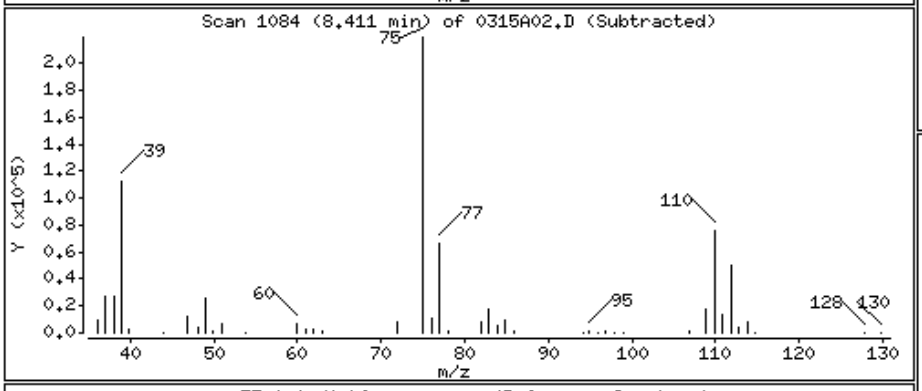
Column diameter: 0.18

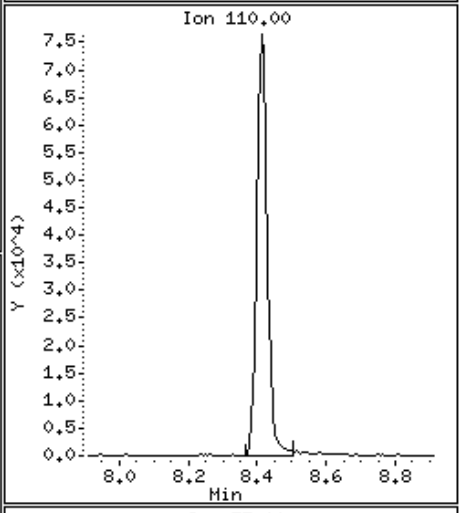
37 1,1-dichloropropene

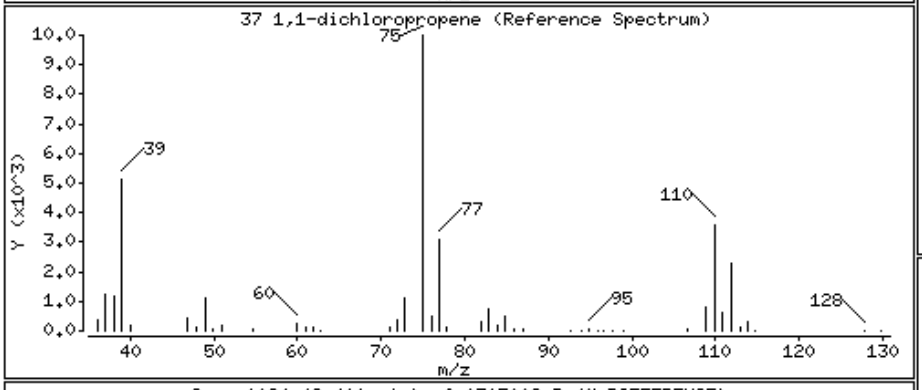
Concentration: 94.325 ngs

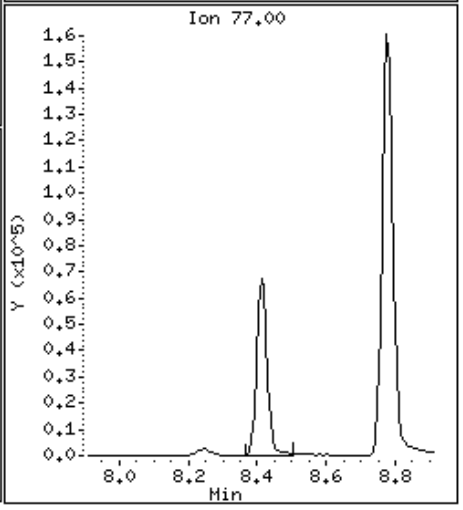


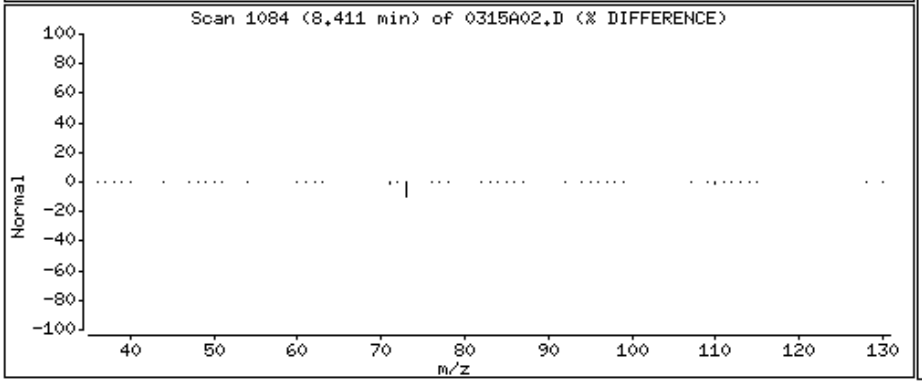












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

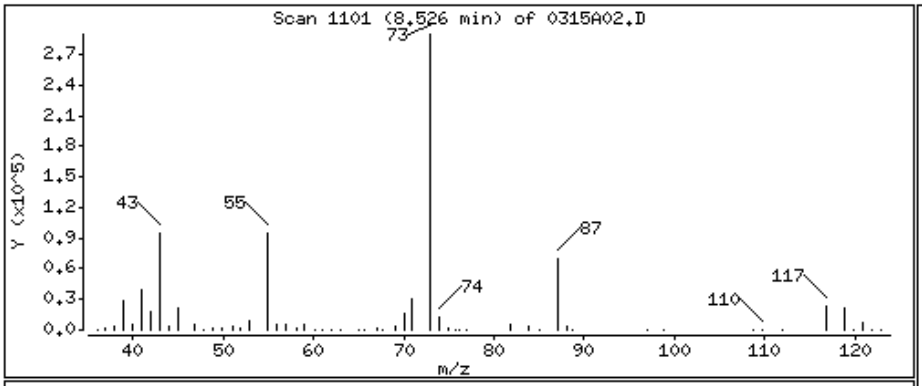
Operator: PD

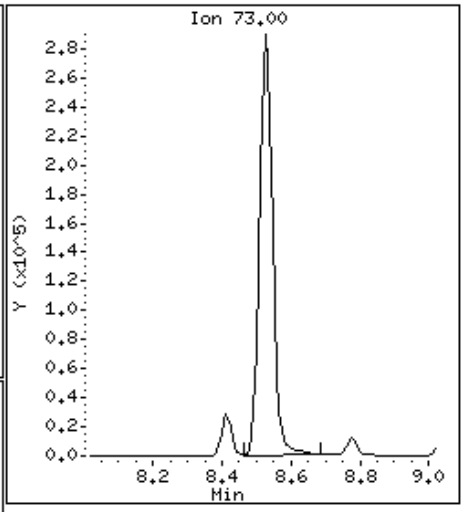
Column phase: Rtx-502.2

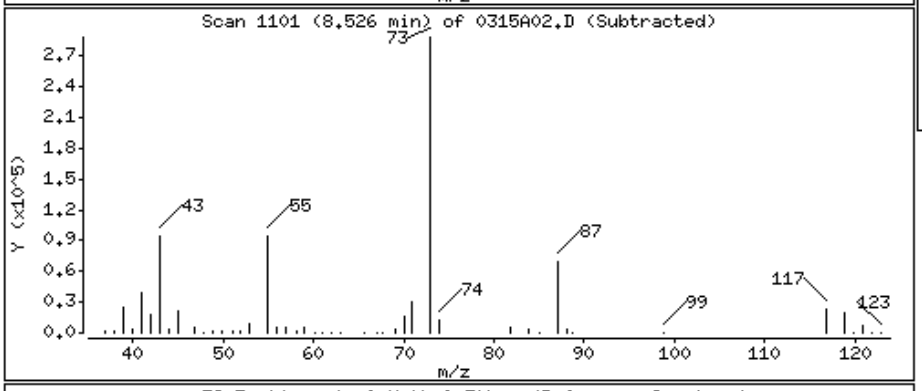
Column diameter: 0.18

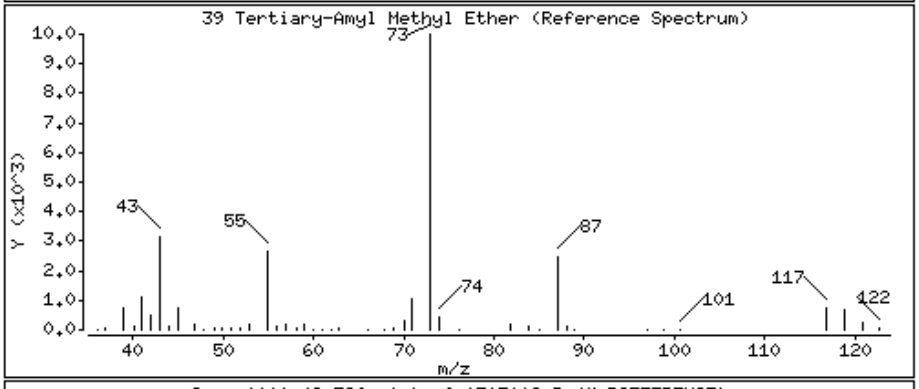
39 Tertiary-Amyl Methyl Ether

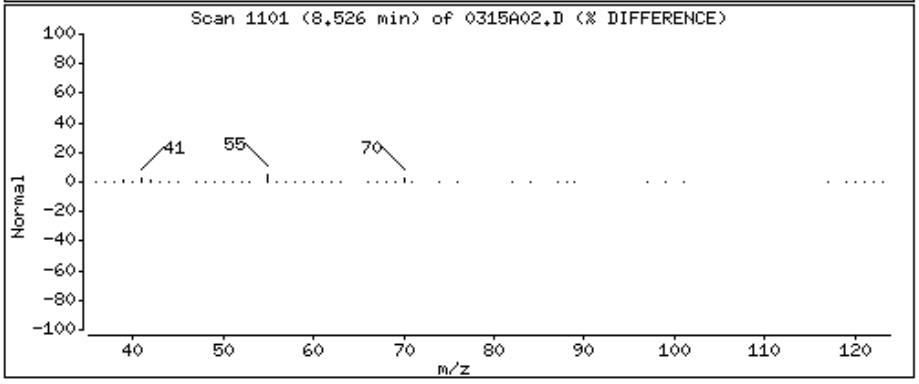
Concentration: 76.806 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

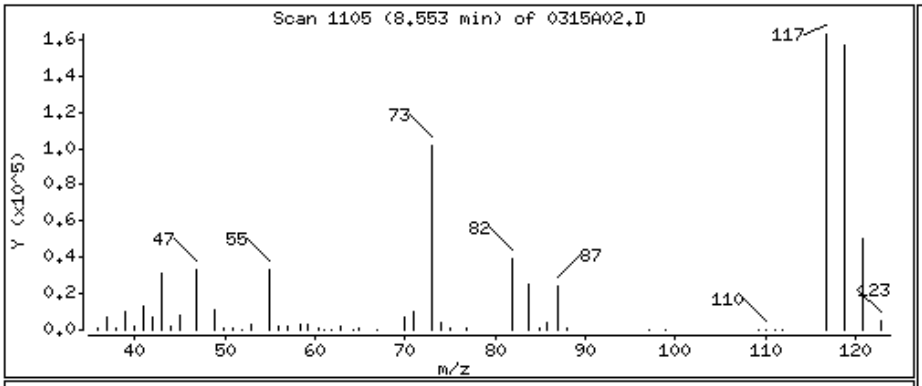
Operator: PD

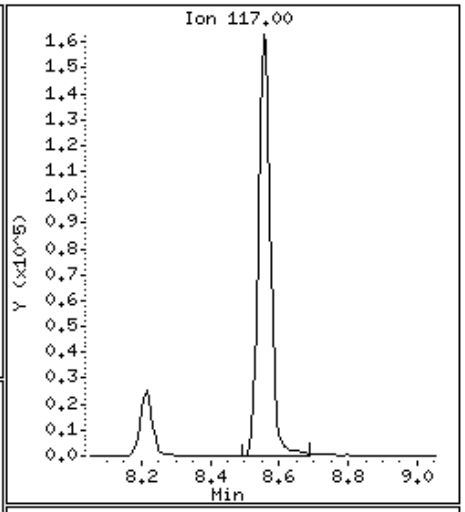
Column phase: Rtx-502.2

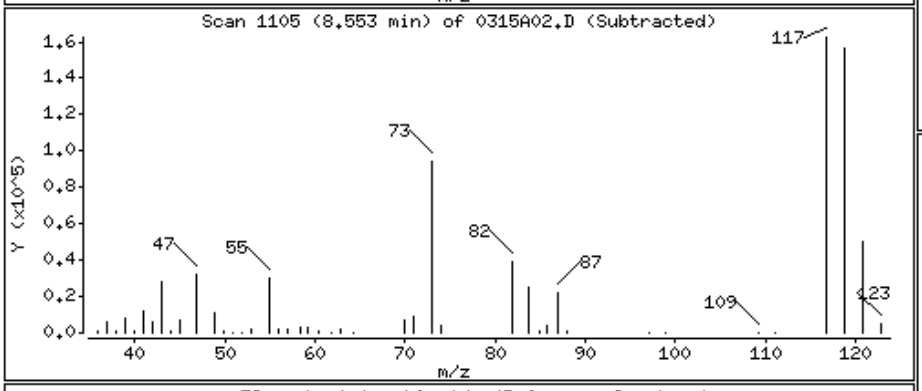
Column diameter: 0.18

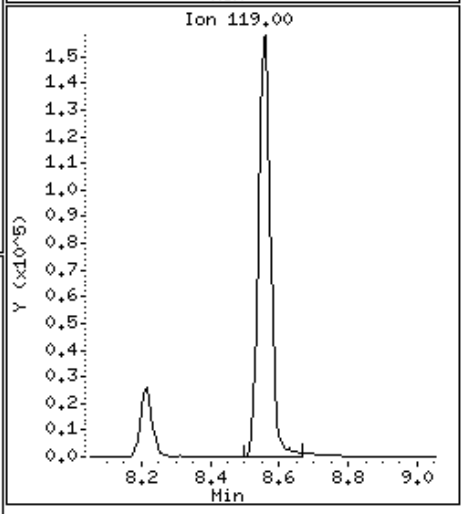
38 carbontetrachloride

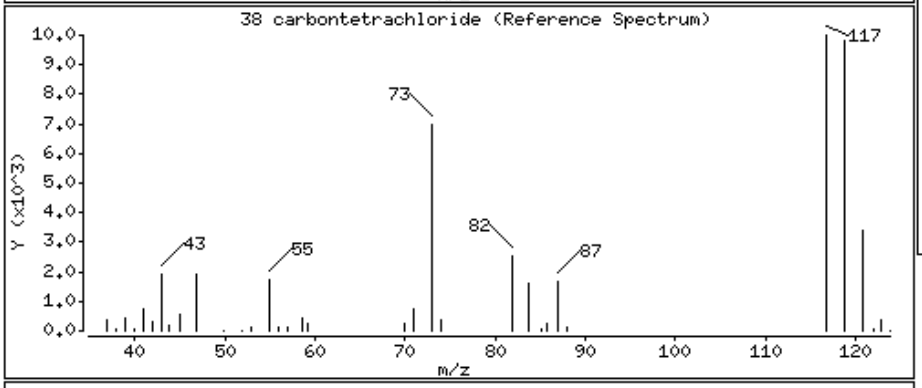
Concentration: 93.005 ngs

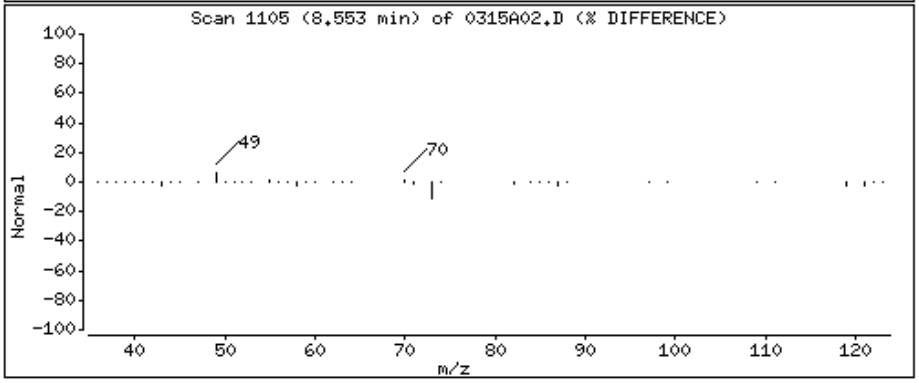












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

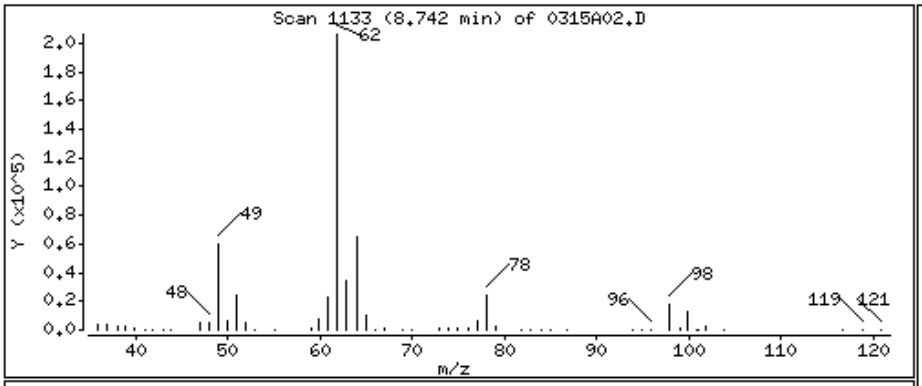
Operator: PD

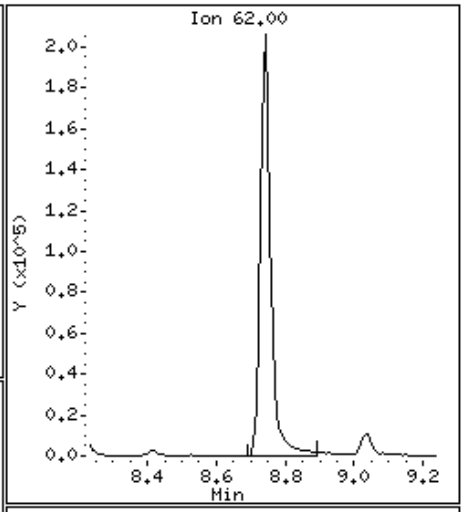
Column phase: Rtx-502.2

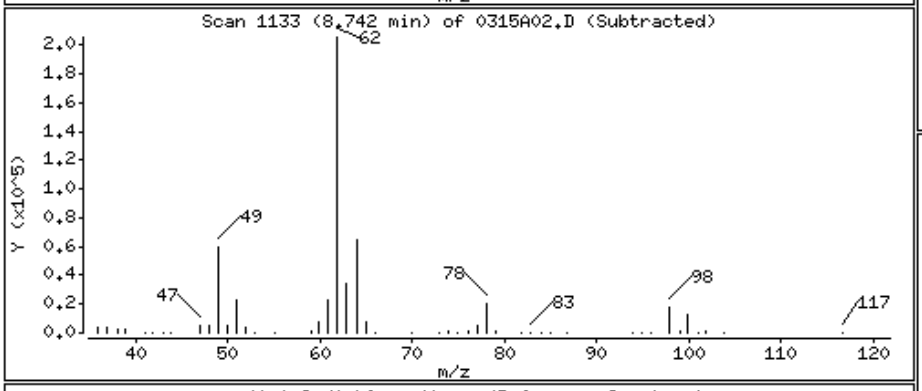
Column diameter: 0.18

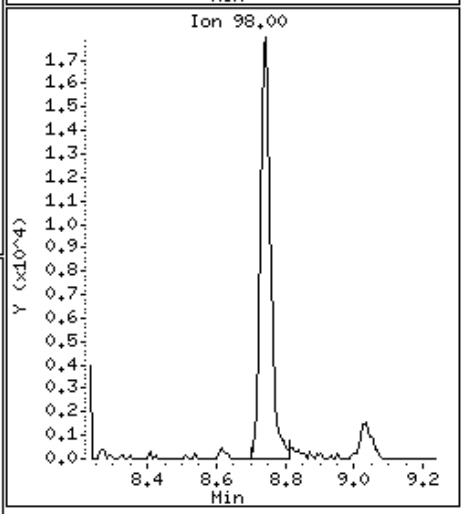
41 1,2-dichloroethane

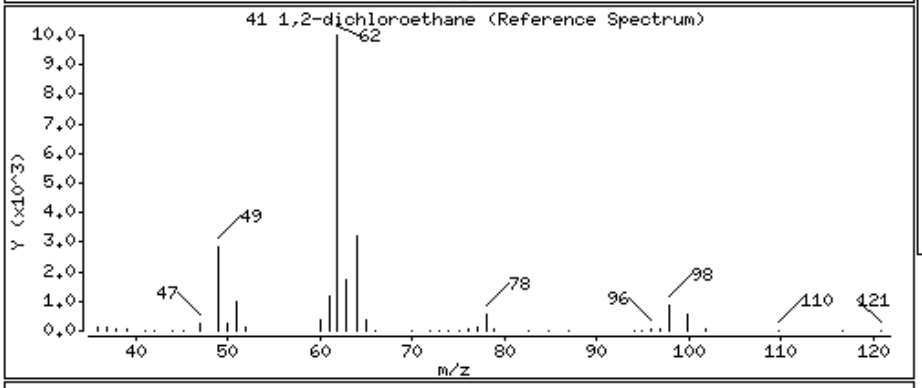
Concentration: 93.671 ngs

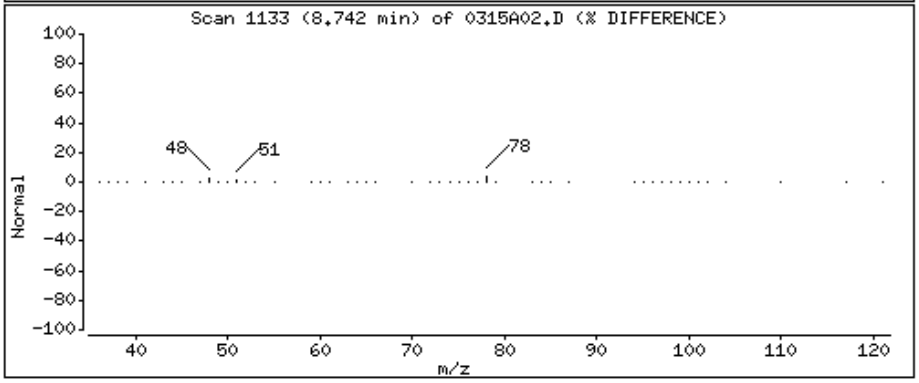












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

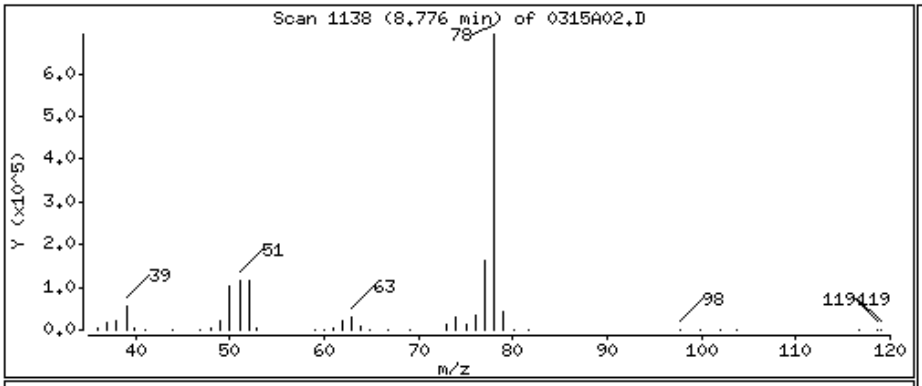
Operator: PD

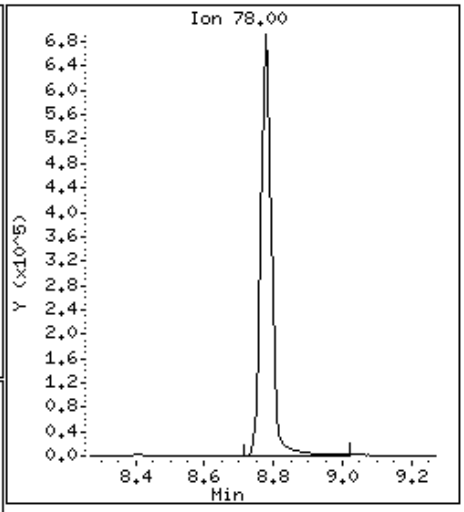
Column phase: Rtx-502.2

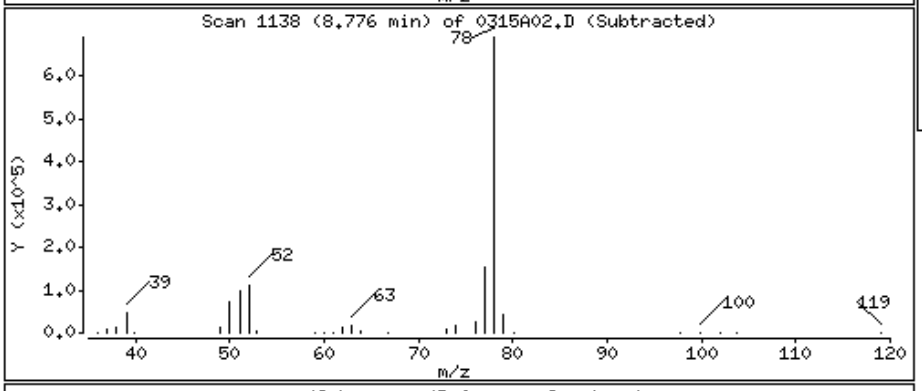
Column diameter: 0.18

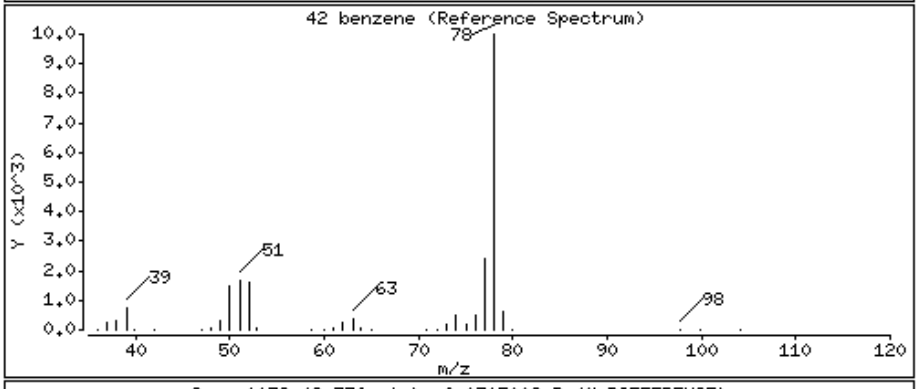
42 benzene

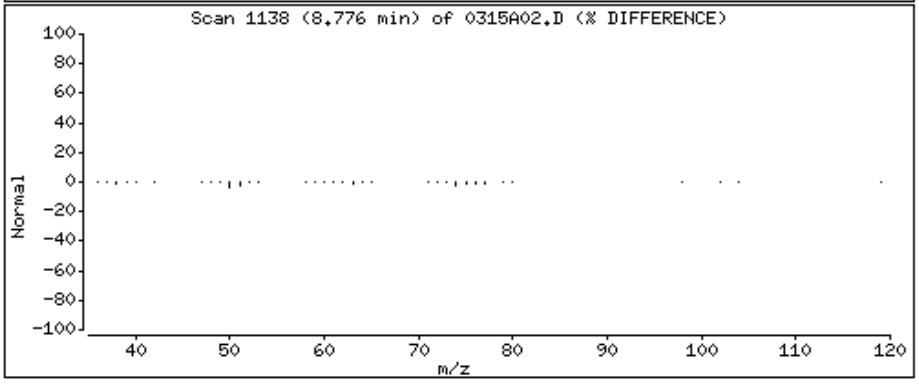
Concentration: 95.568 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

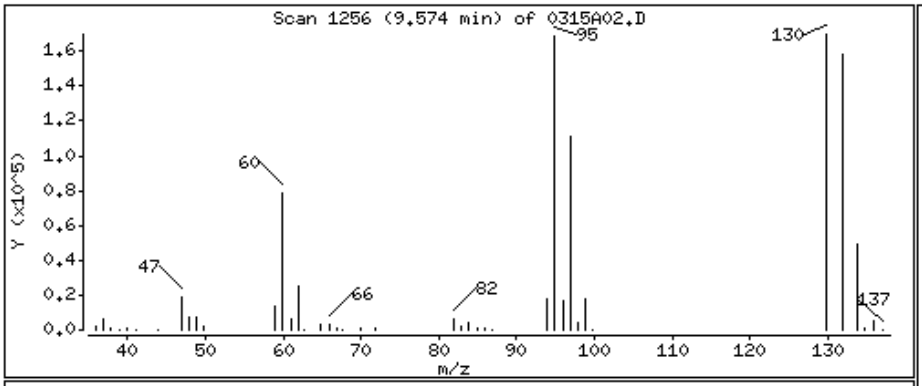
Operator: PD

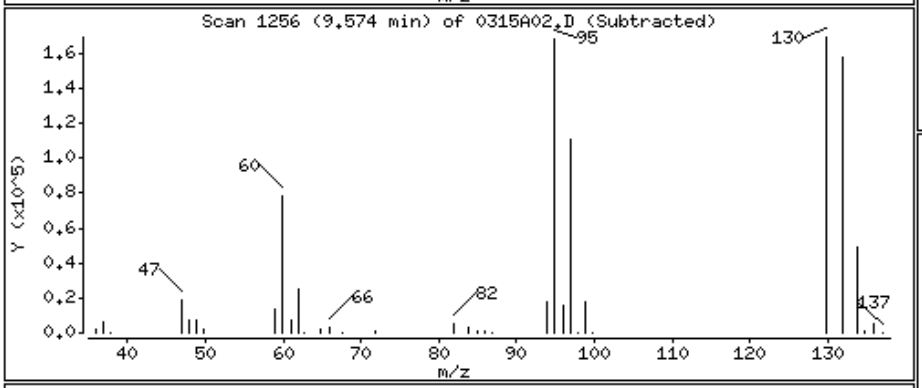
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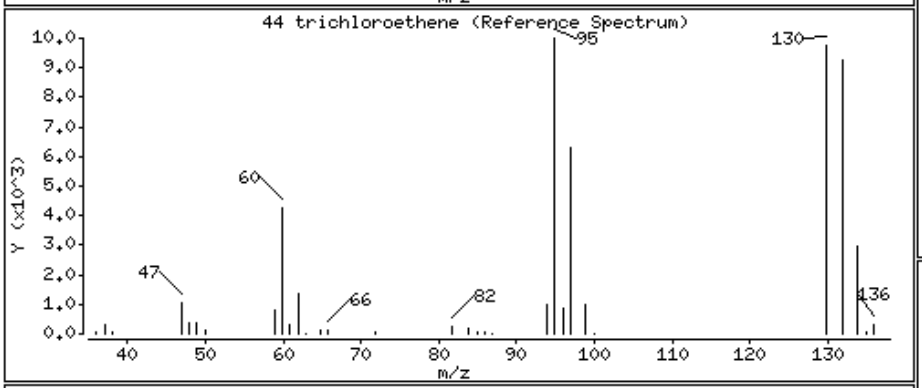
Column diameter: 0.18

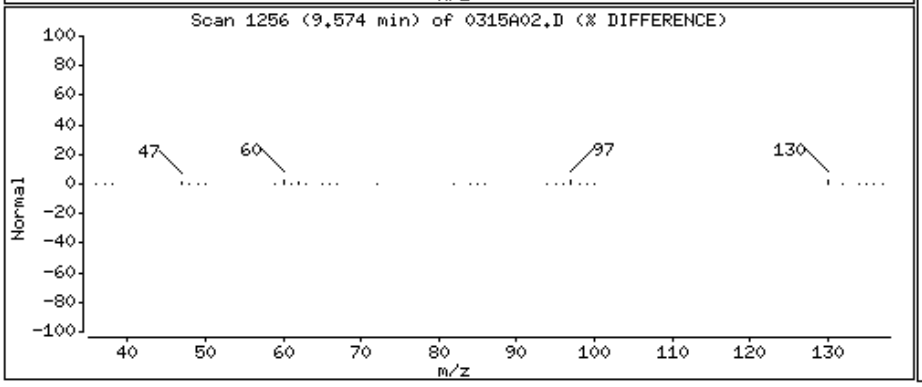
44 trichloroethene

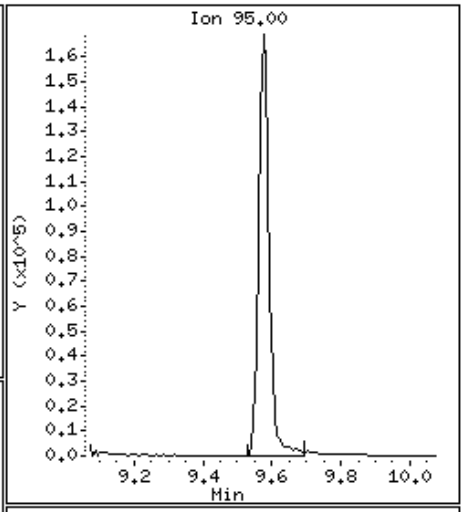
Concentration: 93.200 ngs

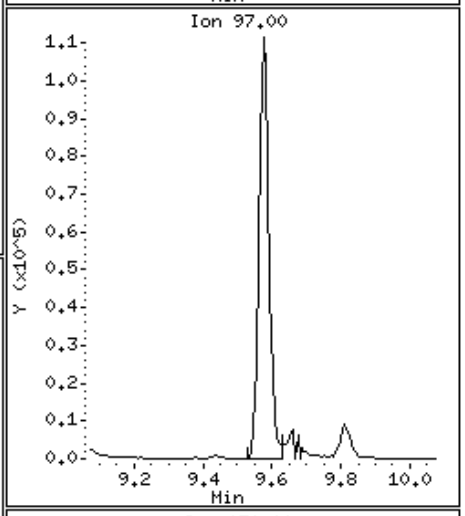


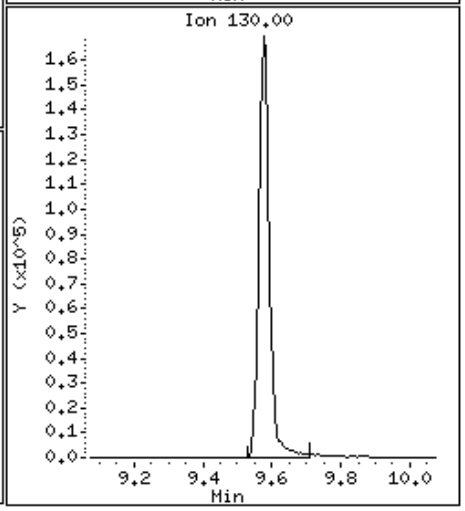












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

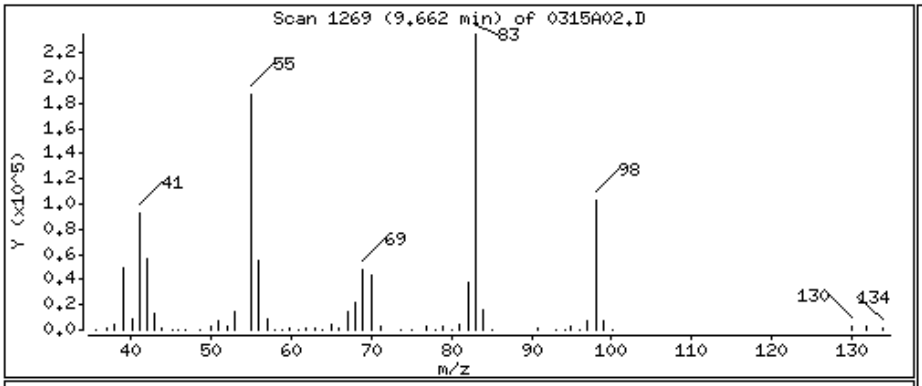
Operator: PD

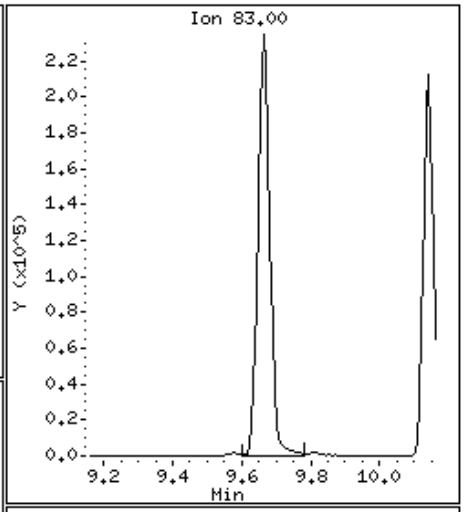
Column phase: Rtx-502.2

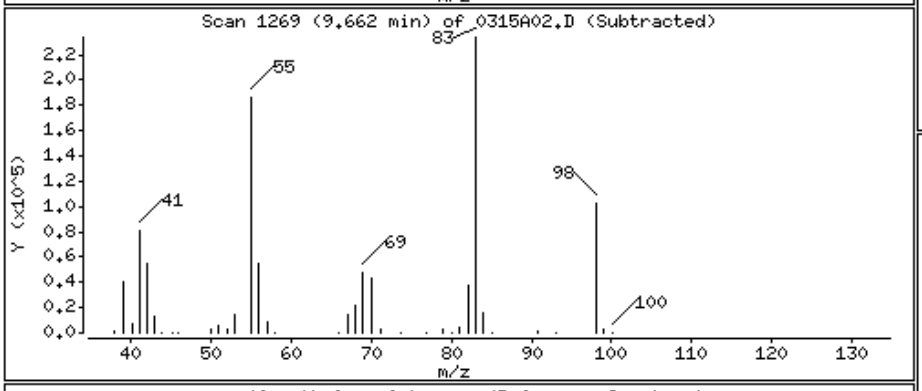
Column diameter: 0.18

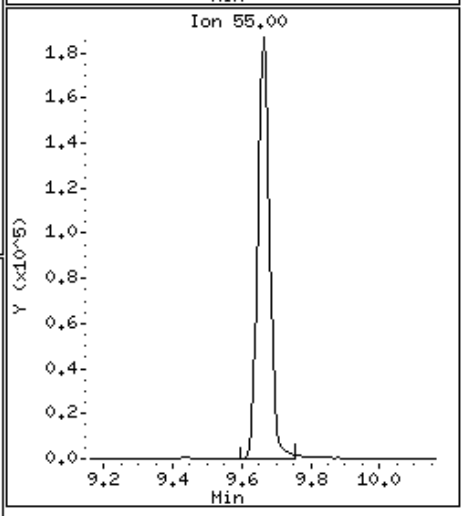
46 methyl cyclohexane

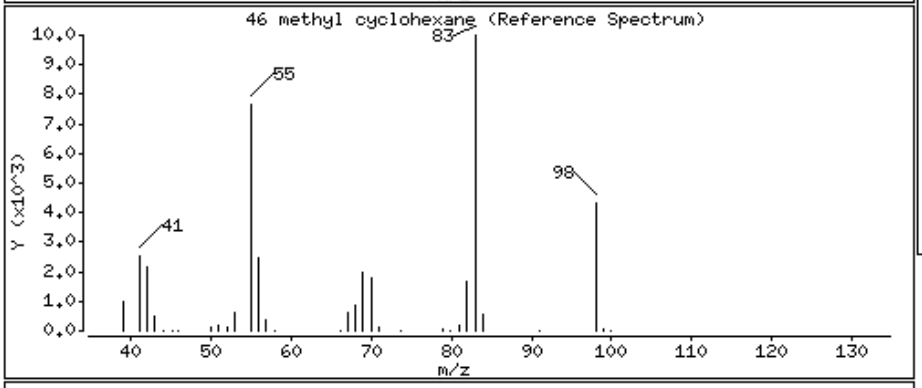
Concentration: 90.775 ngs

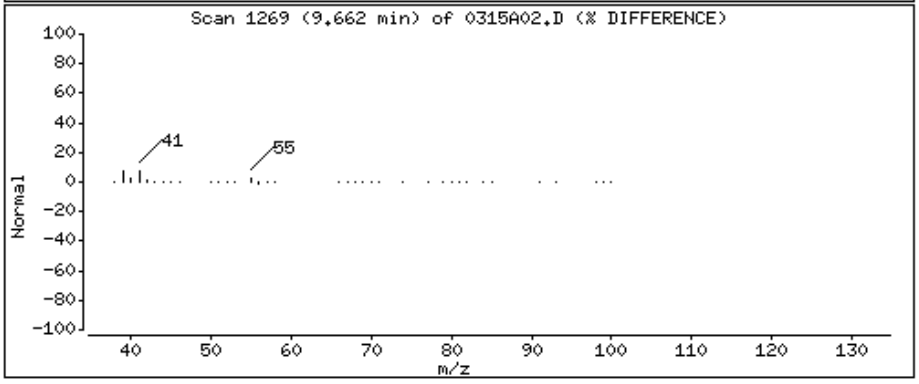












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

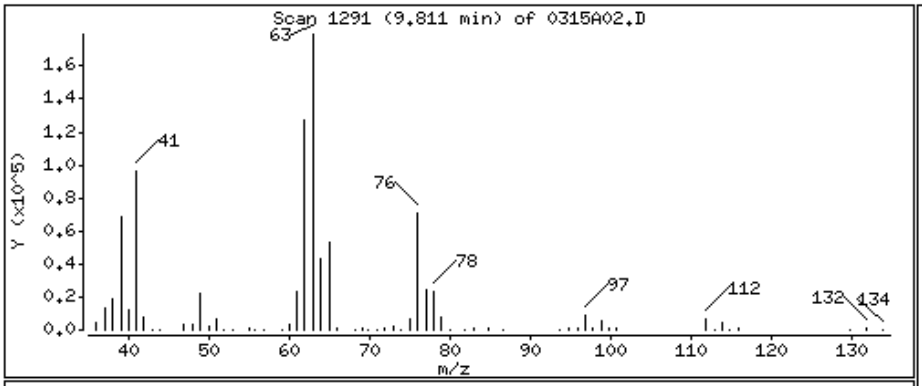
Operator: PD

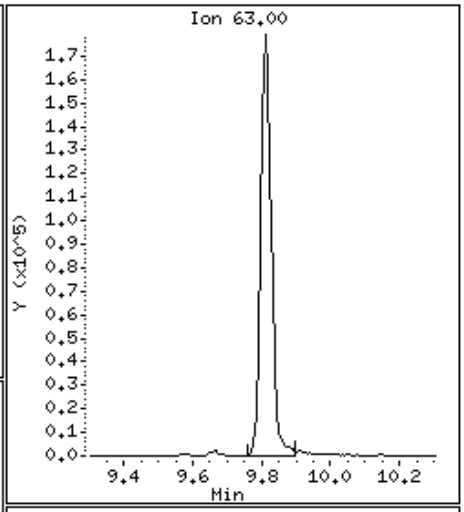
Column phase: Rtx-502.2

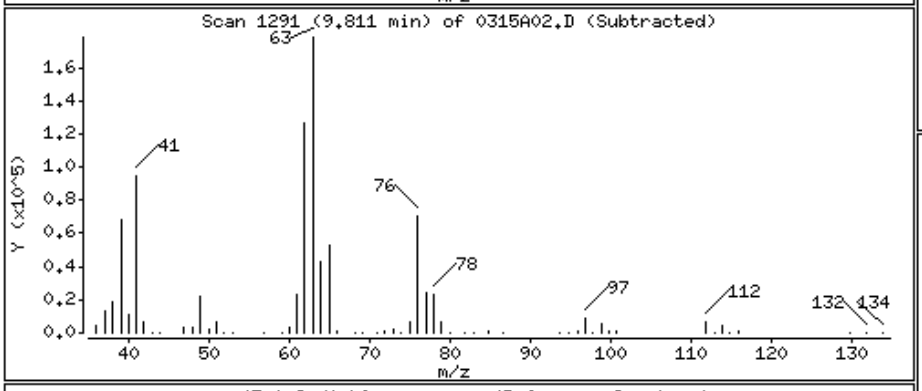
Column diameter: 0.18

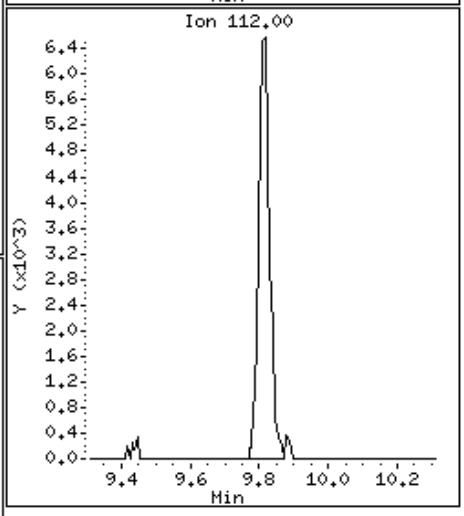
47 1,2-dichloropropane

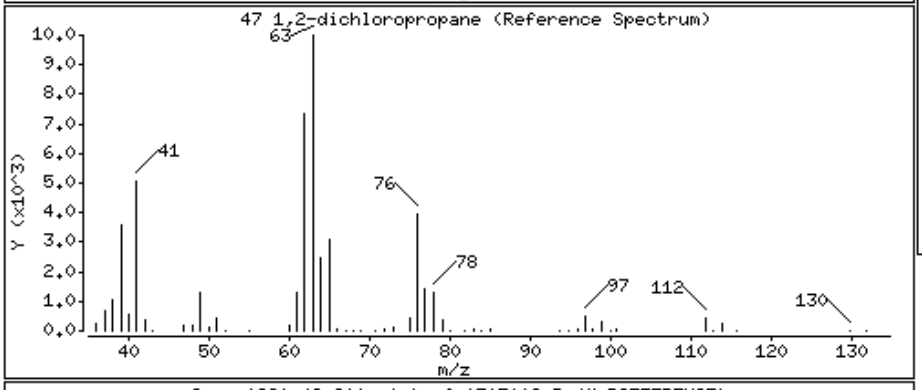
Concentration: 94.660 ngs

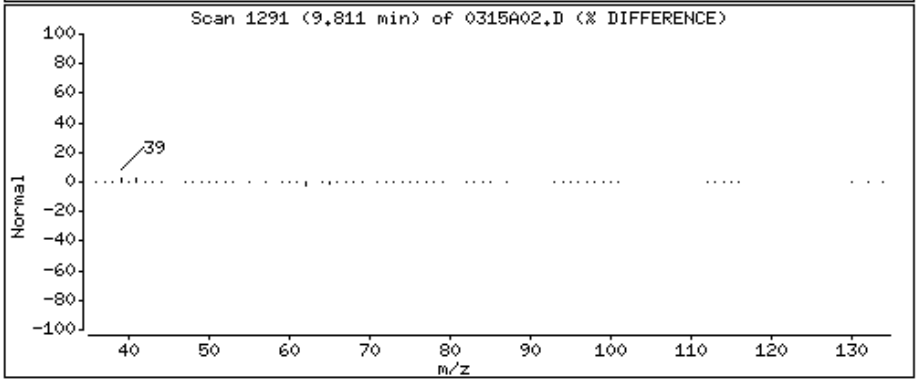












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

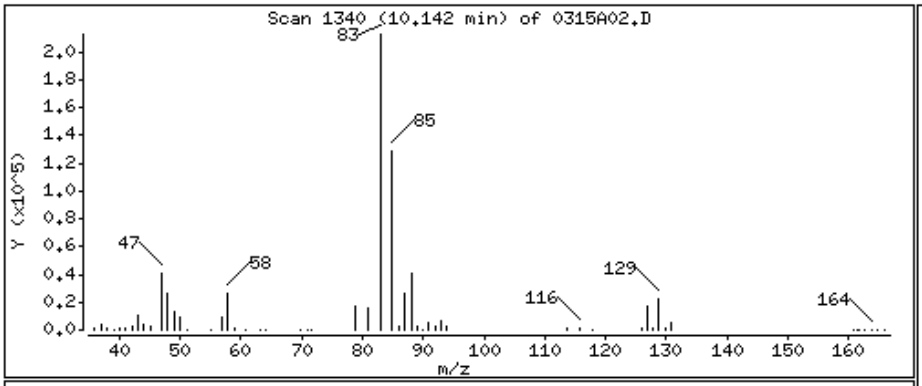
Operator: PD

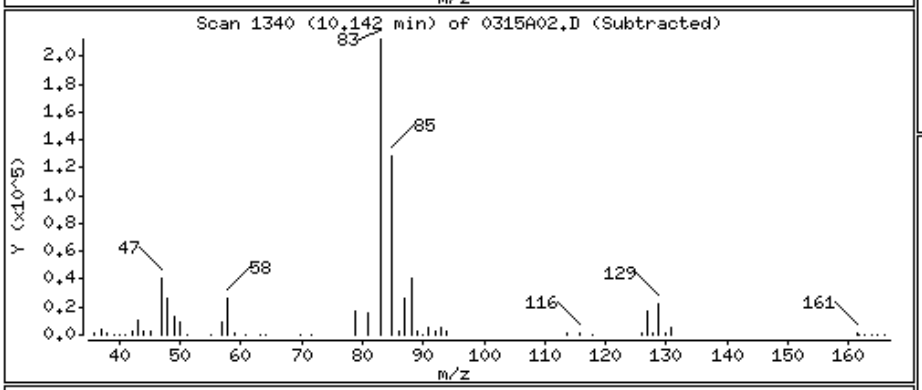
Column phase: Rtx-502.2

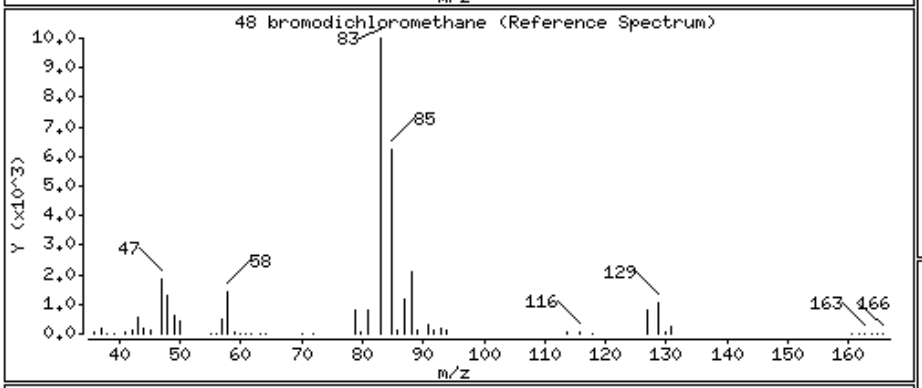
Column diameter: 0.18

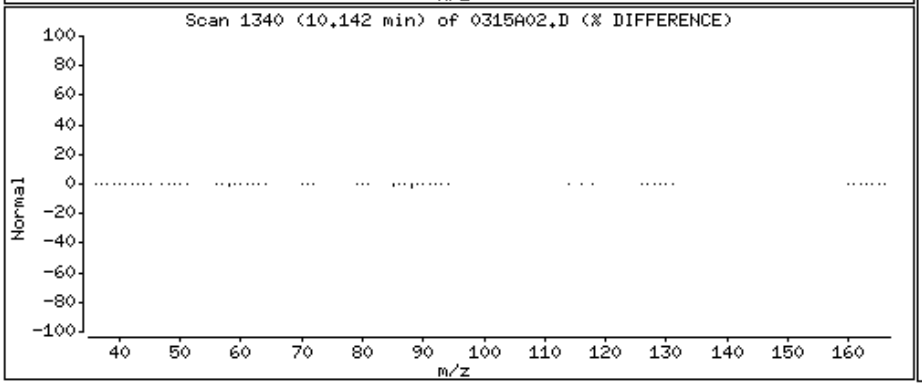
48 bromodichloromethane

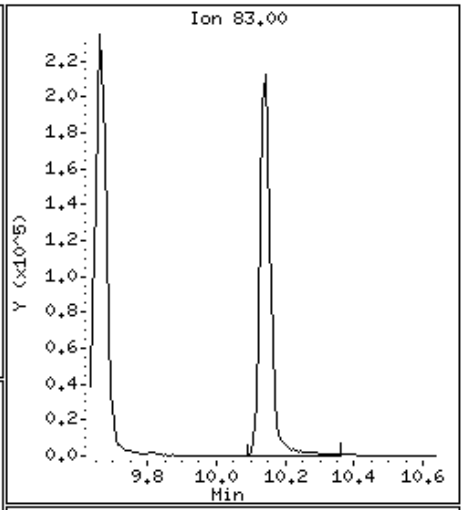
Concentration: 102.400 ngs

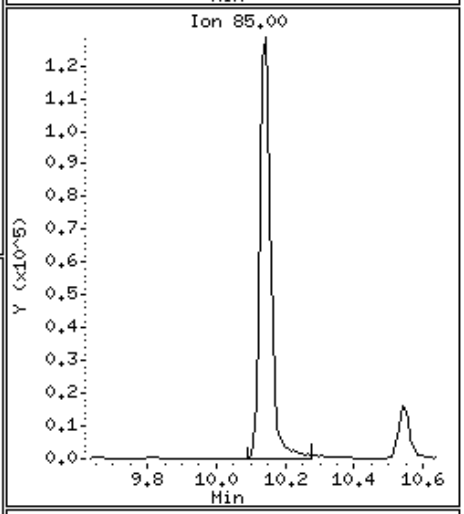


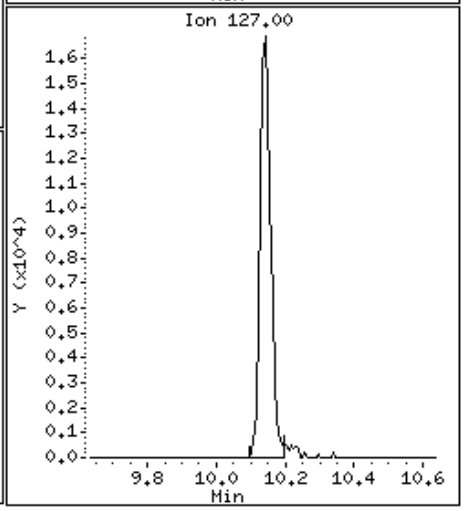












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

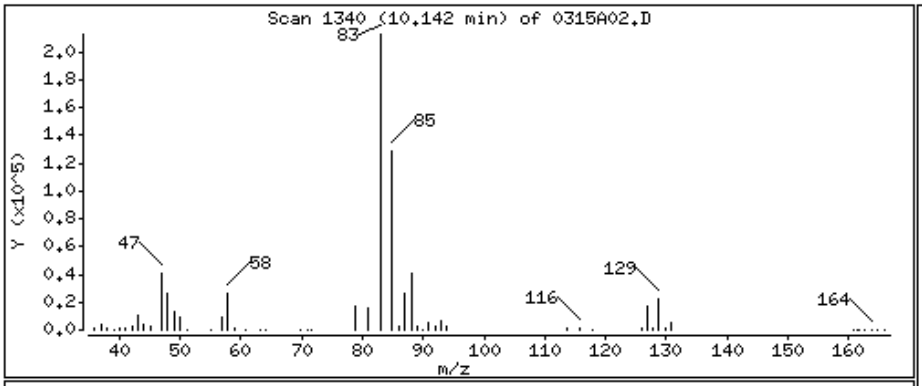
Operator: PD

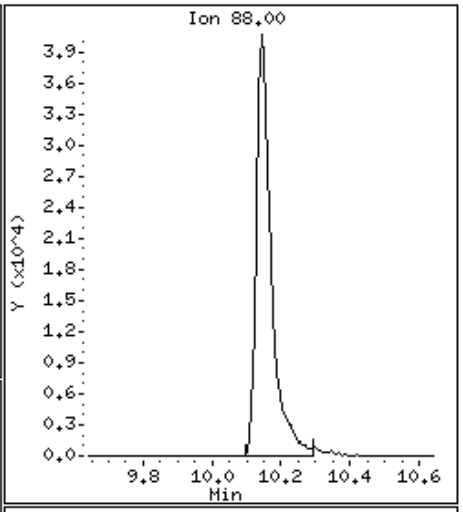
Column phase: Rtx-502.2

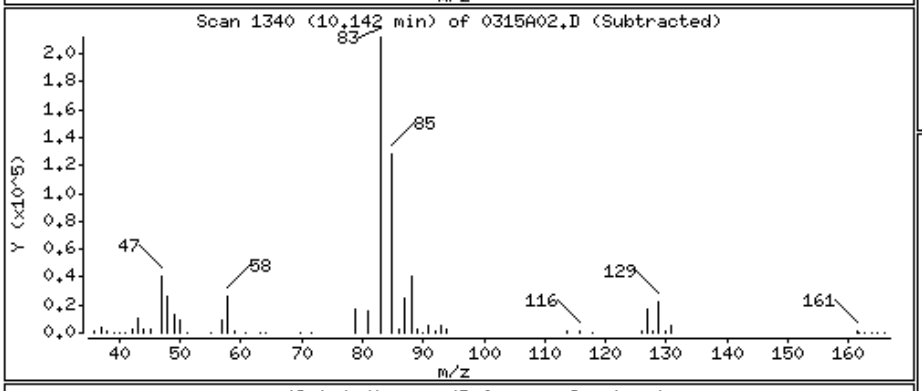
Column diameter: 0.18

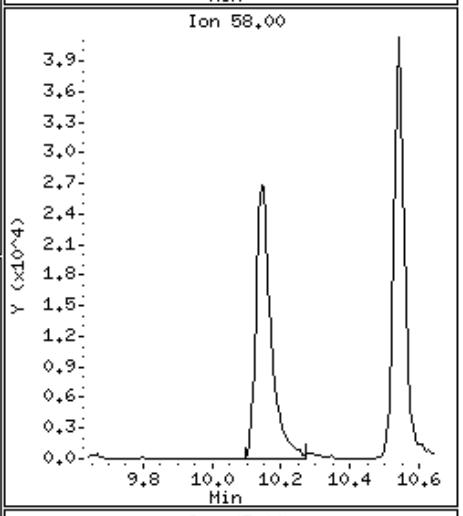
49 1,4-dioxane

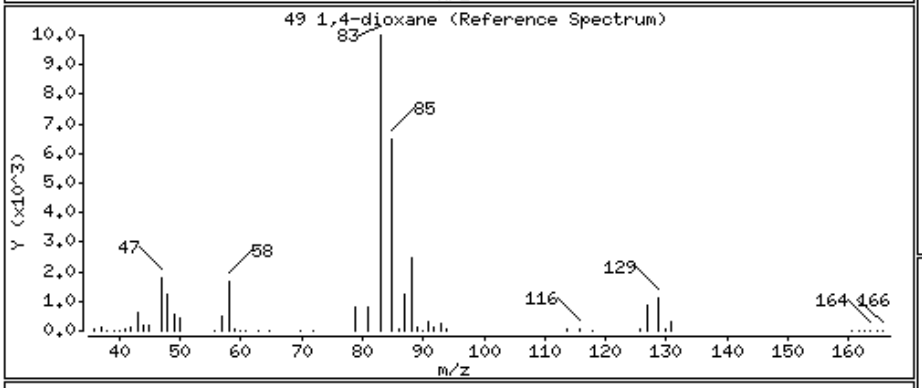
Concentration: 4332.876 ngs

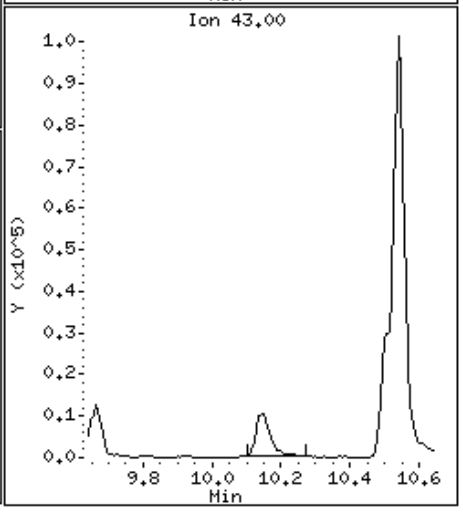


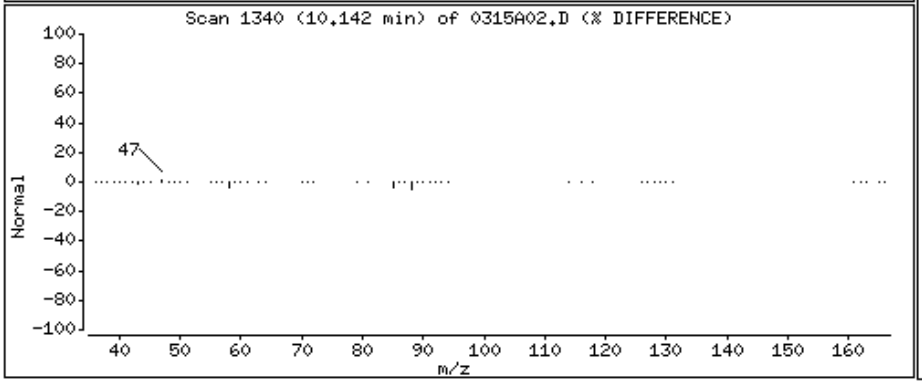












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

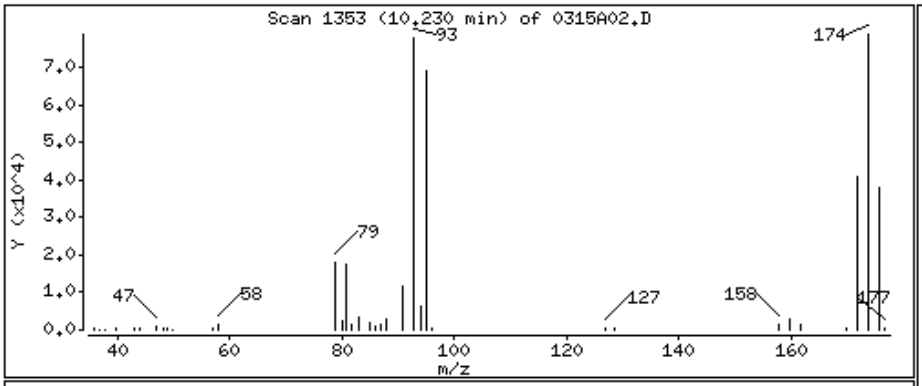
Operator: PD

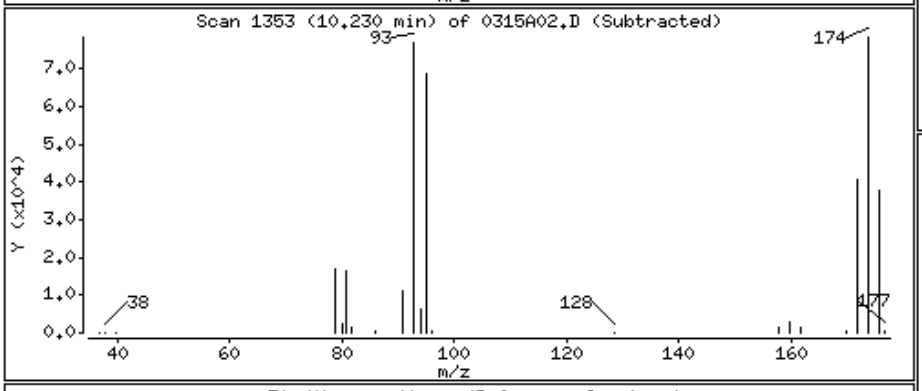
Column phase: Rtx-502.2

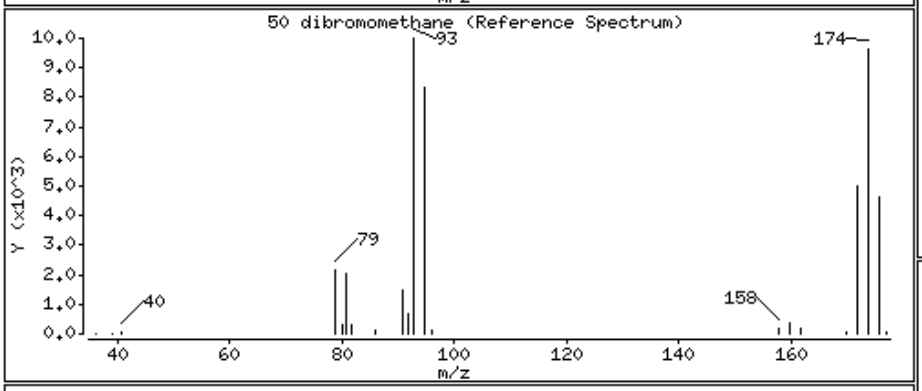
Column diameter: 0.18

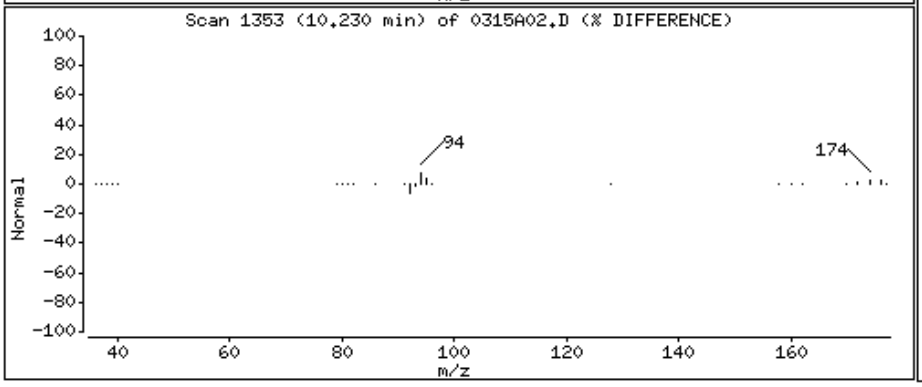
50 dibromomethane

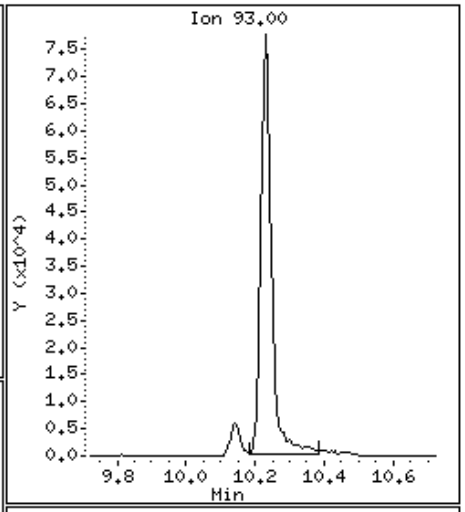
Concentration: 89.809 ngs

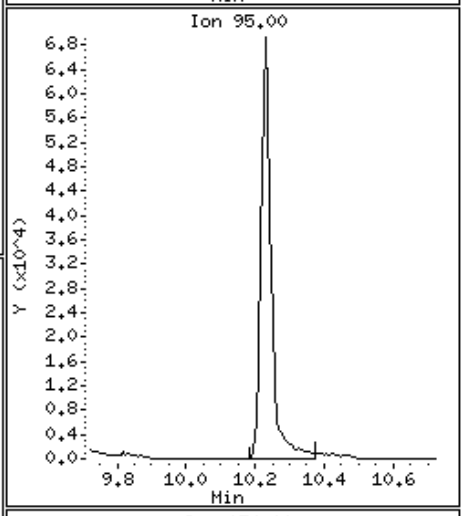


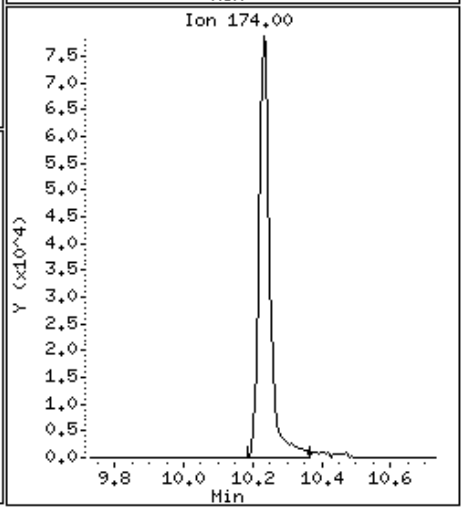












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

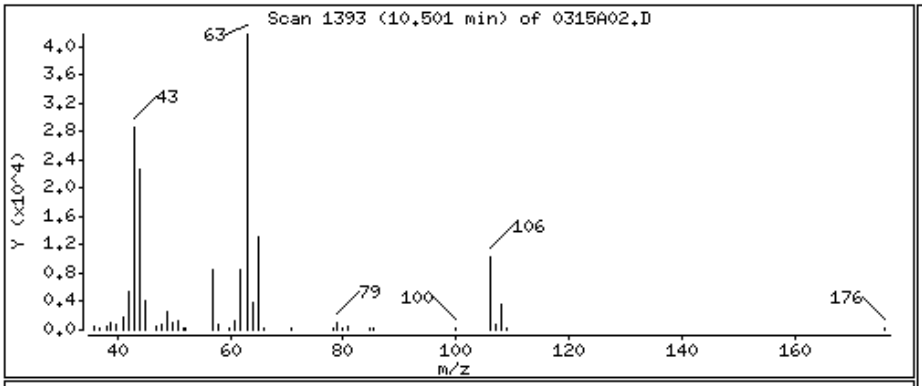
Operator: PD

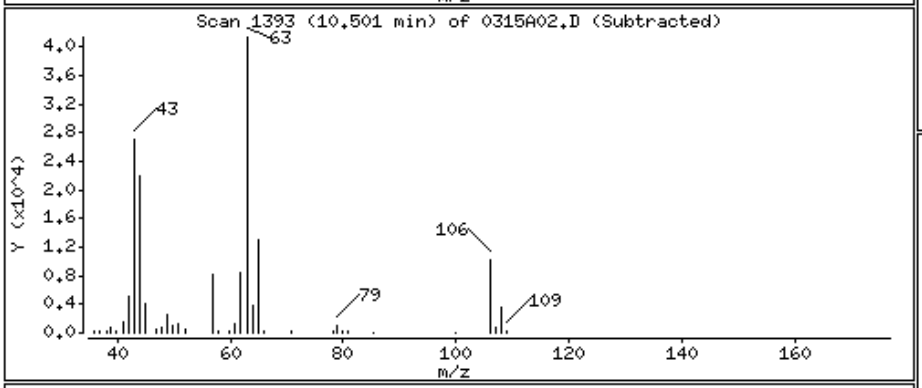
Column phase: Rtx-502.2

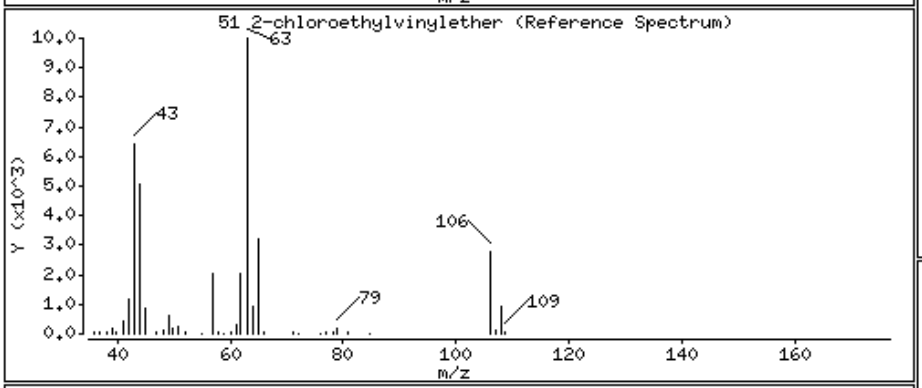
Column diameter: 0.18

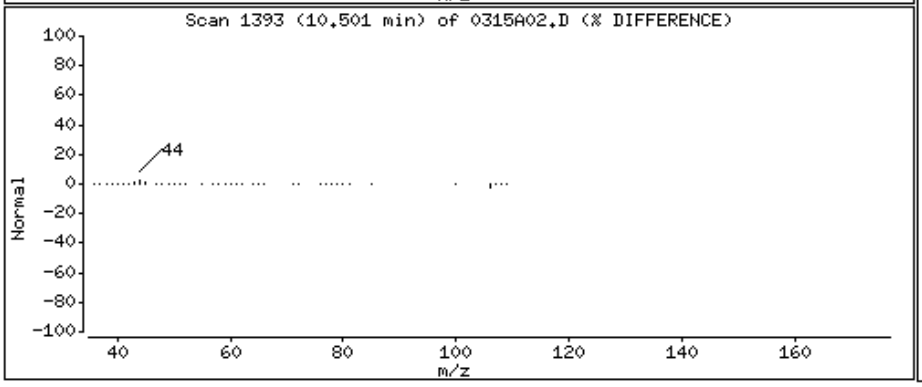
51 2-chloroethylvinylether

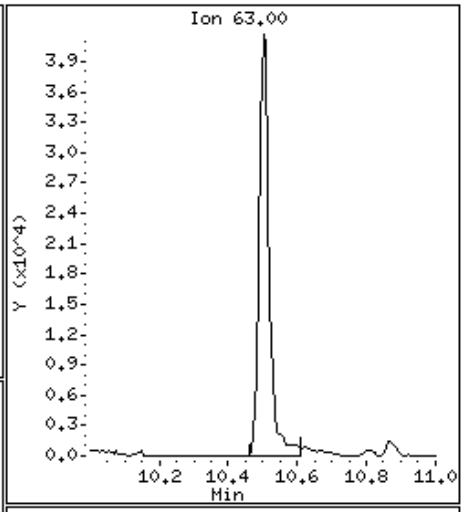
Concentration: 66.491 ngs

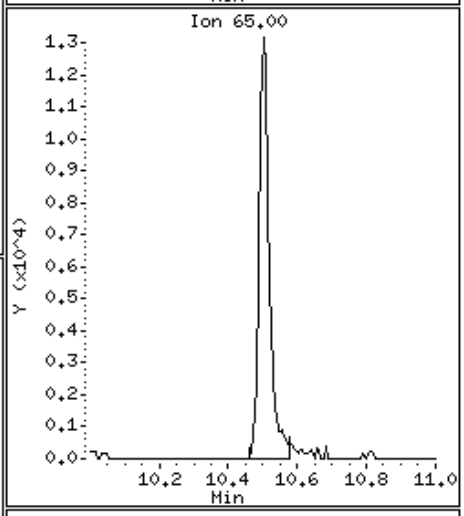


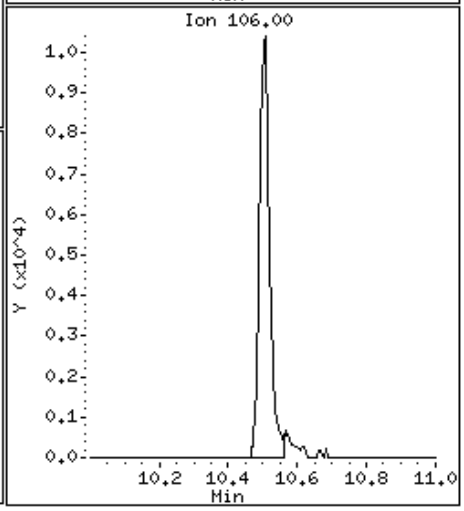












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

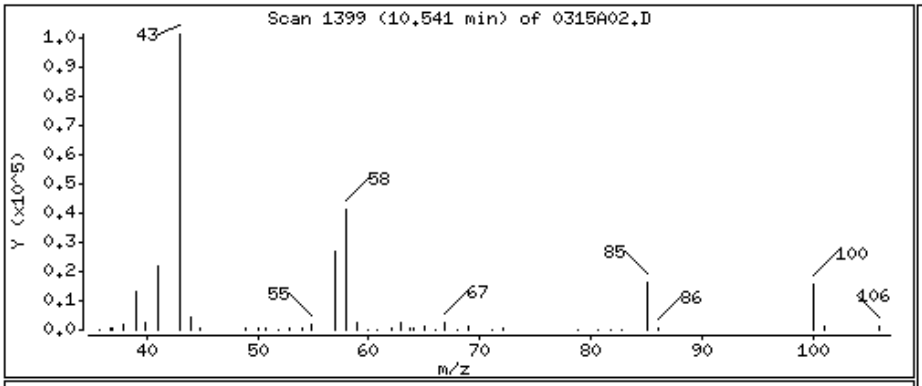
Operator: PD

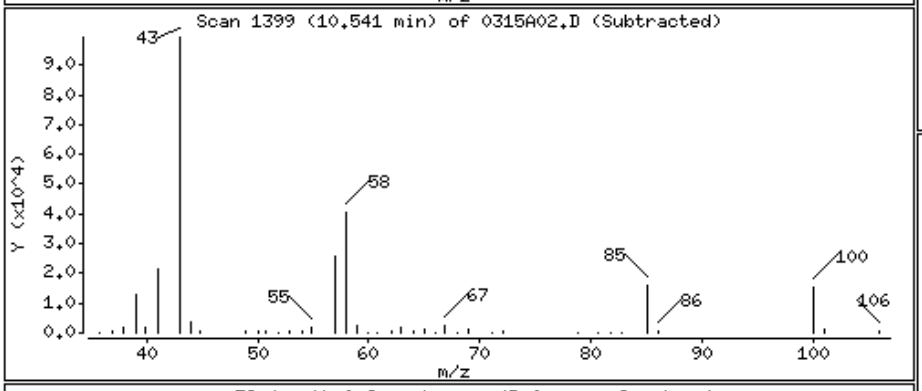
Column phase: Rtx-502.2

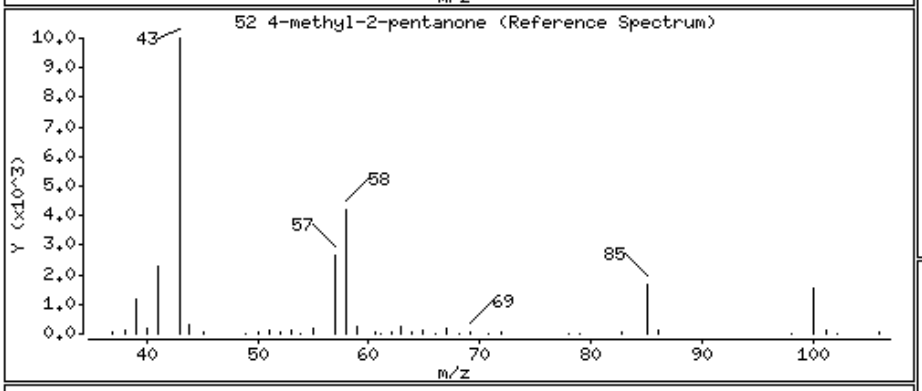
Column diameter: 0.18

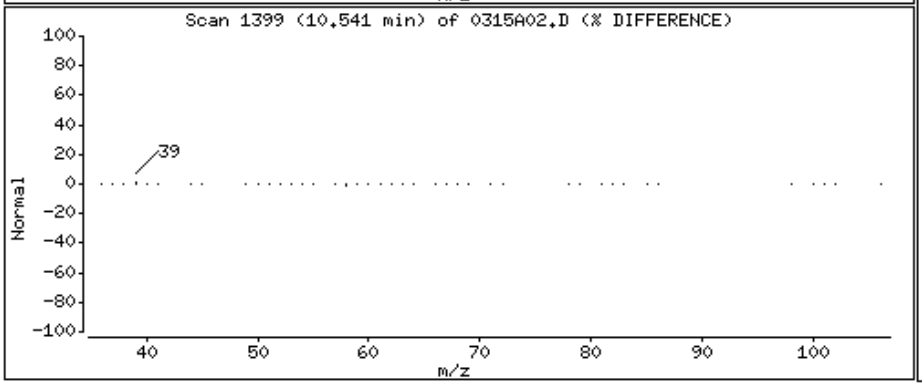
52 4-methyl-2-pentanone

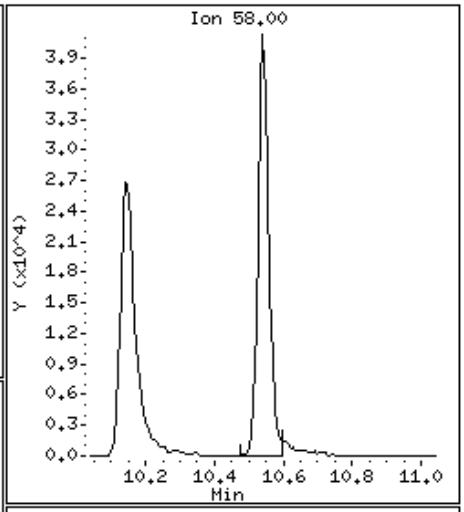
Concentration: 84.999 ngs

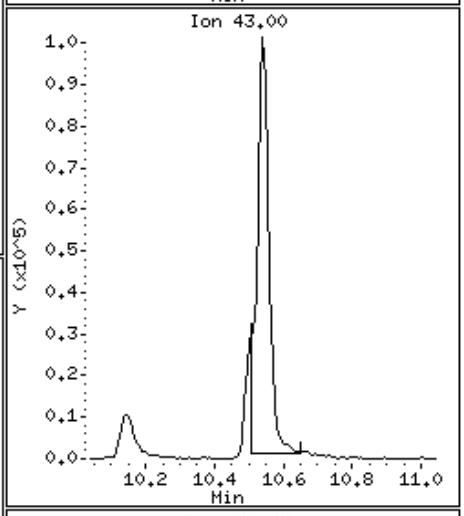


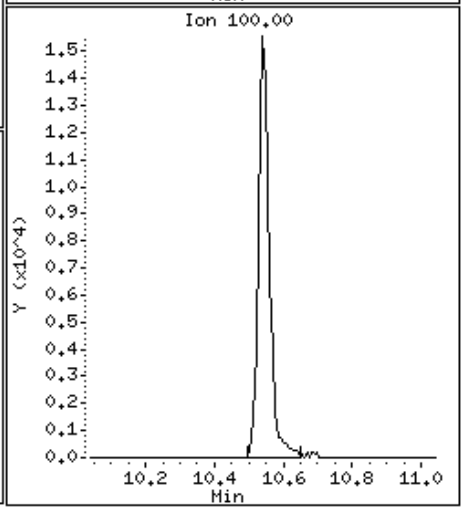












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

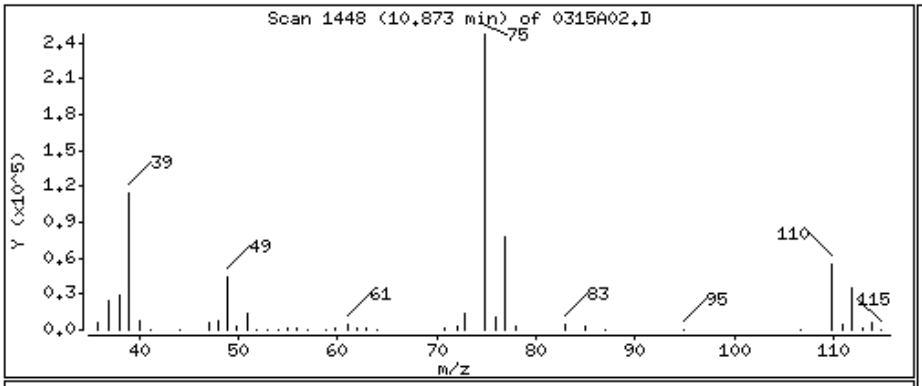
Operator: PD

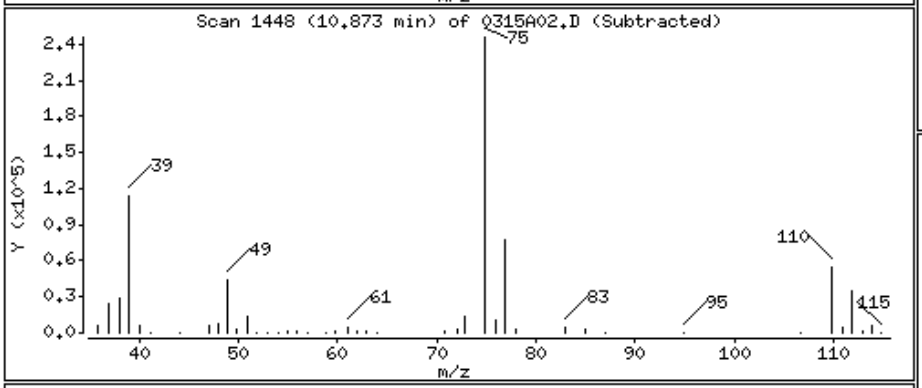
Column phase: Rtx-502.2

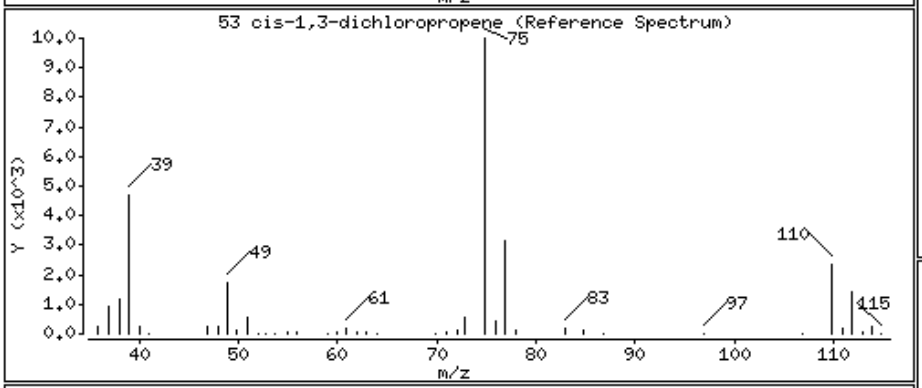
Column diameter: 0.18

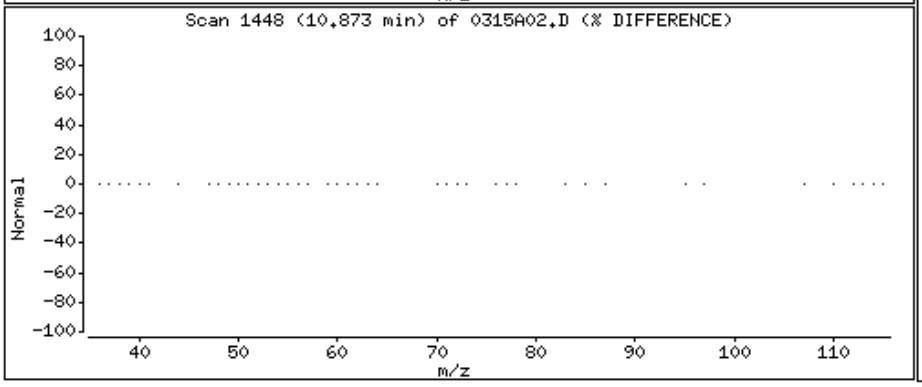
53 cis-1,3-dichloropropene

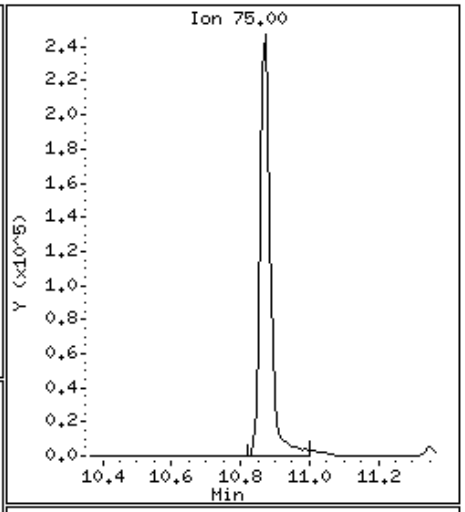
Concentration: 99.642 ngs

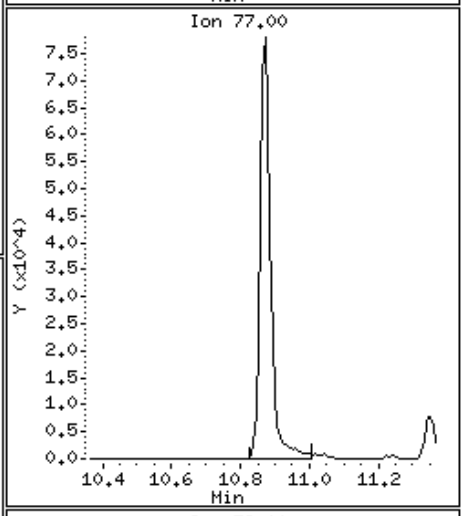


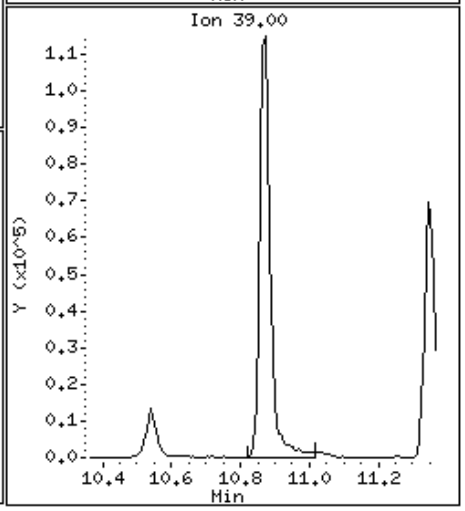












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

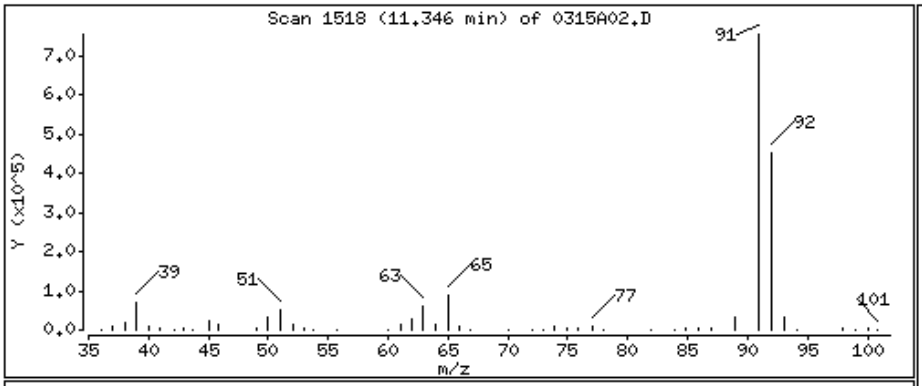
Operator: PD

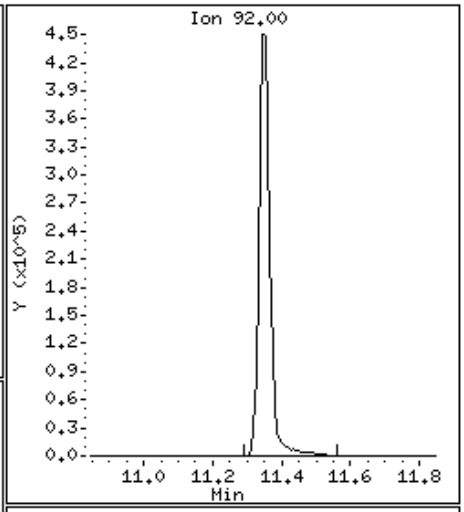
Column phase: Rtx-502.2

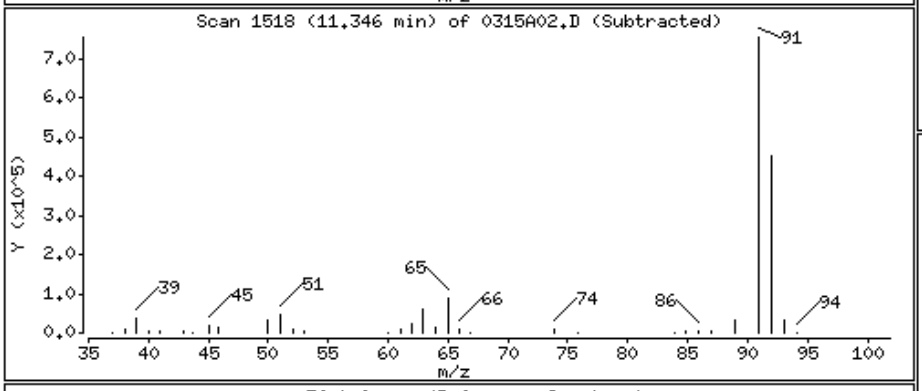
Column diameter: 0.18

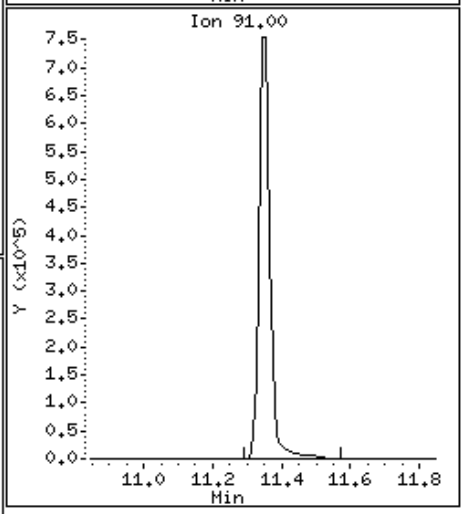
56 toluene

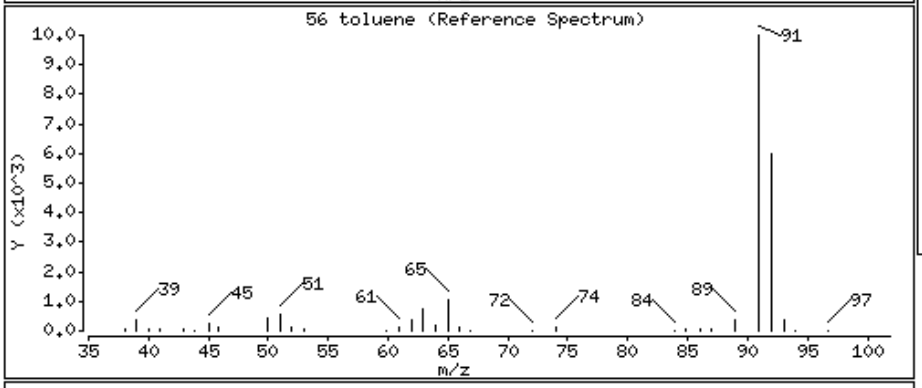
Concentration: 96.458 ngs

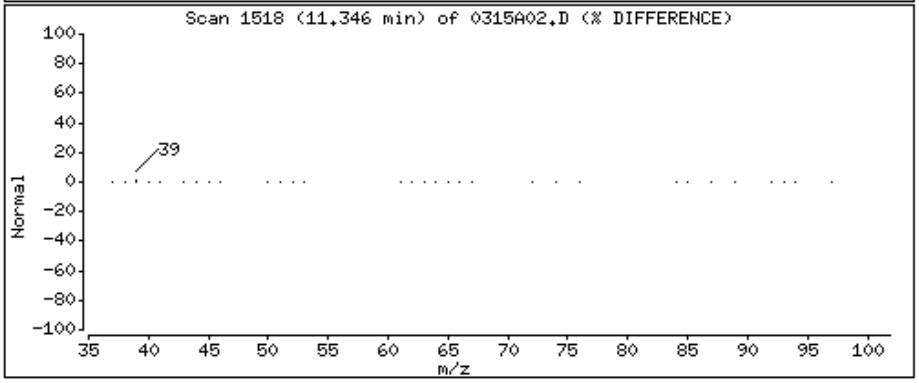












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

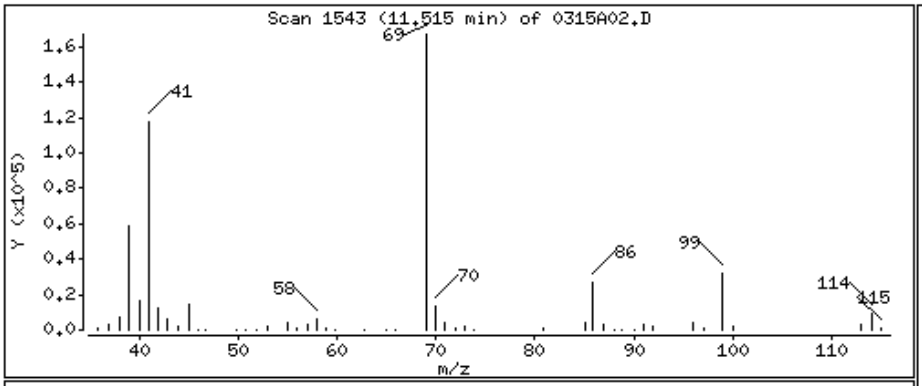
Operator: PD

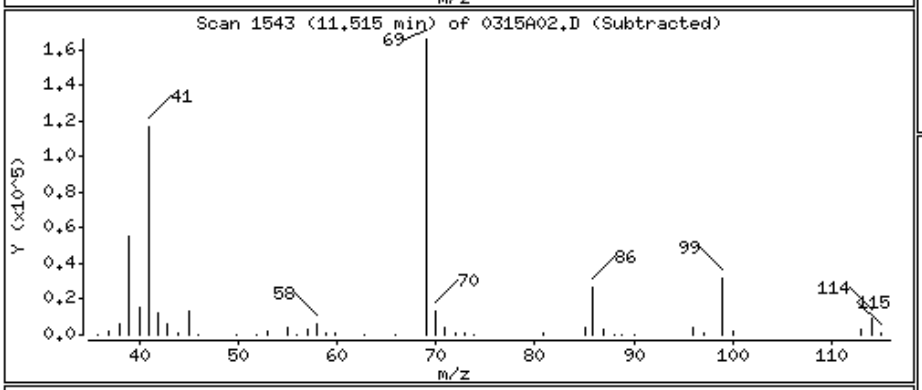
Column phase: Rtx-502.2

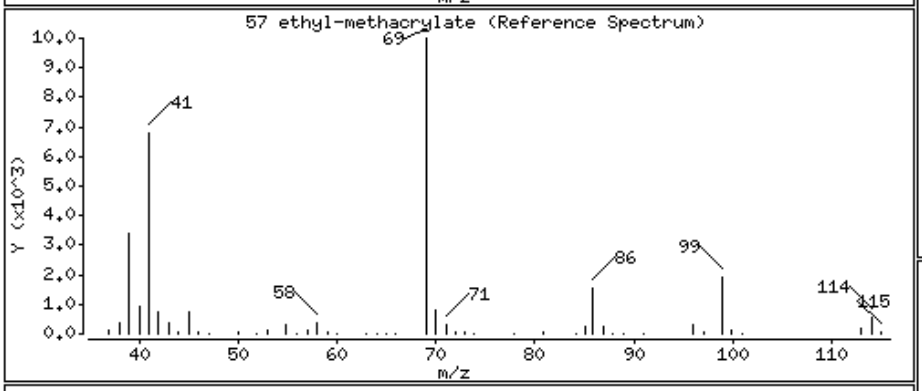
Column diameter: 0.18

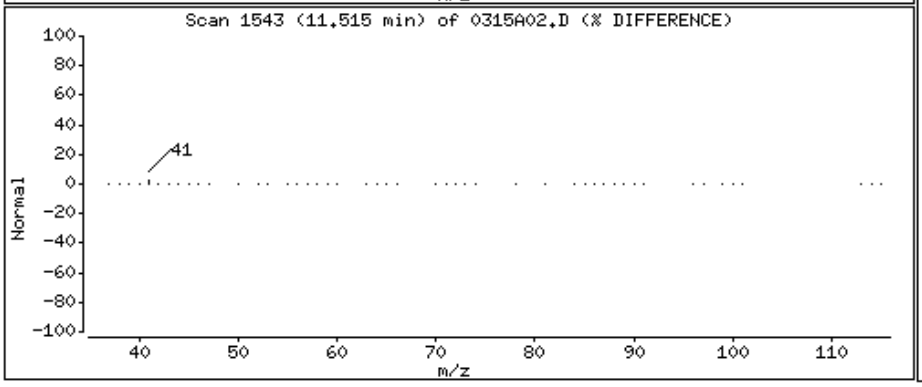
57 ethyl-methacrylate

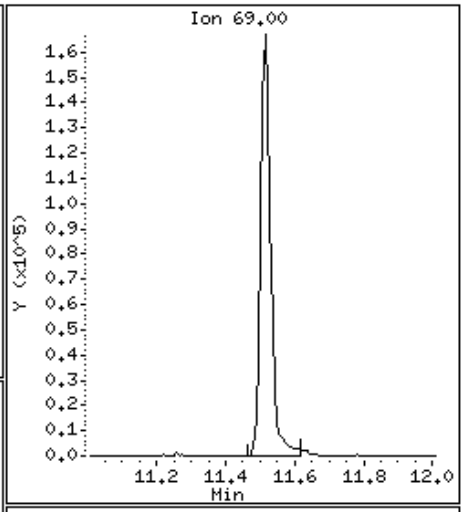
Concentration: 90.002 ngs

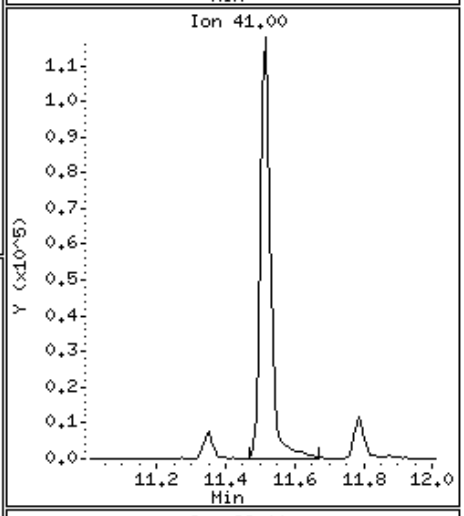


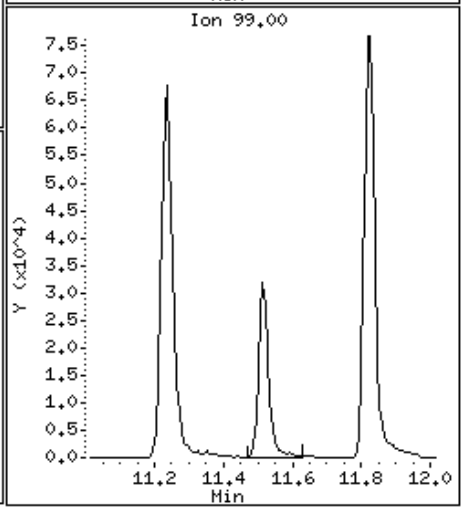












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

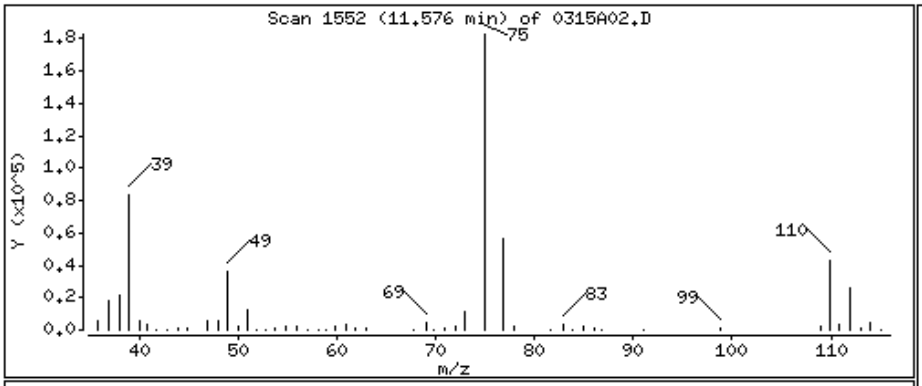
Operator: PD

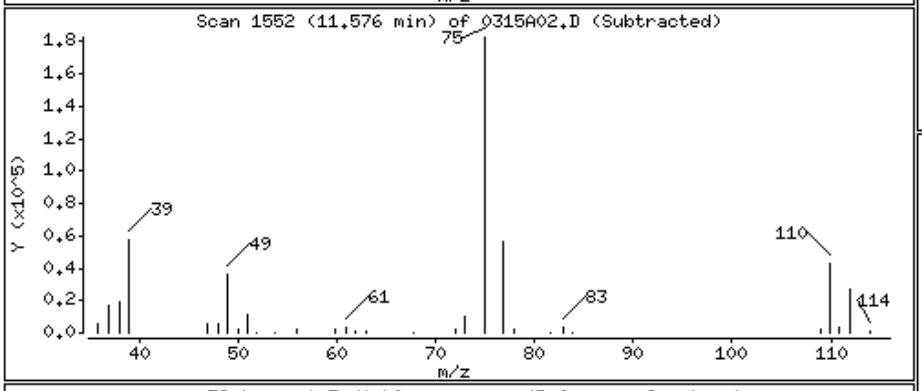
Column phase: Rtx-502.2

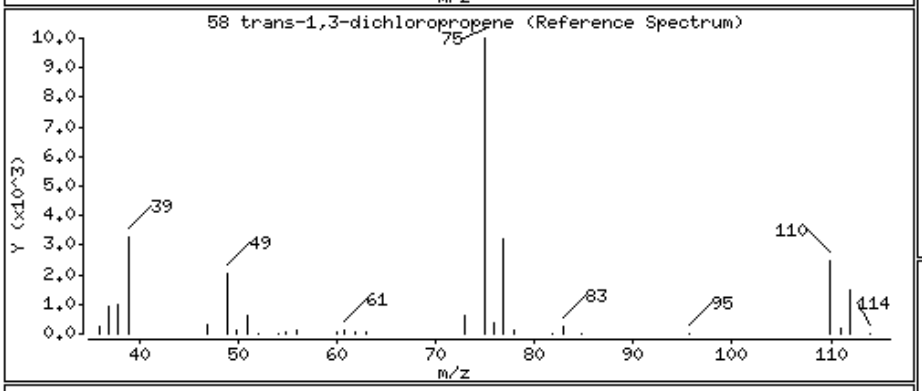
Column diameter: 0.18

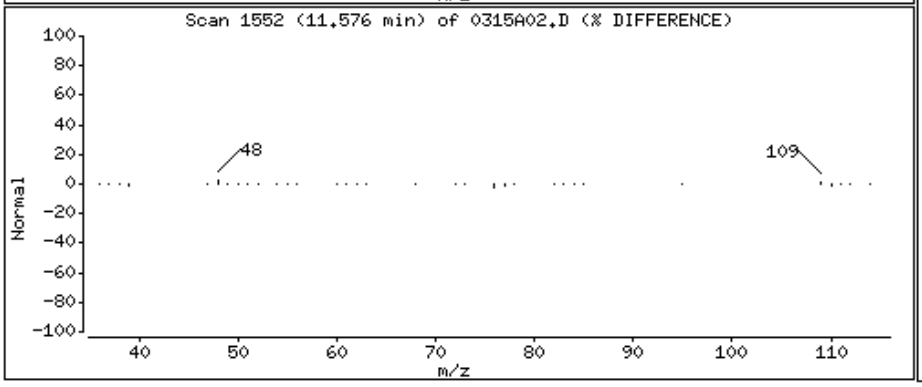
58 trans-1,3-dichloropropene

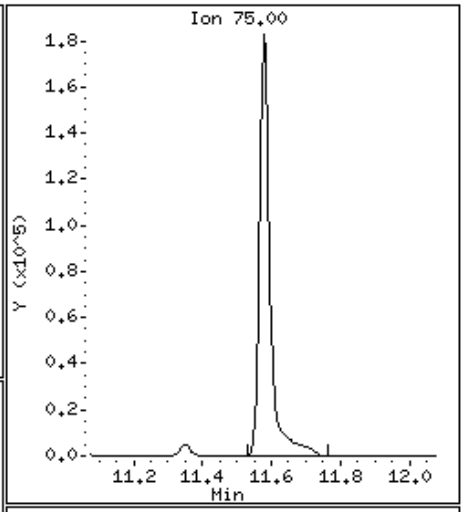
Concentration: 100.277 ngs

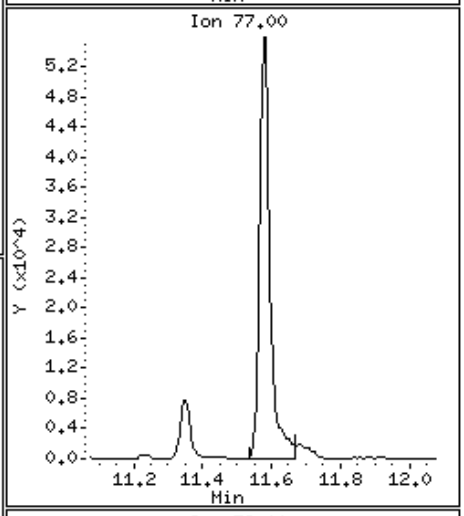


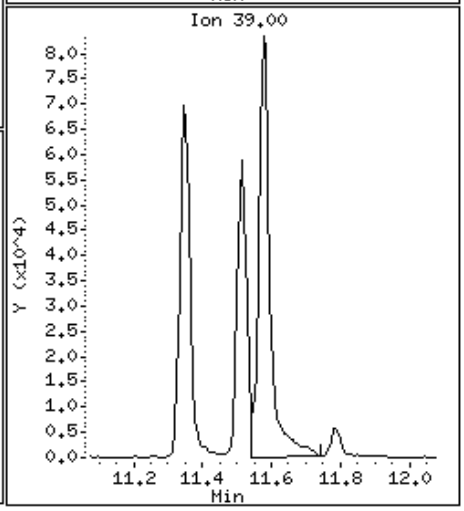












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

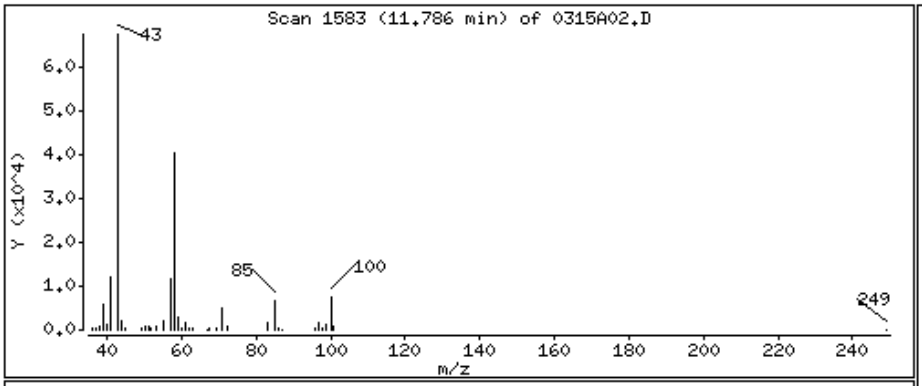
Operator: PD

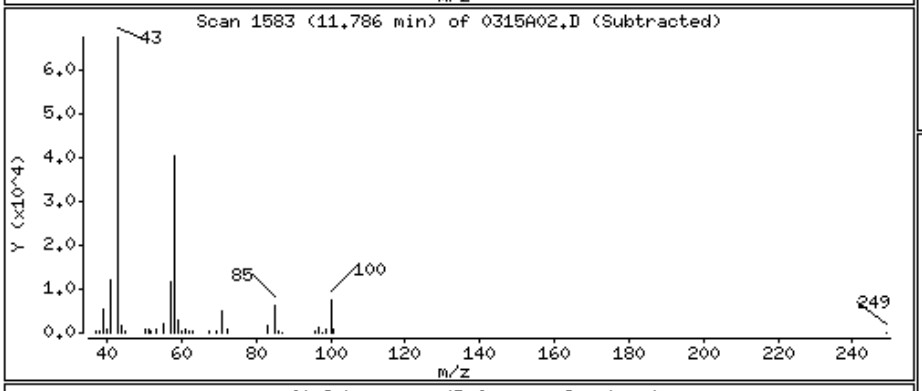
Column phase: Rtx-502.2

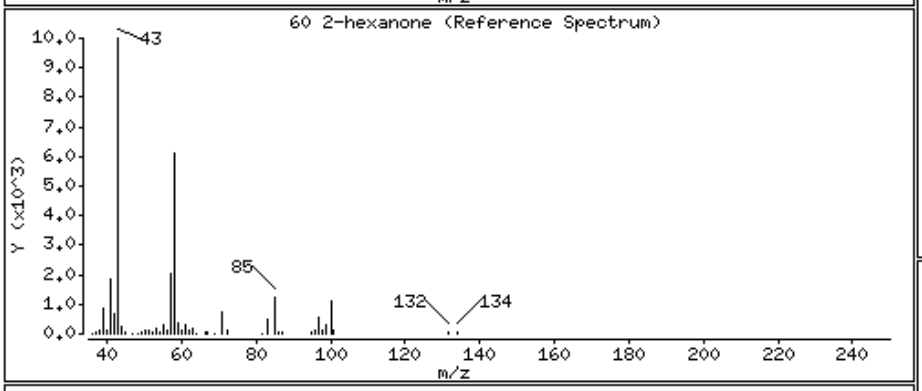
Column diameter: 0.18

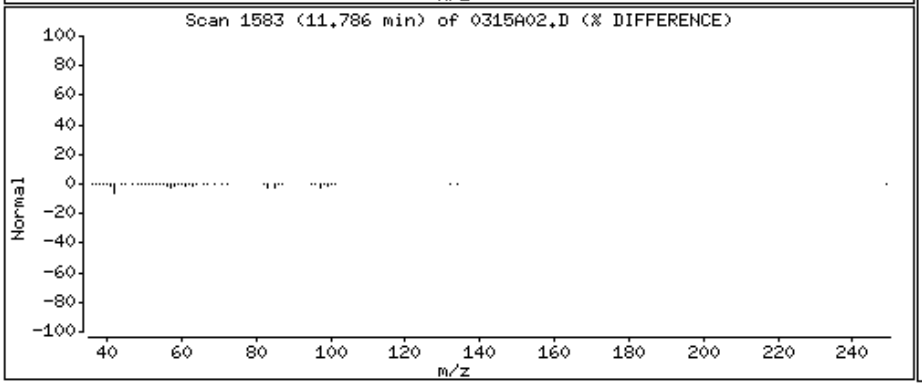
60 2-hexanone

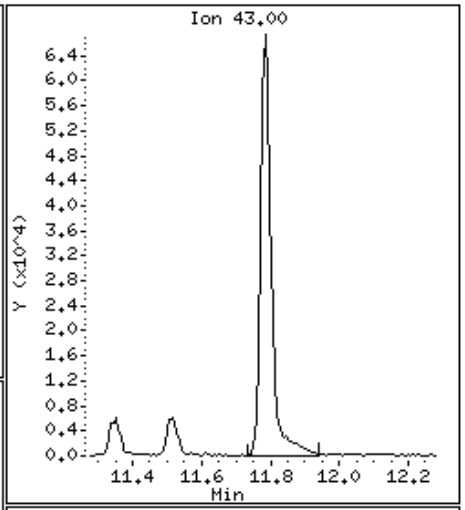
Concentration: 88.935 ngs

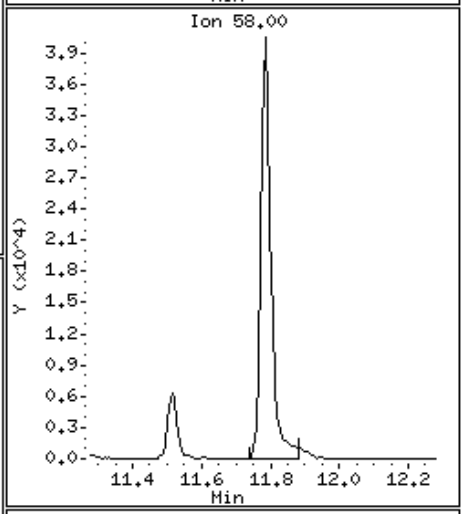


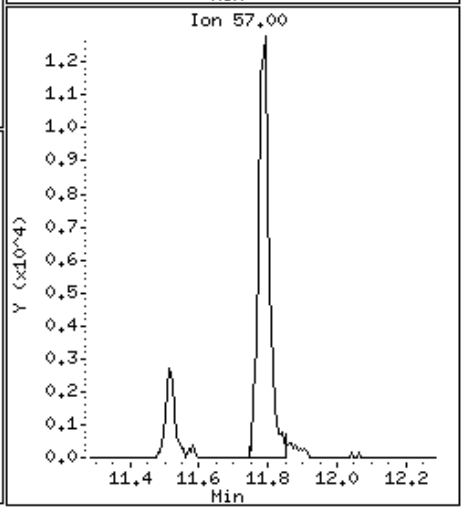












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

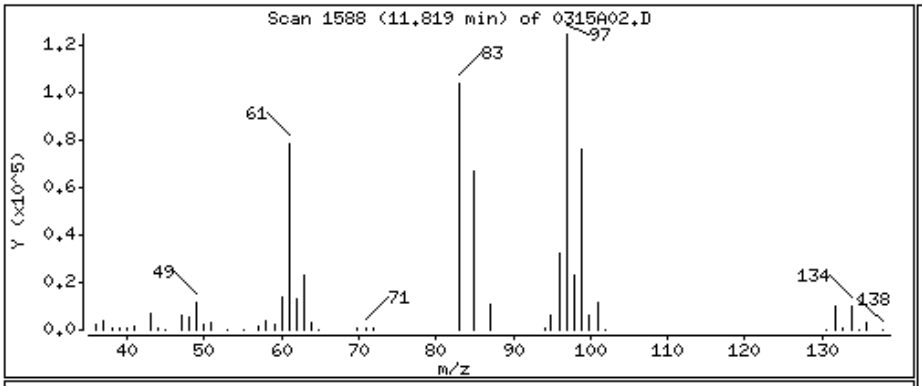
Operator: PD

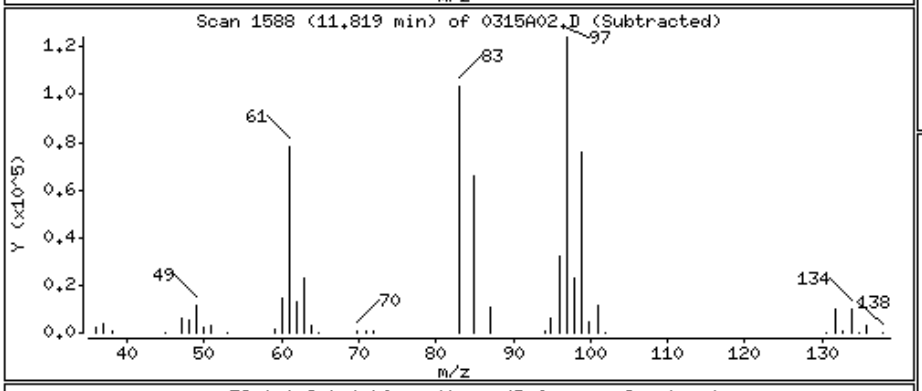
Column phase: Rtx-502.2

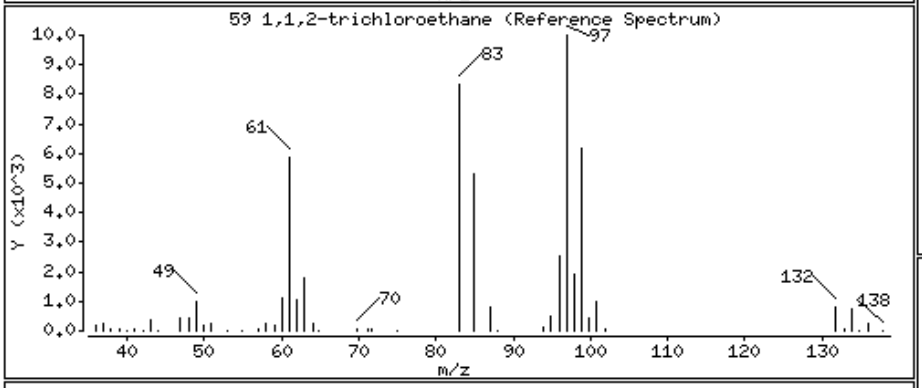
Column diameter: 0.18

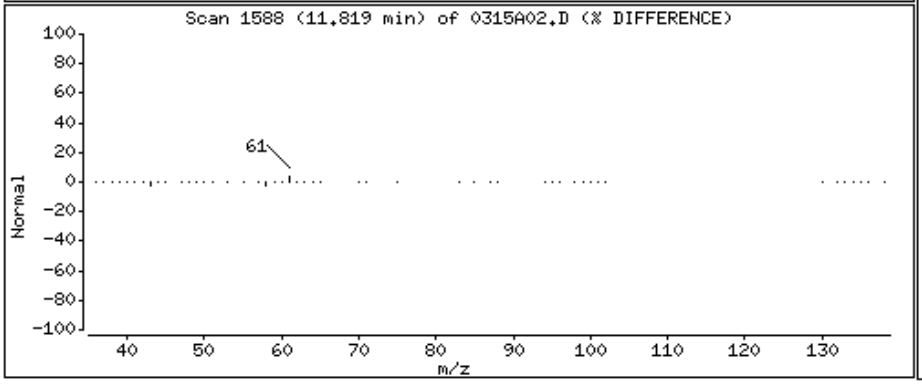
59 1,1,2-trichloroethane

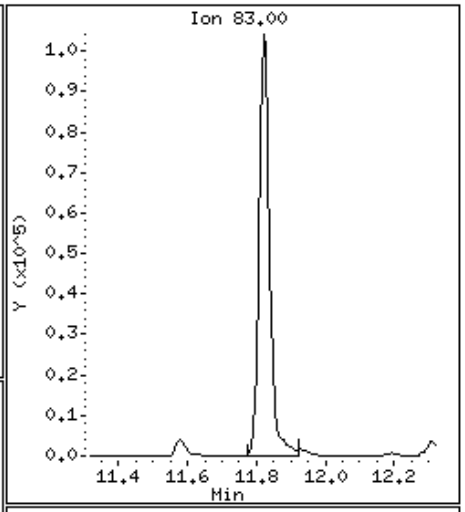
Concentration: 89.601 ngs

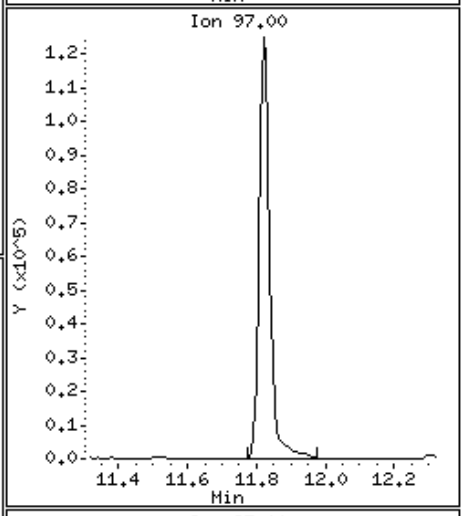


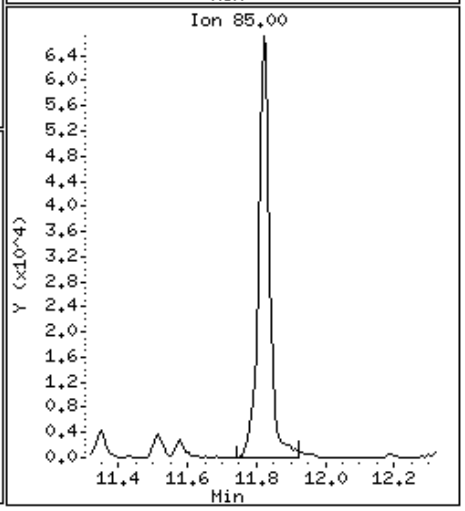












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

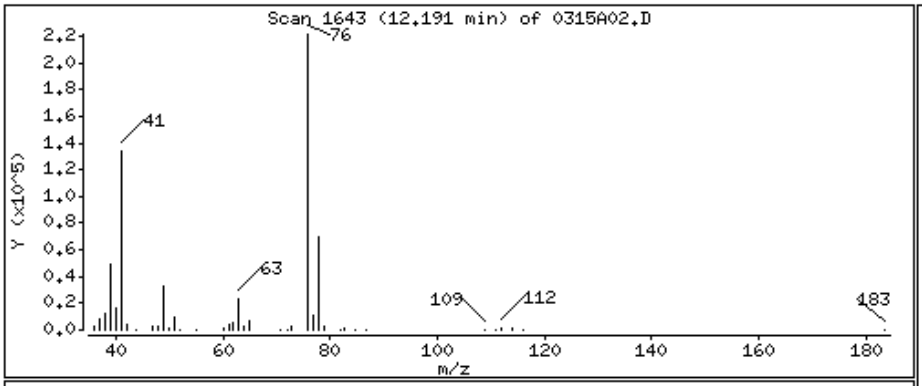
Operator: PD

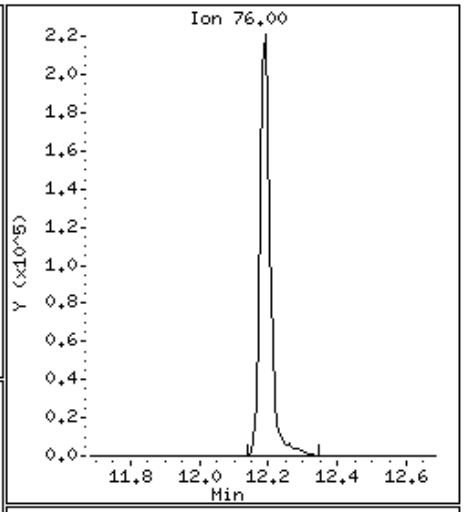
Column phase: Rtx-502.2

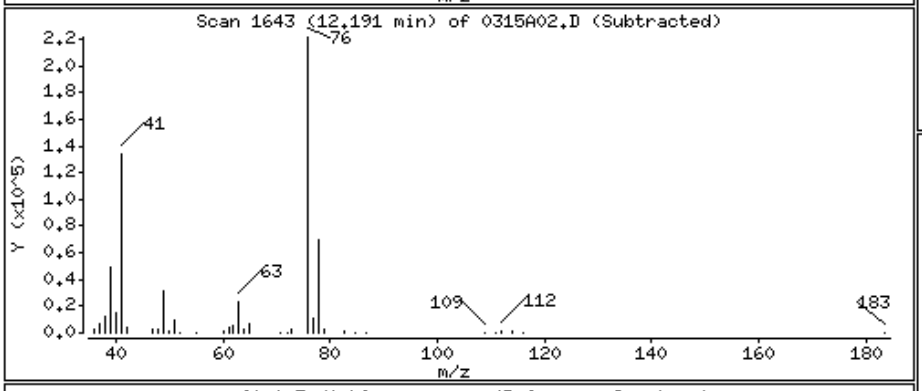
Column diameter: 0.18

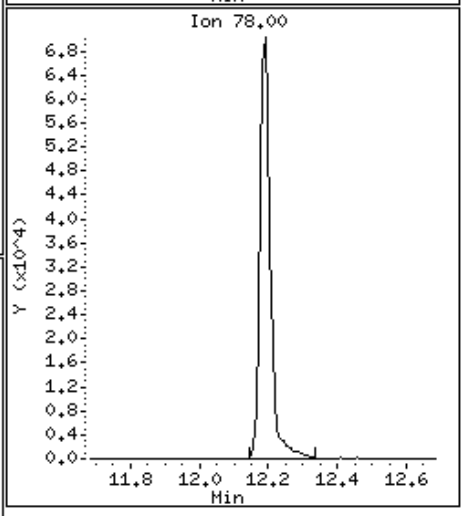
61 1,3-dichloropropane

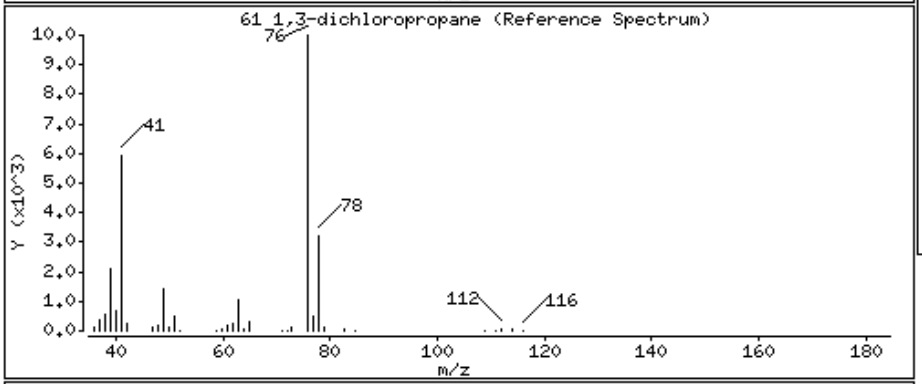
Concentration: 89.842 ngs

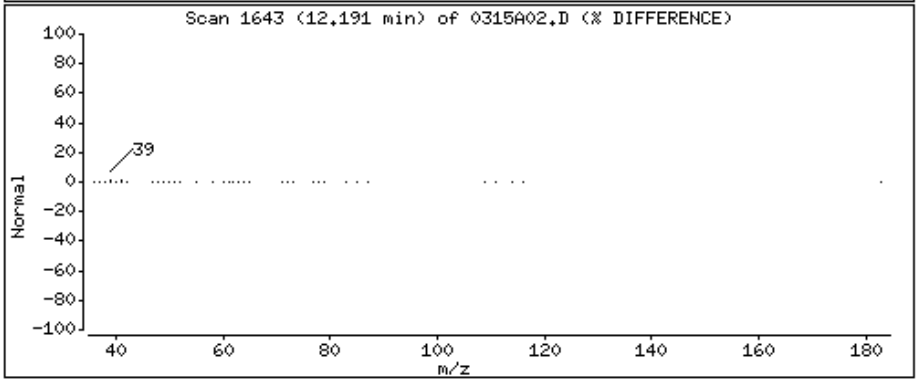












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

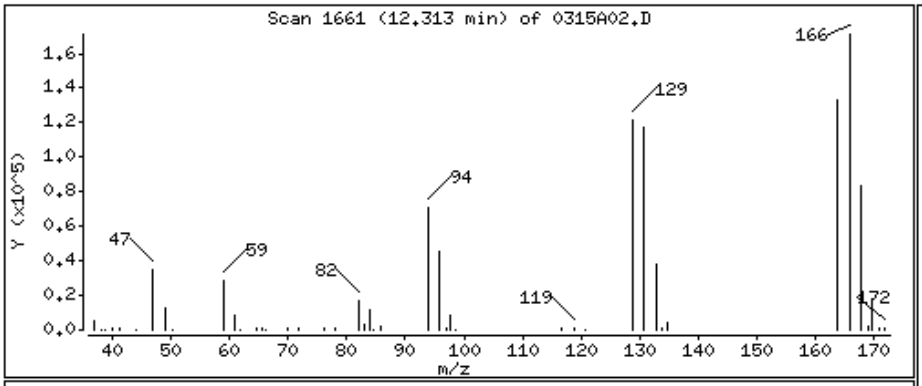
Operator: PD

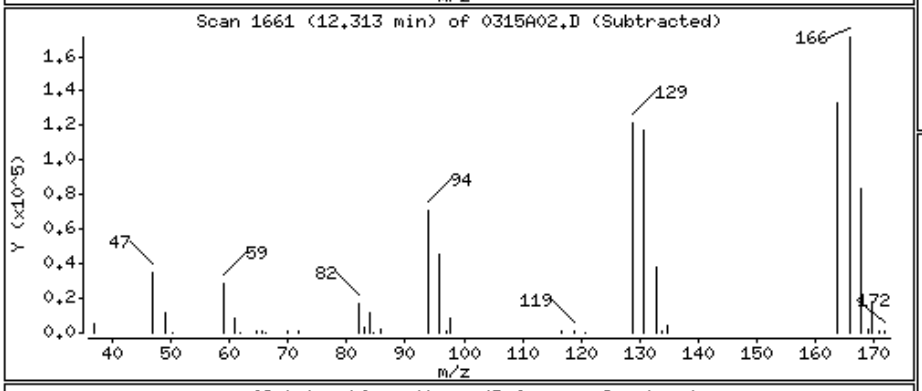
Column phase: Rtx-502.2

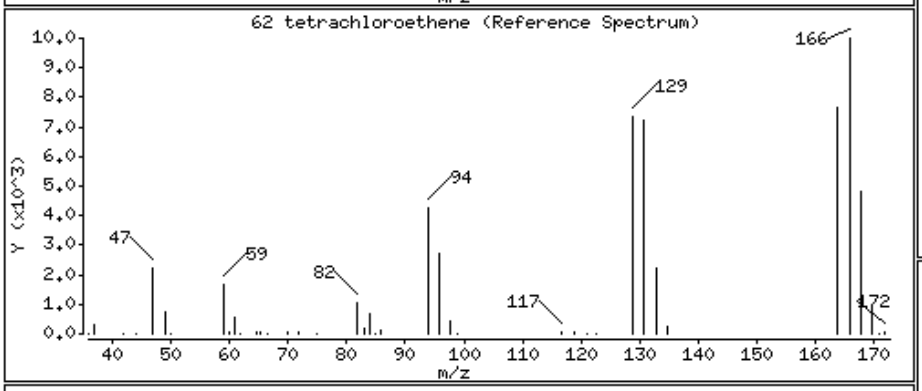
Column diameter: 0.18

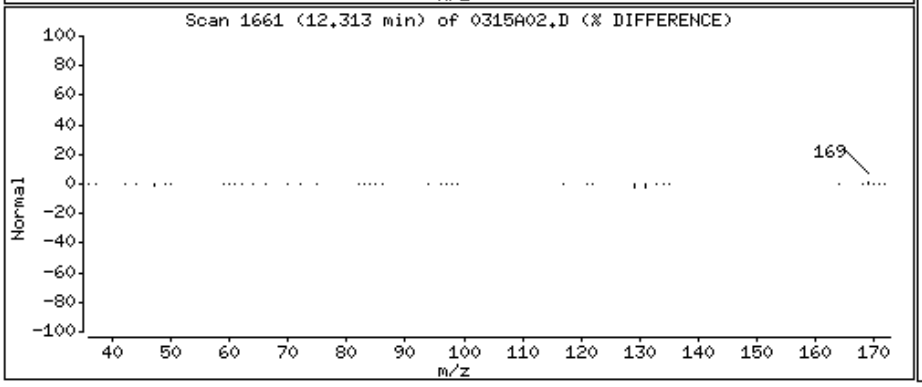
62 tetrachloroethene

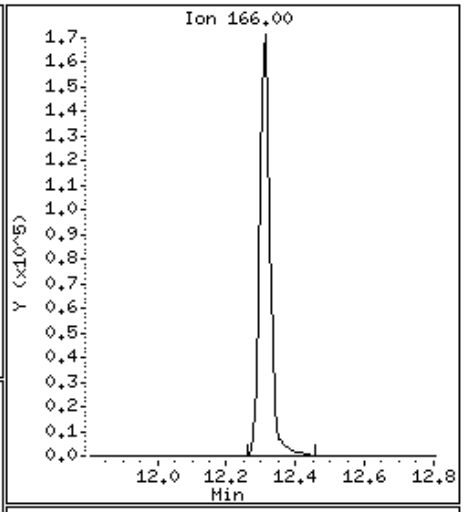
Concentration: 95.112 ngs

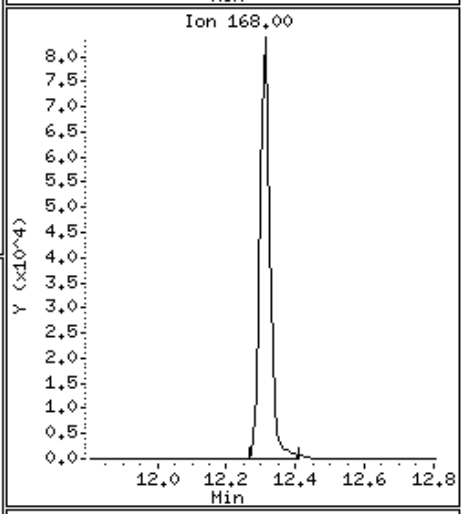


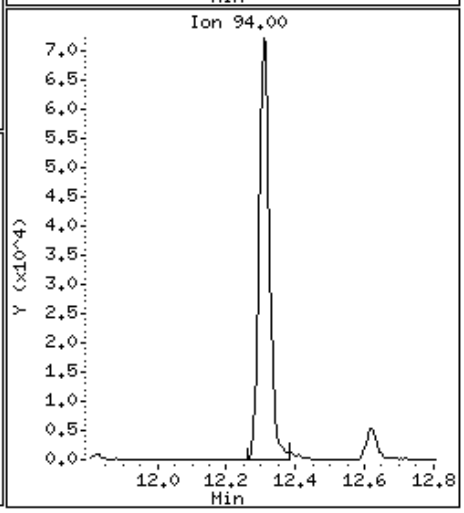












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

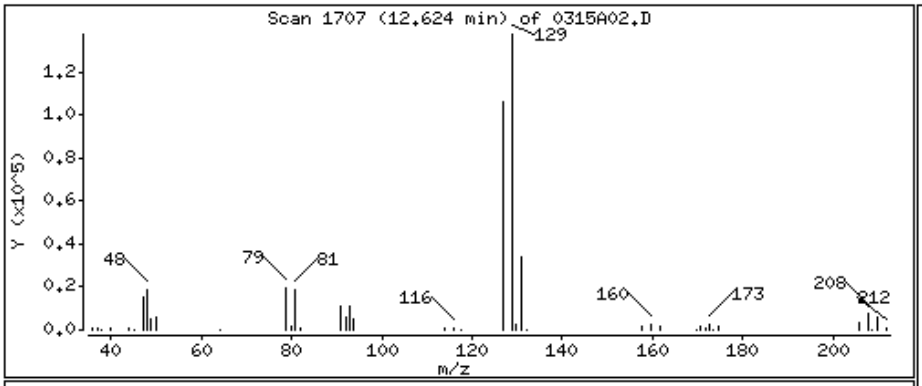
Operator: PD

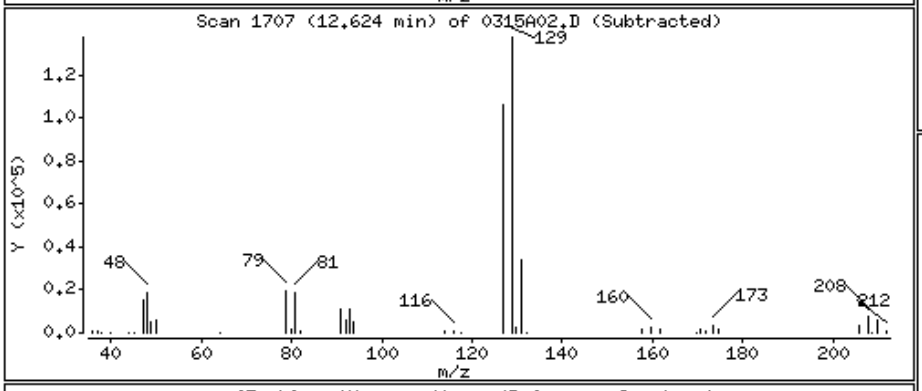
Column phase: Rtx-502.2

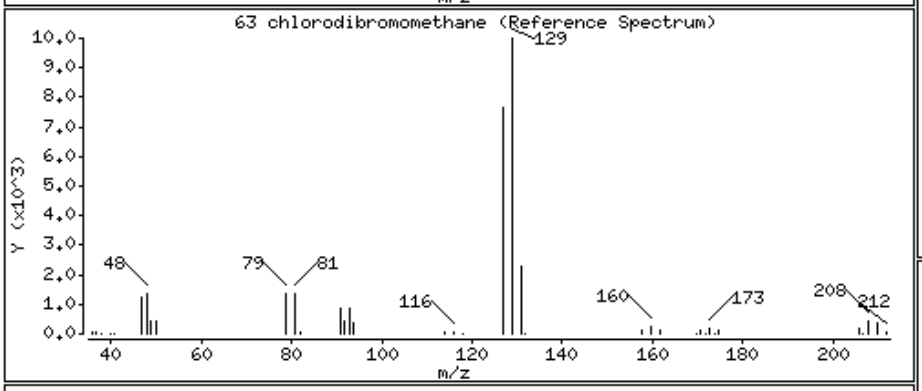
Column diameter: 0.18

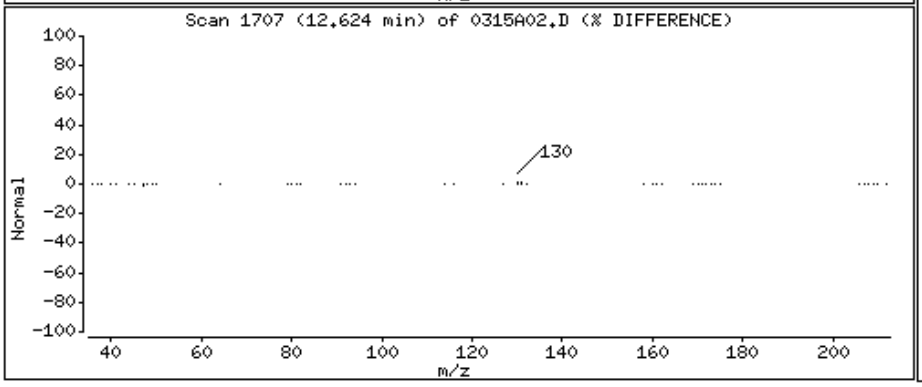
63 chlorodibromomethane

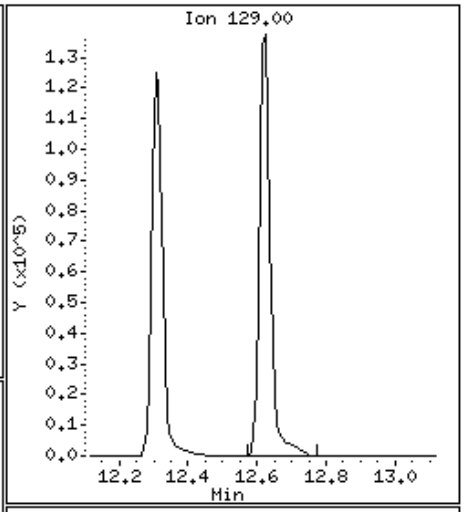
Concentration: 91.992 ngs

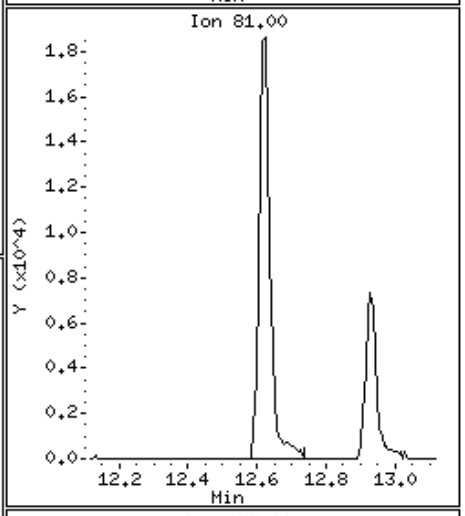


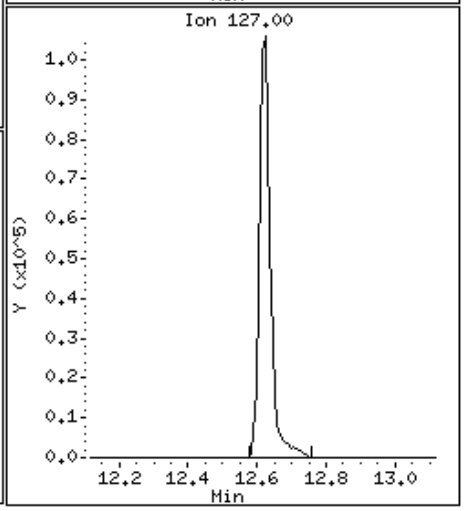












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

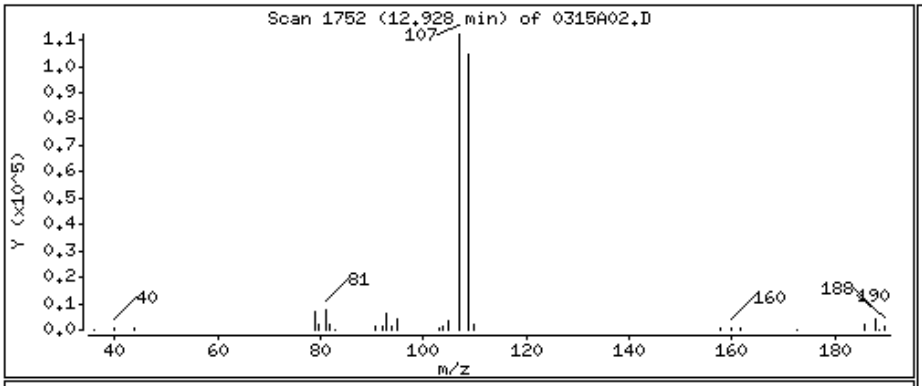
Operator: PD

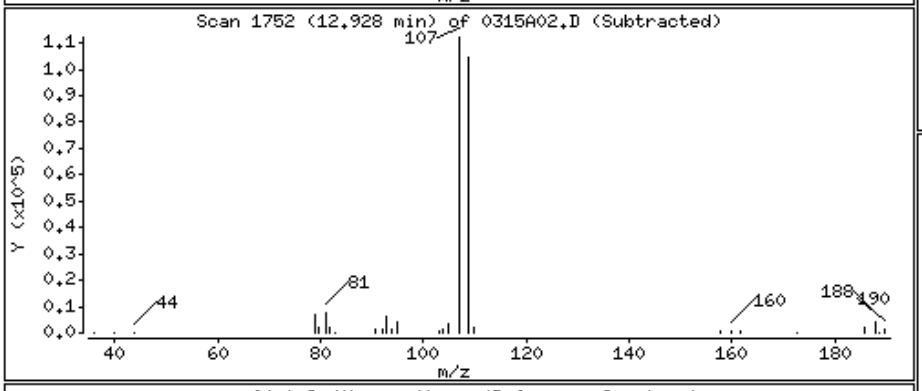
Column phase: Rtx-502.2

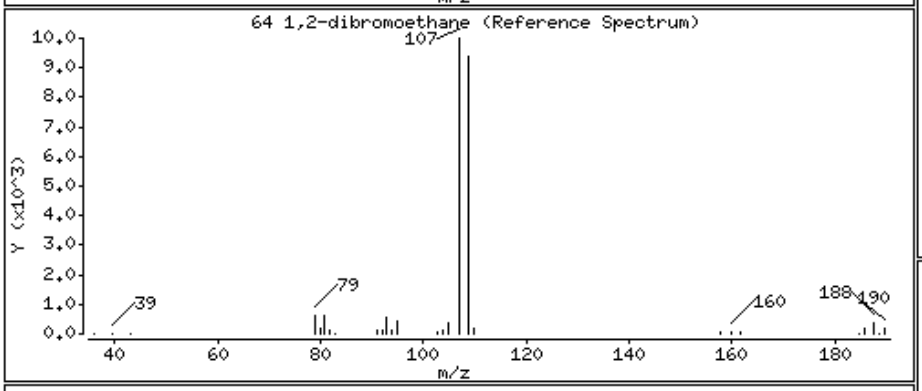
Column diameter: 0.18

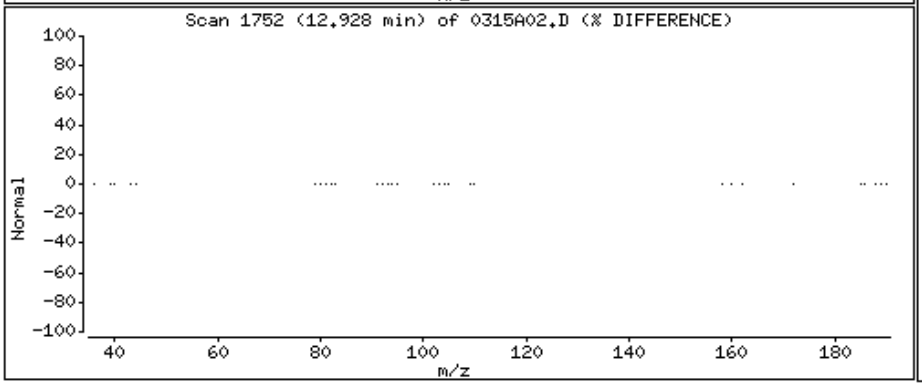
64 1,2-dibromoethane

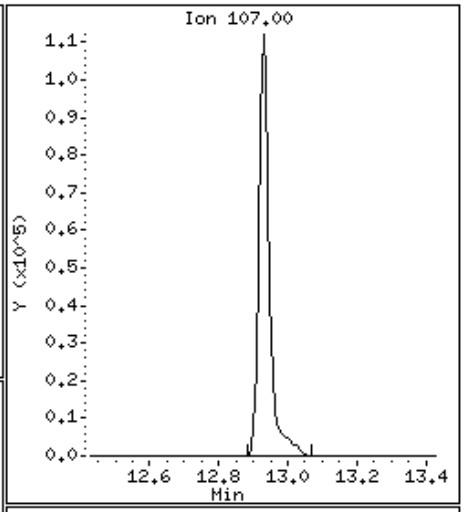
Concentration: 88.866 ngs

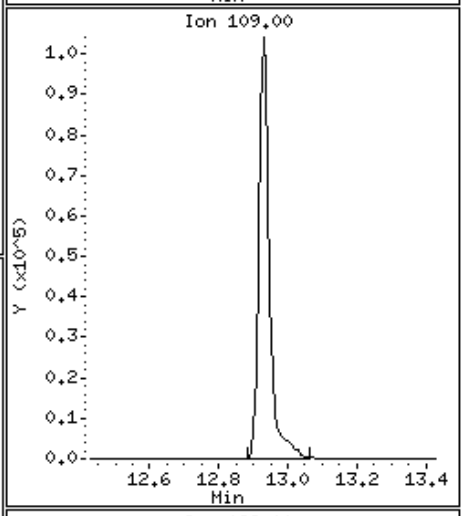


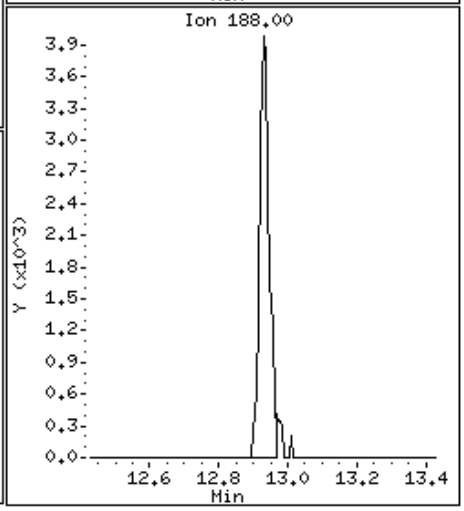












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

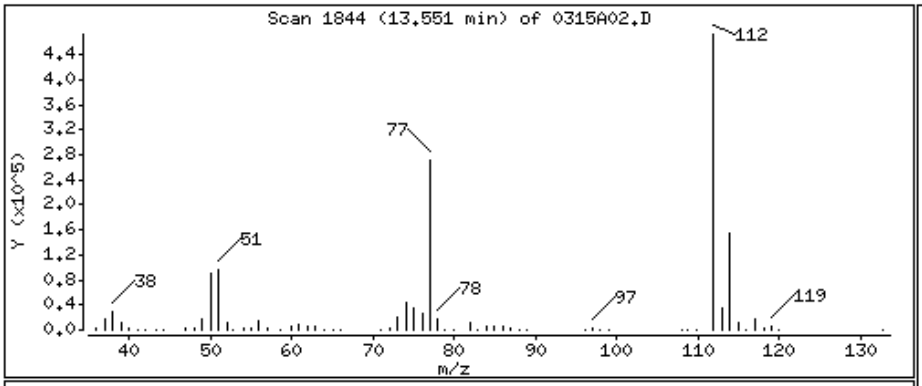
Operator: PD

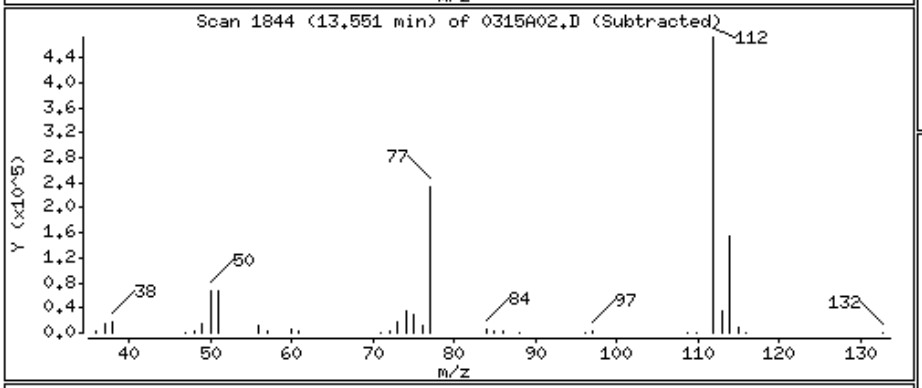
Column phase: Rtx-502.2

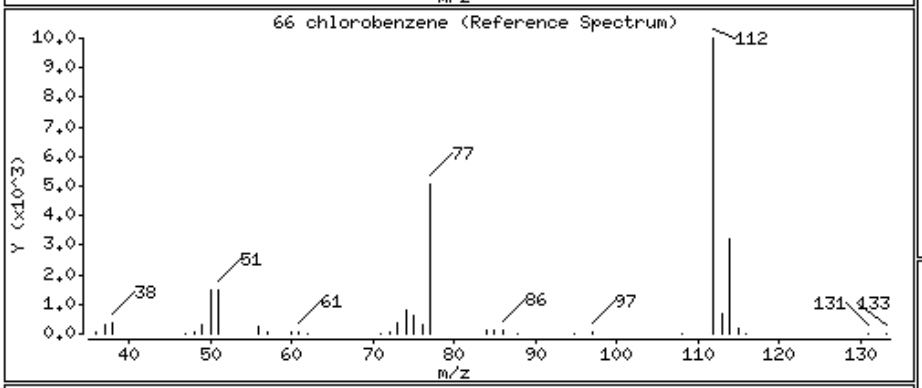
Column diameter: 0.18

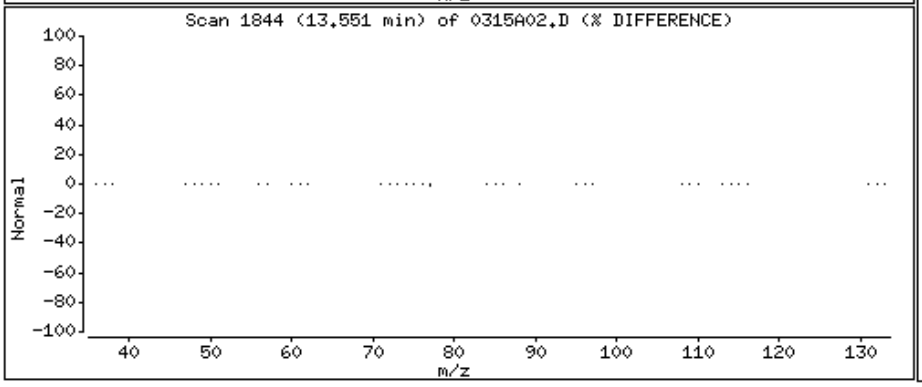
66 chlorobenzene

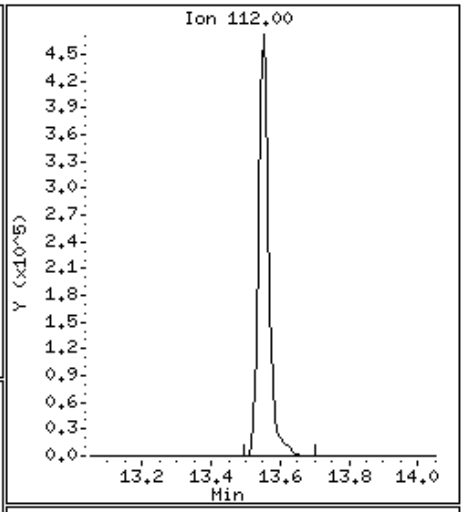
Concentration: 91.271 ngs

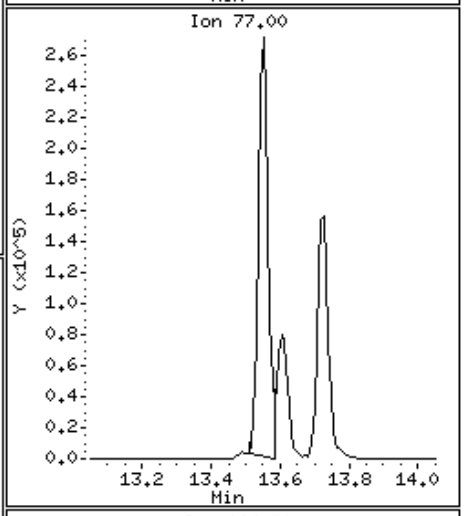


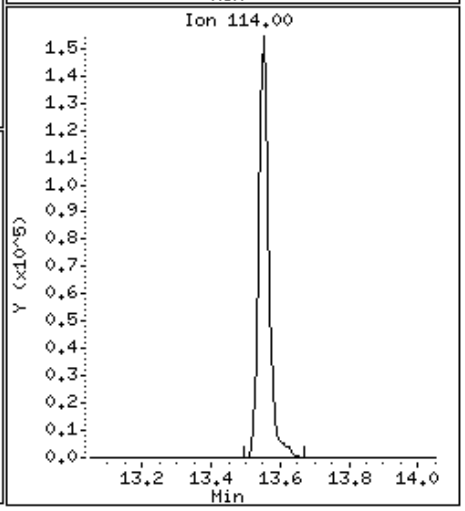












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

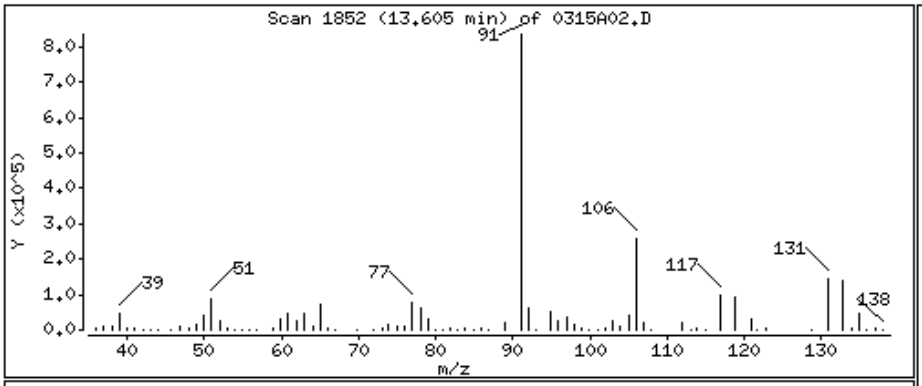
Operator: PD

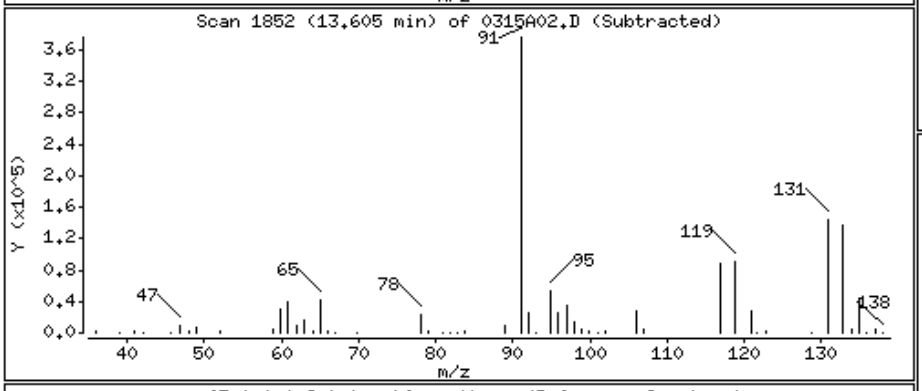
Column phase: Rtx-502.2

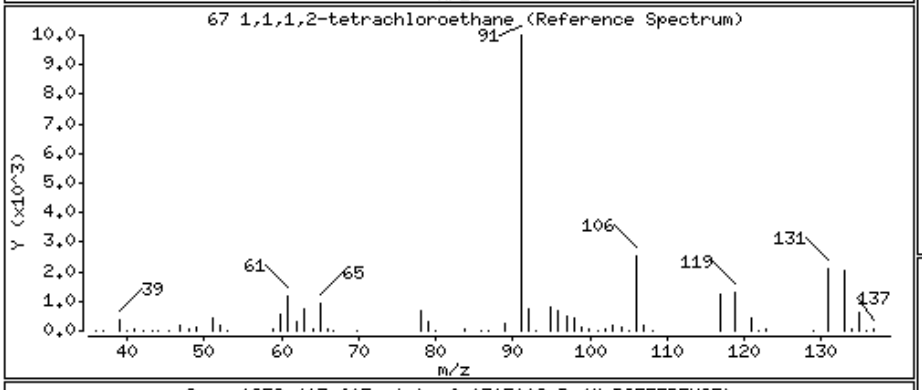
Column diameter: 0.18

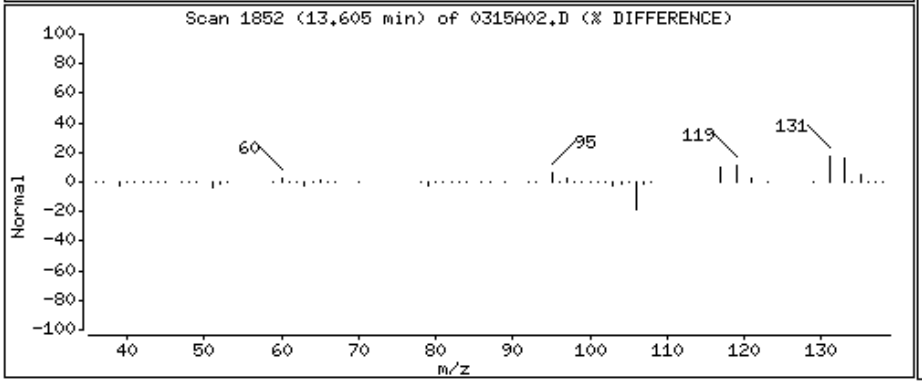
67 1,1,1,2-tetrachloroethane

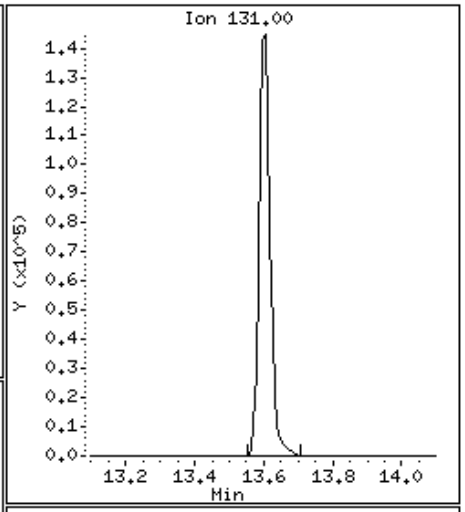
Concentration: 98.871 ngs

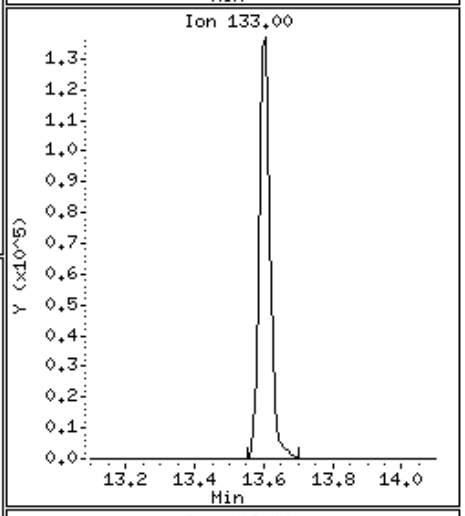


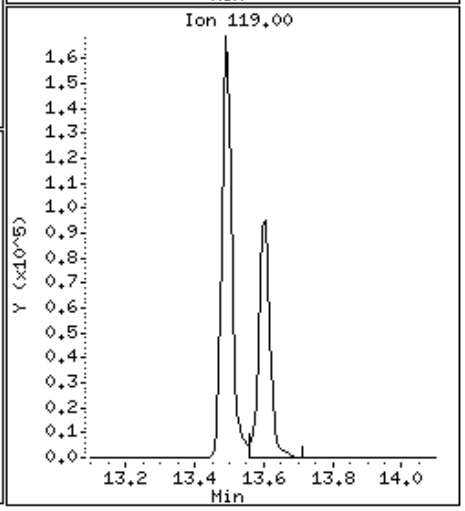












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

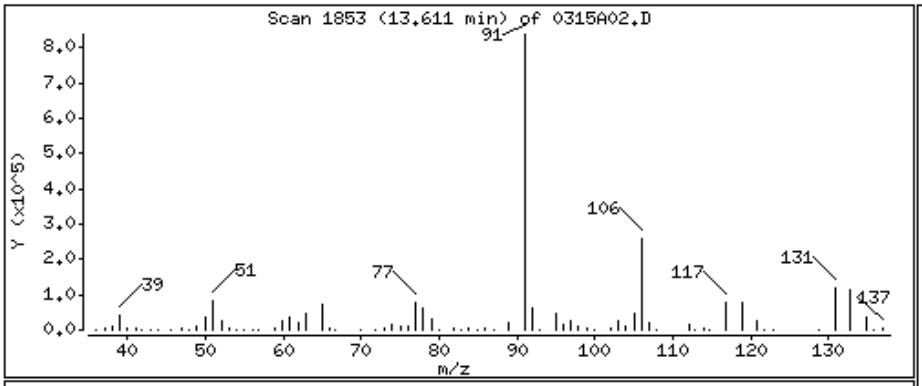
Operator: PD

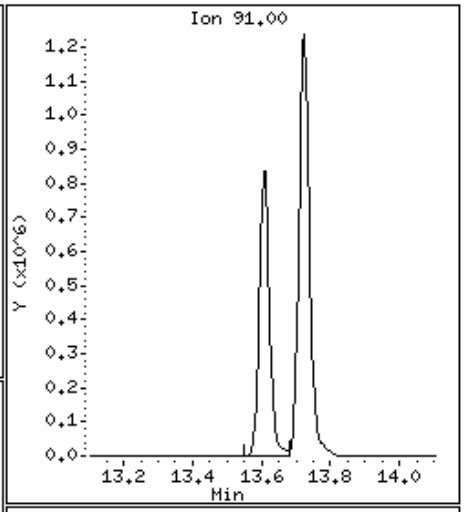
Column phase: Rtx-502.2

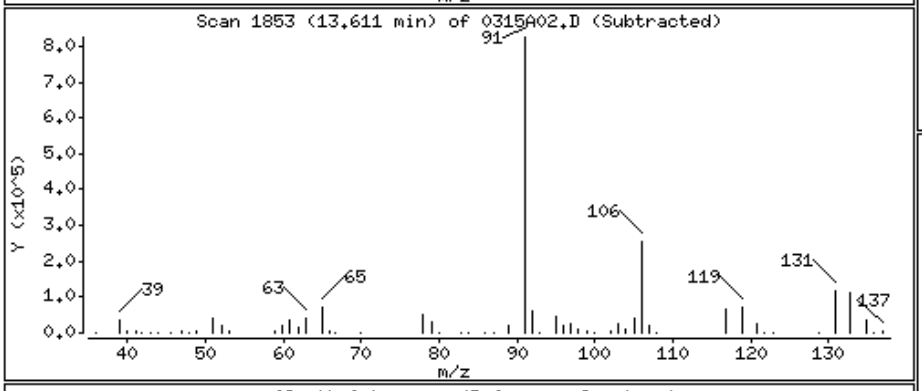
Column diameter: 0.18

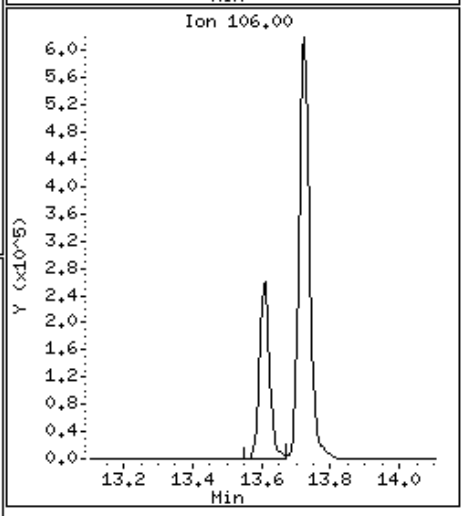
68 ethyl benzene

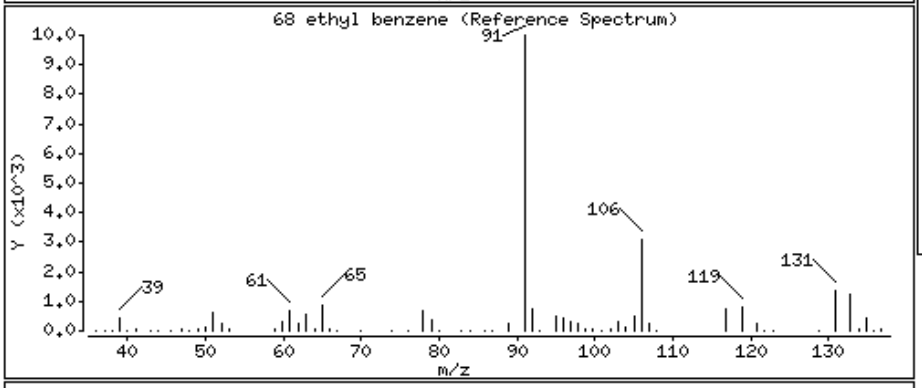
Concentration: 95.197 ngs

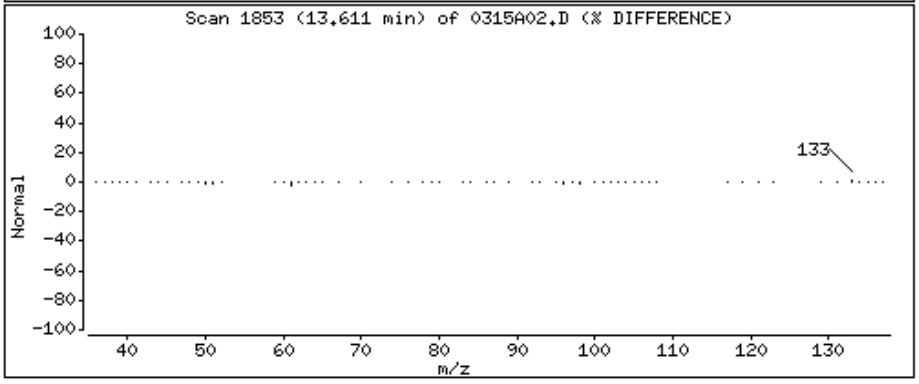












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

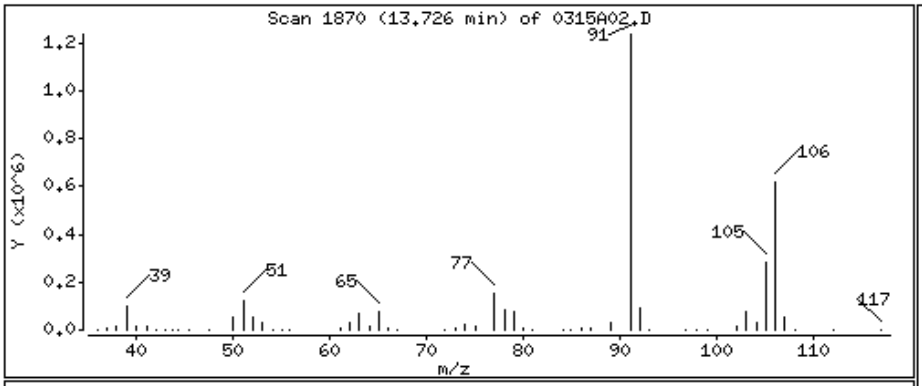
Operator: PD

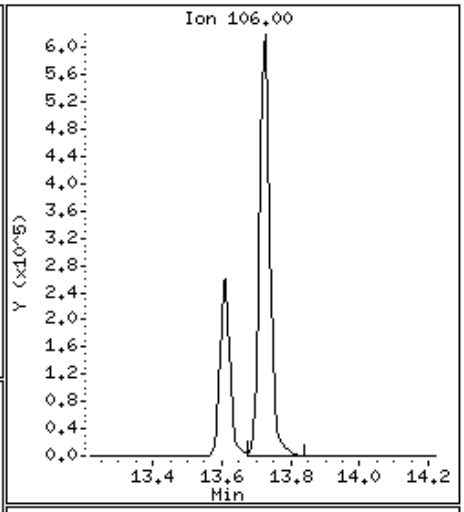
Column phase: Rtx-502.2

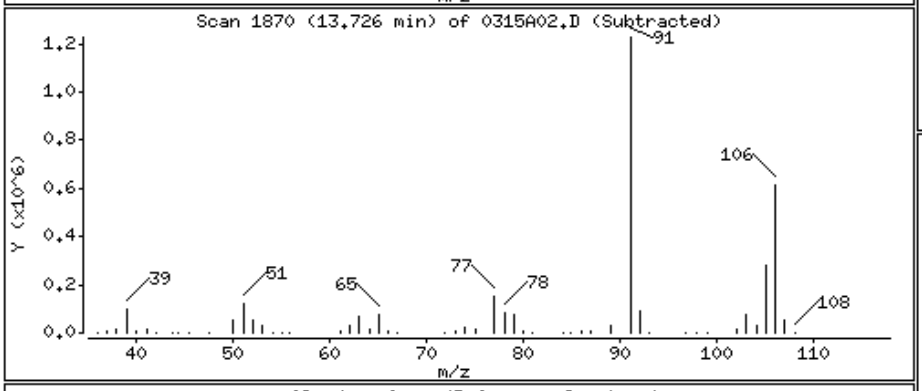
Column diameter: 0.18

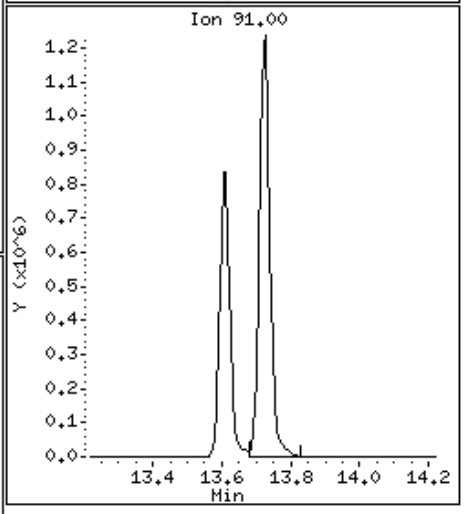
69 p/m xylene

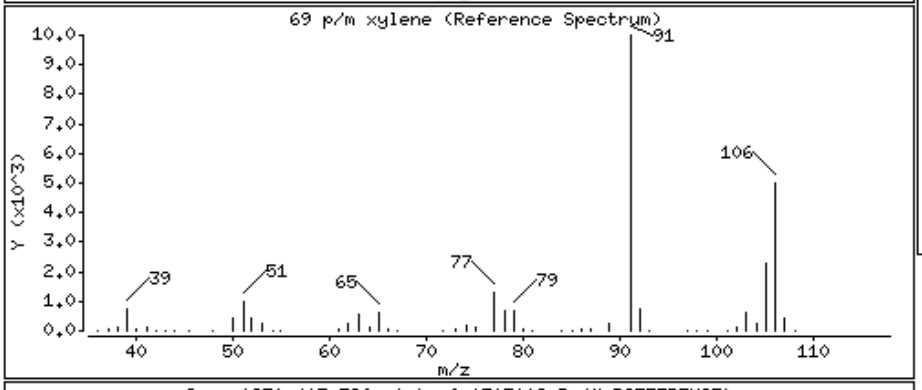
Concentration: 189.102 ngs

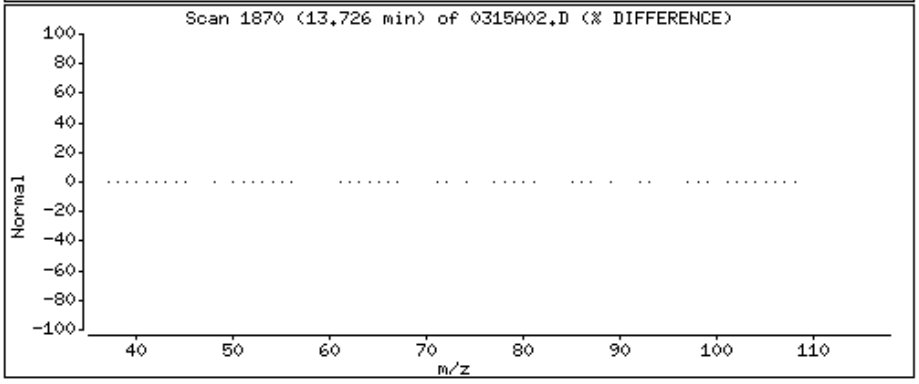












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

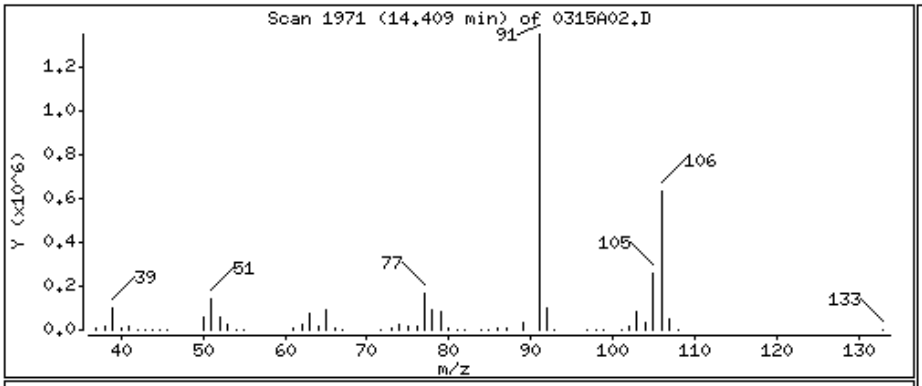
Operator: PD

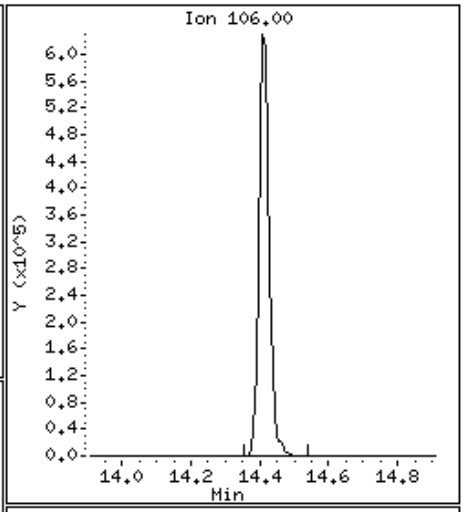
Column phase: Rtx-502.2

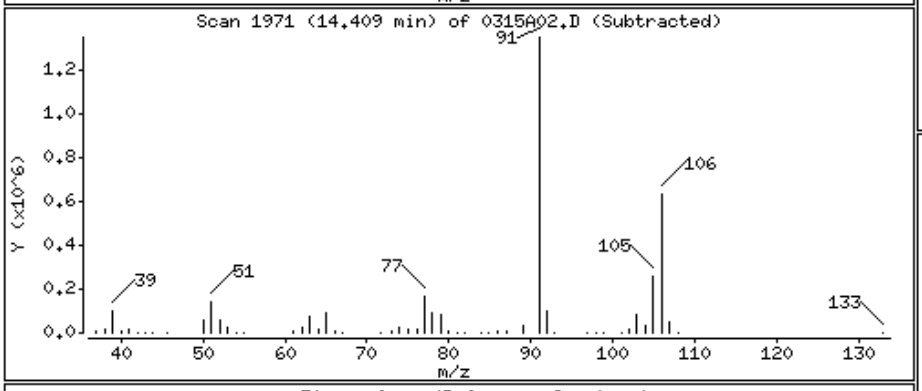
Column diameter: 0.18

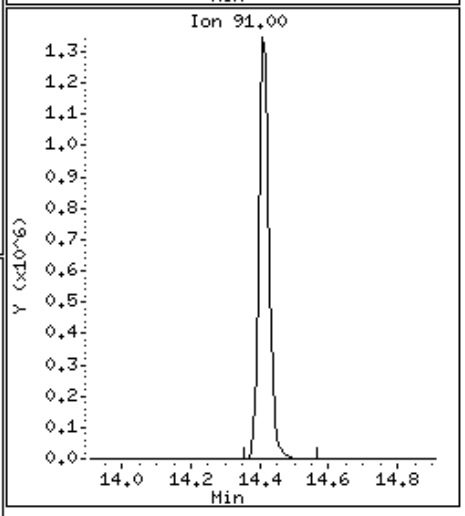
70 o xylene

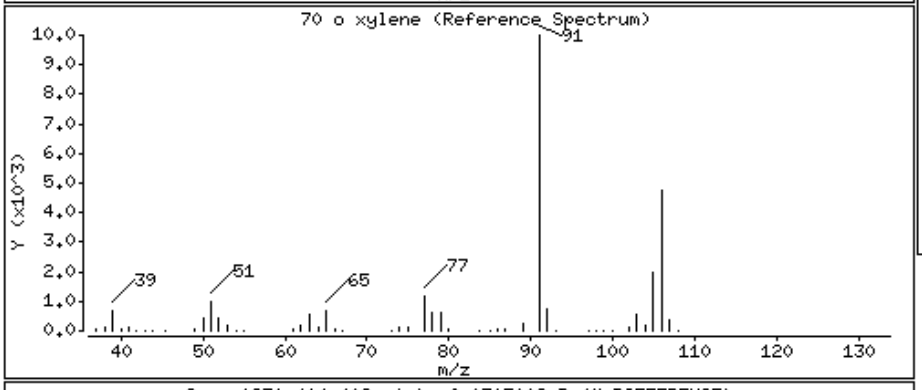
Concentration: 187.312 ngs

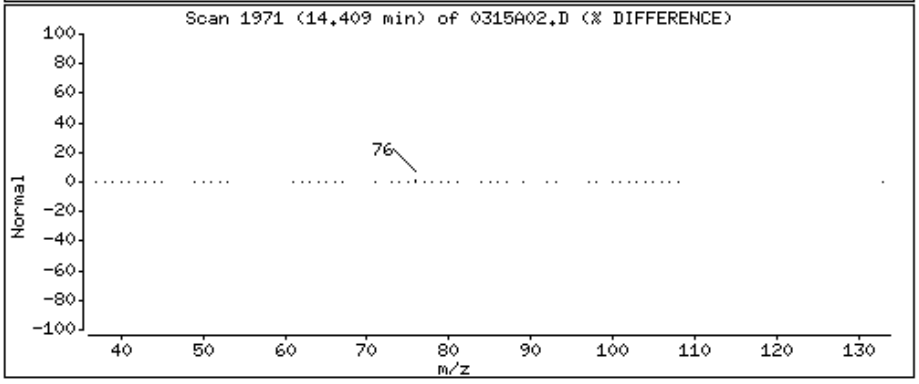












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

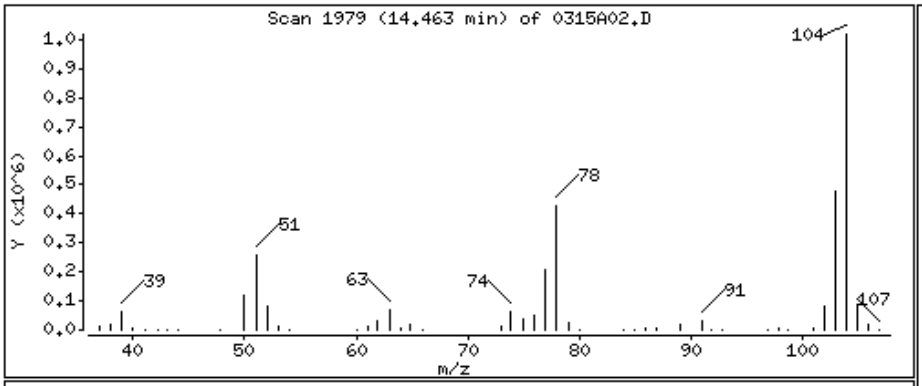
Operator: PD

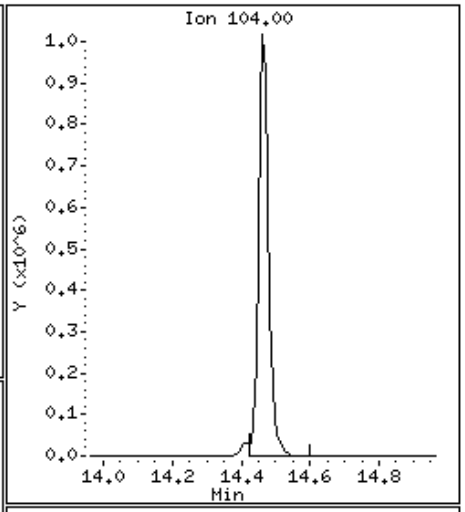
Column phase: Rtx-502.2

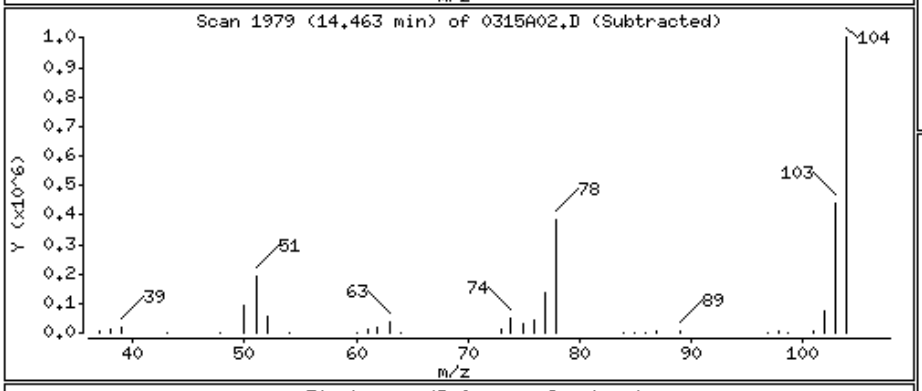
Column diameter: 0.18

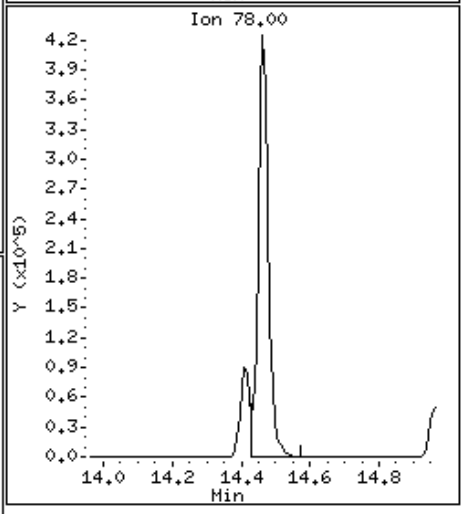
71 styrene

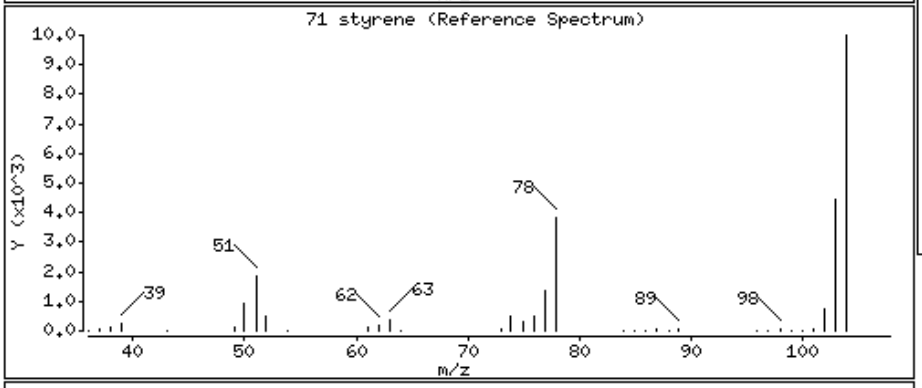
Concentration: 195.796 ngs

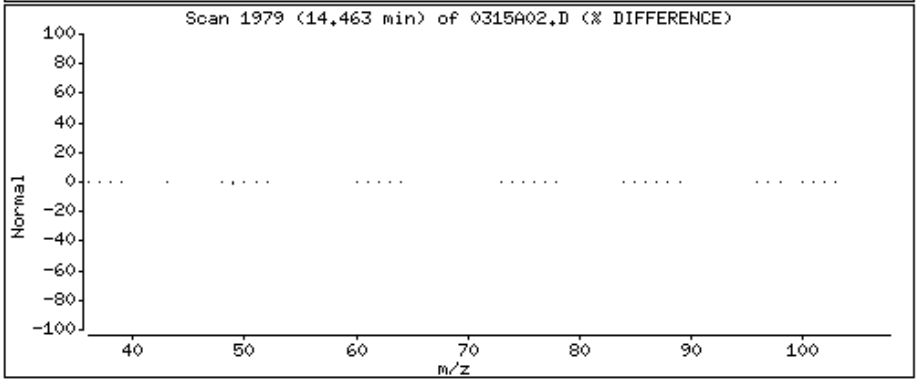












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

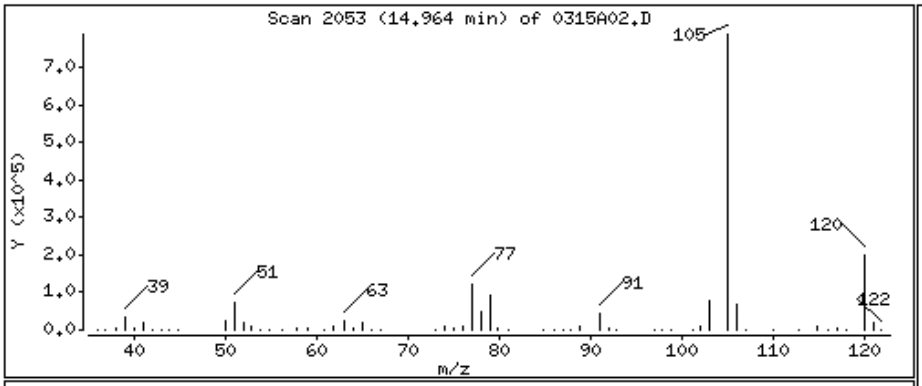
Operator: PD

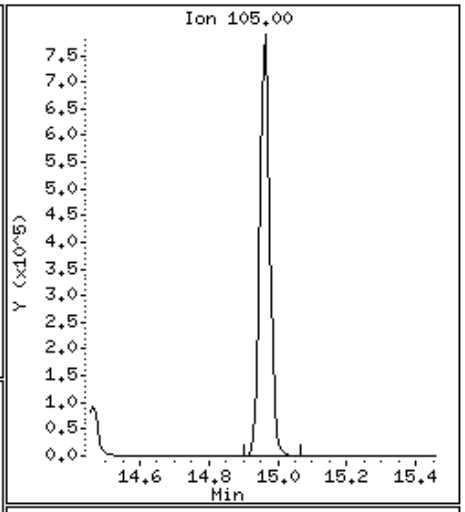
Column phase: Rtx-502.2

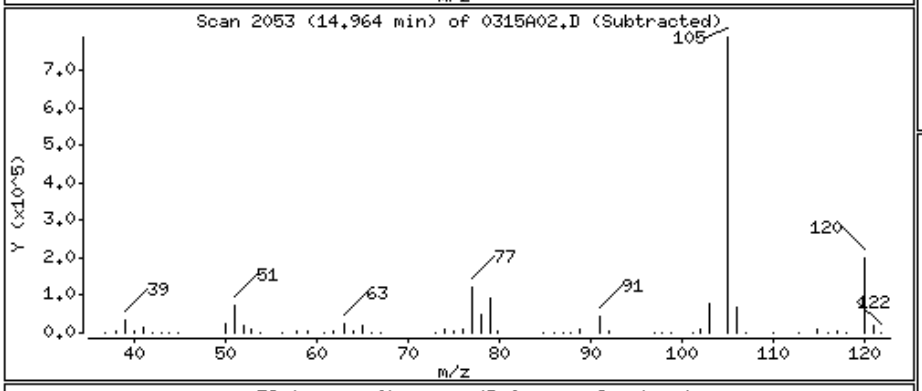
Column diameter: 0.18

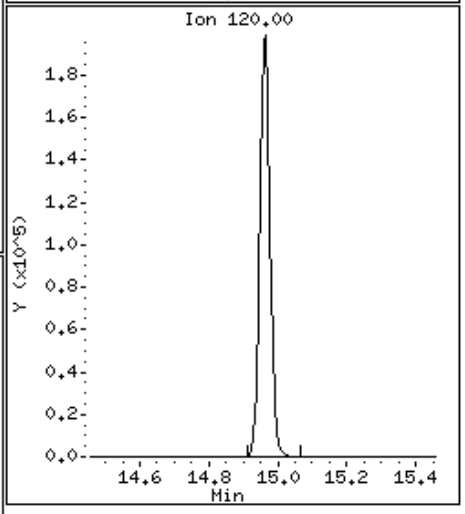
72 isopropylbenzene

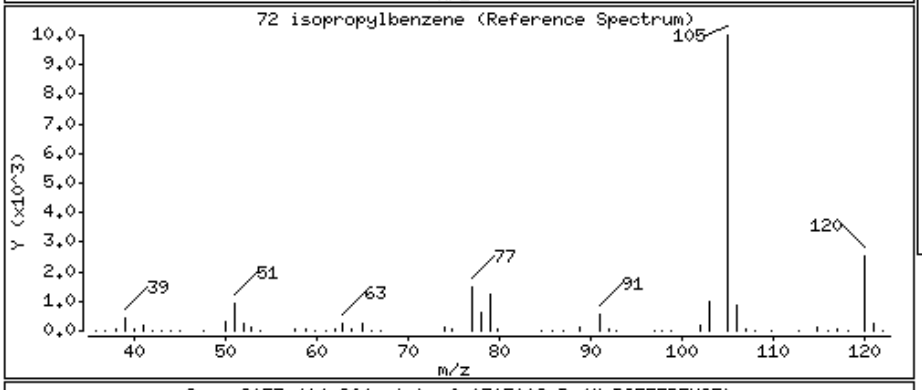
Concentration: 93.772 ngs

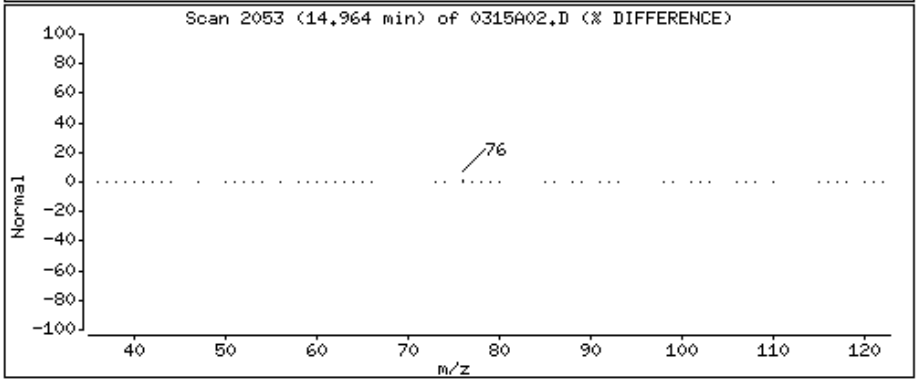












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

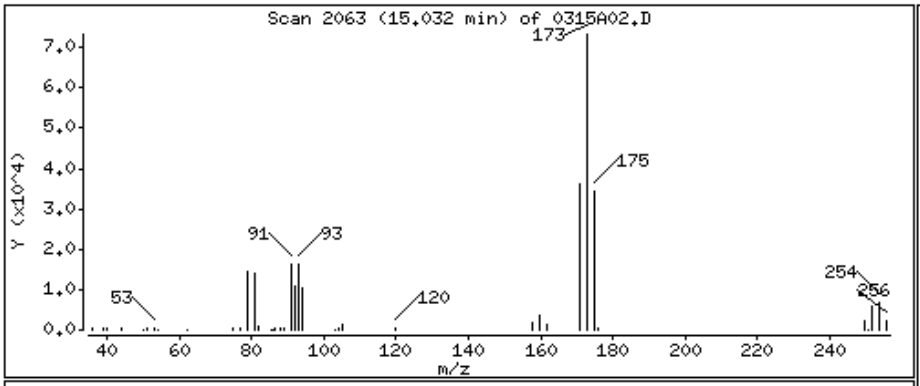
Operator: PD

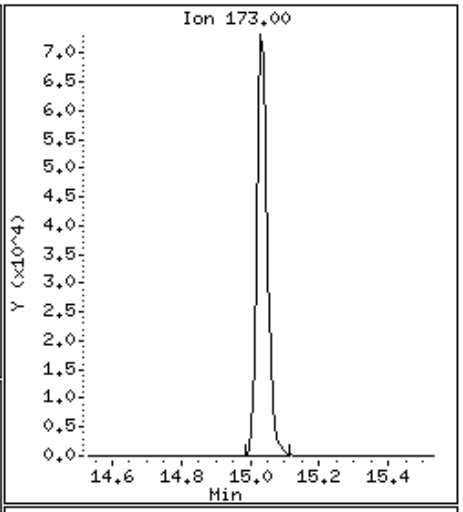
Column phase: Rtx-502.2

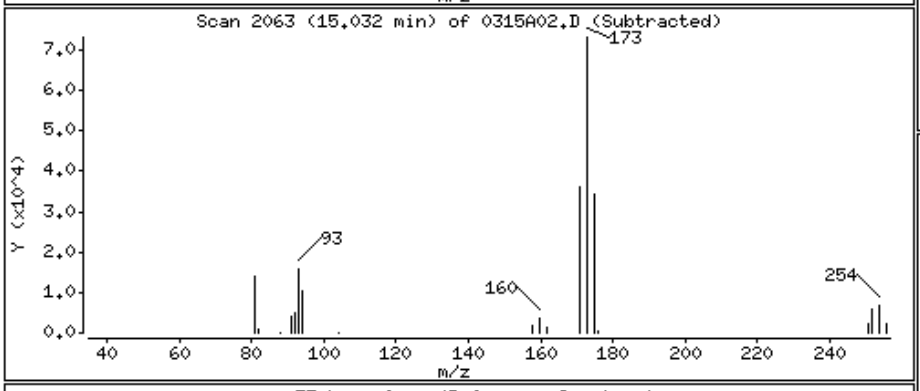
Column diameter: 0.18

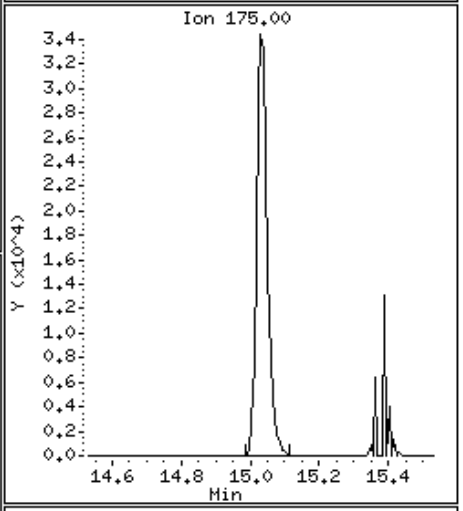
73 bromoform

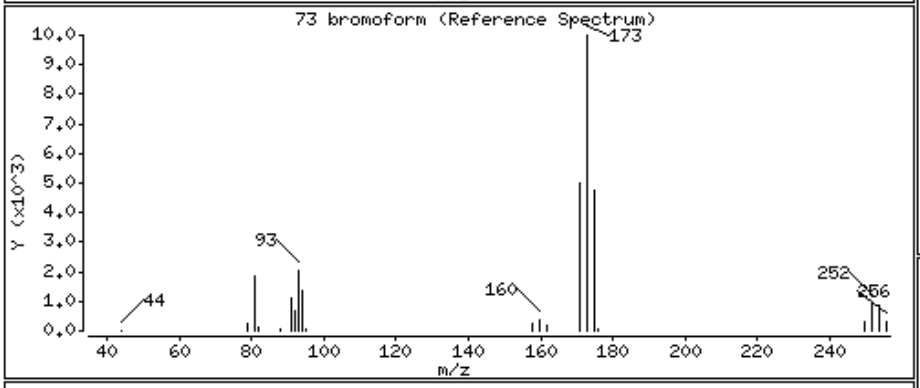
Concentration: 98.840 ngs

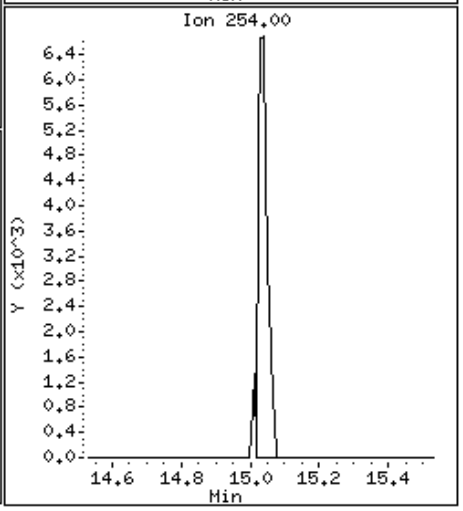


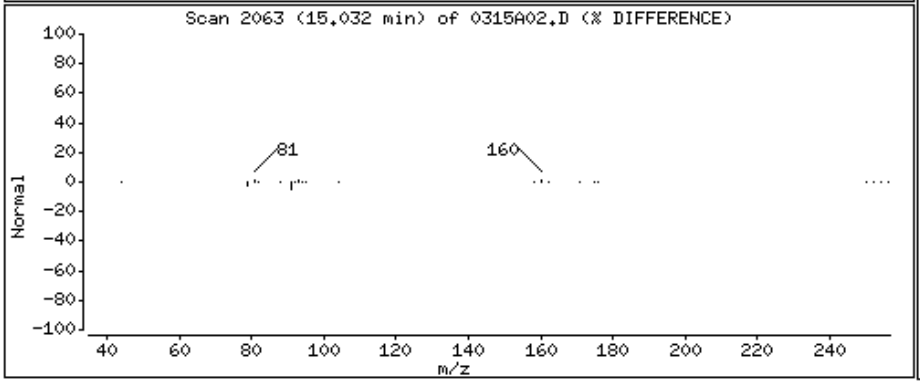












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

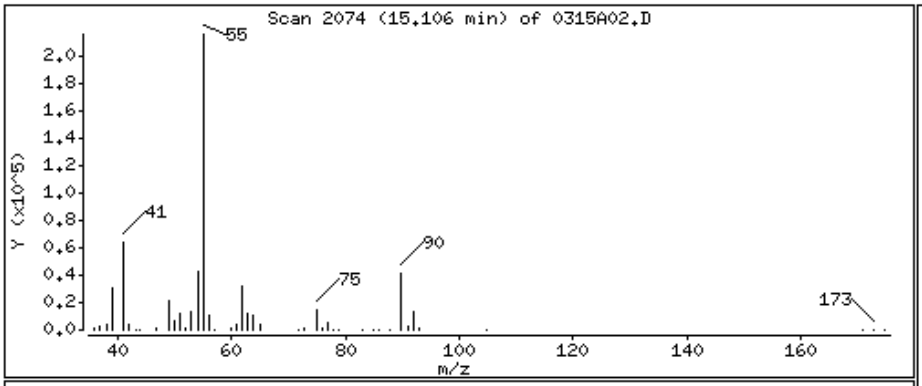
Operator: PD

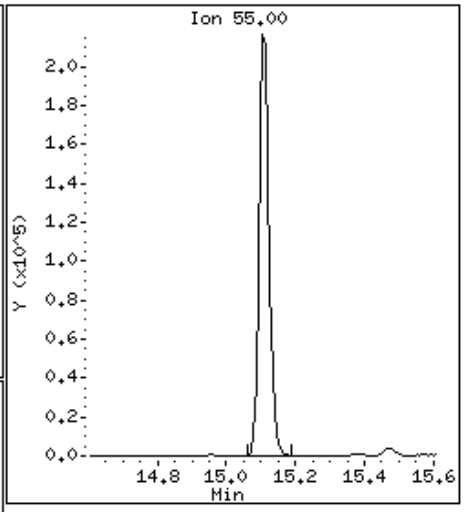
Column phase: Rtx-502.2

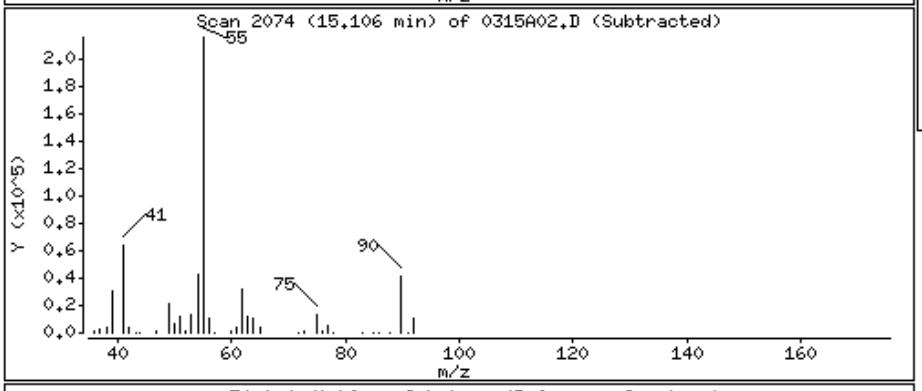
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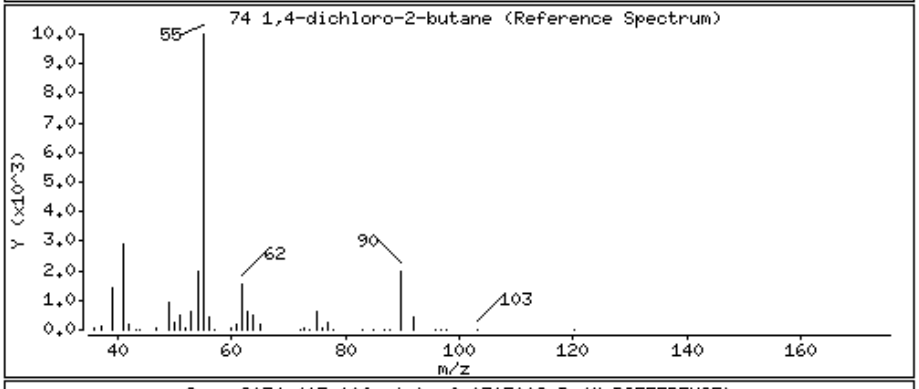
74 1,4-dichloro-2-butane

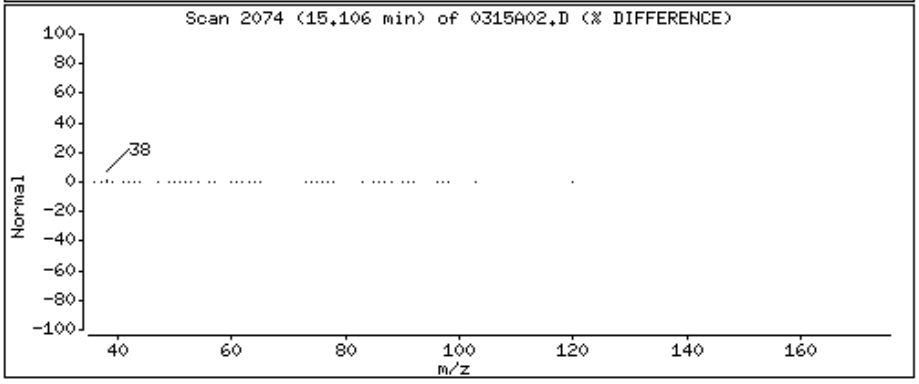
Concentration: 86.672 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

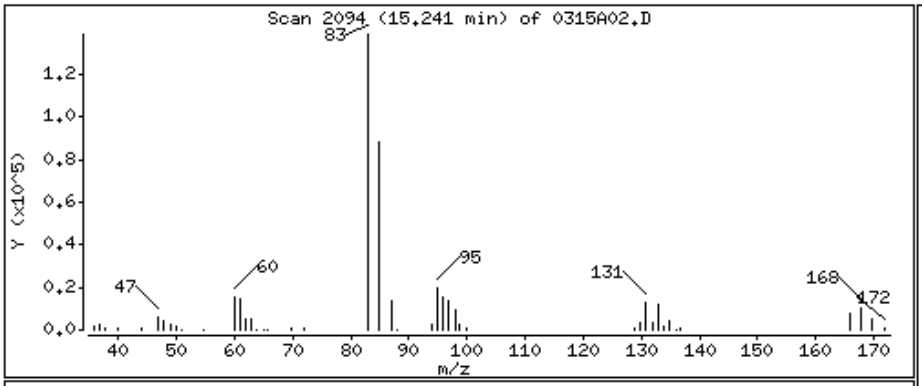
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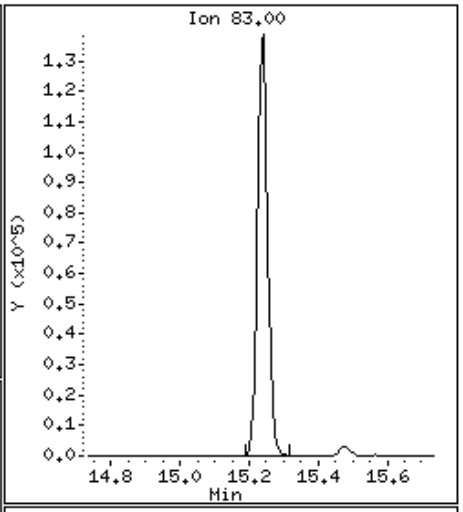
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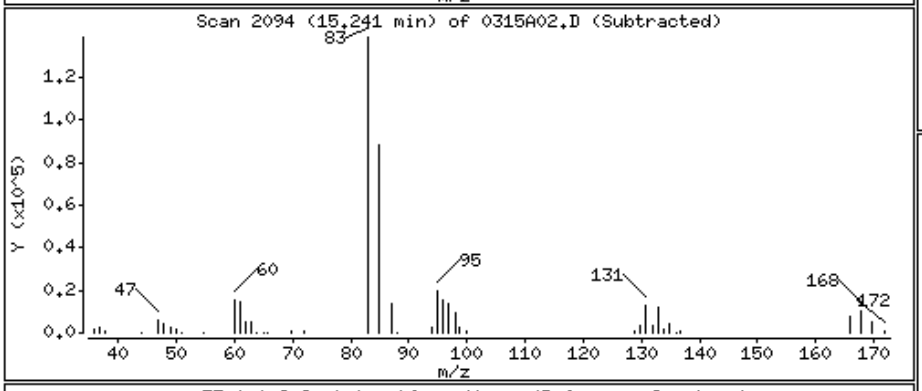
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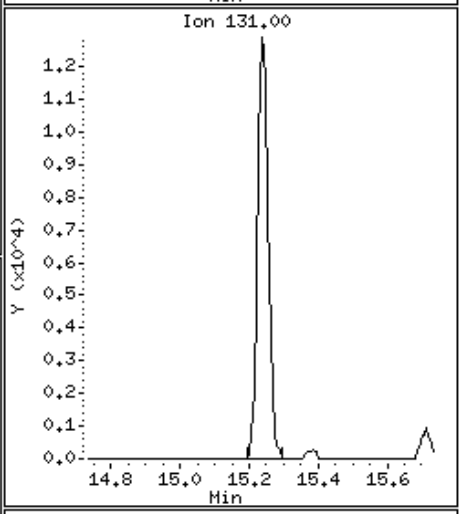
75 1,1,2,2,-tetrachloroethane

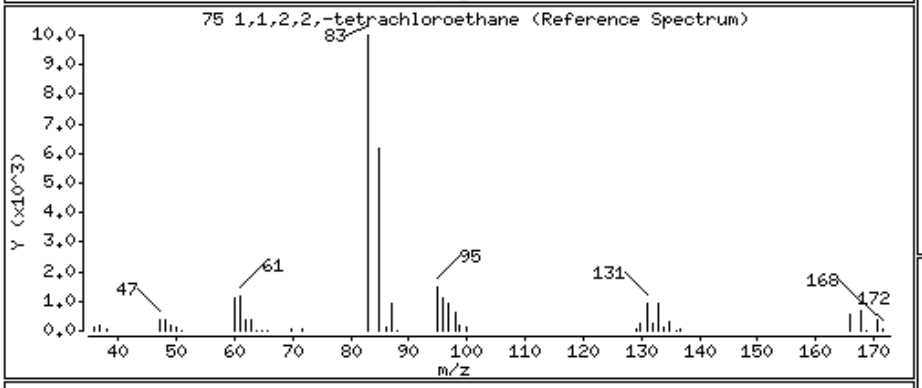
Concentration: 85.022 ngs

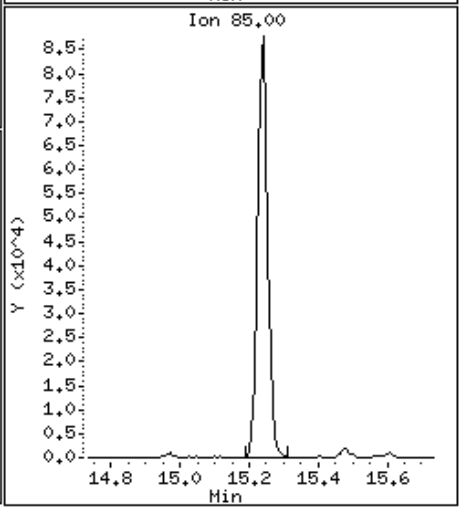


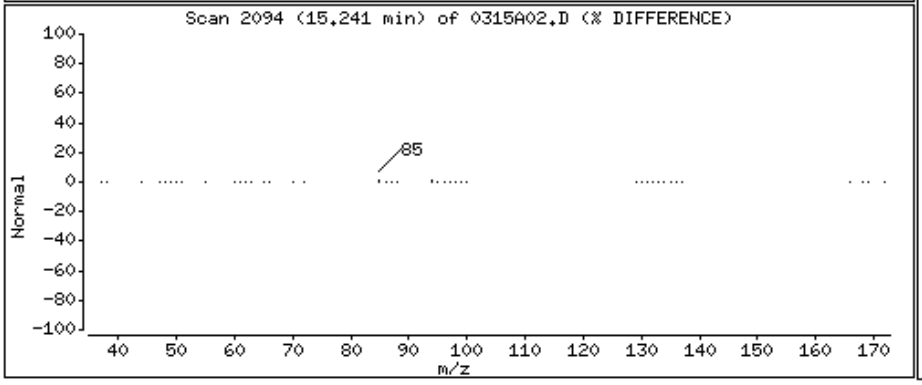












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

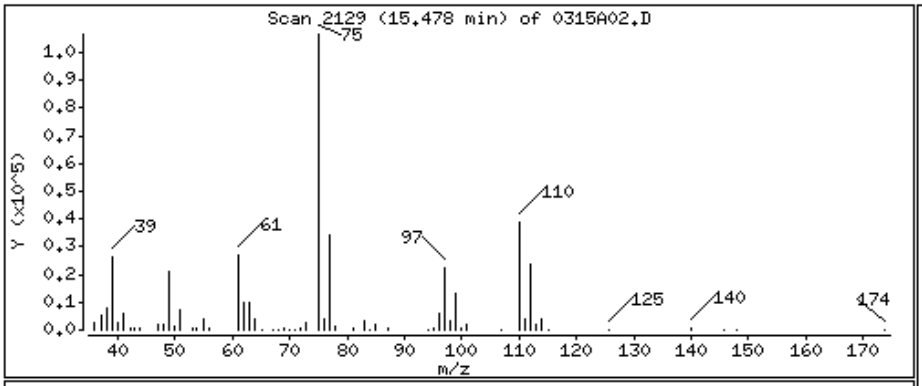
Operator: PD

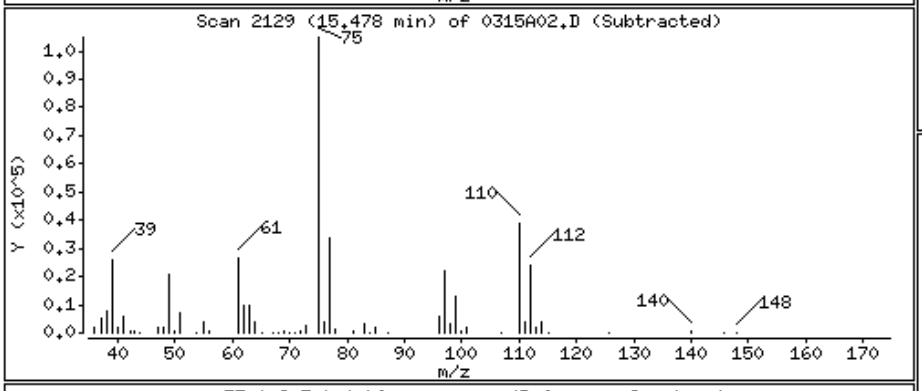
Column phase: Rtx-502.2

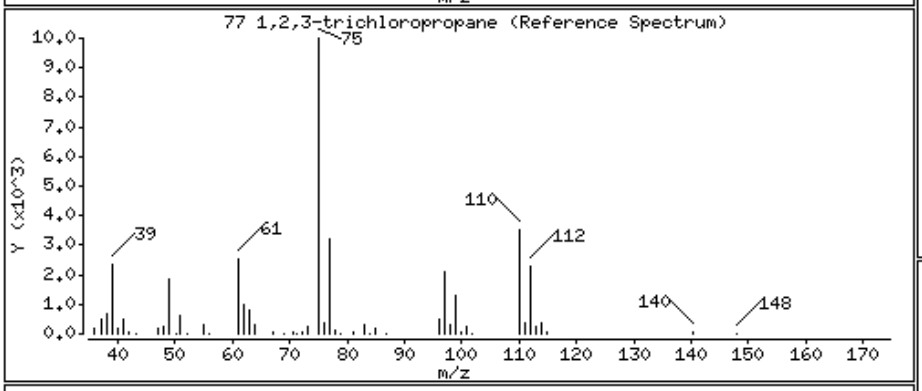
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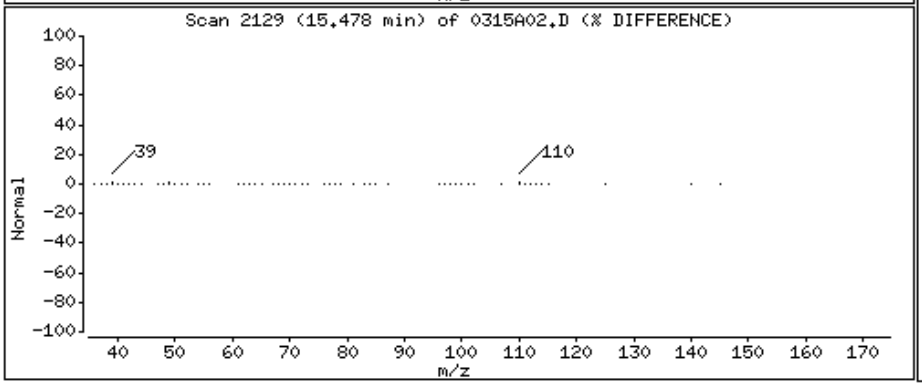
77 1,2,3-trichloropropane

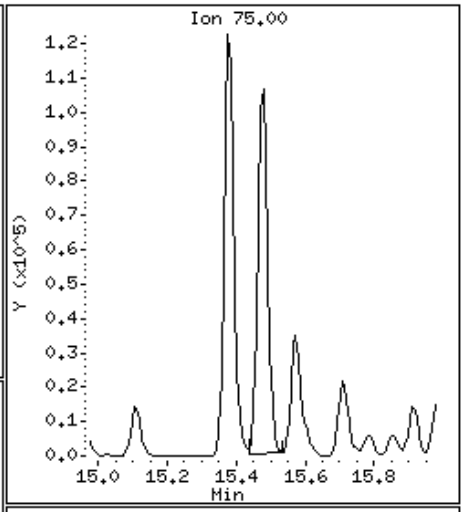
Concentration: 83.750 ngs

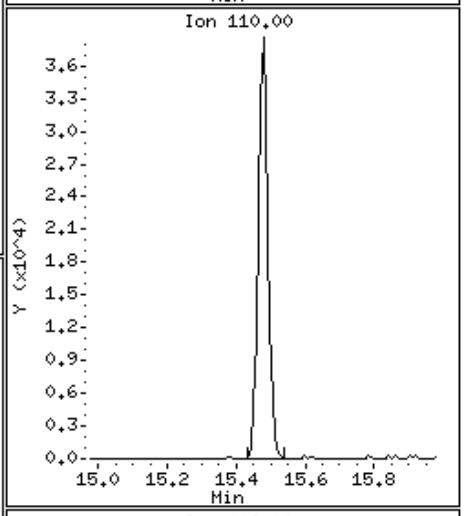


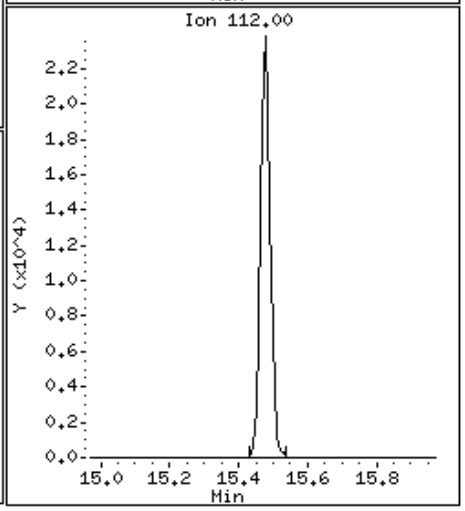












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

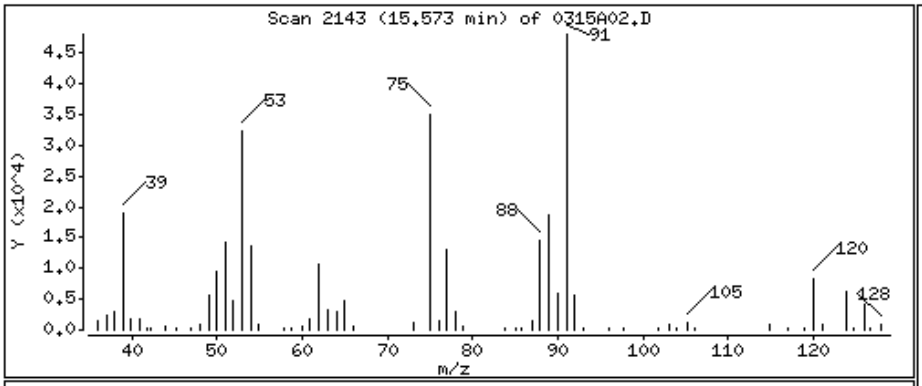
Operator: PD

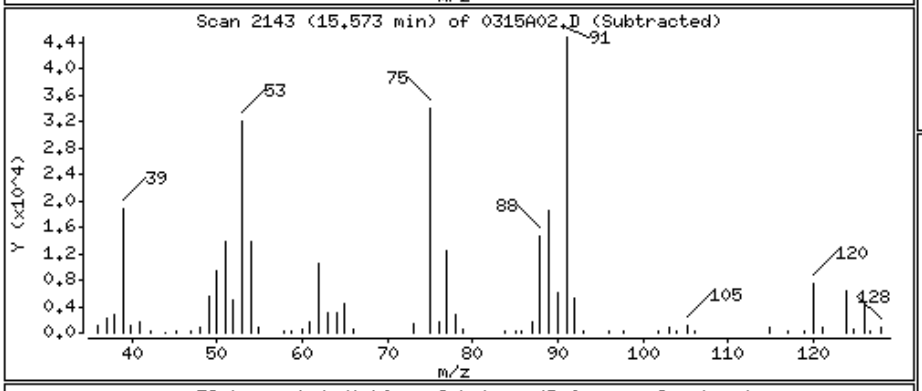
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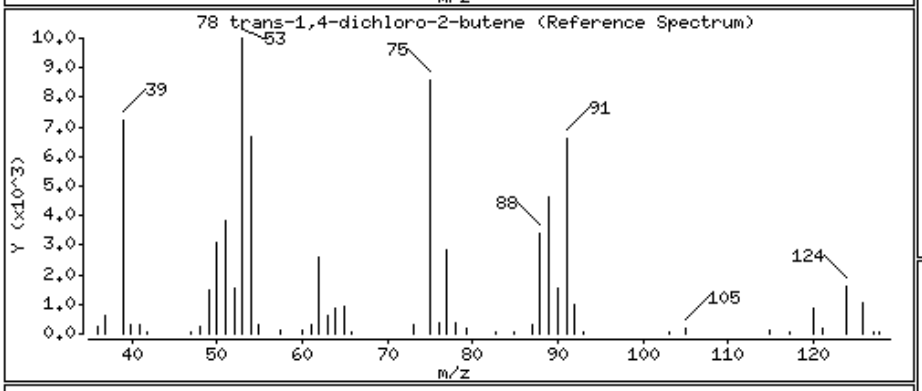
Column diameter: 0.18

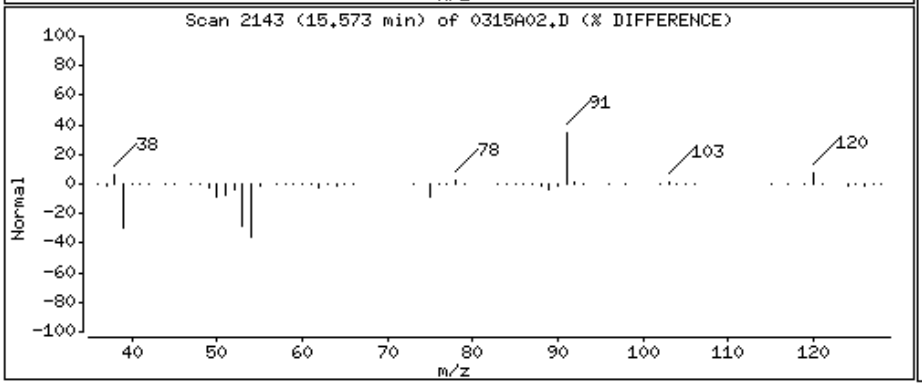
78 trans-1,4-dichloro-2-butene

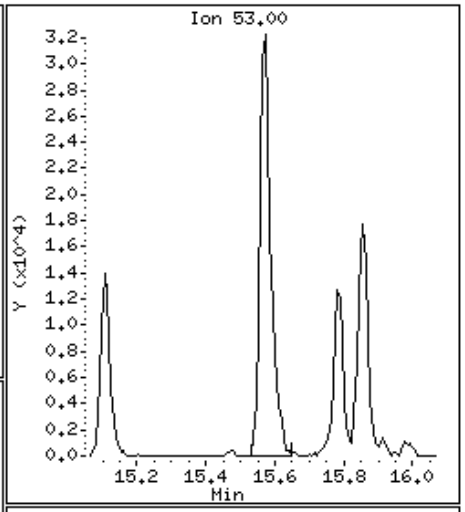
Concentration: 96.253 ngs

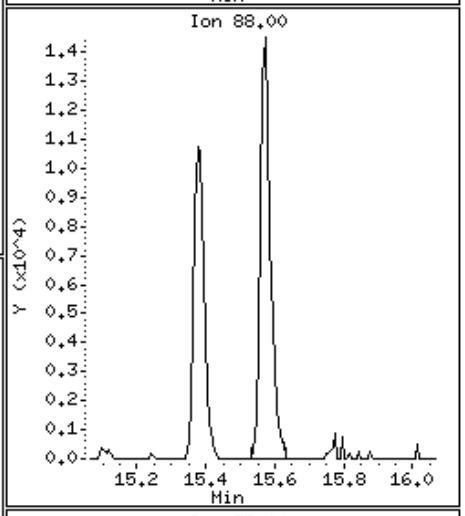


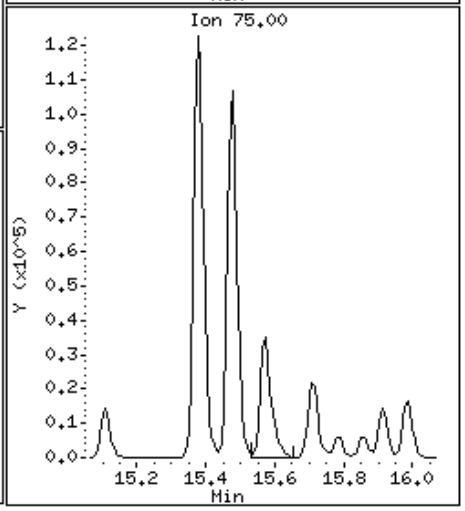












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

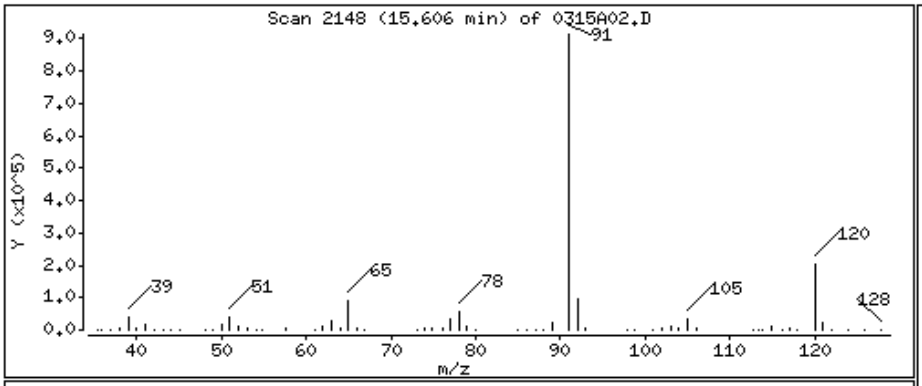
Operator: PD

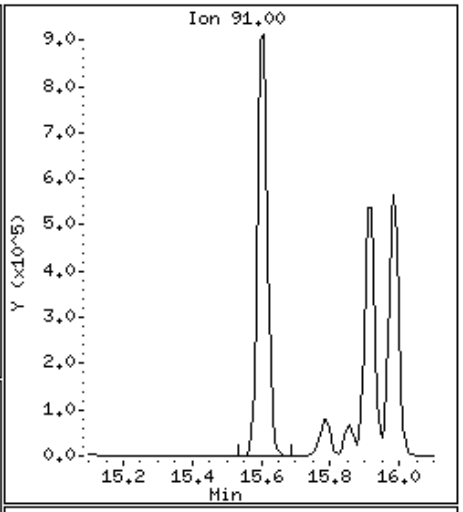
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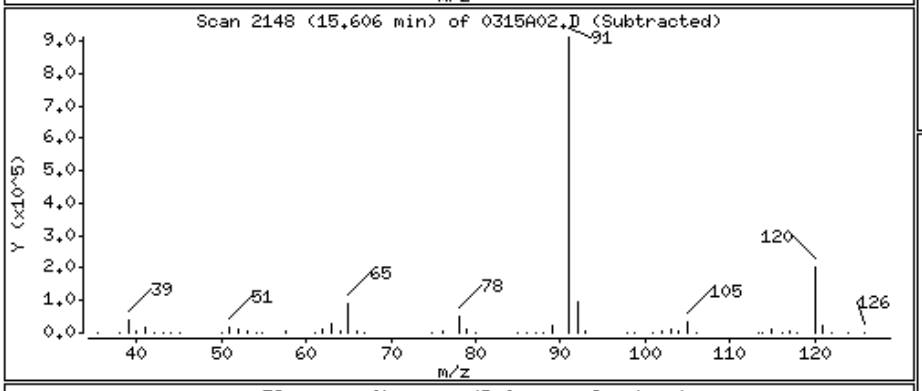
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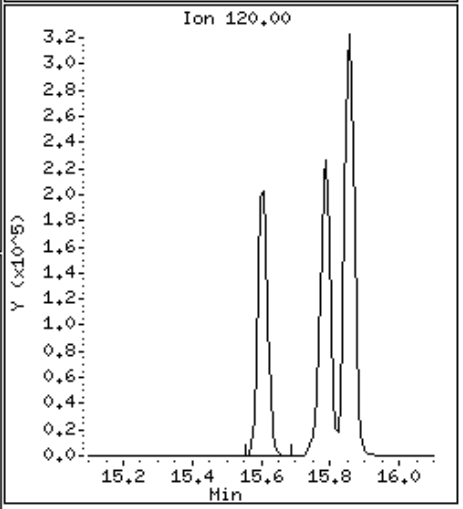
79 n-propylbenzene

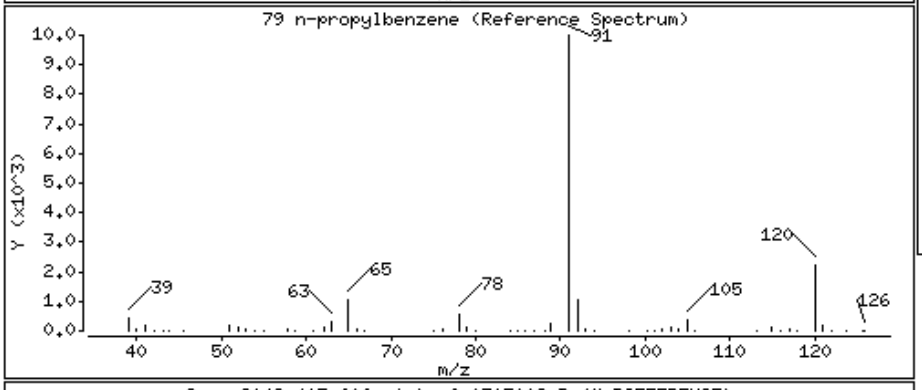
Concentration: 94.584 ngs

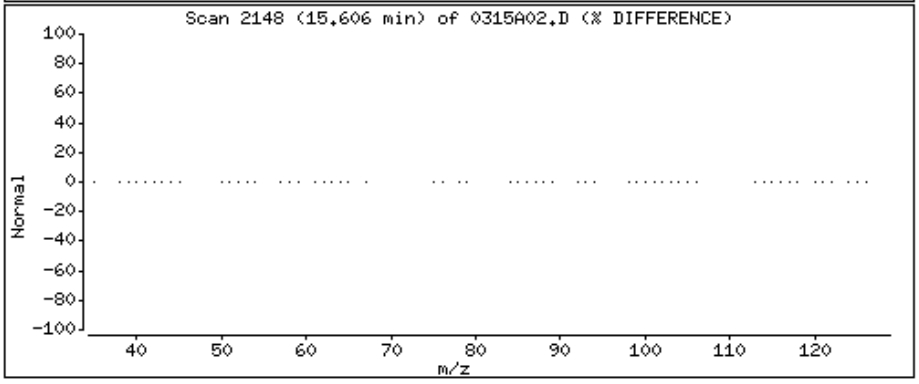












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

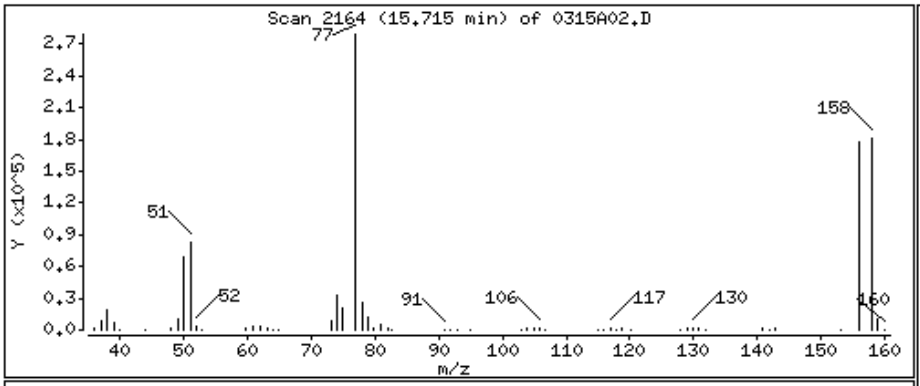
Operator: PD

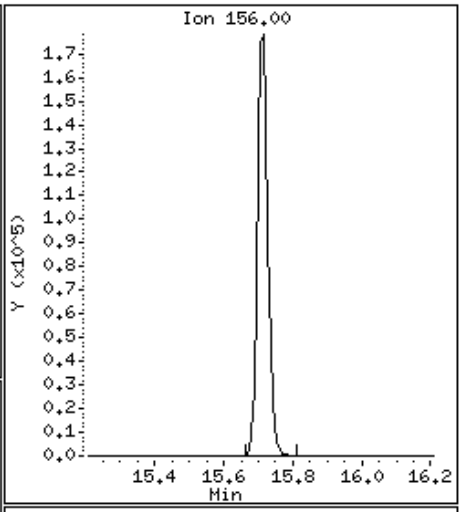
Column phase: Rtx-502.2

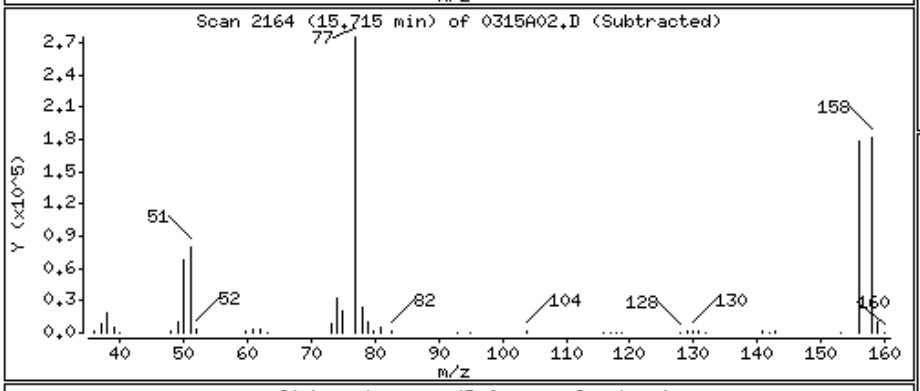
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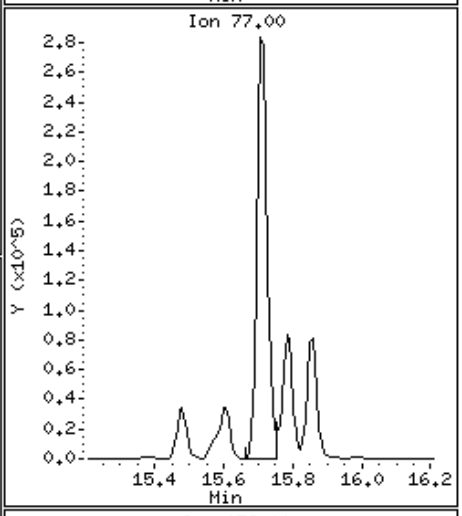
80 bromobenzene

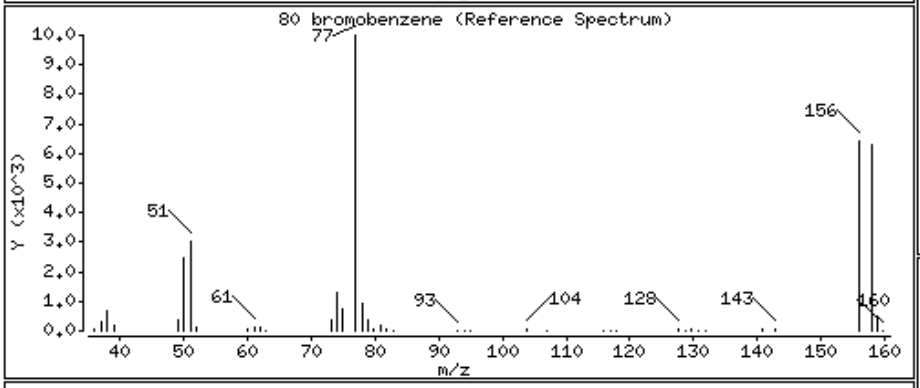
Concentration: 89.389 ngs

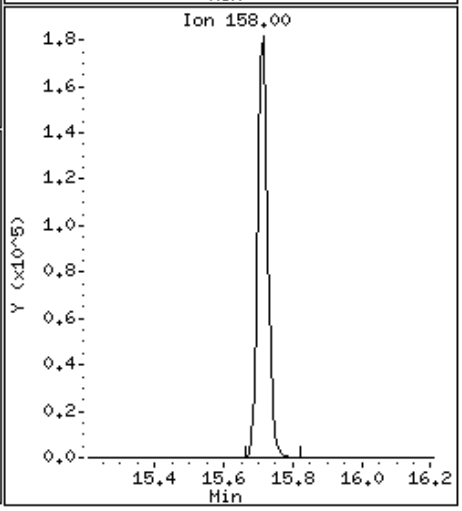


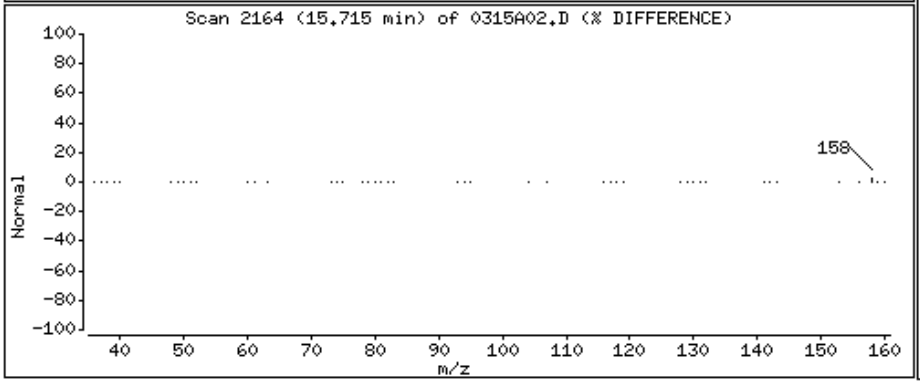












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

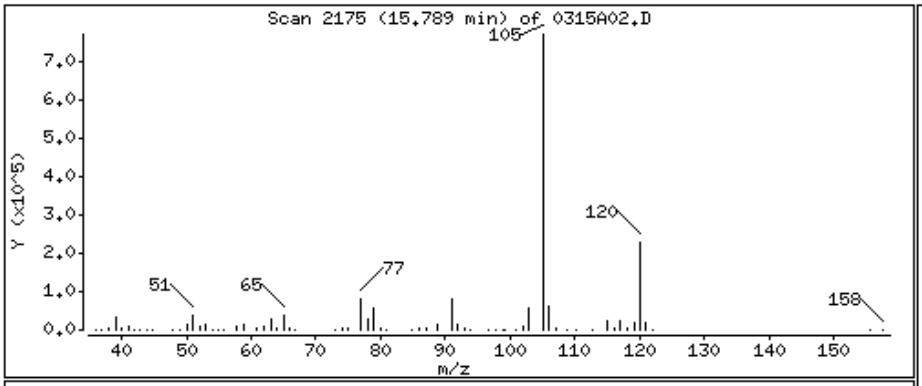
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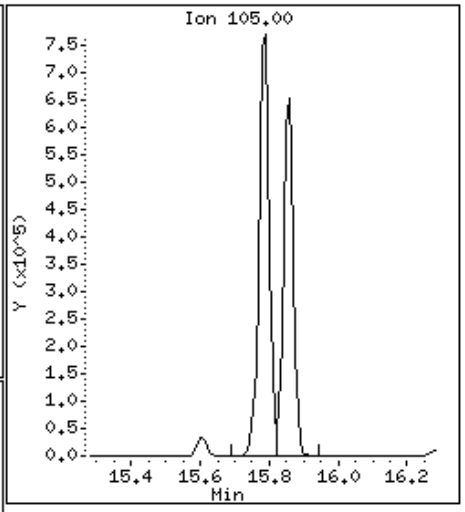
Column phase: Rtx-502.2

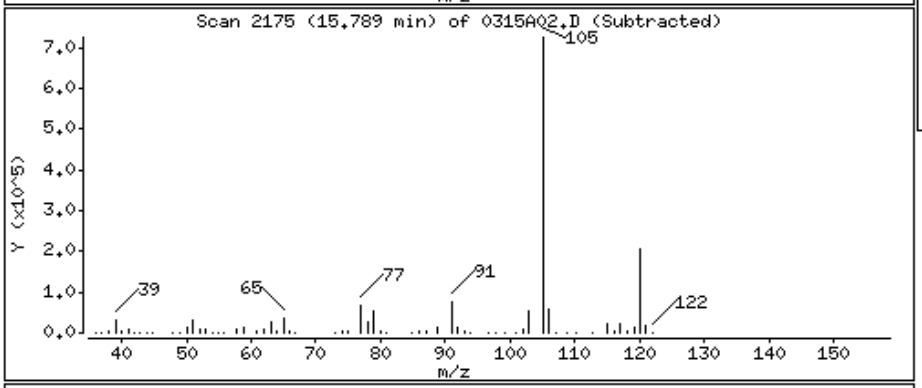
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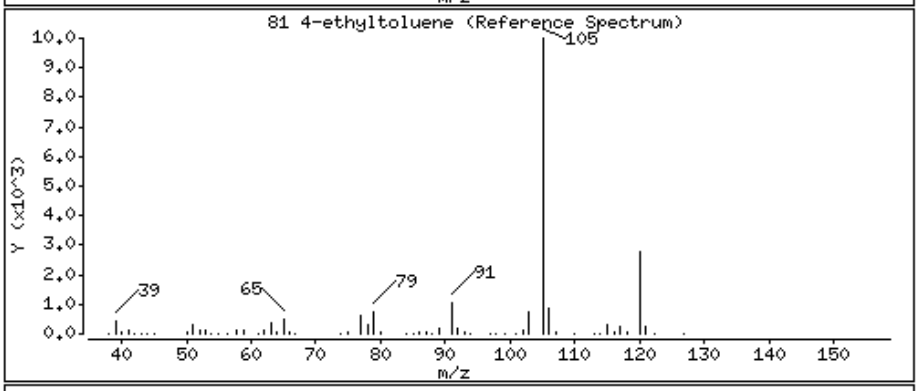
81 4-ethyltoluene

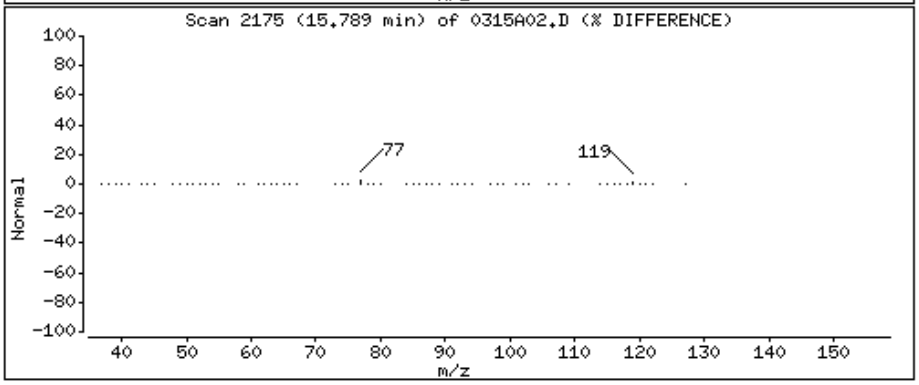
Concentration: 93.186 ngs











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Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

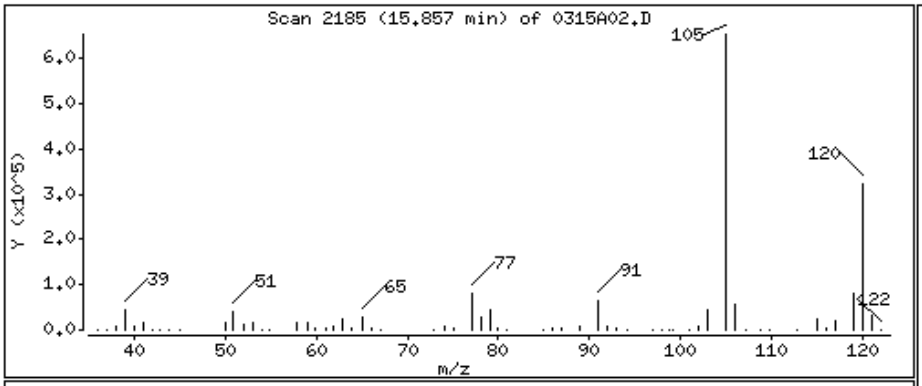
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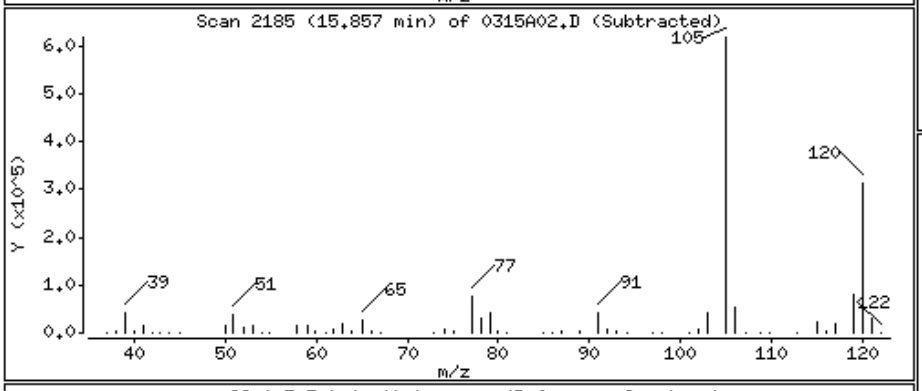
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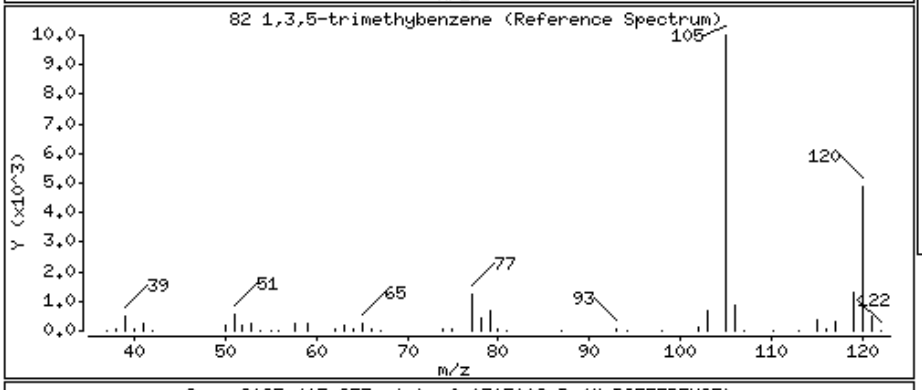
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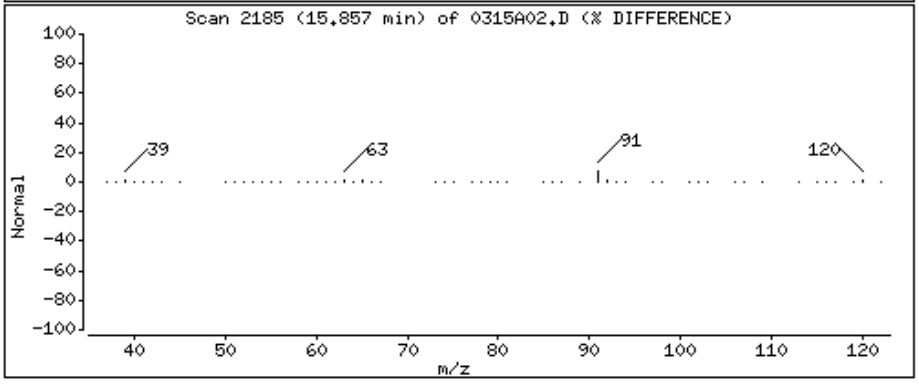
82 1,3,5-trimethybenzene

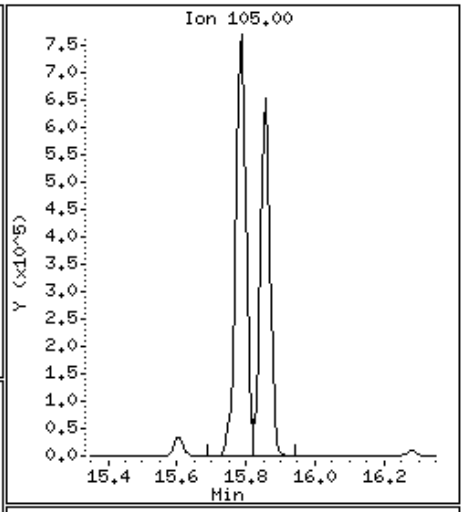
Concentration: 91.124 ngs

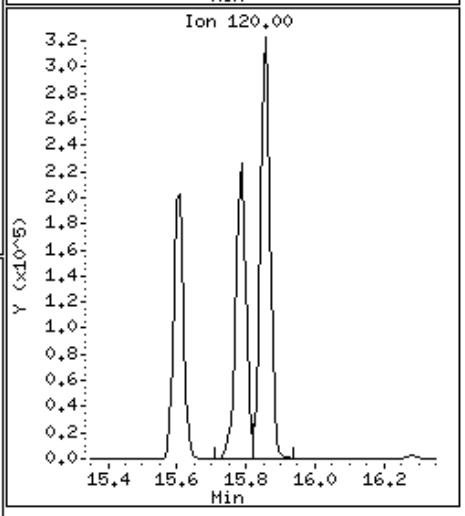












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Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

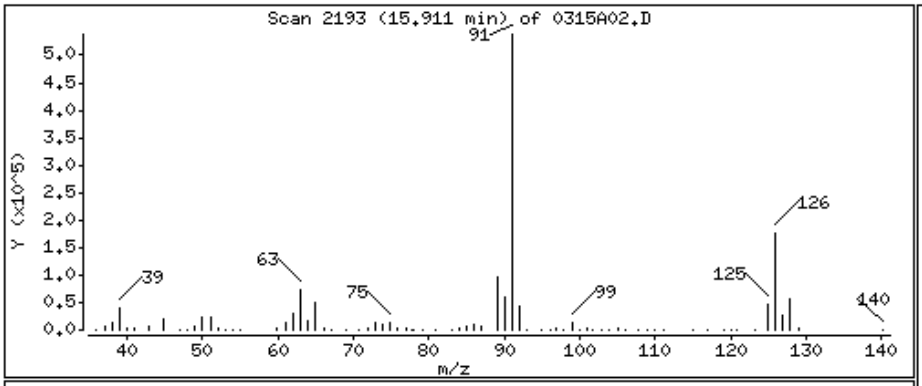
Operator: PD

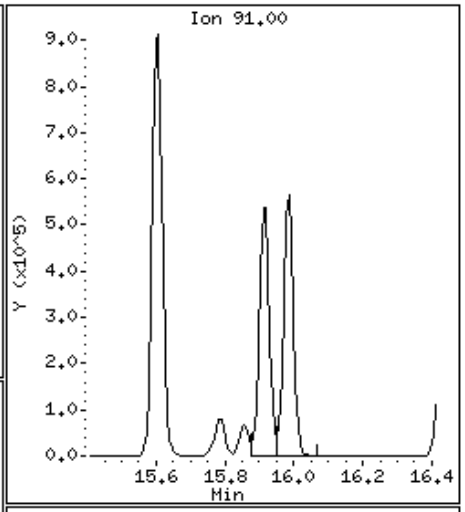
Column phase: Rtx-502.2

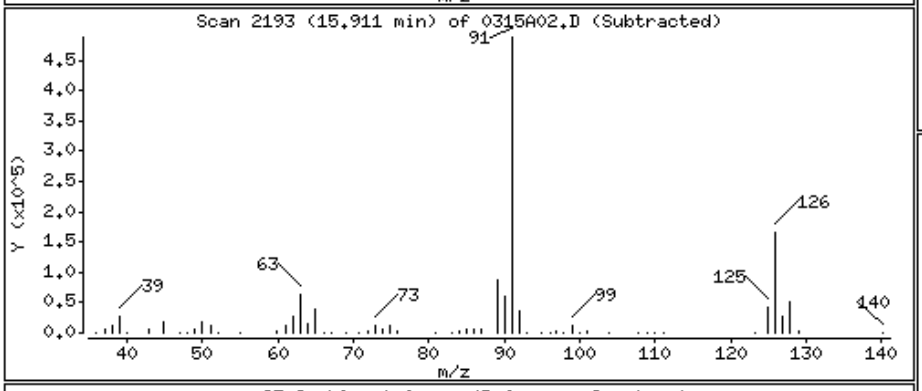
Column diameter: 0.18

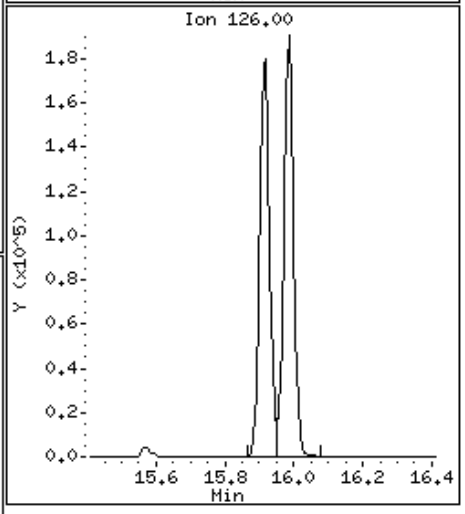
83 2-chlorotoluene

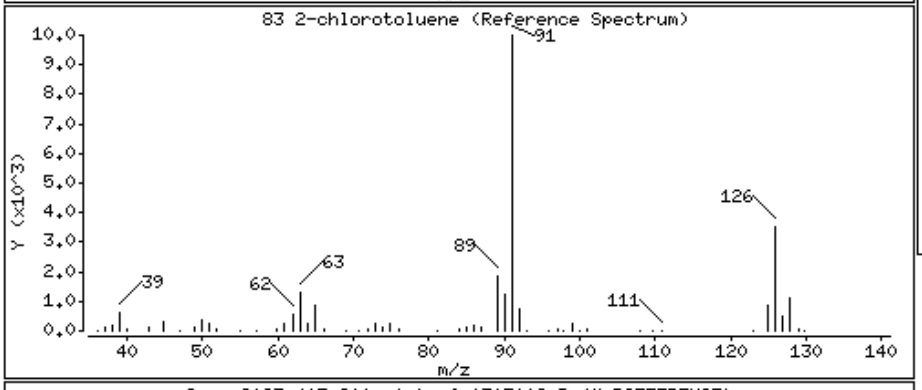
Concentration: 90.855 ngs

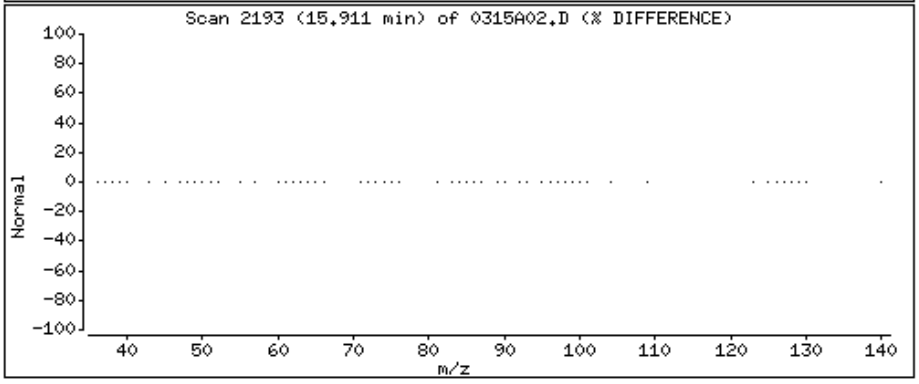












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

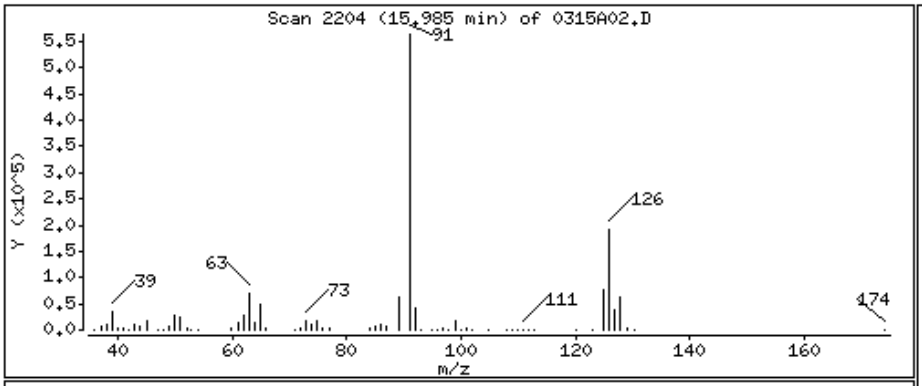
Operator: PD

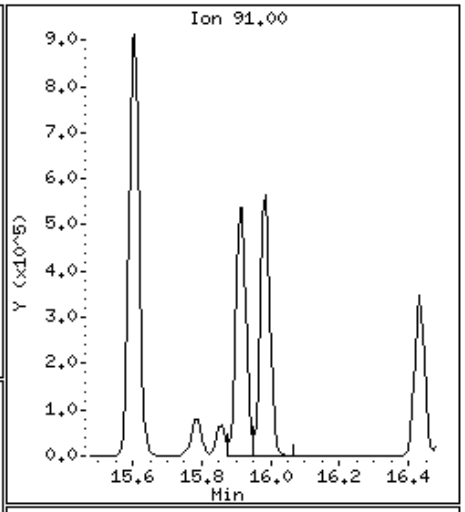
Column phase: Rtx-502.2

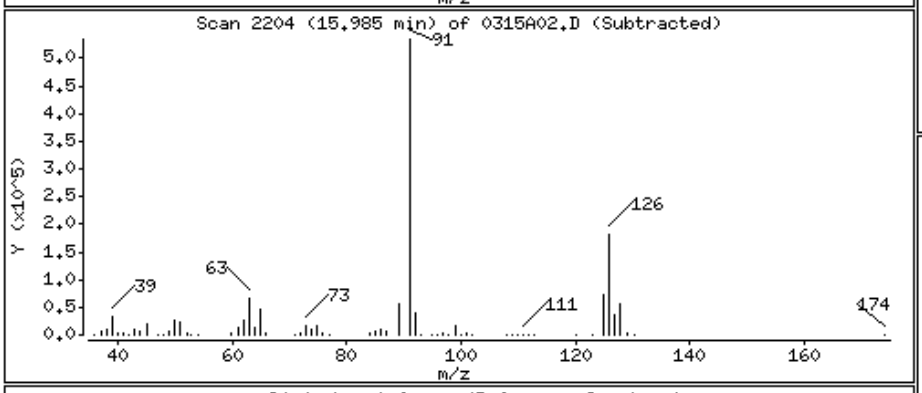
Column diameter: 0.18

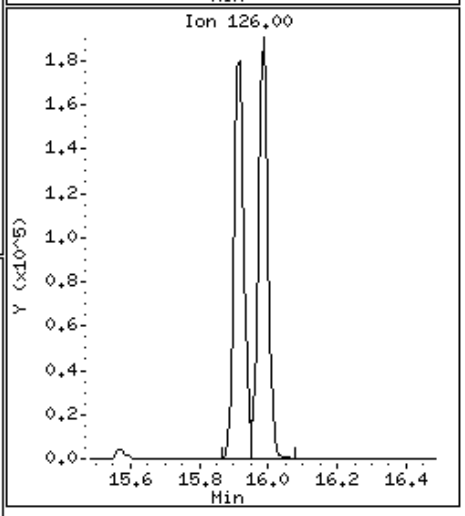
84 4-chorotoluene

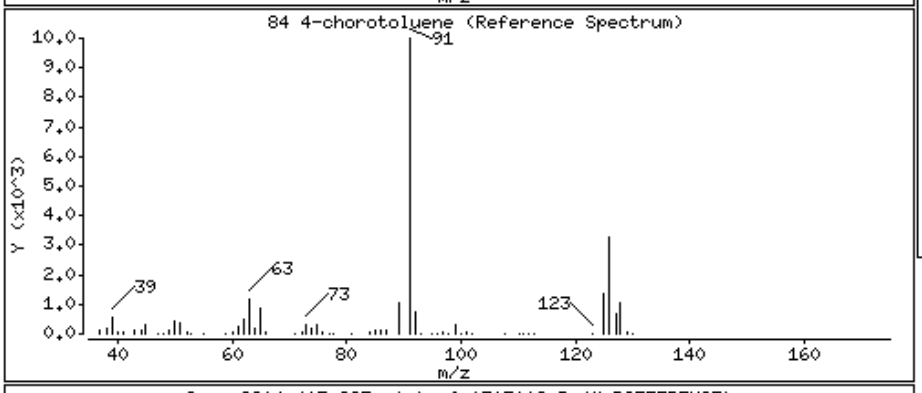
Concentration: 89.866 ngs

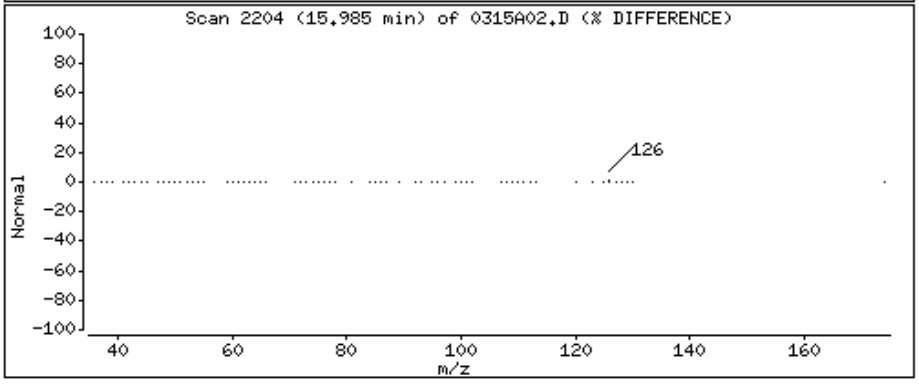












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

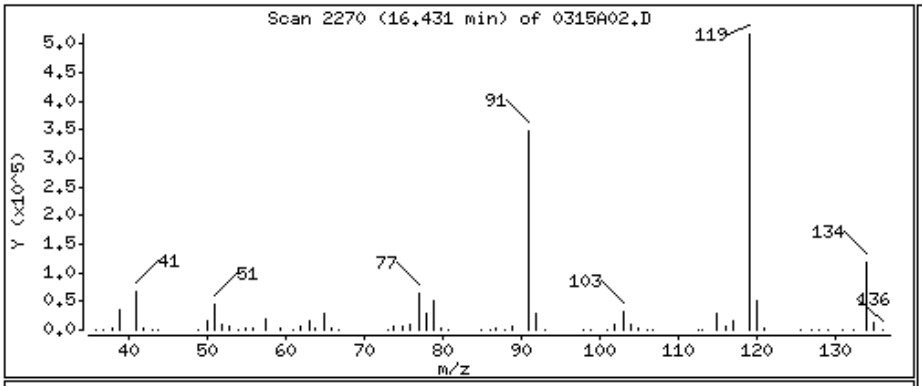
Operator: PD

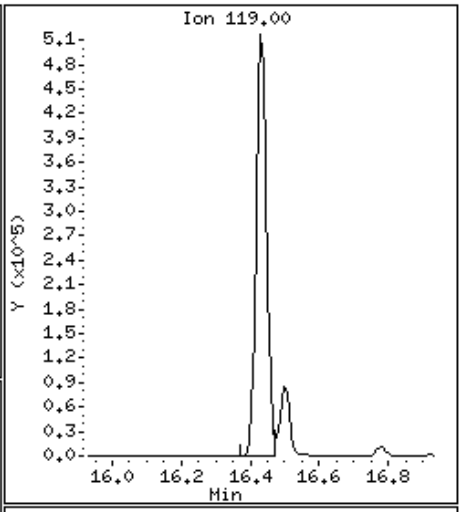
Column phase: Rtx-502.2

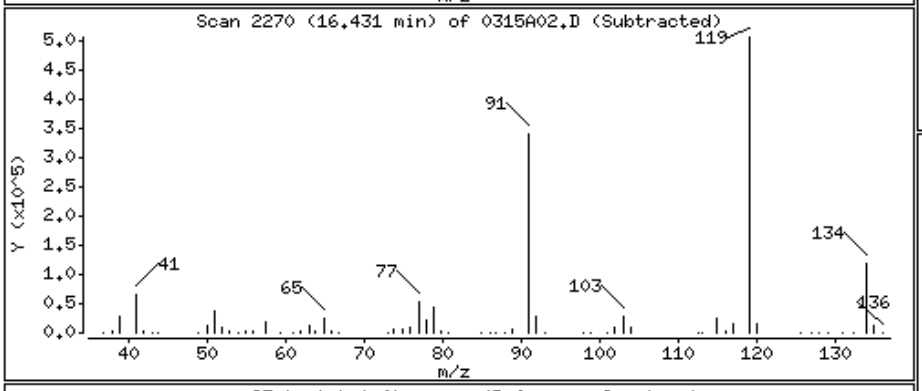
Column diameter: 0.18

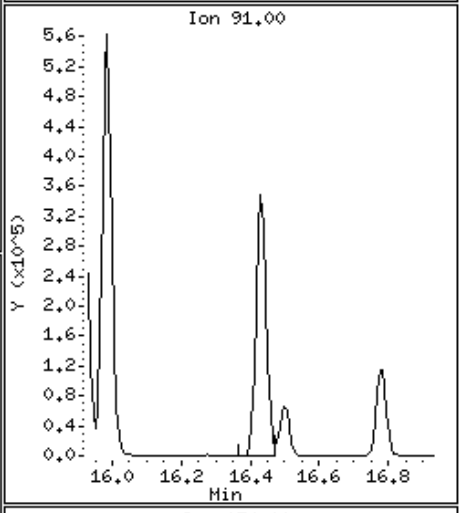
85 tert-butylbenzene

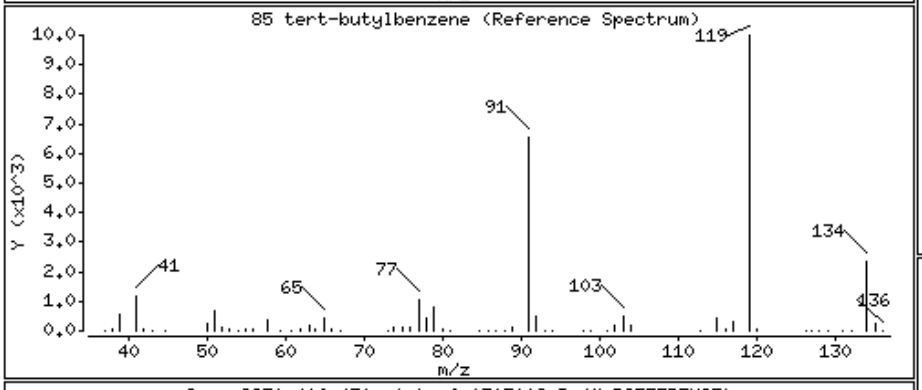
Concentration: 90.443 ngs

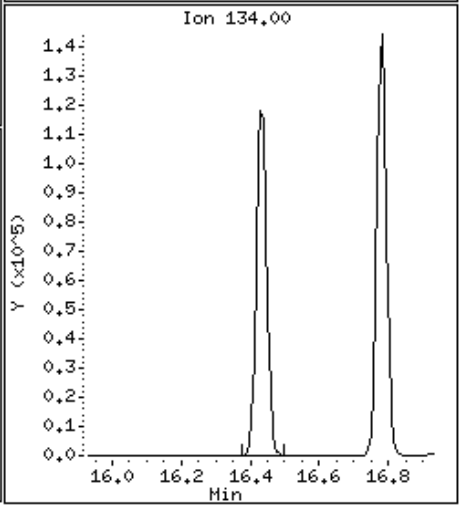


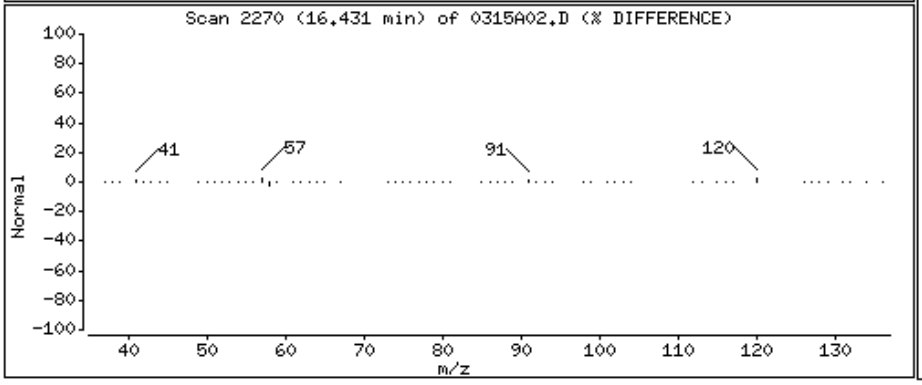












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

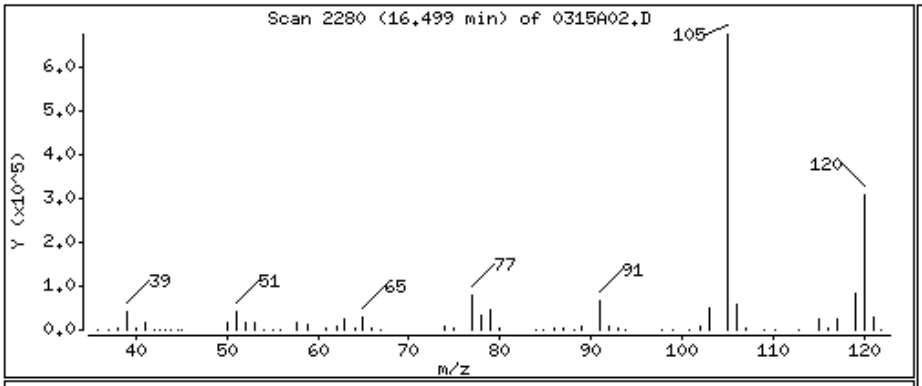
Operator: PD

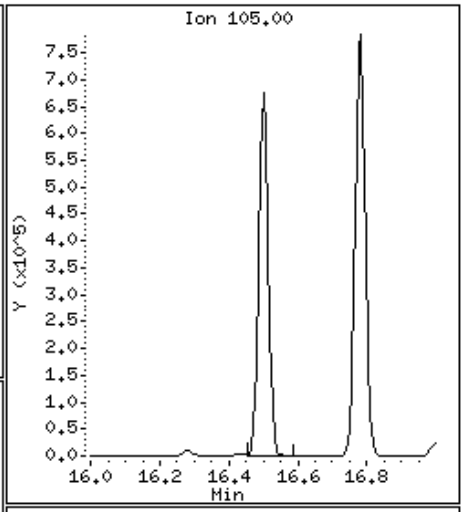
Column phase: Rtx-502.2

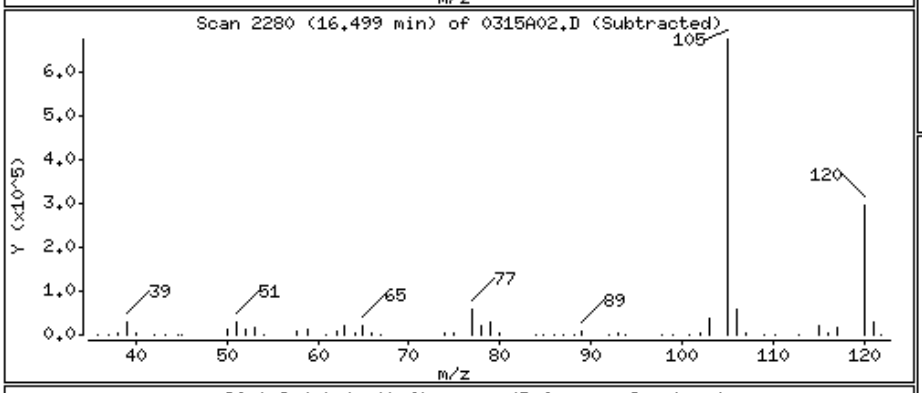
Column diameter: 0.18

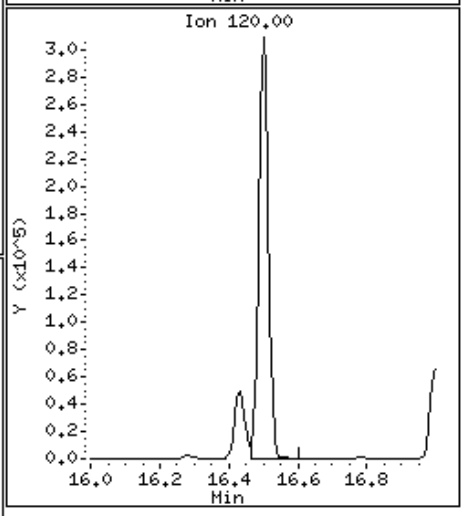
86 1,2,4-trimethylbenzene

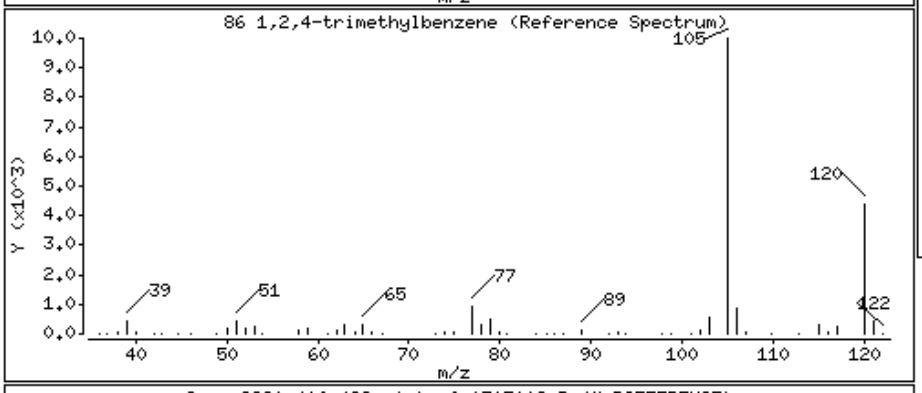
Concentration: 91.791 ngs

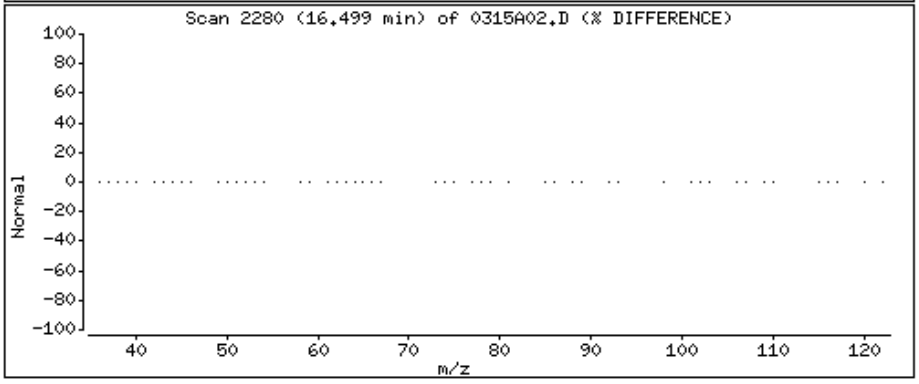












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

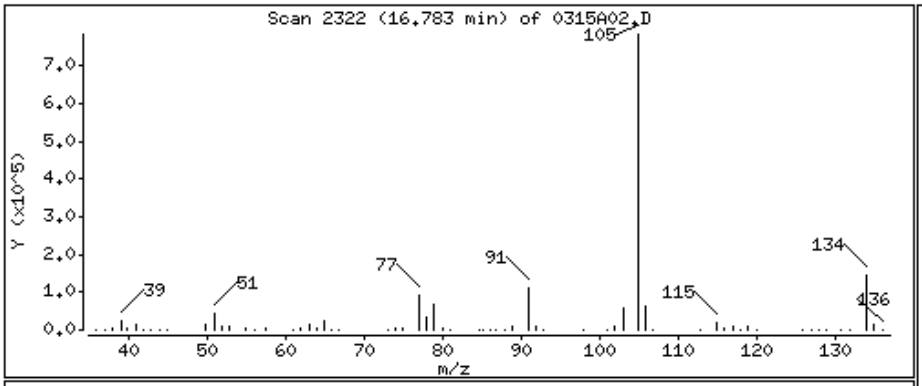
Operator: PD

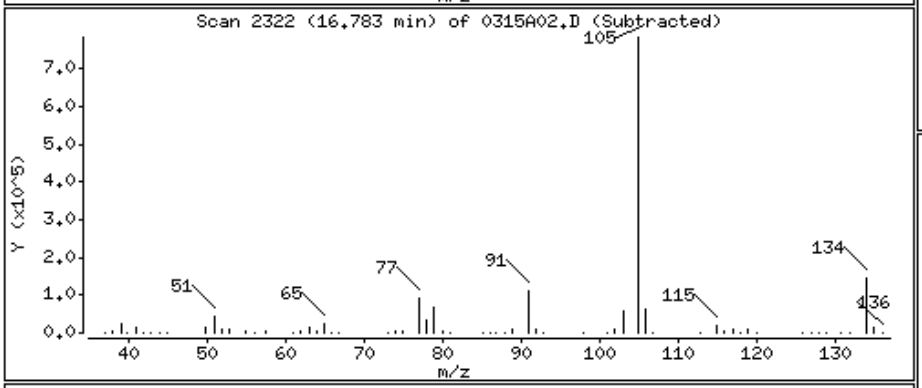
Column phase: Rtx-502.2

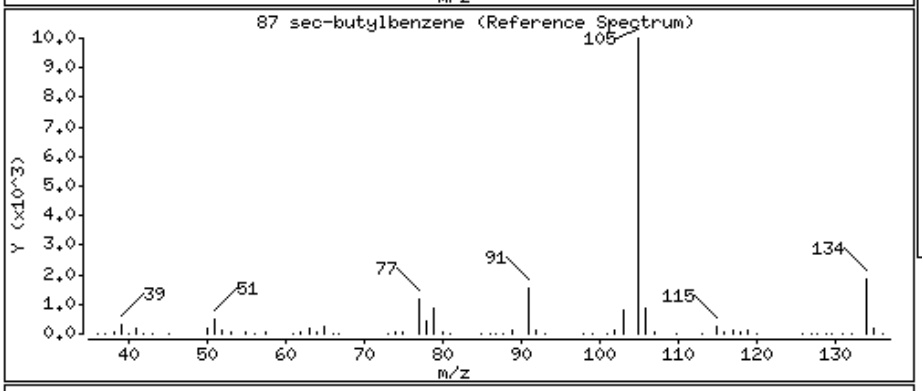
Column diameter: 0.18

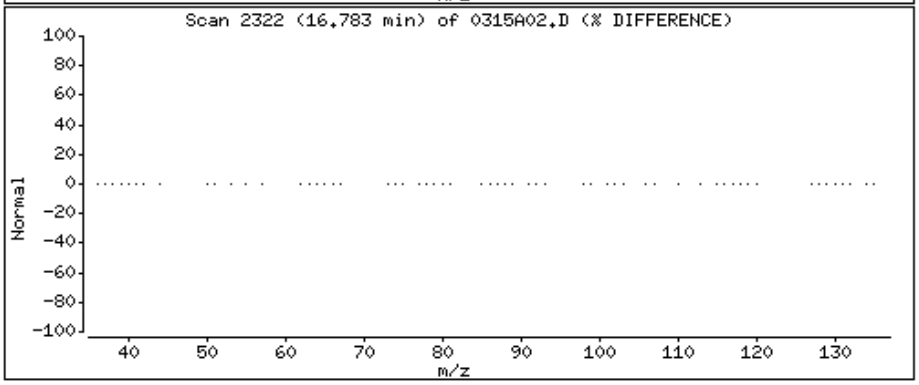
87 sec-butylbenzene

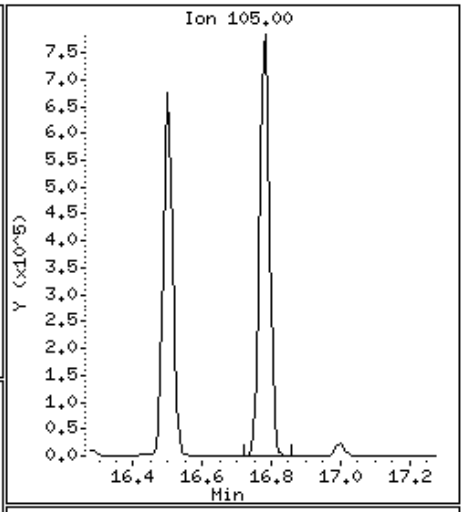
Concentration: 94.324 ngs

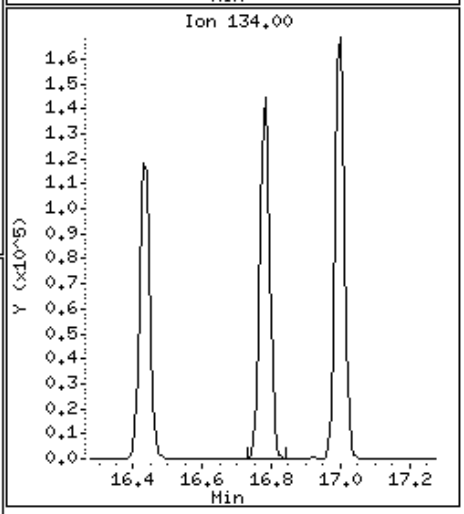












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

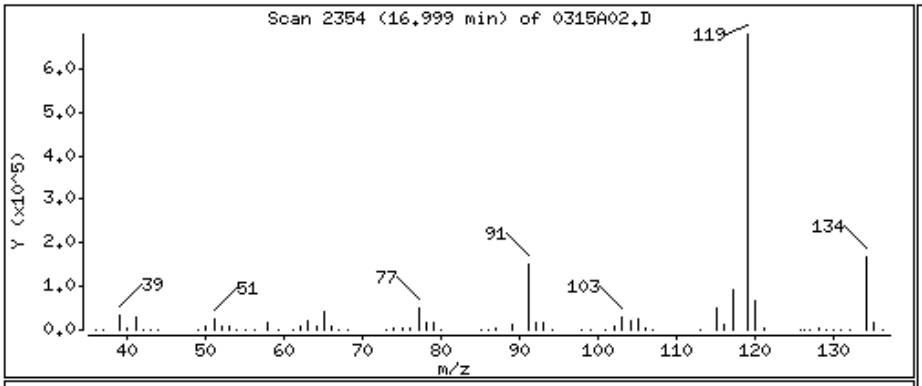
Operator: PD

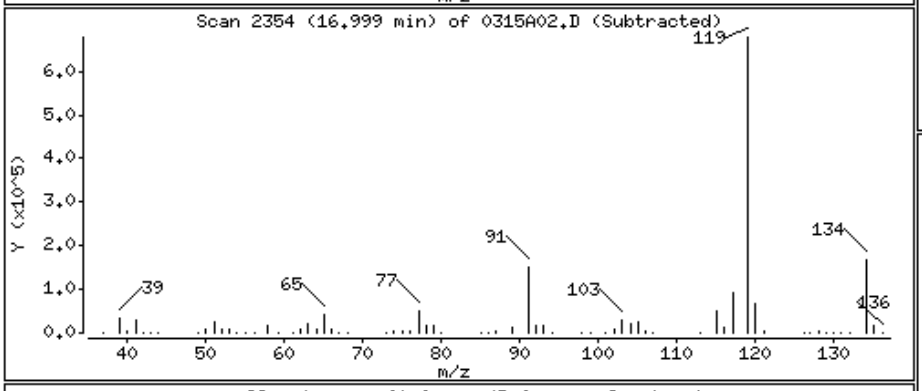
Column phase: Rtx-502.2

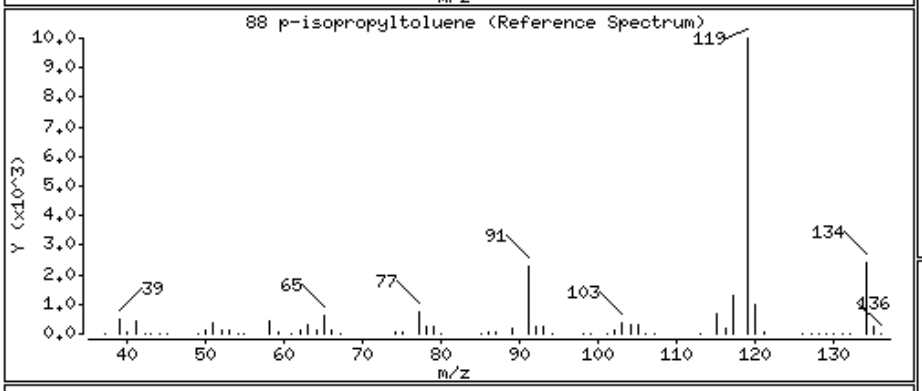
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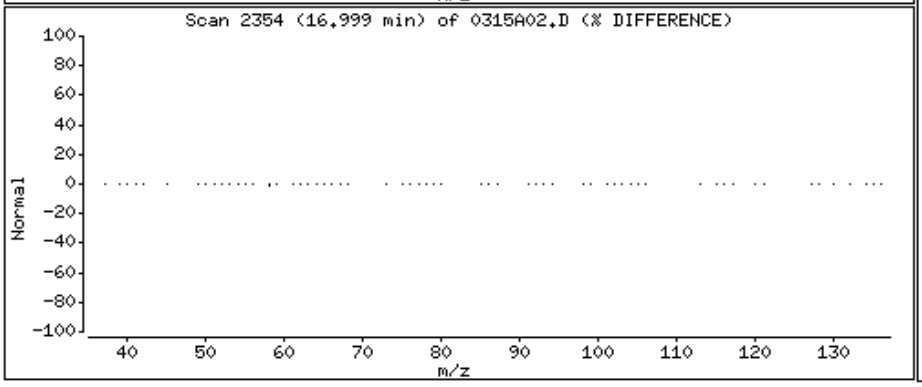
88 p-isopropyltoluene

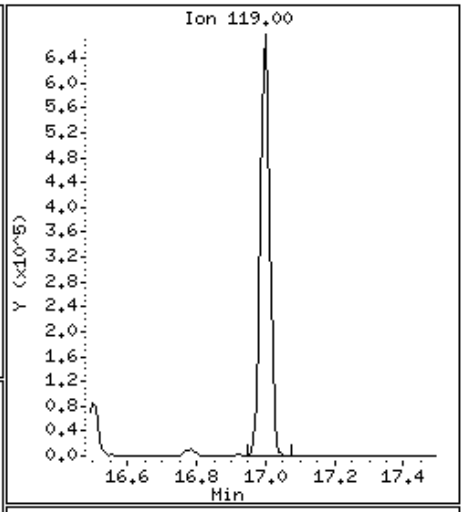
Concentration: 91.872 ngs

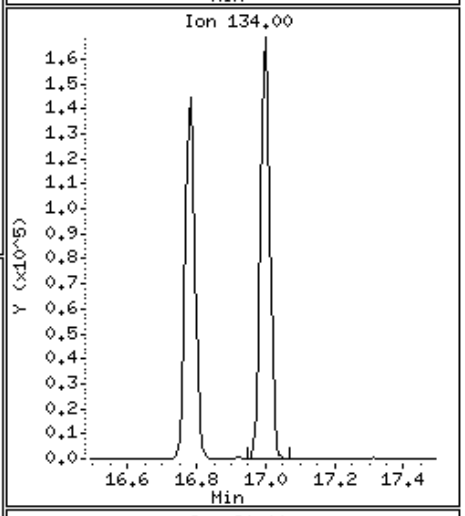


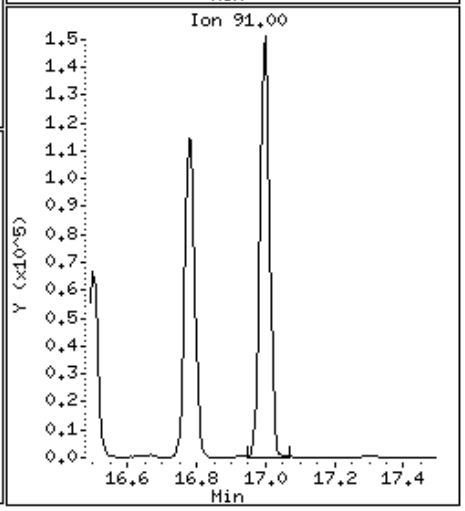












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

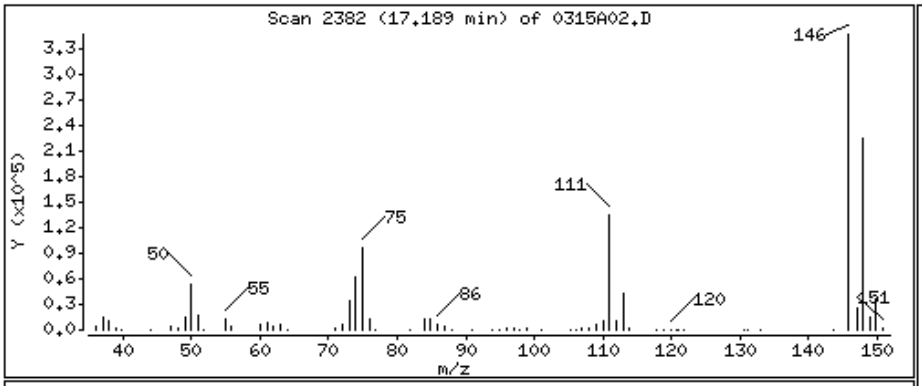
Operator: PD

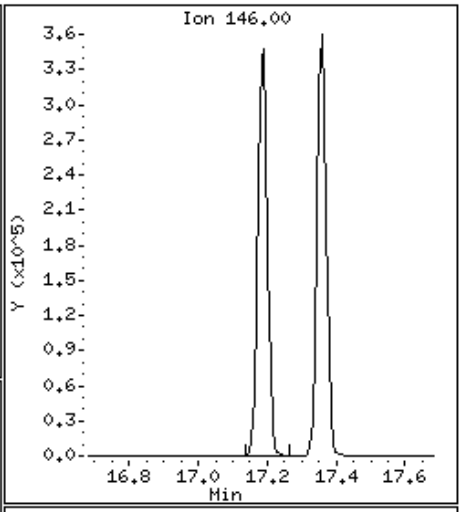
Column phase: Rtx-502.2

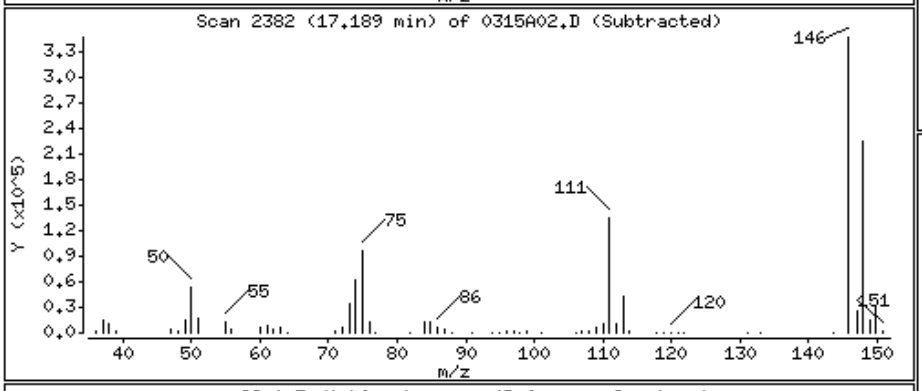
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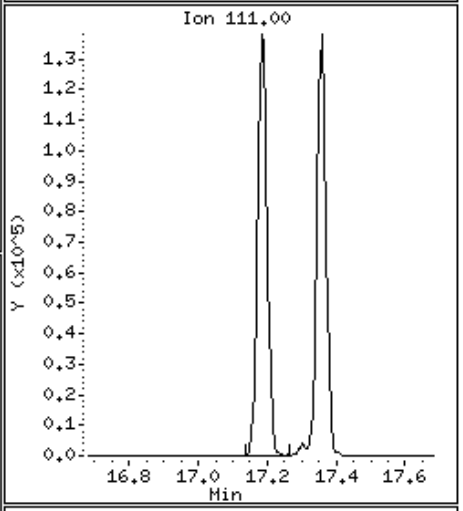
89 1,3-dichlorobenzene

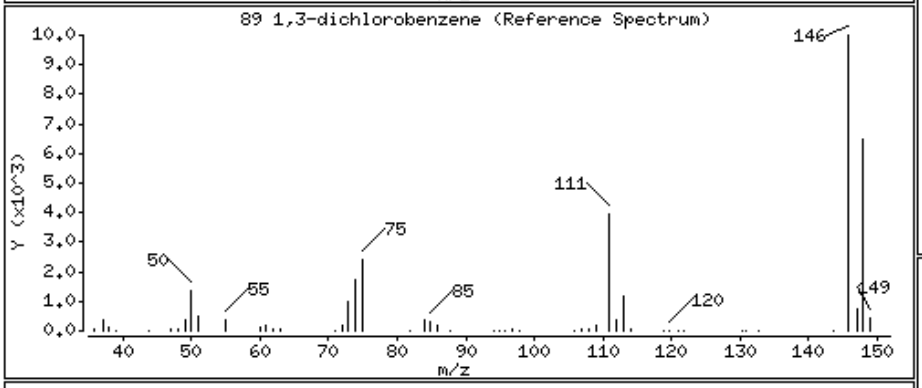
Concentration: 89.737 ngs

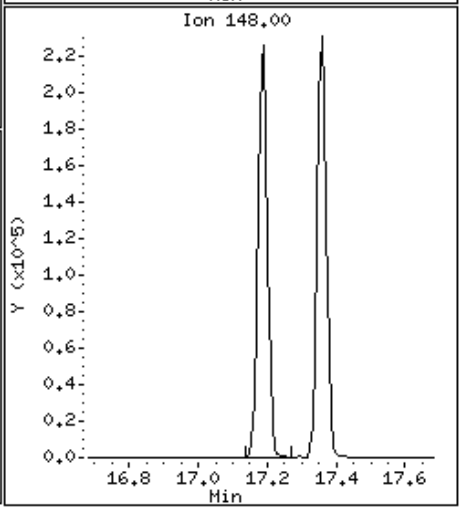


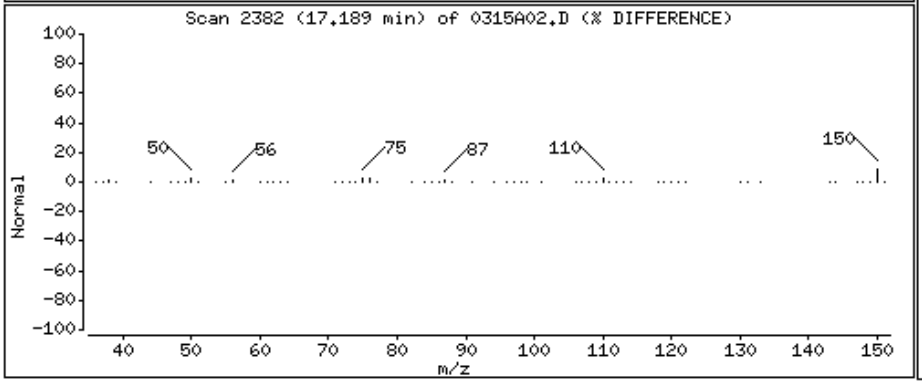












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

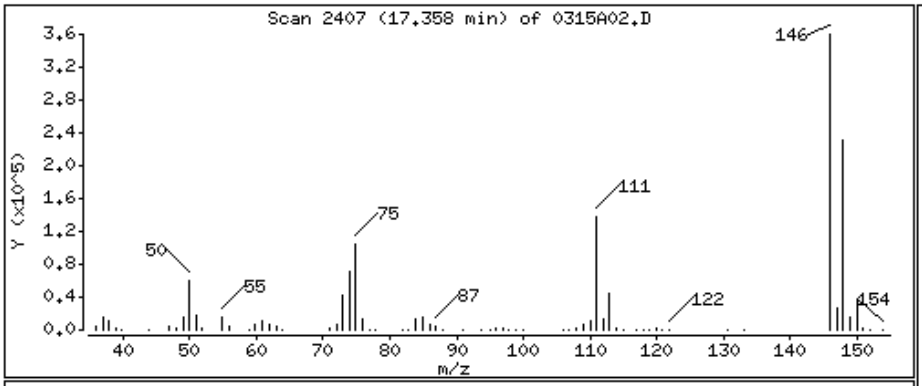
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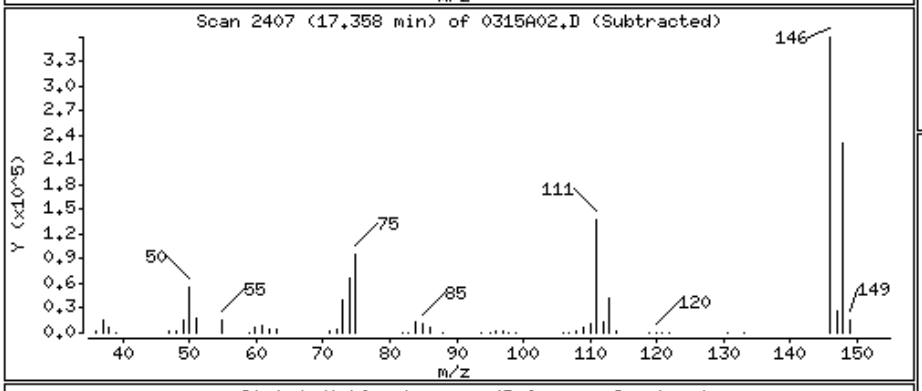
Column phase: Rtx-502.2

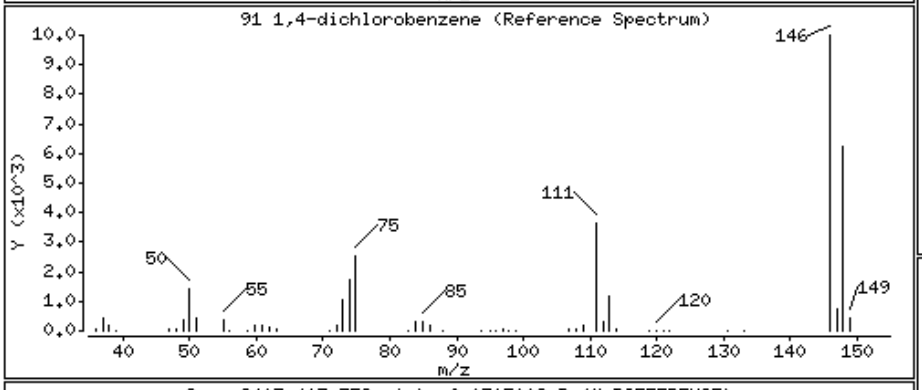
Column diameter: 0.18

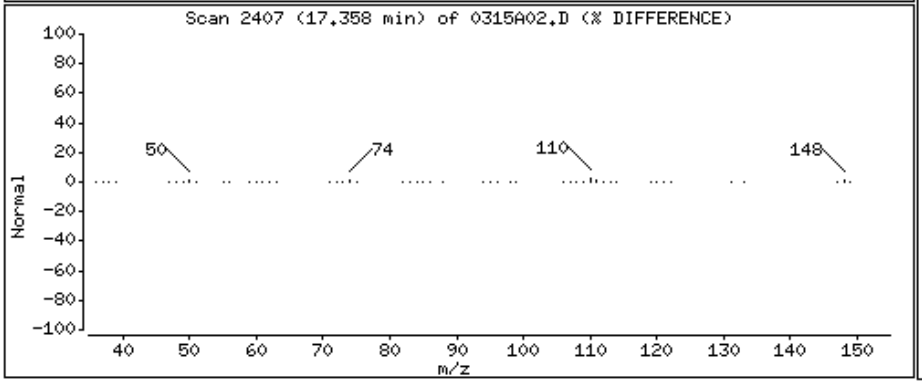
91 1,4-dichlorobenzene

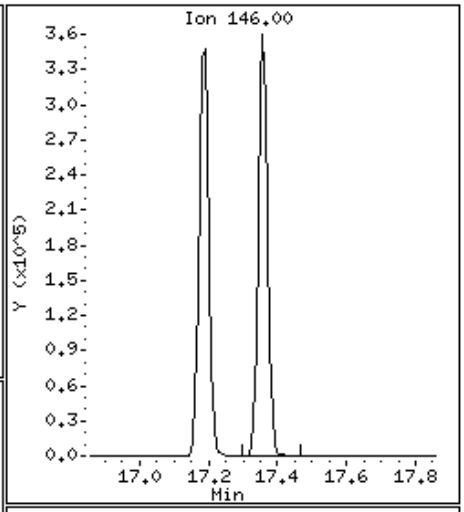
Concentration: 88.370 ngs

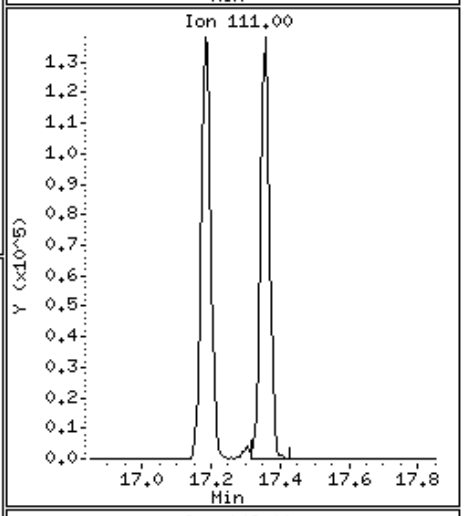


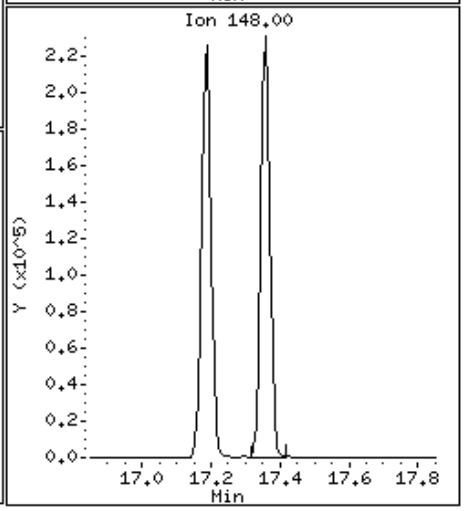












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

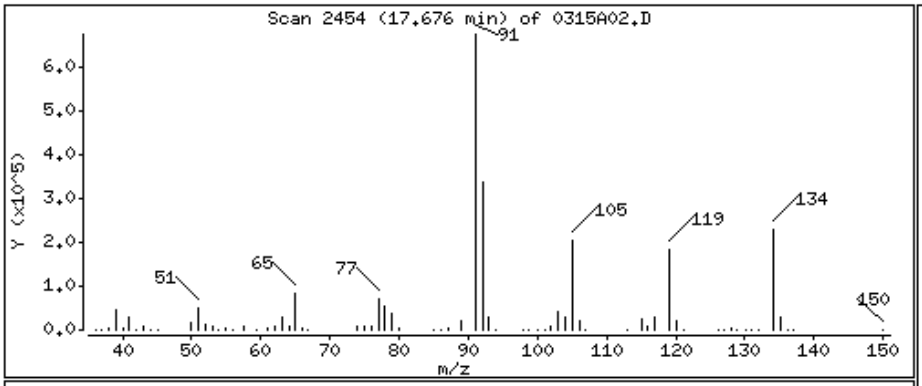
Operator: PD

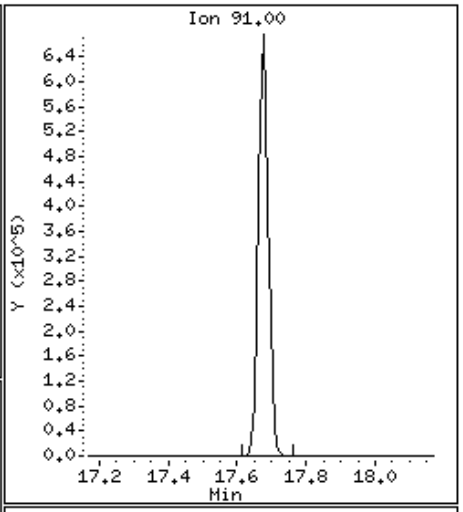
Column phase: Rtx-502.2

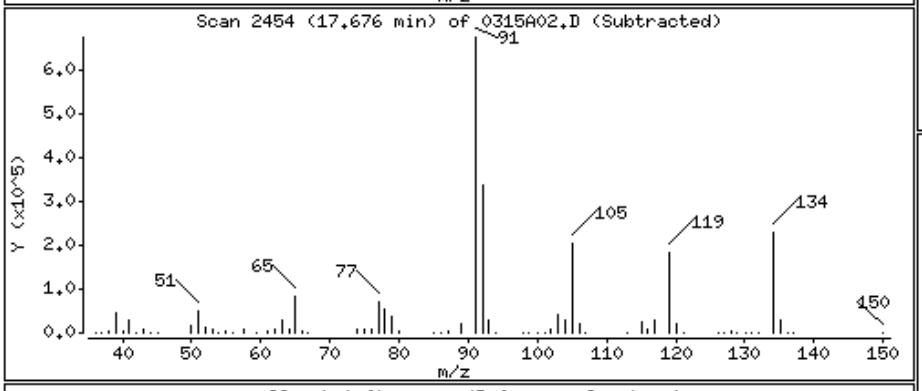
Column diameter: 0.18

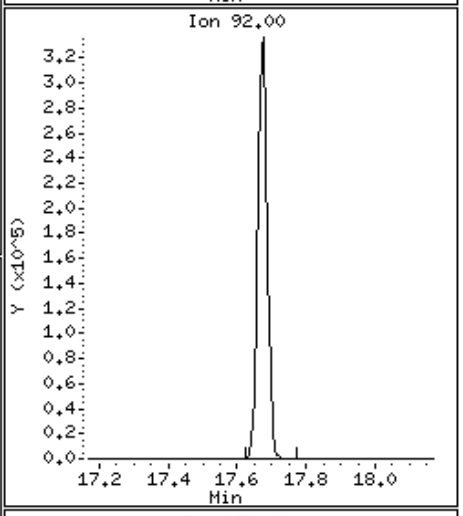
92 n-butylbenzene

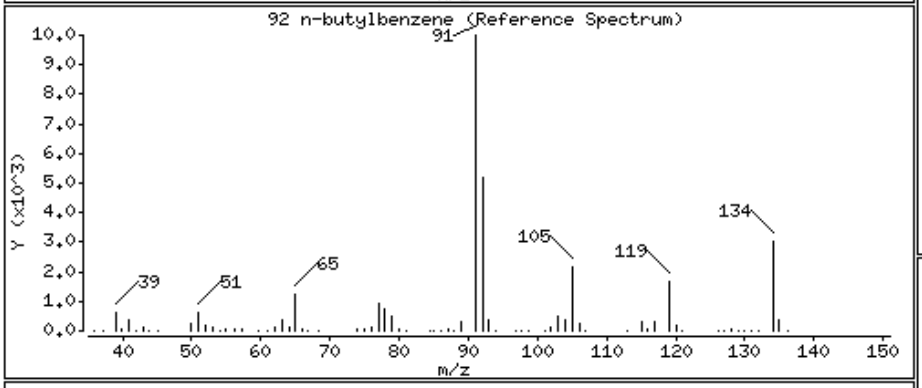
Concentration: 95.141 ngs

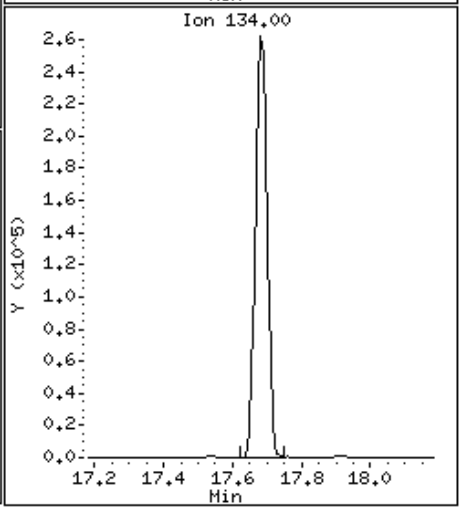


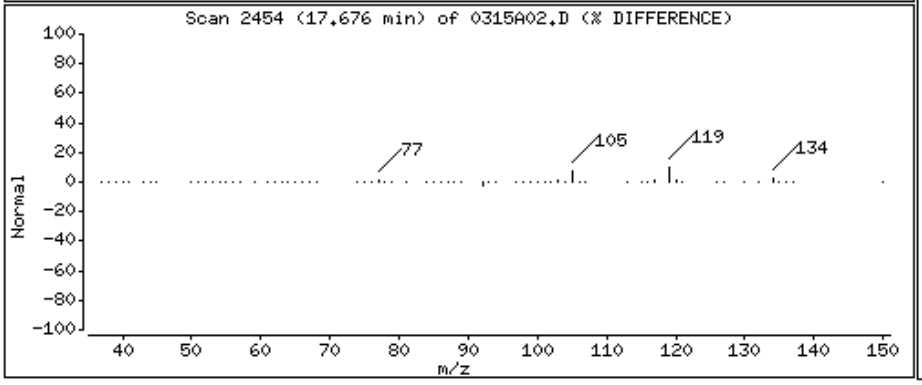












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

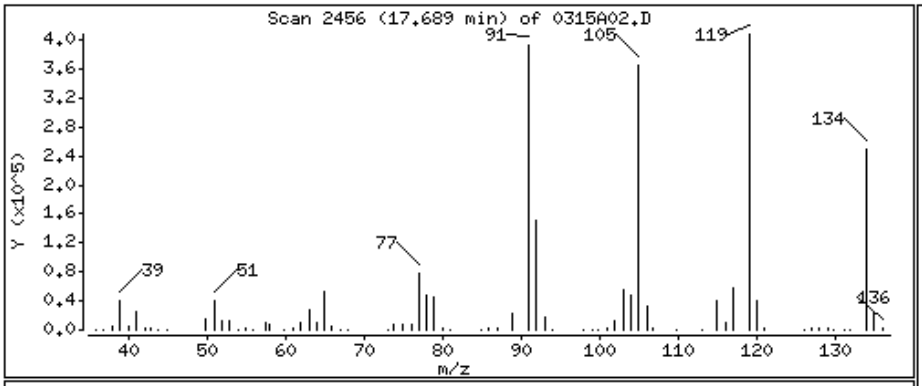
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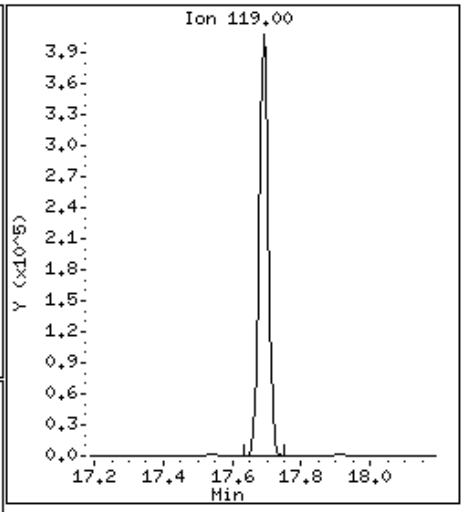
Column phase: Rtx-502.2

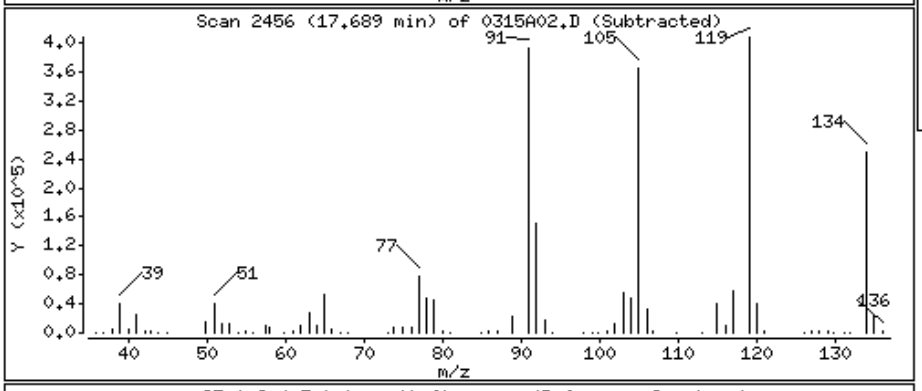
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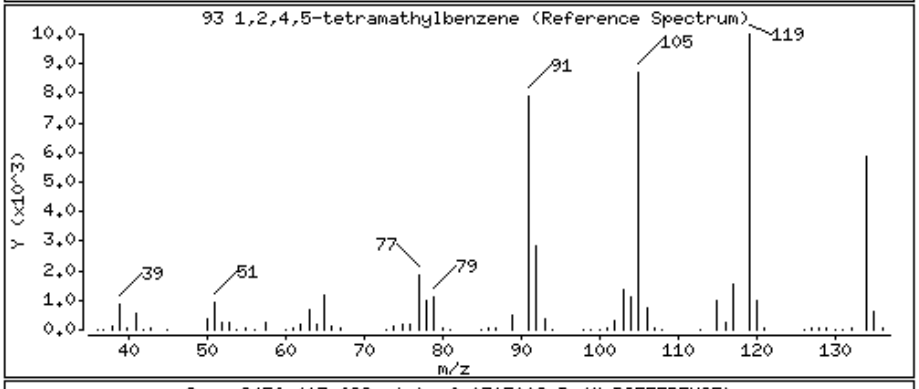
93 1,2,4,5-tetramathylbenzene

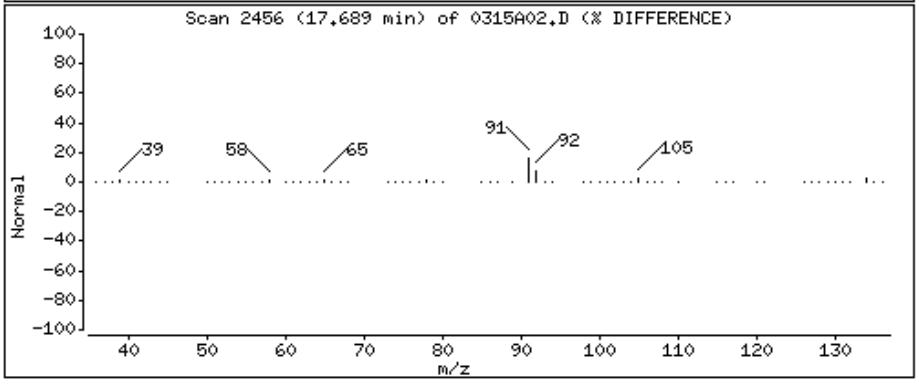
Concentration: 93.990 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

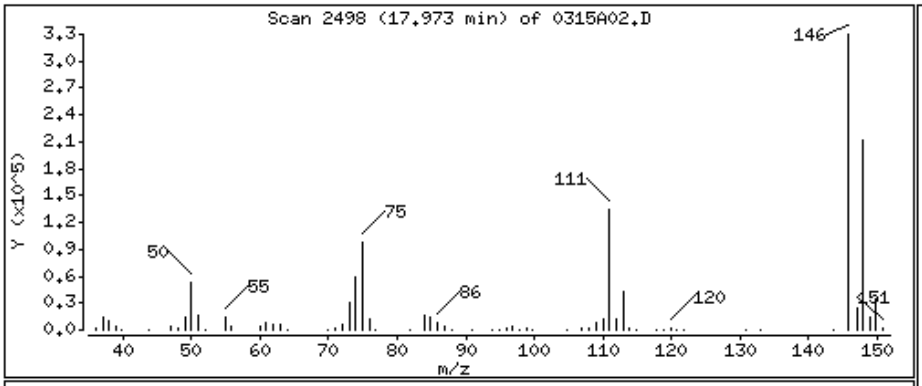
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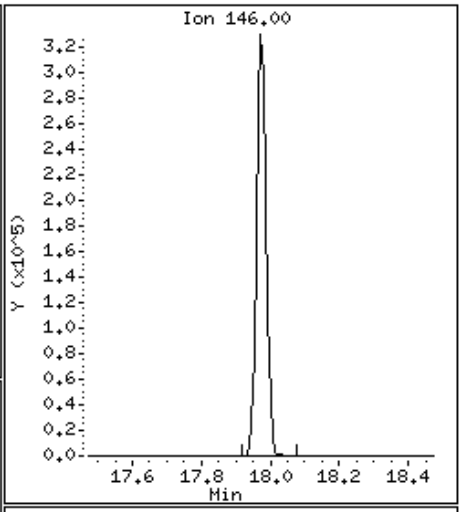
Column phase: Rtx-502.2

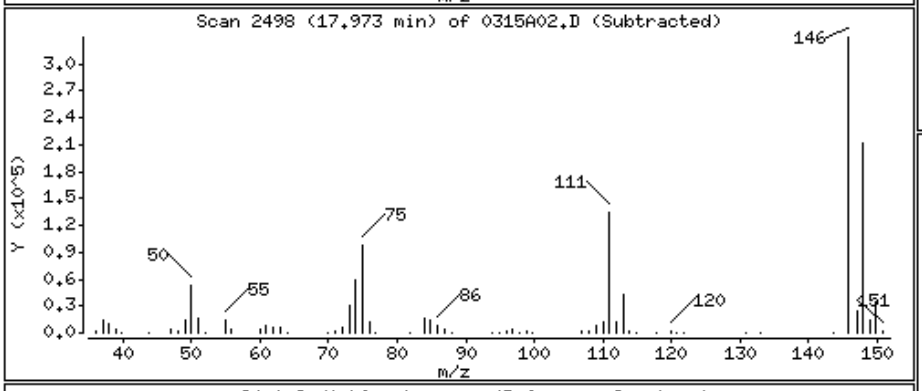
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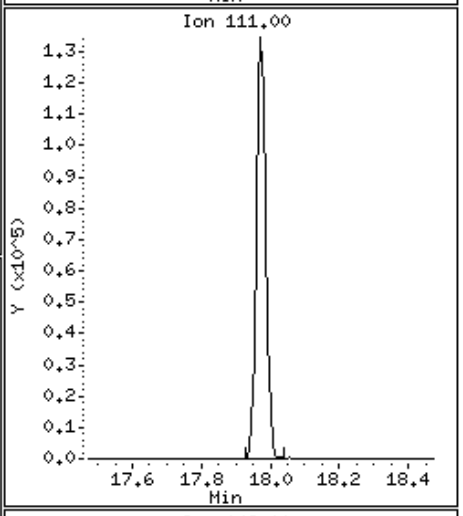
94 1,2-dichlorobenzene

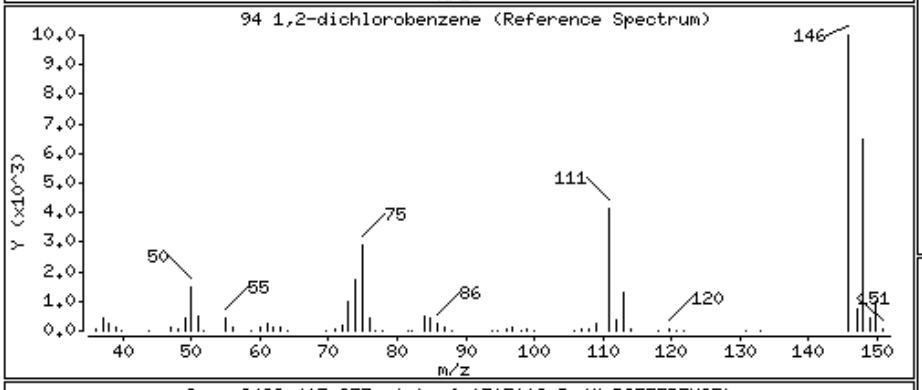
Concentration: 89.600 ngs

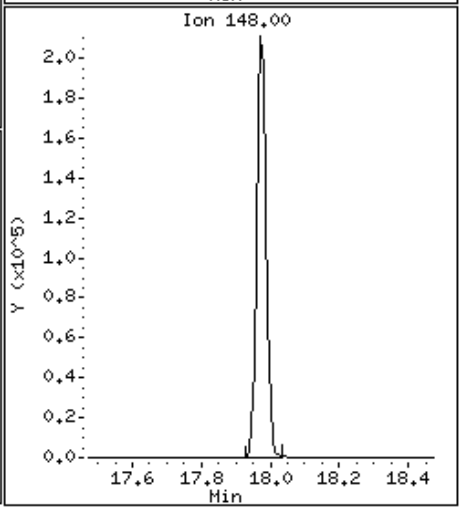


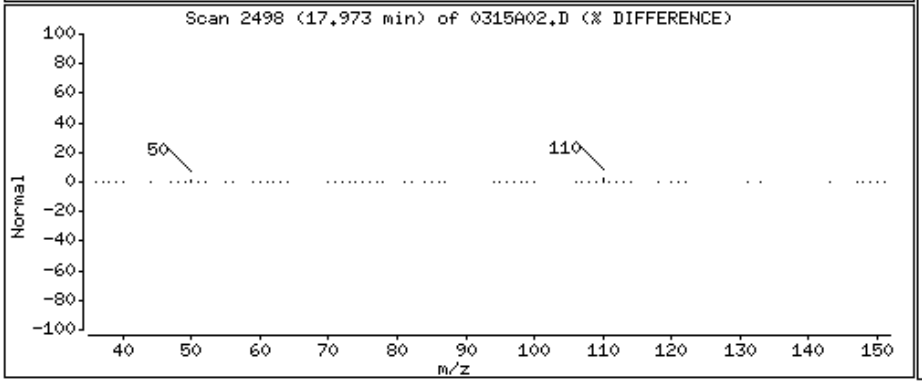












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

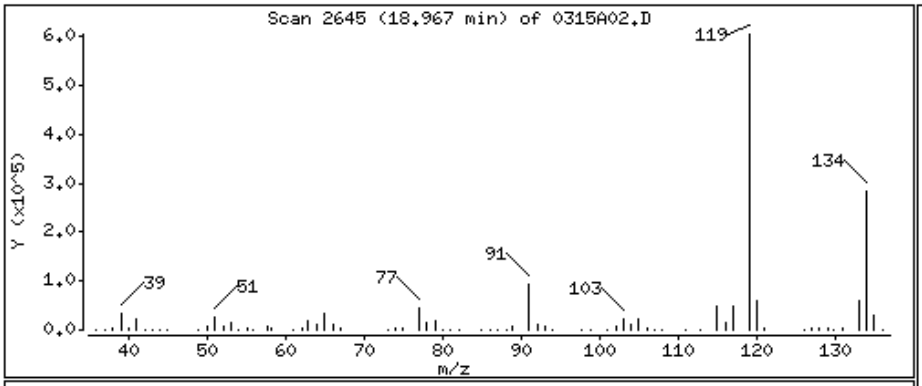
Operator: PD

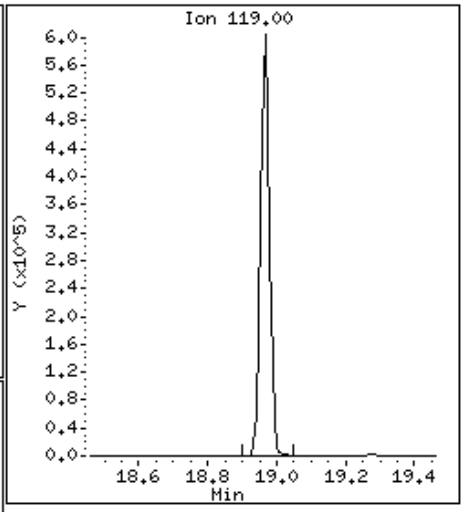
Column phase: Rtx-502.2

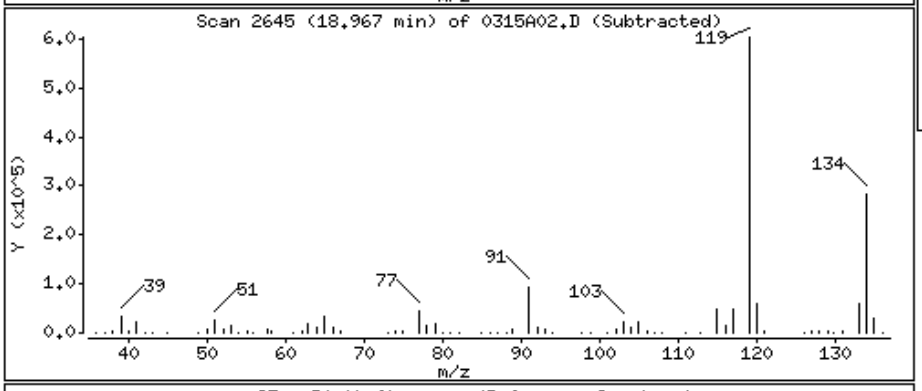
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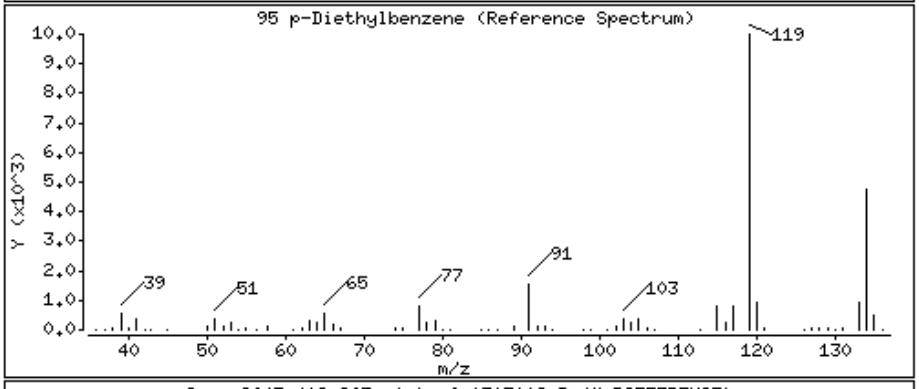
95 p-Diethylbenzene

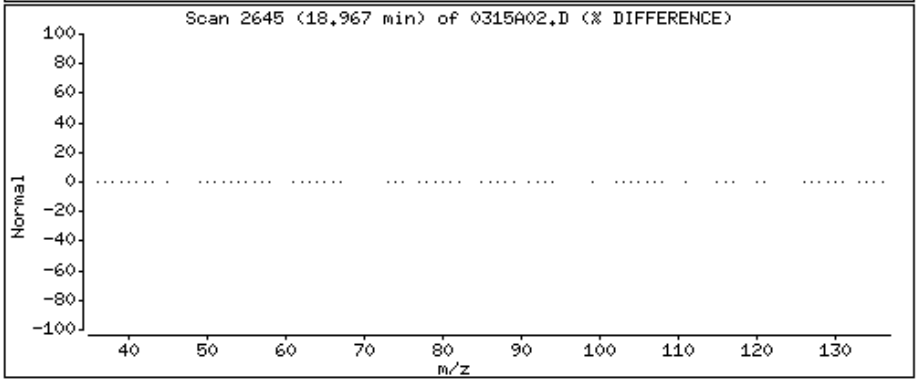
Concentration: 85.646 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

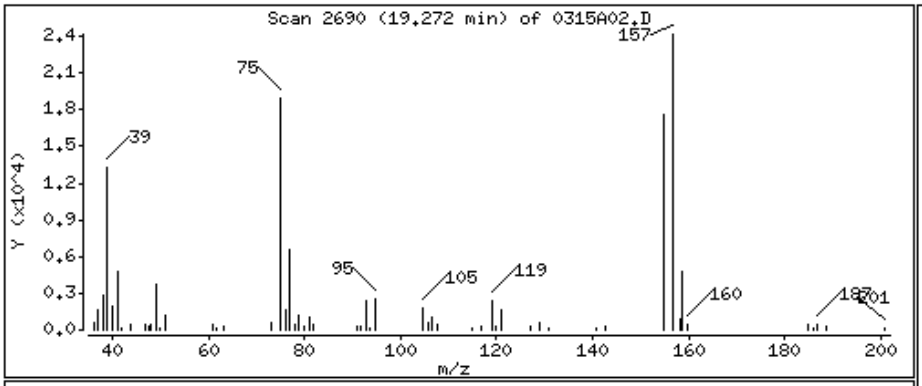
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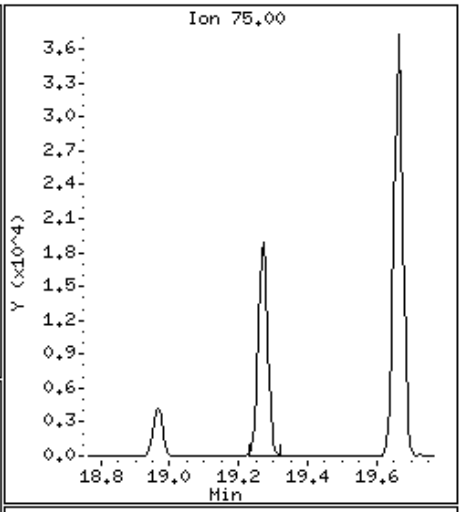
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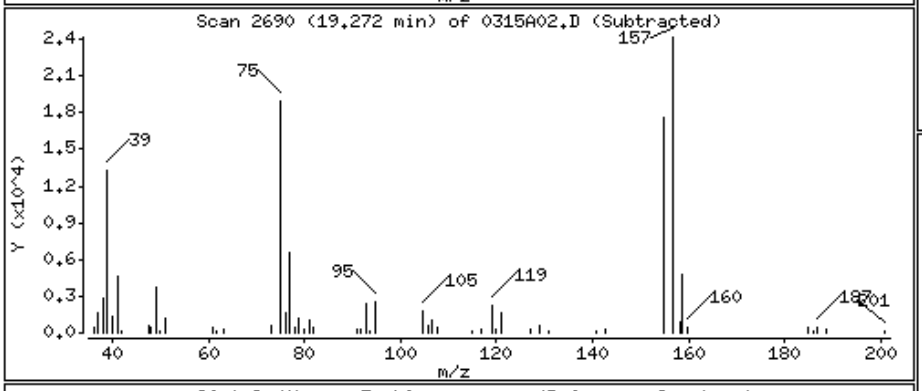
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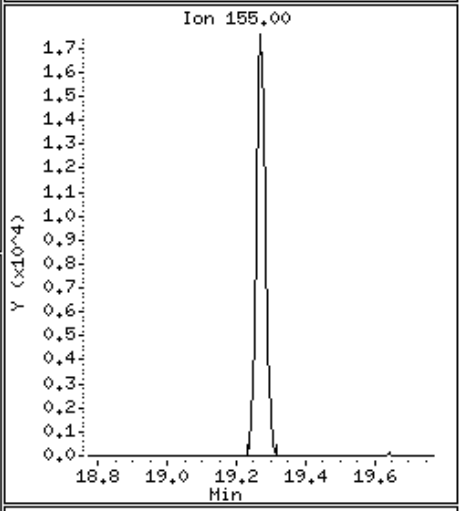
96 1,2-dibromo-3-chloropropane

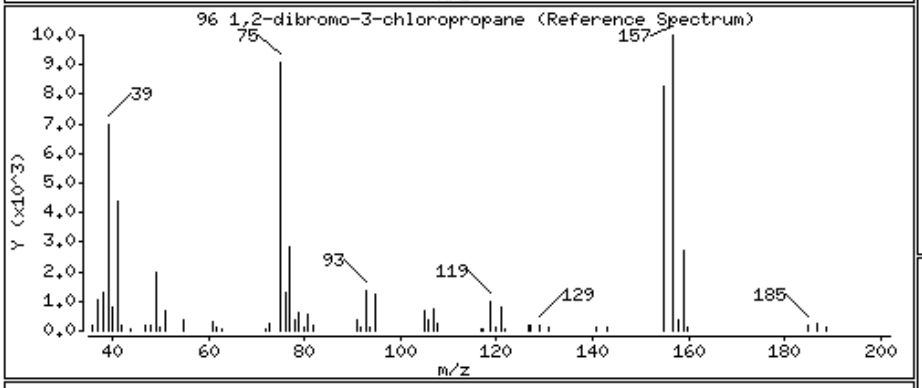
Concentration: 96.207 ngs

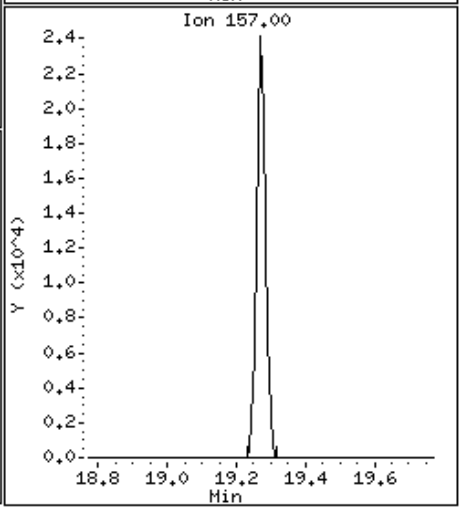


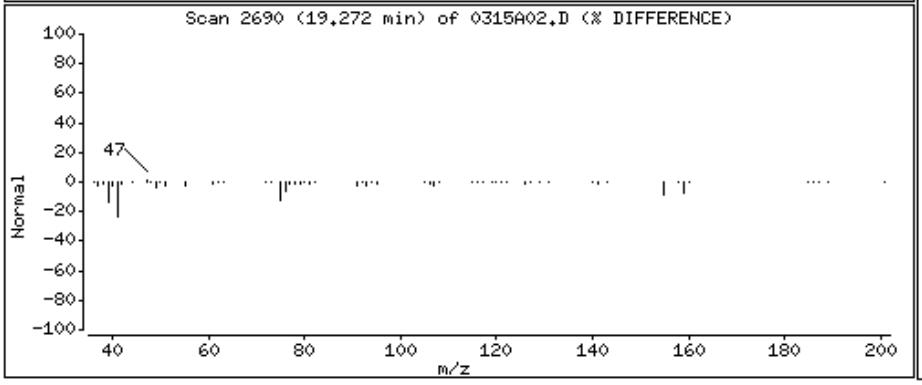












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

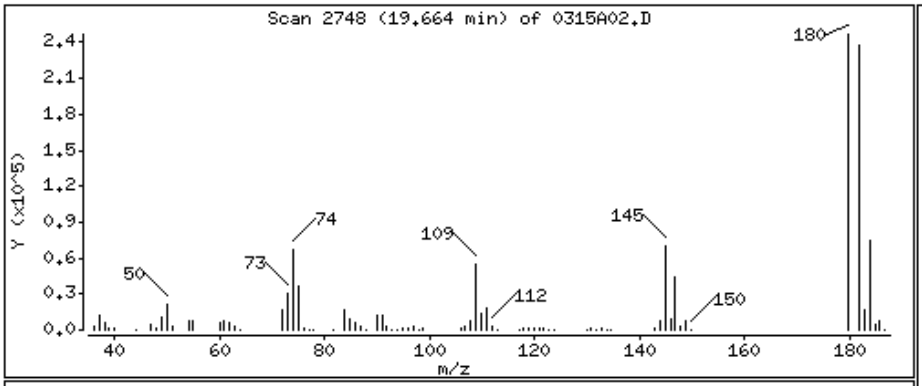
Operator: PD

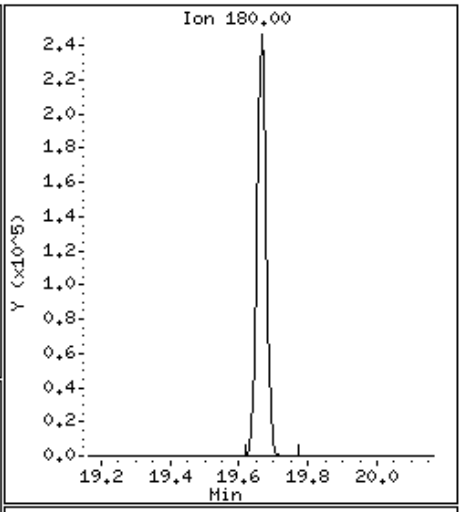
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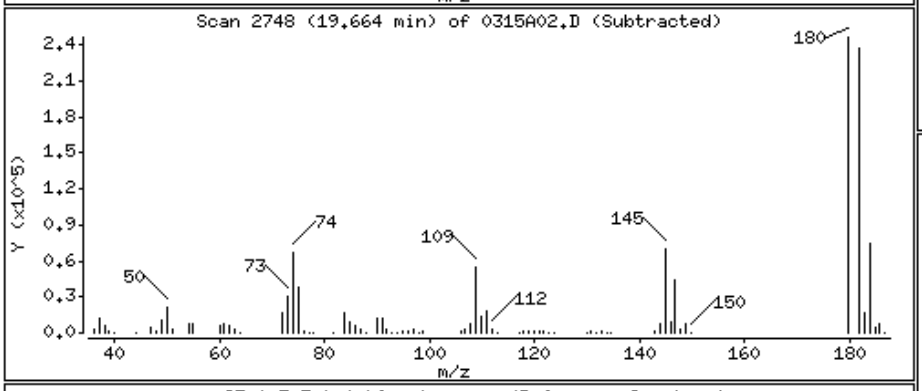
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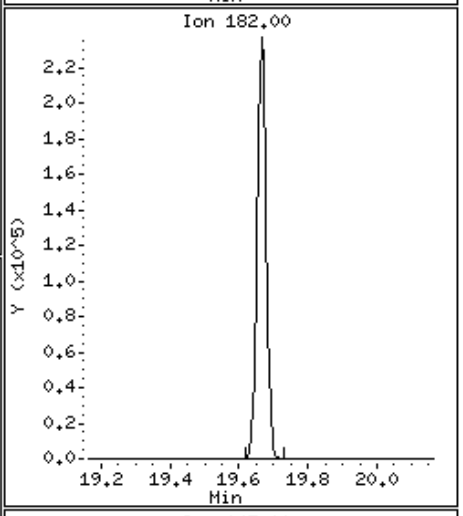
97 1,3,5-trichlorobenzene

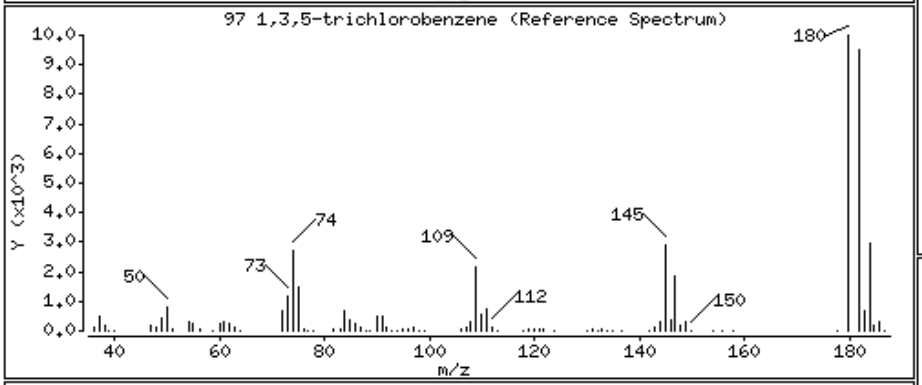
Concentration: 89.306 ngs

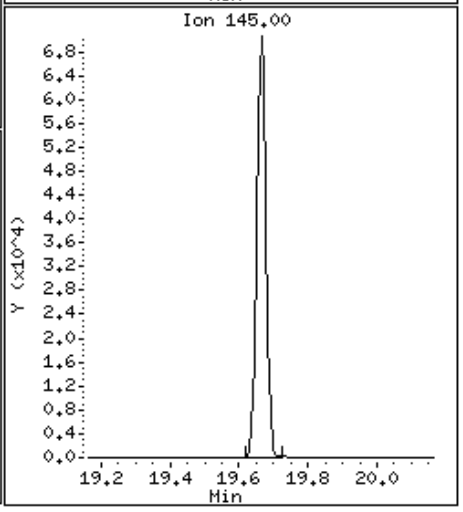


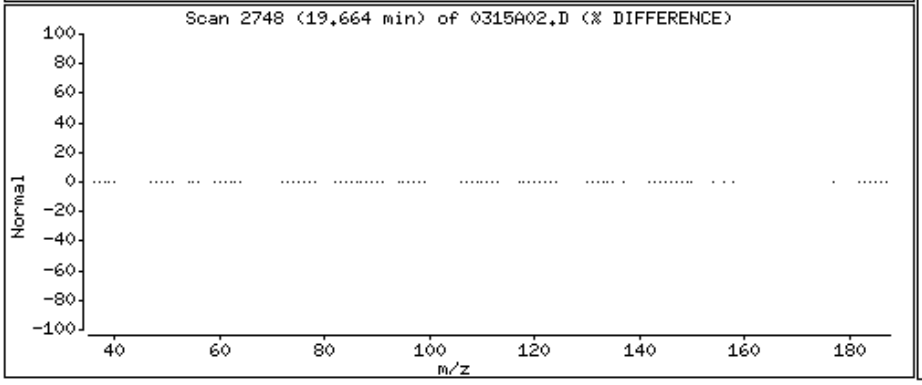












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

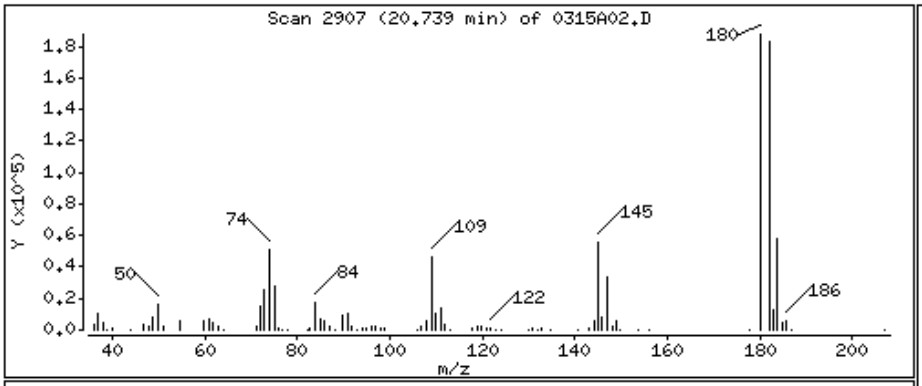
Operator: PD

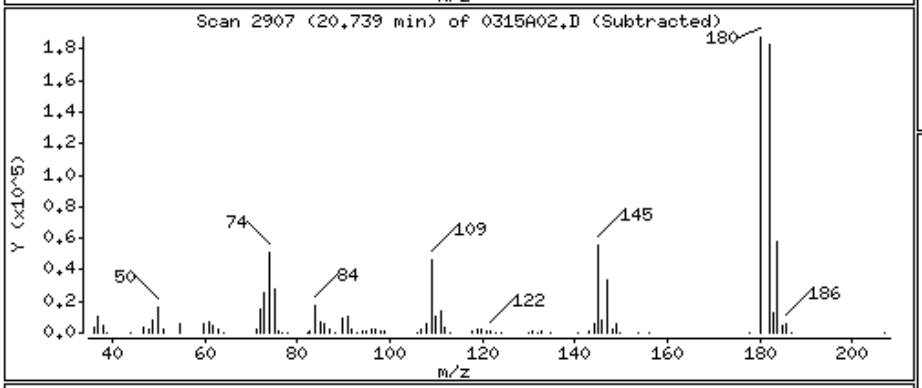
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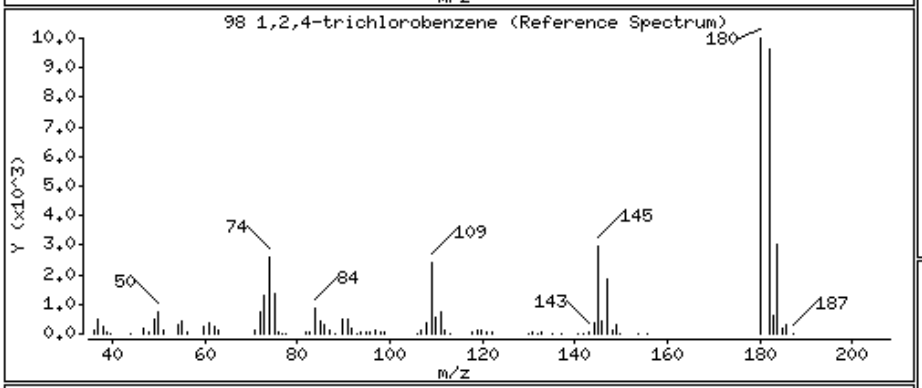
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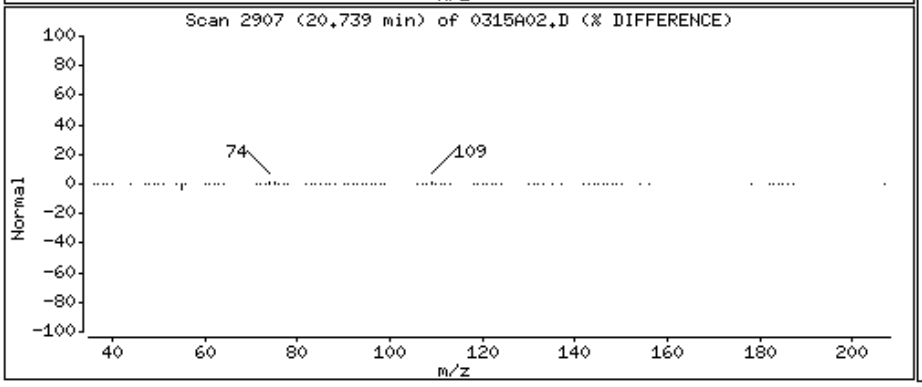
98 1,2,4-trichlorobenzene

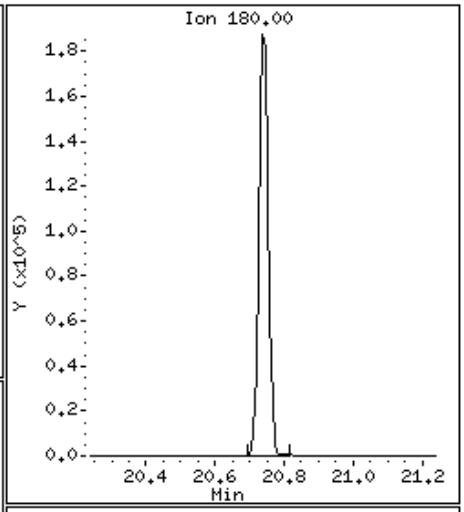
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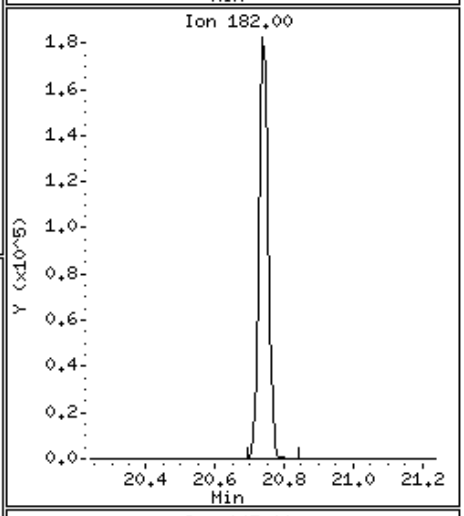


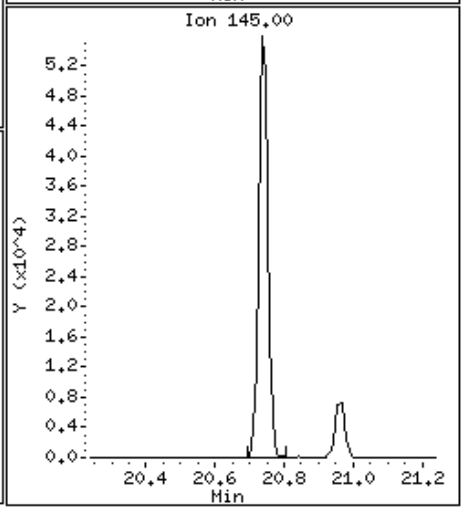












Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

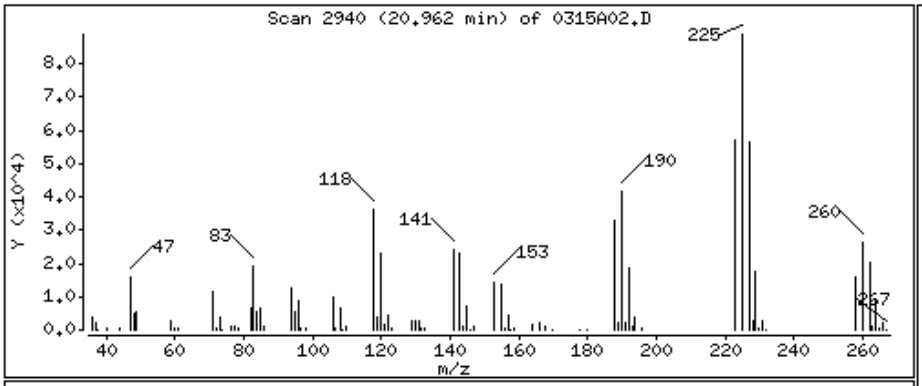
Operator: PD

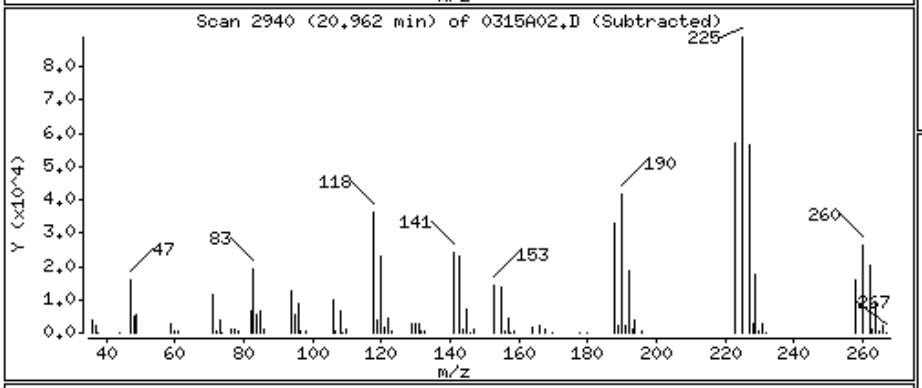
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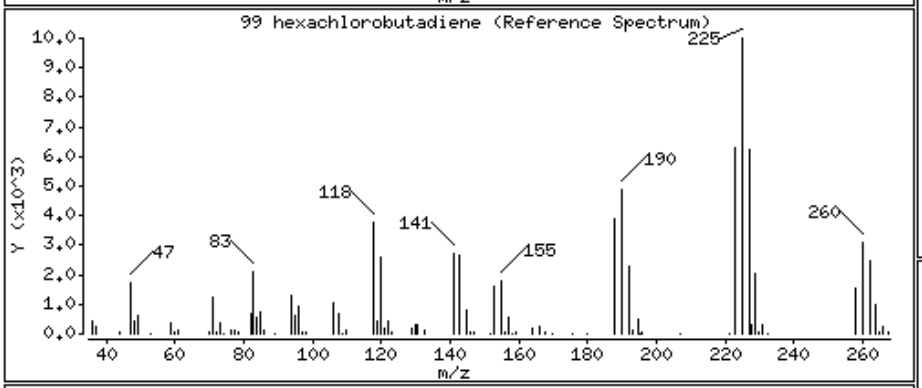
Column diameter: 0.18

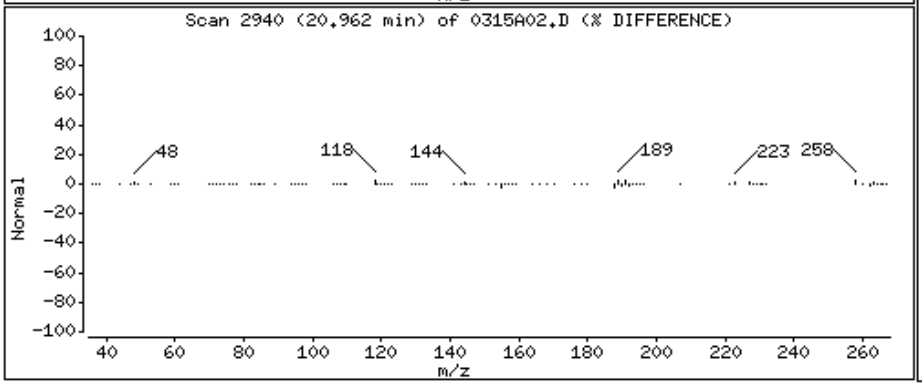
99 hexachlorobutadiene

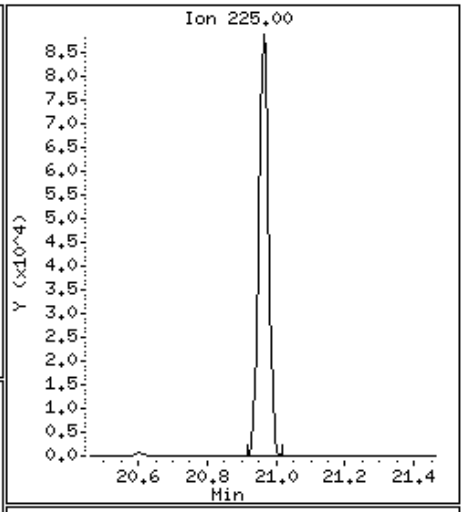
Concentration: 91.375 ngs

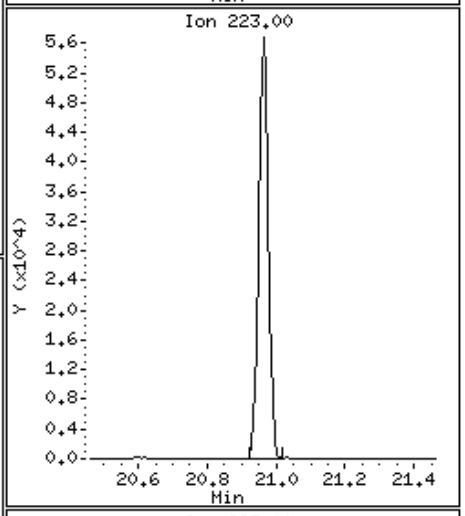


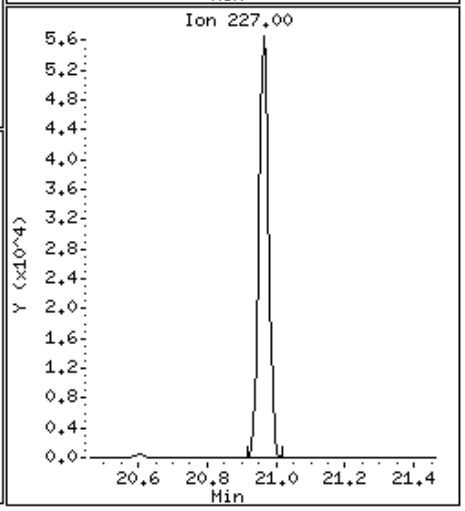












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Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

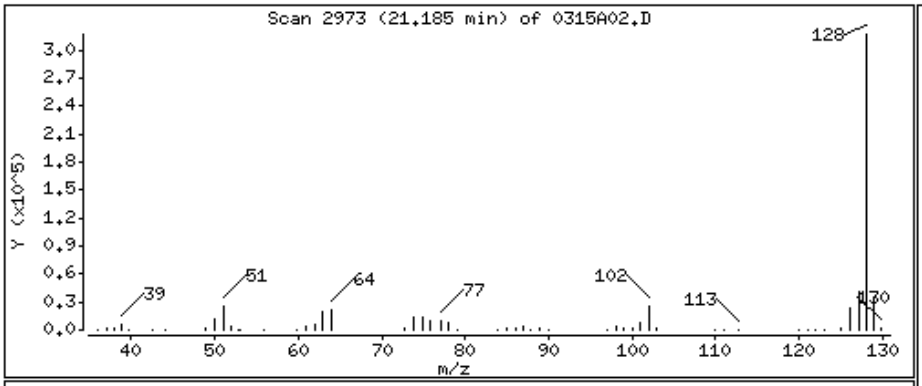
Operator: PD

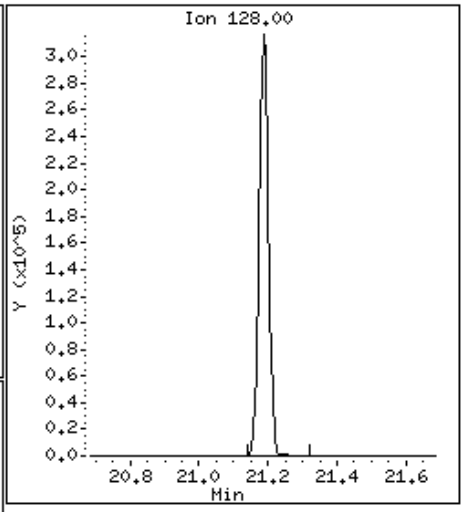
Column phase: Rtx-502.2

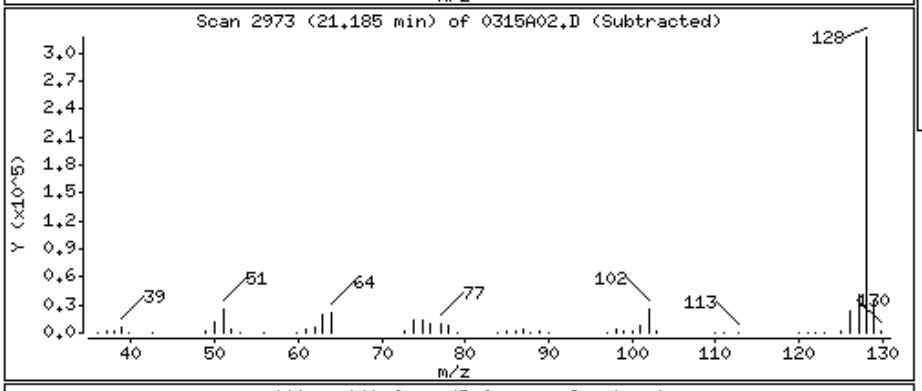
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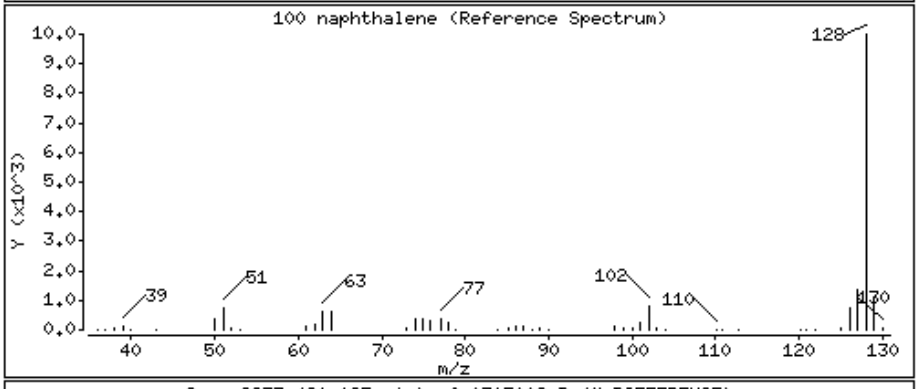
100 naphthalene

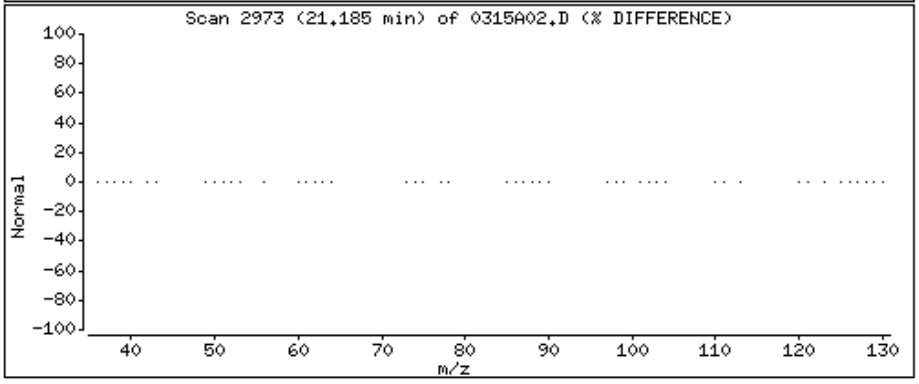
Concentration: 81.908 ngs











Data File: \\Orgserv2\ff\chem\GCMSVOA\Gonzo.i\160315.b\0315A02.D

Date : 15-MAR-2016 09:00

Client ID:

Instrument: Gonzo.i

Sample Info: wg873931-2,31,10

Purge Volume: 10.0

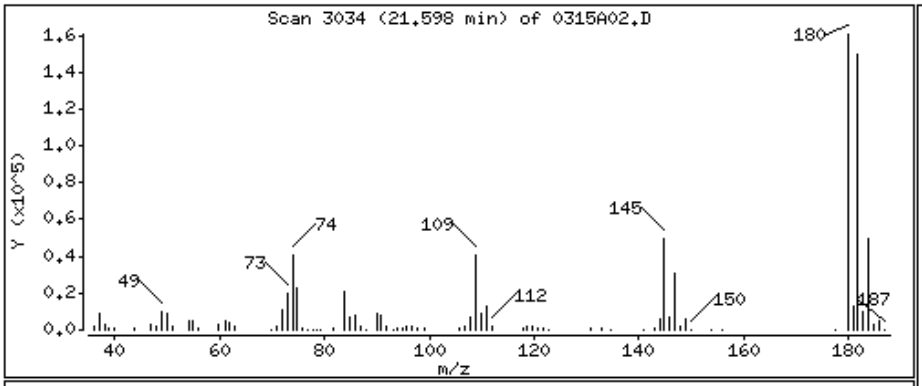
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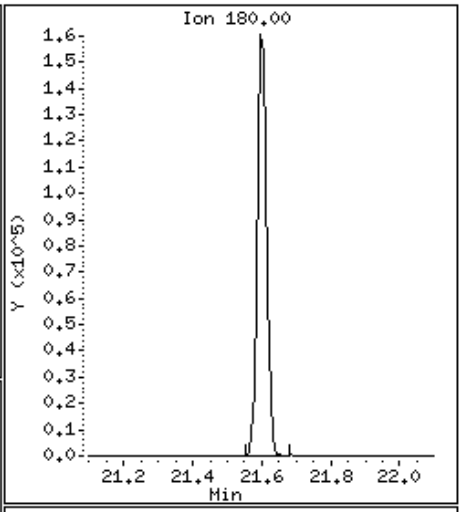
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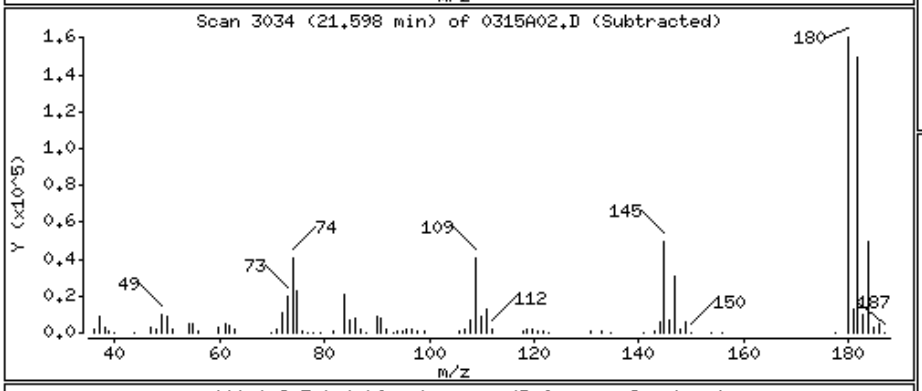
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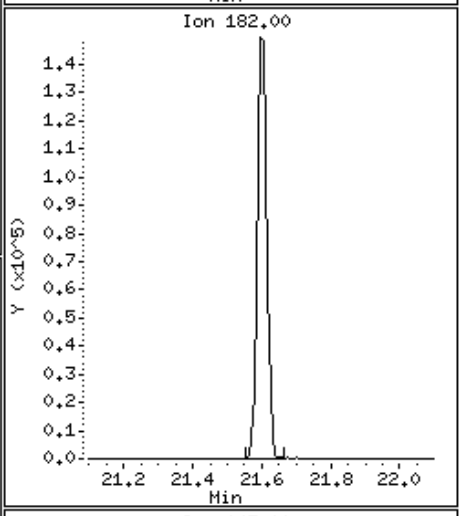
101 1,2,3-trichlorobenzene

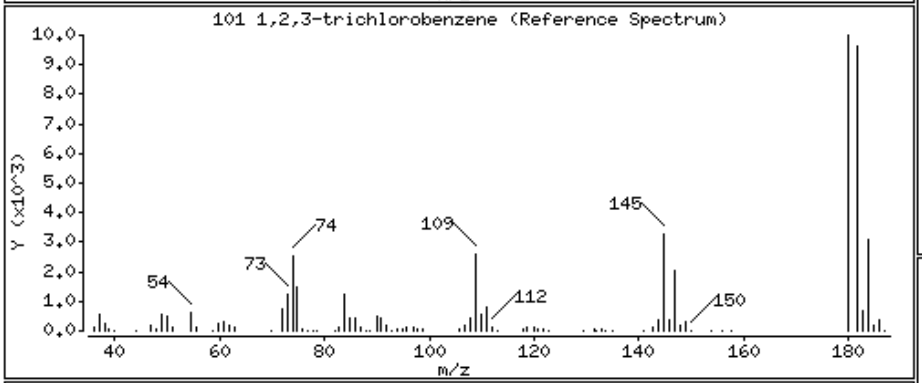
Concentration: 87.841 ngs

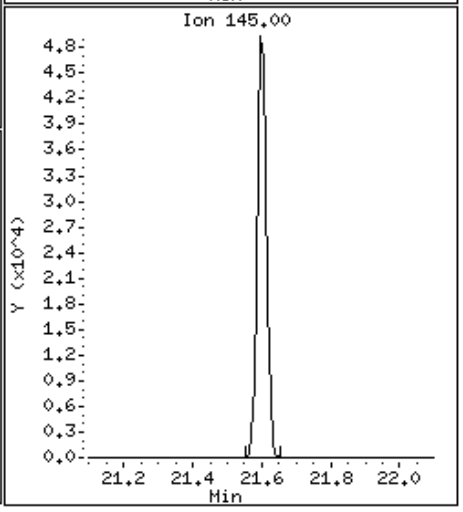


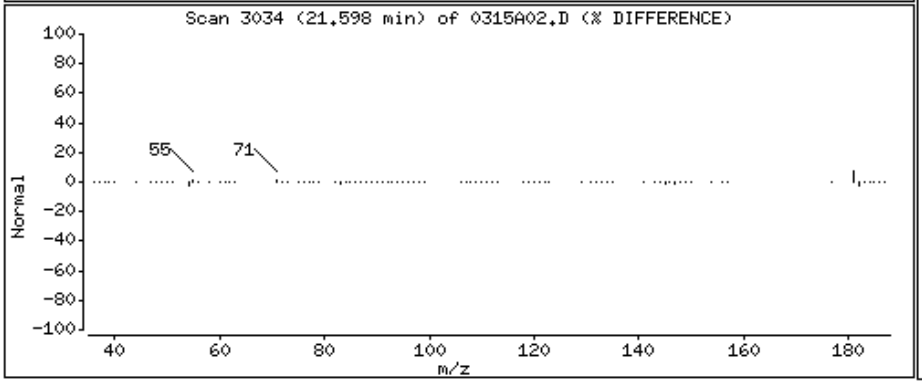












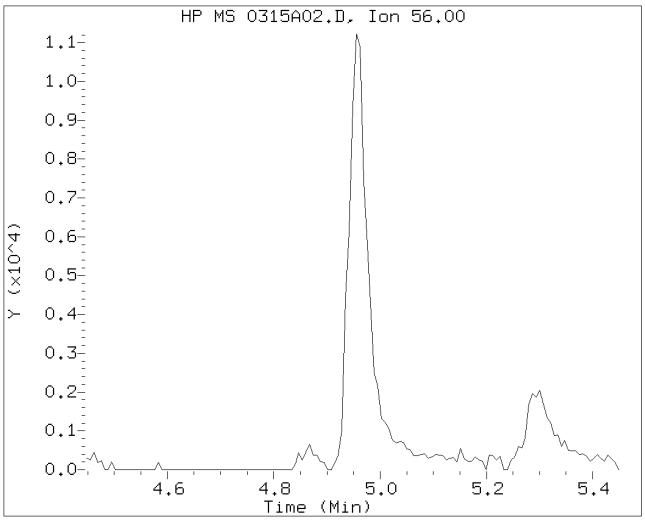
Alpha Analytical Labs

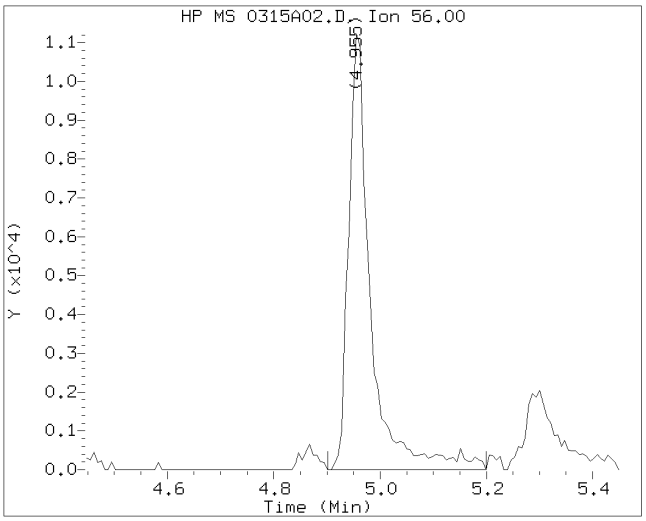
Manual Integration

Sample Info : wg873931-2,31,10
wg873931,ical12094

Instrument ID : Gonzo.i
Method : v10ml8260.m
File : 0315A02.D
Injection Date : 15-MAR-2016 09:00
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCSD

Compound # 8: acrolien





Original Peak Response = 0 Manual Peak Response = 32206 M2

M2 = Peak not found by automatic integration algorithm.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 23 2016, 09:27 am

Work Group: WG873931 for Department: 31 GC/MS - Volatiles

Created: 15-MAR-16 Due: Operator: PD

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1606038-01	MW004	S	NYCP51-8260	WATER	DONE	U	0316	0317	S0	Vial-B
L1606144-04	MW-4	S	NYTCL-8260	WATER	DONE	U	0317	0315	S0	Vial-B
L1606349-12	#14 STATION DRAINAGE	S	NYTCL-8260	WATER	DONE	U	0321	0316	S0	Vial-B
L1606349-13	#15 STATION DRAINAGE	S	NYTCL-8260	WATER	DONE	U	0321	0316	S0	Vial-B
L1606349-23	TRIP BLANK	S	NYTCL-8260	WATER	DONE	U	0321	0316	S0	Vial-B
L1606498-01	MW-2	S	NYTCL-8260	WATER	DONE	U	0321	0317	S0	Vial-B
L1606498-02	MW-6	S	NYTCL-8260	WATER	DONE	U	0321	0317	S0	Vial-B
L1606498-03	MW-7	S	NYTCL-8260	WATER	DONE	U	0321	0317	S0	Vial-B
L1606498-04	MW-10	S	NYTCL-8260	WATER	DONE	U	0321	0317	S0	Vial-B
L1606498-05	MW-11	S	NYTCL-8260	WATER	DONE	U	0321	0317	S0	Vial-B
L1606498-06	MW-12	S	NYTCL-8260	WATER	DONE	U	0321	0317	S0	Vial-B
L1606616-01	TERMINAL BASIN #1	S	NYTCL-8260-R2	WATER	DONE	U	0322	0316	S0	Vial-B
L1606669-08	B-4 GW	S	NYTCL-8260-R2	WATER	DONE	U	0322	0316	S0	Vial-B
L1606669-10	B-5 GW	S	NYTCL-8260-R2	WATER	DONE	U	0322	0316	S0	Vial-B
L1606705-01	GW-GRAB	S	NYTCL-8260	WATER	DONE	U	0322	0316	S0	Vial-B
L1606763-01	MW12_030916	S	NYTCL-8260	WATER	DONE	U	0323	0316	S0	Vial-B
L1606763-02	TB04_030916	S	NYTCL-8260	WATER	DONE	U	0323	0316	S0	Vial-B
WG873931-1	Laboratory Control S	S	NYTCL-8260-R2	WATER	DACQ	U				
WG873931-1	Laboratory Control S	S	NYCP51-8260	WATER	DACQ	U				
WG873931-1	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG873931-2	LCS Duplicate	S	NYCP51-8260	WATER	DACQ	U				
WG873931-2	LCS Duplicate	S	NYTCL-8260-R2	WATER	DACQ	U				
WG873931-2	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG873931-3	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				
WG873931-3	Laboratory Method Bl	S	NYCP51-8260	WATER	DACQ	U				
WG873931-3	Laboratory Method Bl	S	NYTCL-8260-R2	WATER	DACQ	U				

Comments:

WG873931-2 WG873931-1

160227A **2016**

Inst: Gonzo
Initials: BS
Date: **02/27/16**
Run: **A**

BFB: V5532
IS/SS: V5574
ICAL: V5566, V5581
ICV: V5547, V5509, V5573, V5582, V5510

Method
GC: 8260
Autosampler: 8260purge
Concentrator: 8260purge

QC: _____ Seq:

Vial	Data File	Sample
1	BFB0227A	BFB TUNE
1	0227A01	BLK
2	0227A02	BLK
3	0227A03	ICAL L11
4	0227A04	ICAL L1
5	0227A05	ICAL L2
6	0227A06	ICAL L3
7	0227A07	ICAL L4
8	0227A08	ICAL L6
9	0227A09	ICAL L8
10	0227A10	ICAL L10
11	0227A11	BLK
12	0227A12	BLK
13	0227A13	BLK
14	0227A14	BLK
15	0227A15	BLK
16	0227A16	8260 ICV
17	0227A17	8260 ICV
18	0227A18	BLK

Gonzo



obs

Inst: Gonzo
Initials: PD
Date: **03/15/16**
Run: **A**

BFB: V5532
IS/SS: V5600
ICAL: V5566, V5581
ICV: V5547, V5509, V5573, V5582, V5510

Method
GC: 8260
Autosampler: 8260purge
Concentrator: 8260purge

QC:_____ Seq:_____

Vial	Data File	Sample		obs
1	BFB0315A	BFB TUNE 08:14		
1	0315A01	8260 CCAL LCS		
2	0315A02	8260 CCAL LCSD		
3	0315A03	BLK		
4	0315A04	METHOD BLK		
5	0315A05	I1606144-04D,31,0.5,,c	NYSTARS	pH<2
6	0315A06	I1606349-12,31,10,,d	NYTCL/CS2only	pH<2
7	0315A07	I1606349-13,31,10,,d	NYTCL/CS2only	pH<2
8	0315A08	I1606349-23,31,10,,c	NYTCL/CS2only	pH<2
9	0315A09	I1606763-02,31,10,,a	NYTCL	pH<2
10	0315A10	I1606763-01,31,10,,a	NYTCL	pH<2
11	0315A11	I1606705-01D,31,1,,a	NYTCL/10	FOAM pH<2
12	0315A12	I1606038-01D,31,0.5,,a	NYSTARS	pH<2
13	0315A13	I1606616-01,31,10,,a	NYCURVE	pH<2
14	0315A14	I1606669-08,31,10,,a	NYCURVE	pH<2
15	0315A15	I1606669-10,31,10,,a	NYCURVE	pH<2
16	0315A16	I1606498-01D,31,0.5,,a	NYSTARS	pH<2
17	0315A17	I1606498-02D,31,0.4,,a	NYSTARS	pH<2
18	0315A18	I1606498-03,31,10,,a	NYSTARS	pH<2
19	0315A19	I1606498-04,31,10,,a	NYSTARS	pH<2
20	0315A20	I1606498-05,31,10,,a	NYSTARS	pH<2
21	0315A21	I1606498-06,31,10,,a	NYSTARS	pH<2

Semivolatiles Data- Method 8270D

Semivolatiles QC Summary

3C

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER SEMIVOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873638-2LCS Injected: 03/14/16 23:55 Lab File ID: 873638-2.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
Acenaphthene	40	NA	25.	64	37-111
1,2,4-Trichlorobenzene	40	NA	24.	61	39- 98
Benzidine	40	NA	6.6	16	10- 66
n-Nitrosodimethylamine	40	NA	13.	32	22-100
Hexachlorobenzene	40	NA	31.	77	40-140
Bis(2-chloroethyl)ether	40	NA	22.	56	40-140
2-Chloronaphthalene	40	NA	28.	71	40-140
1,2-Dichlorobenzene	40	NA	22.	56	40-140
1,3-Dichlorobenzene	40	NA	21.	53	40-140
1,4-Dichlorobenzene	40	NA	21.	54	36- 97
3,3'-Dichlorobenzidine	40	NA	28.	70	40-140
2,4-Dinitrotoluene	40	NA	29.	73	24- 96
2,6-Dinitrotoluene	40	NA	33.	82	40-140
Azobenzene	40	NA	23.	58	40-140
Fluoranthene	40	NA	27.	69	40-140
4-Chlorophenyl phenyl et	40	NA	28.	70	40-140
4-Bromophenyl phenyl eth	40	NA	31.	77	40-140
Bis(2-chloroisopropyl)et	40	NA	16.	40	40-140
Bis(2-chloroethoxy)metha	40	NA	25.	63	40-140
Hexachlorobutadiene	40	NA	25.	62	40-140
Hexachlorocyclopentadien	40	NA	24.	61	40-140
Hexachloroethane	40	NA	21.	52	40-140
Isophorone	40	NA	25.	63	40-140
Naphthalene	40	NA	24.	60	40-140
Nitrobenzene	40	NA	22.	56	40-140
NDPA/DPA	40	NA	27.	67	40-140
n-Nitrosodi-n-propylamin	40	NA	24.	61	29-132
Bis(2-Ethylhexyl)phthala	40	NA	26.	65	40-140
Butyl benzyl phthalate	40	NA	27.	68	40-140
Di-n-butylphthalate	40	NA	27.	67	40-140
Di-n-octylphthalate	40	NA	26.	65	40-140
Diethyl phthalate	40	NA	27.	68	40-140
Dimethyl phthalate	40	NA	27.	68	40-140
Benzo(a)anthracene	40	NA	26.	65	40-140
Benzo(a)pyrene	40	NA	27.	68	40-140
Benzo(b)fluoranthene	40	NA	26.	64	40-140
Benzo(k)fluoranthene	40	NA	26.	64	40-140
Chrysene	40	NA	26.	65	40-140
Acenaphthylene	40	NA	28.	71	45-123
Anthracene	40	NA	26.	66	40-140

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NYTCL-8270

3C

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER SEMIVOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873638-2LCS Injected: 03/14/16 23:55 Lab File ID: 873638-2.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
Benzo(ghi)perylene	40	NA	26.	65	40-140
Fluorene	40	NA	26.	66	40-140
Phenanthrene	40	NA	26.	66	40-140
Dibenzo(a,h)anthracene	40	NA	26.	65	40-140
Indeno(1,2,3-cd)Pyrene	40	NA	26.	66	40-140
Pyrene	40	NA	27.	67	26-127
Biphenyl	40	NA	25.	62	54-104
Aniline	40	NA	10.	26*	40-140
4-Chloroaniline	40	NA	20.	49	40-140
2-Nitroaniline	40	NA	32.	81	52-143
3-Nitroaniline	40	NA	23.	57	25-145
4-Nitroaniline	40	NA	27.	67	51-143
Dibenzofuran	40	NA	26.	66	40-140
2-Methylnaphthalene	40	NA	26.	66	40-140
1,2,4,5-Tetrachlorobenze	40	NA	25.	62	2-134
Acetophenone	40	NA	26.	66	39-129
2,4,6-Trichlorophenol	40	NA	32.	81	30-130
P-Chloro-M-Cresol	40	NA	28.	71	23- 97
2-Chlorophenol	40	NA	24.	61	27-123
2,4-Dichlorophenol	40	NA	28.	70	30-130
2,4-Dimethylphenol	40	NA	27.	67	30-130
2-Nitrophenol	40	NA	28.	69	30-130
4-Nitrophenol	40	NA	14.	35	10- 80
2,4-Dinitrophenol	40	NA	27.	68	20-130
4,6-Dinitro-o-cresol	40	NA	28.	70	20-164
Pentachlorophenol	40	NA	29.	74	9-103
Phenol	40	NA	11.	28	12-110
2-Methylphenol	40	NA	23.	56	30-130
3-Methylphenol/4-Methylp	40	NA	22.	55	30-130
2,4,5-Trichlorophenol	40	NA	31.	78	30-130
Benzoic Acid	40	NA	15.	36	10-110
Benzyl Alcohol	40	NA	21.	52	15-110
Carbazole	40	NA	26.	66	55-144
Pyridine	40	NA	7.0	17	10- 66
Benzaldehyde	40	NA	24.	60	40-140
Caprolactam	40	NA	6.4	16	10-130
Atrazine	40	NA	35.	88	40-140
2,3,4,6-Tetrachloropheno	40	NA	32.	79	54-145

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NYTCL-8270

3C

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER SEMIVOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873638-2LCS Injected: 03/14/16 23:55 Lab File ID: 873638-2.D

Lab Control Dup : WG873638-3LCSD Injected: 03/15/16 00:20 Lab File ID: 873638-3.D

COMPOUND	SPIKE ADDED (ug/l)	LCSD CONCENTRATION (ug/l)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Acenaphthene	40	27.	68	6	30	37-111
1,2,4-Trichlorobenzene	40	28.	70	14	30	39- 98
Benzidine	40	14.	36	77 *	30	10- 66
n-Nitrosodimethylamine	40	16.	39	20	30	22-100
Hexachlorobenzene	40	32.	81	5	30	40-140
Bis(2-chloroethyl)ether	40	26.	66	16	30	40-140
2-Chloronaphthalene	40	31.	77	8	30	40-140
1,2-Dichlorobenzene	40	27.	67	18	30	40-140
1,3-Dichlorobenzene	40	26.	65	20	30	40-140
1,4-Dichlorobenzene	40	26.	65	18	30	36- 97
3,3'-Dichlorobenzidine	40	31.	78	11	30	40-140
2,4-Dinitrotoluene	40	30.	76	4	30	24- 96
2,6-Dinitrotoluene	40	35.	87	6	30	40-140
Azobenzene	40	24.	61	5	30	40-140
Fluoranthene	40	28.	71	3	30	40-140
4-Chlorophenyl phenyl et	40	30.	74	6	30	40-140
4-Bromophenyl phenyl eth	40	32.	80	4	30	40-140
Bis(2-chloroisopropyl)et	40	19.	47	16	30	40-140
Bis(2-chloroethoxy)metha	40	29.	73	15	30	40-140
Hexachlorobutadiene	40	29.	72	15	30	40-140
Hexachlorocyclopentadien	40	28.	70	14	30	40-140
Hexachloroethane	40	26.	64	21	30	40-140
Isophorone	40	29.	72	13	30	40-140
Naphthalene	40	27.	68	13	30	40-140
Nitrobenzene	40	25.	63	12	30	40-140
NDPA/DPA	40	28.	71	6	30	40-140
n-Nitrosodi-n-propylamin	40	28.	69	12	30	29-132
Bis(2-Ethylhexyl)phthala	40	27.	67	3	30	40-140
Butyl benzyl phthalate	40	28.	71	4	30	40-140
Di-n-butylphthalate	40	28.	70	4	30	40-140
Di-n-octylphthalate	40	28.	70	7	30	40-140
Diethyl phthalate	40	29.	73	7	30	40-140
Dimethyl phthalate	40	28.	71	4	30	40-140
Benzo(a)anthracene	40	27.	68	5	30	40-140
Benzo(a)pyrene	40	29.	73	7	30	40-140
Benzo(b)fluoranthene	40	27.	68	6	30	40-140
Benzo(k)fluoranthene	40	28.	69	8	30	40-140
Chrysene	40	27.	68	5	30	40-140
Acenaphthylene	40	30.	76	7	30	45-123
Anthracene	40	28.	69	4	30	40-140

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NYTCL-8270

3C
LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY
WATER SEMIVOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1606763 Matrix: Water
Lab Control Sample: WG873638-2LCS Injected: 03/14/16 23:55 Lab File ID: 873638-2.D
Lab Control Dup : WG873638-3LCSD Injected: 03/15/16 00:20 Lab File ID: 873638-3.D

COMPOUND	SPIKE ADDED (ug/l)	LCSD CONCENTRATION (ug/l)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Benzo(ghi)perylene	40	28.	69	6	30	40-140
Fluorene	40	29.	72	9	30	40-140
Phenanthrene	40	27.	68	3	30	40-140
Dibenzo(a,h)anthracene	40	28.	70	7	30	40-140
Indeno(1,2,3-cd)Pyrene	40	28.	70	6	30	40-140
Pyrene	40	28.	71	6	30	26-127
Biphenyl	40	27.	67	8	30	54-104
Aniline	40	16.	40	42 *	30	40-140
4-Chloroaniline	40	25.	64	27	30	40-140
2-Nitroaniline	40	35.	87	7	30	52-143
3-Nitroaniline	40	26.	65	13	30	25-145
4-Nitroaniline	40	28.	71	6	30	51-143
Dibenzofuran	40	28.	70	6	30	40-140
2-Methylnaphthalene	40	29.	72	9	30	40-140
1,2,4,5-Tetrachlorobenze	40	28.	70	12	30	2-134
Acetophenone	40	31.	77	15	30	39-129
2,4,6-Trichlorophenol	40	34.	86	6	30	30-130
P-Chloro-M-Cresol	40	31.	77	8	30	23- 97
2-Chlorophenol	40	29.	73	18	30	27-123
2,4-Dichlorophenol	40	32.	80	13	30	30-130
2,4-Dimethylphenol	40	30.	76	13	30	30-130
2-Nitrophenol	40	33.	82	17	30	30-130
4-Nitrophenol	40	15.	38	8	30	10- 80
2,4-Dinitrophenol	40	29.	72	6	30	20-130
4,6-Dinitro-o-cresol	40	30.	74	6	30	20-164
Pentachlorophenol	40	30.	76	3	30	9-103
Phenol	40	13.	32	13	30	12-110
2-Methylphenol	40	27.	67	18	30	30-130
3-Methylphenol/4-Methylp	40	25.	63	14	30	30-130
2,4,5-Trichlorophenol	40	33.	83	6	30	30-130
Benzoic Acid	40	13.	32	12	30	10-110
Benzyl Alcohol	40	24.	61	16	30	15-110
Carbazole	40	27.	69	4	30	55-144
Pyridine	40	9.8	24	34 *	30	10- 66
Benzaldehyde	40	29.	72	18	30	40-140
Caprolactam	40	6.9	17	6	30	10-130
Atrazine	40	37.	93	6	30	40-140
2,3,4,6-Tetrachloropheno	40	34.	85	7	30	54-145

* Values outside of QC limits.

COMMENTS: _____

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FORM III NYTCL-8270

Form 2
Surrogate Recovery
SemiVolatile Organics

Client: Langan Engineering & Environmental
Project Name: 450 UNION STREET

Lab Number: L1606763
Project Number: 170301202
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 (NBZ)	S2 (FBP)	S3 (TPH)	S4 (PHL)	S5 (2FP)	S6 (TBP)	TOT OUT
WG873638-3LCSD	71	81	75	33	49	83	0
WG873638-2LCS	61	74	72	28	41	79	0
WG873638-1BLANK	59	67	68	26	40	67	0
MW12_030916 (L1606763-01)	75	83	86	29	45	84	0

	QC LIMITS
NBZ = NITROBENZENE-D5	(23-120)
FBP = 2-FLUOROBIPHENYL	(15-120)
TPH = 4-TERPHENYL-D14	(41-149)
PHL = PHENOL-D6)	(10-120)
2FP = 2-FLUOROPHENOL)	(21-120)
TBP = 2,4,6-TRIBROMOPHENOL)	(10-120)

* Values outside of QC limits

FORM II NYTCL-8270

4B

SEMIVOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG873638-1BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: 873638-1

Lab Sample ID: WG873638-1

Instrument ID: SV103.I

Date Extracted: 03/14/16

Matrix: WATER

Date Analyzed: 03/14/16

Level:(low/med): LOW

Time Analyzed: 23:29

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE/TIME ANALYZED
01	WG873638-2LCS	WG873638-2	873638-2	03/14/16 23:55
02	WG873638-3LCSD	WG873638-3	873638-3	03/15/16 00:20
03	MW12_030916	L1606763-01	06763-01	03/15/16 18:23

COMMENTS: _____

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FORM IV NYTCL-8270

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dftn_tune DFTPP Injection Date: 03/08/16

Instrument ID: SV103.i DFTPP Injection Time: 19:46

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	47.8
68	Less than 2.0% of mass 69	0.8 (1.72)1
69		47.6
70	Less than 2.0% of mass 69	0.2 (0.42)1
127	10.0 - 80.0% of Base Peak	52.9
197	Less than 2.0% of mass 198	0.4
199	5.0 - 9.0% of mass 198	7
275	10.0 - 60.0% of Base Peak	22.8
365	Greater than 1.0% of mass 198	3
441	Present, but less than 24% of mass 442	86.2
442	Base Peak, or >50% of mass 198	54.8
443	15.0 - 24.0% of mass 442	10.6 (19.3)2

1-Value is % of mass 69 2-Value is % of 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	deg0308n	deg0308n	degn	03/08/16	19:46
02	ABN 1 LOT# 5806	ABN 1 LOT# 580	ABNL1	03/08/16	20:12
03	ABN 2 LOT# 5807	ABN 2 LOT# 580	ABNL2	03/08/16	20:37
04	ABN 3 LOT# 5808	ABN 3 LOT# 580	ABNL3	03/08/16	21:03
05	ABN 5 LOT# 5809	ABN 5 LOT# 580	ABNL4	03/08/16	21:28
06	ABN 10 LOT# 5810	ABN 10 LOT# 58	ABNL5	03/08/16	21:54
07	ABN 20 LOT# 5811	ABN 20 LOT# 58	ABNL6	03/08/16	22:19
08	ABN 50 LOT# 5812	ABN 50 LOT# 58	ABNL7	03/08/16	22:45
09	ABN 100 LOT# 581	ABN 100 LOT# 5	ABNL8	03/08/16	23:11
10	ABN 150 LOT# 581	ABN 150 LOT# 5	ABNL9	03/08/16	23:36
11	ABN 200 LOT# 580	ABN 200 LOT# 5	ABNL10	03/09/16	00:02
12	AP9 1 LOT#5832	AP9 1 LOT#5832	AP9L1	03/09/16	00:27
13	AP9 2 LOT#5833	AP9 2 LOT#5833	AP9L2	03/09/16	00:53
14	AP9 3 LOT#5834	AP9 3 LOT#5834	AP9L3	03/09/16	01:19
15	AP9 5 LOT#5835	AP9 5 LOT#5835	AP9L4	03/09/16	01:44
16	AP9 10 LOT#5836	AP9 10 LOT#583	AP9L5	03/09/16	02:10
17	AP9 20 LOT#5837	AP9 20 LOT#583	AP9L6	03/09/16	02:35
18	AP9 50 LOT#5838	AP9 50 LOT#583	AP9L7	03/09/16	03:01
19	AP9 100 LOT#5839	AP9 100 LOT#58	AP9L8	03/09/16	03:26
20	AP9 150 LOT#5840	AP9 150 LOT#58	AP9L9	03/09/16	03:52
21	AP9 200 LOT#5831	AP9 200 LOT#58	AP9L10	03/09/16	04:17
22	ABN ICV quant re	ABN ICV quant	ABNICV	03/09/16	04:43
23	ABN ICV summary	ABN ICV summar	ccal	03/09/16	04:43
24	AP9 ICV quant re	AP9 ICV quant	AP9ICV	03/09/16	05:08
25	AP9 ICV summary	AP9 ICV summar	ccal	03/09/16	05:08
26	deg0308na	deg0308na	degna	03/09/16	05:34

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dftna_tune DFTPP Injection Date: 03/09/16

Instrument ID: SV103.i DFTPP Injection Time: 05:34

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	46.2
68	Less than 2.0% of mass 69	0.7 (1.53)1
69		47.2
70	Less than 2.0% of mass 69	0.2 (0.37)1
127	10.0 - 80.0% of Base Peak	51.8
197	Less than 2.0% of mass 198	0.7
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	22.5
365	Greater than 1.0% of mass 198	3.3
441	Present, but less than 24% of mass 442	80.8
442	Base Peak, or >50% of mass 198	54.8
443	15.0 - 24.0% of mass 442	11.4 (20.8)2

1-Value is % of mass 69 2-Value is % of 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	deg0308na	deg0308na	degna	03/09/16	05:34
02	ADP 1 LOT#5816	ADP 1 LOT#5816	ADPL1	03/09/16	06:00
03	ADP 2 LOT#5817	ADP 2 LOT#5817	ADPL2	03/09/16	06:25
04	ADP 3 LOT#5818	ADP 3 LOT#5818	ADPL3	03/09/16	06:50
05	ADP 5 LOT#5819	ADP 5 LOT#5819	ADPL4	03/09/16	07:16
06	ADP 10 LOT#5820	ADP 10 LOT#582	ADPL5	03/09/16	07:41
07	ADP 20 LOT#5821	ADP 20 LOT#582	ADPL6	03/09/16	08:07
08	ADP 50 LOT#5822	ADP 50 LOT#582	ADPL7	03/09/16	08:33
09	ADP 100 LOT#5823	ADP 100 LOT#58	ADPL8	03/09/16	08:58
10	ADP 150 LOT#5824	ADP 150 LOT#58	ADPL9	03/09/16	09:24
11	ADP 200 LOT#5815	ADP 200 LOT#58	ADPL10	03/09/16	09:49
12	ADP ICV quant re	ADP ICV quant	ADPICV	03/09/16	10:15
13	ADP ICV summary	ADP ICV summar	ccal	03/09/16	10:15
14	MTolL1 lot#5667	MTolL1 lot#566	Mtol1	03/09/16	10:41
15	MTolL2 lot#5668	MTolL2 lot#566	Mtol2	03/09/16	11:06
16	MTolL3 lot#5669	MTolL3 lot#566	Mtol3	03/09/16	11:31
17	MTolL5 lot#5670	MTolL5 lot#567	Mtol4	03/09/16	11:57
18	MTolL10 lot#5671	MTolL10 lot#56	Mtol5	03/09/16	12:23
19	MTolL20 lot#5672	MTolL20 lot#56	Mtol6	03/09/16	12:48
20	MTolL50 lot#5673	MTolL50 lot#56	Mtol7	03/09/16	13:14
21	MTolL100 lot#567	MTolL100 lot#5	Mtol8	03/09/16	13:39
22	MTolL150 lot5675	MTolL150 lot56	Mtol9	03/09/16	14:05
23	MTolL200 lot5666	MTolL200 lot56	Mtol10	03/09/16	14:30
24	MtolICV quant re	MtolICV quant	MTOICV	03/09/16	14:56
25	MtolICV summary	MtolICV summar	ccal	03/09/16	14:56
26	deg0308nb	deg0308nb	degnb	03/09/16	15:38

5B

SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dftnb_tune DFTPP Injection Date: 03/09/16

Instrument ID: SV103.i DFTPP Injection Time: 15:38

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	46.6
68	Less than 2.0% of mass 69	0.7 (1.54)1
69		47.8
70	Less than 2.0% of mass 69	0.2 (0.49)1
127	10.0 - 80.0% of Base Peak	54.1
197	Less than 2.0% of mass 198	0.7
199	5.0 - 9.0% of mass 198	7
275	10.0 - 60.0% of Base Peak	22.7
365	Greater than 1.0% of mass 198	3.2
441	Present, but less than 24% of mass 442	82.2
442	Base Peak, or >50% of mass 198	56.2
443	15.0 - 24.0% of mass 442	10.6 (18.8)2

1-Value is % of mass 69 2-Value is % of 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	deg0308nb	deg0308nb	degnb	03/09/16	15:38
02	BENZL1 lot#5677	BENZL1 lot#567	BENZL1	03/09/16	16:04
03	BENZL2 lot#5678	BENZL2 lot#567	BENZL2	03/09/16	16:30
04	BENZL3 lot#5679	BENZL3 lot#567	BENZL3	03/09/16	16:55
05	BENZL5 lot#5680	BENZL5 lot#568	BENZL4	03/09/16	17:21
06	BENZL10 lot#5681	BENZL10 lot#56	BENZL5	03/09/16	17:47
07	BENZL20 lot#5682	BENZL20 lot#56	BENZL6	03/09/16	18:12
08	BENZL50 lot#5683	BENZL50 lot#56	BENZL7	03/09/16	18:38
09	BENZL100 lot#568	BENZL100 lot#5	BENZL8	03/09/16	19:03
10	BENZL150 lot#568	BENZL150 lot#5	BENZL9	03/09/16	19:29
11	BENZL200 lot#567	BENZL200 lot#5	BENZL10	03/09/16	19:55
12	BENZICV quant re	BENZICV quant	BENZICV	03/09/16	20:21
13	BENZICV summary	BENZICV summar	ccal	03/09/16	20:21

FORM V NYTCL-8270

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dft_tune DFTPP Injection Date: 03/12/16

Instrument ID: SV112.i DFTPP Injection Time: 11:02

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	45.6
68	Less than 2.0% of mass 69	0.8 (1.71)1
69		48.6
70	Less than 2.0% of mass 69	0.3 (0.60)1
127	10.0 - 80.0% of Base Peak	53.6
197	Less than 2.0% of mass 198	0
199	5.0 - 9.0% of mass 198	7
275	10.0 - 60.0% of Base Peak	23.6
365	Greater than 1.0% of mass 198	3.1
441	Present, but less than 24% of mass 442	85.6
442	Base Peak, or >50% of mass 198	72.8
443	15.0 - 24.0% of mass 442	13.7 (18.8)2

1-Value is % of mass 69 2-Value is % of 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	degdft0312	degdft0312	deg	03/12/16	11:02
02	ABN 1 LOT# 5806	ABN 1 LOT# 580	ABNL1	03/12/16	11:36
03	ABN 2 LOT# 5807	ABN 2 LOT# 580	ABNL2	03/12/16	12:01
04	ABN 3 LOT# 5808	ABN 3 LOT# 580	ABNL3	03/12/16	12:26
05	ABN 5 LOT# 5809	ABN 5 LOT# 580	ABNL4	03/12/16	12:51
06	ABN 10 LOT# 5810	ABN 10 LOT# 58	ABNL5	03/12/16	13:17
07	ABN 20 LOT# 5811	ABN 20 LOT# 58	ABNL6	03/12/16	13:42
08	ABN 50 LOT# 5812	ABN 50 LOT# 58	ABNL7	03/12/16	14:07
09	ABN 100 LOT# 581	ABN 100 LOT# 5	ABNL8	03/12/16	14:33
10	ABN 150 LOT# 581	ABN 150 LOT# 5	ABNL9	03/12/16	14:58
11	ABN 200 LOT# 580	ABN 200 LOT# 5	ABNL10	03/12/16	15:23
12	AP9 1 LOT# 5832	AP9 1 LOT# 583	AP9L1	03/12/16	15:48
13	AP9 2 LOT# 5833	AP9 2 LOT# 583	AP9L2	03/12/16	16:14
14	AP9 3 LOT#5834	AP9 3 LOT#5834	AP9L3	03/12/16	16:39
15	AP9 5 LOT# 5835	AP9 5 LOT# 583	AP9L4	03/12/16	17:05
16	AP9 10 LOT# 5836	AP9 10 LOT# 58	AP9L5	03/12/16	17:30
17	AP9 20 LOT# 5837	AP9 20 LOT# 58	AP9L6	03/12/16	17:55
18	AP9 50 LOT#5838	AP9 50 LOT#583	AP9L7	03/12/16	18:21
19	AP9 100 LOT# 583	AP9 100 LOT# 5	AP9L8	03/12/16	18:46
20	AP9 150 LOT# 584	AP9 150 LOT# 5	AP9L9	03/12/16	19:11
21	AP9 200 LOT# 583	AP9 200 LOT# 5	AP9L10	03/12/16	19:37
22	ABN ICV quant re	ABN ICV quant	ABNICV	03/12/16	20:02
23	ABN ICV summary	ABN ICV summar	ccal	03/12/16	20:02
24	AP9 ICV quant re	AP9 ICV quant	AP9ICV	03/12/16	20:28
25	AP9 ICV summary	AP9 ICV summar	ccal	03/12/16	20:28
26	deg0312	deg0312	degz	03/12/16	20:53

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dftz_tune DFTPP Injection Date: 03/12/16

Instrument ID: SV112.i DFTPP Injection Time: 20:53

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	44.9
68	Less than 2.0% of mass 69	0.7 (1.46)1
69		48.4
70	Less than 2.0% of mass 69	0.3 (0.58)1
127	10.0 - 80.0% of Base Peak	54.2
197	Less than 2.0% of mass 198	0.2
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 60.0% of Base Peak	23.6
365	Greater than 1.0% of mass 198	2.9
441	Present, but less than 24% of mass 442	82.8
442	Base Peak, or >50% of mass 198	75
443	15.0 - 24.0% of mass 442	14.1 (18.8)2

1-Value is % of mass 69 2-Value is % of 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	deg0312	deg0312	degz	03/12/16	20:53
02	ADP 1 LOT#5816	ADP 1 LOT#5816	ADPL1	03/12/16	21:18
03	ADP 2 LOT#5817	ADP 2 LOT#5817	ADPL2	03/12/16	21:44
04	ADP 3 LOT#5818	ADP 3 LOT#5818	ADPL3	03/12/16	22:10
05	ADP 5 LOT#5819	ADP 5 LOT#5819	ADPL4	03/12/16	22:36
06	ADP 10 LOT#5820	ADP 10 LOT#582	ADPL5	03/12/16	23:02
07	ADP 20 LOT#5821	ADP 20 LOT#582	ADPL6	03/12/16	23:27
08	ADP 50 LOT#5822	ADP 50 LOT#582	ADPL7	03/12/16	23:53
09	ADP 100 LOT#5823	ADP 100 LOT#58	ADPL8	03/13/16	00:18
10	ADP 150 LOT#5824	ADP 150 LOT#58	ADPL9	03/13/16	00:44
11	ADP 200 LOT#5815	ADP 200 LOT#58	ADPL10	03/13/16	01:09
12	ADP ICV quant re	ADP ICV quant	ADPicv	03/13/16	01:35
13	ADP ICV summary	ADP ICV summar	ccal	03/13/16	01:35

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5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dft314nb_tune DFTPP Injection Date: 03/14/16

Instrument ID: SV103.i DFTPP Injection Time: 20:31

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	34.1
68	Less than 2.0% of mass 69	0.5 (1.14)1
69		39.9
70	Less than 2.0% of mass 69	0.2 (0.47)1
127	10.0 - 80.0% of Base Peak	49.3
197	Less than 2.0% of mass 198	0.2
199	5.0 - 9.0% of mass 198	7.1
275	10.0 - 60.0% of Base Peak	25.2
365	Greater than 1.0% of mass 198	3.5
441	Present, but less than 24% of mass 442	79.3
442	Base Peak, or >50% of mass 198	69.5
443	15.0 - 24.0% of mass 442	13.9 (20.0)2

1-Value is % of mass 69 2-Value is % of 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	deg0314	deg0314	deg314nb	03/14/16	20:31
02	ADP CCV Lot#5822	ADP CCV Lot#58	ADP314n	03/14/16	20:57
03	AP9 ICV Lot#5838	AP9 ICV Lot#58	AP9314n	03/14/16	21:22
04	ABN ICV Lot#5842	ABN ICV Lot#58	ABN314n	03/14/16	21:47
05	WG873638-1BLANK	WG873638-1	873638-1	03/14/16	23:29
06	WG873638-2LCS	WG873638-2	873638-2	03/14/16	23:55
07	WG873638-3LCSD	WG873638-3	873638-3	03/15/16	00:20

FORM V NYTCL-8270

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: dft_tune DFTPP Injection Date: 03/15/16

Instrument ID: SV112.i DFTPP Injection Time: 11:13

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	45.2
68	Less than 2.0% of mass 69	0.8 (1.55)1
69		49.7
70	Less than 2.0% of mass 69	0.2 (0.48)1
127	10.0 - 80.0% of Base Peak	53.6
197	Less than 2.0% of mass 198	0.2
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 60.0% of Base Peak	23.2
365	Greater than 1.0% of mass 198	3.1
441	Present, but less than 24% of mass 442	81.6
442	Base Peak, or >50% of mass 198	72.2
443	15.0 - 24.0% of mass 442	13.9 (19.3)2

1-Value is % of mass 69 2-Value is % of 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	degdft0315	degdft0315	deg	03/15/16	11:13
02	ADP 50 LOT#5822	ADP 50 LOT#582	ADPLccv0315	03/15/16	11:44
03	AP9 50 LOT#5838	AP9 50 LOT#583	AP9Lccv0315	03/15/16	12:10
04	ABN 50 LOT# 5842	ABN 50 LOT# 58	ABNccv0315	03/15/16	12:35
05	MW12_030916	L1606763-01	06763-01	03/15/16	18:23

FORM V NYTCL-8270

8B

SEMIVOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): ABN314n_ccal Date Analyzed: 14-MAR-2016

Instrument ID : SV103.i Time Analyzed: 21:47

		IS1(DCB) AREA	RT	IS2(NPT) AREA	RT	IS3(ANT) AREA	RT
	12 HOUR STD	96142	4.55	407631	5.78	241274	7.49
	UPPER LIMIT	192284	5.05	815262	6.28	482548	7.99
	LOWER LIMIT	48071	4.05	203816	5.28	120637	6.99
	EPA SAMPLE NO.						
01	WG873638-1BLANK	70933	4.55	312163	5.78	201251	7.48
02	WG873638-2LCS	86728	4.55	369324	5.78	230260	7.48
03	WG873638-3LCSD	81564	4.55	359210	5.78	224625	7.48

IS1(DCB) = 1,4-DICHLOROBENZENE-D4
IS2(NPT) = NAPHTHALENE-D8
IS3(ANT) = ACENAPHTHENE-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

8C

SEMIVOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): ABN314n_ccal Date Analyzed: 14-MAR-2016

Instrument ID : SV103.i Time Analyzed: 21:47

		IS4(PHN) AREA	RT	IS5(CRY) AREA	RT	IS6(PRY) AREA	RT
	12 HOUR STD	439963	8.91	427960	11.68	392647	13.72
	UPPER LIMIT	879926	9.41	855920	12.18	785294	14.22
	LOWER LIMIT	219982	8.41	213980	11.18	196324	13.22
	EPA SAMPLE NO.						
01	WG873638-1BLANK	395124	8.91	409188	11.67	428887	13.72
02	WG873638-2LCS	431987	8.91	433014	11.68	431424	13.73
03	WG873638-3LCSD	428386	8.91	425640	11.68	425899	13.73

IS4(PHN) = PHENANTHRENE-D10
IS5(CRY) = CHRYSENE-D12
IS6(PRY) = PERYLENE-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

8B

SEMIVOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): ABNccv0315_cca Date Analyzed: 15-MAR-2016

Instrument ID : SV112.i Time Analyzed: 12:35

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA	RT	AREA	RT	AREA	RT
	12 HOUR STD	329736	4.66	1331284	5.91	728009	7.63
	UPPER LIMIT	659472	5.16	2662568	6.41	1456018	8.13
	LOWER LIMIT	164868	4.16	665642	5.41	364005	7.13
	EPA SAMPLE NO.						
01	MW12_030916	239294	4.66	996401	5.91	559079	7.63

IS1(DCB) = 1,4-DICHLOROBENZENE-D4
IS2(NPT) = NAPHTHALENE-D8
IS3(ANT) = ACENAPHTHENE-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

8C

SEMIVOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): ABNccv0315_cca Date Analyzed: 15-MAR-2016

Instrument ID : SV112.i Time Analyzed: 12:35

	IS4(PHN) AREA	RT	IS5(CRY) AREA	RT	IS6(PRY) AREA	RT
12 HOUR STD	1403129	9.07	1335911	11.74	1240417	13.21
UPPER LIMIT	2806258	9.57	2671822	12.24	2480834	13.71
LOWER LIMIT	701565	8.57	667956	11.24	620209	12.71
EPA SAMPLE NO.						
01 MW12_030916	1058945	9.07	998130	11.73	951362	13.21

IS4(PHN) = PHENANTHRENE-D10
IS5(CRY) = CHRYSENE-D12
IS6(PRY) = PERYLENE-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 1 of 5	
Analyst:	AS
Date:	6/26, 6/27, 7/1, 7/2, 7/9, 7/10, 7/17, 8/12, 8/13, 8/14/14
Instrument ID:	SV112
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, FA

Method: EPA 8270D / 625 **2014**

GC/MS **Semivolatile Organic Compounds** **Liquid**

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014	7/2/2014	7/2/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
1	1,2,4,5-Tetrachlorobenzene	2	1.39	1.65	1.45	1.56	1.53	0.73	0.82	1.34	1.37	1.25	1.31	65%	0.305	0.860	10	
2	1,2,4-Trichlorobenzene	2	1.29	1.46	1.35	1.42	1.48	0.64	0.71	1.31	1.16	1.12	1.19	60%	0.298	0.840	5	
3	1-Chloro-2-nitrobenzene	2	1.24	1.57	1.10	1.30	1.43	1.14	1.18	1.36	1.11	1.10	1.25	63%	0.160	0.452	5	
4	2,3,4,6-Tetrachlorophe	2	1.22	1.74	0.95	1.25	1.16	0.91	1.01	0.96	0.99	1.04	1.12	56%	0.246	0.695	5	
5	2,4,5-Trichlorophenol	2	1.30	1.77	1.17	1.26	1.27	1.08	1.18	1.32	1.12	1.03	1.25	63%	0.207	0.583	5	
6	2,4,6-Trichlorophenol	2	1.11	1.46	1.01	1.06	1.18	1.07	1.19	1.13	0.81	0.78	1.08	54%	0.194	0.547	5	
7	2,4-Dichlorophenol	2	1.27	1.55	1.06	1.29	1.26	1.22	1.25	1.33	1.05	0.98	1.23	61%	0.164	0.463	5	
8	2,4-Dinitrotoluene	2	1.11	1.58	0.87	1.11	1.11	0.94	1.03	0.96	0.99	1.07	1.08	54%	0.195	0.549	5	
9	2,6-Dinitrotoluene	2	1.29	1.83	1.03	1.25	1.27	1.12	1.14	1.18	1.26	1.17	1.25	63%	0.218	0.614	5	
10	2-Chloroaniline	2	1.42	1.71	1.45	1.51	1.58	1.38	1.45	1.58	1.38	1.18	1.46	73%	0.144	0.406	5	
11	2-Chlorophenol	2	1.28	1.39	1.24	1.30	1.41	1.10	1.21	1.45	1.07	0.81	1.23	61%	0.192	0.543	2	
12	2-Methylphenol	2	0.68	0.63	0.58	0.67	0.73	0.88	1.09	1.17	0.23	0.12	0.678	34%	0.330	0.931	5	
13	2-Nitroaniline	2	1.04	1.56	1.00	1.10	1.13	0.98	1.00	0.98	0.93	0.93	1.07	53%	0.186	0.524	5	
14	2-Nitrophenol	2	1.00	1.21	0.98	1.17	1.14	1.07	1.02	1.22	0.85	0.90	1.06	53%	0.128	0.362	5	
15	3-Chloroaniline	2	1.01	1.19	0.97	0.99	1.05	1.29	1.18	1.31	0.83	0.58	1.04	52%	0.222	0.625	10	
16	3-Methylphenol/4-Methylphenol	2	0.78	0.88	0.79	0.88	0.91	0.94	1.05	1.14	0.56	0.35	0.828	41%	0.230	0.648	5	
17	3-Nitroaniline	2	0.98	1.44	1.00	1.08	1.20	1.11	1.05	1.08	0.89	0.80	1.06	53%	0.174	0.492	5	
18	4-Chloroaniline	2	0.83	1.03	1.06	0.91	1.06	1.49	1.55	1.45	0.62	0.35	1.04	52%	0.387	1.09	5	
19	4-Nitroaniline	2	1.00	1.54	0.98	1.10	1.05	1.01	0.96	1.04	1.00	0.88	1.06	53%	0.180	0.507	5	
20	Acenaphthylene	2	1.57	2.00	1.47	1.53	1.62	1.20	1.26	1.51	1.41	1.40	1.50	75%	0.220	0.621	2	
21	Acetophenone	2	1.45	1.67	1.46	1.56	1.65	1.30	1.37	1.55	1.28	1.23	1.45	73%	0.155	0.438	5	
22	Azobenzene	2	1.43	1.84	1.26	1.38	1.38	1.12	1.15	1.27	1.29	1.24	1.34	67%	0.203	0.572	2	
23	Benzaldehyde	2	1.70	1.89	1.65	1.76	1.92	1.46	1.56	1.86	1.31	1.15	1.63	81%	0.257	0.724	5	
24	Benzo(a)pyrene	2	1.95	2.57	1.81	1.98	1.99	2.13	2.26	2.00	1.86	2.03	2.06	103%	0.220	0.620	2	
25	Benzo(b)fluoranthene	2	1.51	2.20	1.40	1.50	1.57	1.55	1.64	1.47	1.43	1.69	1.60	80%	0.230	0.649	2	
26	Benzyl Alcohol	2	1.21	1.45	1.16	1.28	1.36	1.27	1.24	1.36	1.22	1.12	1.27	63%	0.100	0.282	2	
27	Bis(2-chloroethoxy)methane	2	1.40	1.75	1.32	1.34	1.44	1.21	1.28	1.48	1.28	1.24	1.37	69%	0.158	0.445	5	
28	Bis(2-chloroethyl)ether	2	1.30	1.51	1.34	1.36	1.40	1.14	1.20	1.35	1.19	1.04	1.28	64%	0.139	0.392	2	
29	Bis(2-chloroisopropyl)ether	2	1.23	1.47	1.20	1.23	1.31	1.03	1.00	1.29	1.12	0.99	1.19	59%	0.154	0.434	2	
30	Butyl benzyl phthalate	2	3.18	3.86	3.05	3.18	3.21	3.45	3.63	3.30	3.10	3.27	3.32	166%	0.254	0.716	5	
31	Dichloran	2	3.20	3.75	3.01	3.14	3.00	2.94	3.10	3.15	2.93	3.20	3.14	157%	0.236	0.666	5	
32	Diethyl phthalate	2	1.73	2.37	1.52	1.68	1.73	1.58	1.56	1.62	1.65	1.82	1.73	86%	0.244	0.687	5	
33	Dimethyl phthalate	2	1.89	2.38	1.58	1.68	1.80	1.57	1.57	1.69	1.72	1.73	1.76	88%	0.241	0.679	5	
34	Di-n-butylphthalate	2	1.43	2.12	1.11	1.31	1.38	1.37	1.37	1.35	1.26	1.49	1.42	71%	0.267	0.752	5	
35	Diphenamid	2	1.52	2.30	1.22	1.46	1.48	1.55	1.48	1.52	1.41	1.63	1.56	78%	0.282	0.796	5	
36	Indeno(1,2,3-cd)Pyrene	2	2.56	3.28	2.70	2.72	2.77	2.91	3.06	2.87	2.69	2.85	2.84	142%	0.208	0.585	2	
37	Isophorone	2	1.25	1.60	1.14	1.20	1.28	1.15	1.19	1.31	1.12	1.08	1.23	62%	0.148	0.418	5	

Comments: Buchi Concentration

Technical Director: _____ Date Effective: 9.2.14

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 2 of 5	
Analyst:	AS
Date:	6/26, 6/27, 7/1, 7/2, 7/9, 7/10, 7/17, 8/12, 8/13, 8/14/14
Instrument ID:	SV112
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, FA

Method: EPA 8270D / 625 2014

GC/MS Semivolatile Organic Compounds Liquid

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014	7/2/2014	7/2/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
38	Nitrobenzene	2	1.58	1.72	1.53	1.62	1.63	1.35	1.39	1.53	1.40	1.25	1.50	75%	0.147	0.415	2	
39	n-Nitrosodimethylamine	2	0.74	0.85	0.72	0.82	0.88	0.72	0.76	0.77	0.75	0.67	0.768	38%	0.0644	0.182	2	
40	n-Nitrosodi-n-propylamine	2	1.26	1.62	1.17	1.23	1.22	1.19	1.20	1.38	1.15	1.10	1.25	63%	0.149	0.421	5	
41	P-Chloro-M-Cresol	2	1.14	1.54	1.05	1.31	1.18	1.15	1.20	1.21	0.98	0.87	1.16	58%	0.183	0.515	2	
42	Pentachloronitrobenzene	2	1.72	2.23	1.40	1.56	1.75	1.33	1.38	1.34	1.57	1.50	1.58	79%	0.273	0.770	10	
43	Phenanthrene	2	1.82	2.41	1.70	1.78	1.87	1.58	1.55	1.78	1.84	1.84	1.82	91%	0.236	0.665	2	
44	Phenol	2	0.64	0.76	0.63	0.67	0.74	0.65	0.66	0.78	0.59	0.49	0.661	33%	0.0857	0.242	5	
	2,4,6-Tribromophenol	50	34.0	40.6	31.5	35.2	33.9	36.0	37.0	37.7	33.2	28.0	34.7	69%				
	2-Fluorobiphenyl	25	17.7	21.9	19.2	19.2	19.5	18.7	18.9	20.4	20.1	18.9	19.5	78%				
	2-Fluorophenol	25	20.1	22.1	22.3	23.1	23.3	21.1	21.1	26.1	21.7	16.6	21.7	87%				
	4-Terphenyl-d14	25	21.5	30.6	22.0	22.3	22.8	22.6	22.0	24.0	26.0	26.4	24.0	96%				
	Nitrobenzene-d5	50	16.2	19.0	17.9	17.9	17.5	16.9	17.0	18.8	17.7	15.2	17.4	35%				
	Phenol-d6	25	14.6	17.9	15.9	16.1	16.8	15.2	15.1	17.9	16.3	13.8	16.0	64%				

Table (MDL)		Data File	MDL 01	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.896					
		Date Analyzed	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014	7/2/2014	7/2/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
45	4-Bromophenyl phenyl ether	2	1.72	1.52	1.71	1.72	1.32	1.36	1.66	1.60	1.67	1.59	79%	0.154	0.447	2	
46	4-Chlorophenyl phenyl ether	2	1.70	1.66	1.69	1.84	1.19	1.28	1.62	1.65	1.61	1.58	79%	0.209	0.606	2	
47	Acenaphthene	2	1.57	1.57	1.60	1.66	1.12	1.15	1.51	1.53	1.48	1.47	73%	0.195	0.564	2	
48	Anthracene	2	1.71	1.43	1.58	1.56	1.38	1.39	1.55	1.51	1.66	1.53	77%	0.115	0.333	2	
49	Benzo(a)anthracene	2	1.66	1.48	1.65	1.64	1.71	1.81	1.70	1.61	1.74	1.67	83%	0.0922	0.267	2	
50	Benzo(ghi)perylene	2	1.32	1.40	1.47	1.59	1.57	1.55	1.54	1.52	1.71	1.52	76%	0.113	0.327	2	
51	Benzo(k)fluoranthene	2	1.78	1.49	1.68	1.77	1.71	1.74	1.79	1.77	1.97	1.74	87%	0.125	0.363	2	
52	Carbazole	2	1.77	1.57	1.69	1.72	1.60	1.69	1.72	1.67	1.82	1.69	85%	0.0773	0.224	2	
53	Chrysene	2	1.73	1.61	1.70	1.79	1.56	1.57	1.70	1.75	1.93	1.70	85%	0.117	0.338	2	
54	Dibenzo(a,h)anthracene	2	1.28	1.35	1.40	1.58	1.46	1.60	1.56	1.47	1.63	1.48	74%	0.121	0.350	2	
55	Dibenzofuran	2	1.70	1.65	1.68	1.79	1.22	1.31	1.60	1.63	1.57	1.57	79%	0.187	0.540	2	
56	Fluoranthene	2	1.81	1.61	1.69	1.83	1.67	1.82	1.72	1.74	1.87	1.75	88%	0.0865	0.251	2	
57	Fluorene	2	1.68	1.56	1.68	1.68	1.28	1.35	1.60	1.62	1.63	1.56	78%	0.148	0.429	2	
58	Hexachlorobenzene	2	1.66	1.60	1.63	1.86	1.24	1.33	1.62	1.64	1.61	1.58	79%	0.184	0.534	2	
59	Pyrene	2	1.65	1.49	1.60	1.72	1.57	1.66	1.65	1.60	1.79	1.64	82%	0.0866	0.251	2	

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 3 of 5	
Analyst:	AS
Date:	6/26, 6/27, 7/1, 7/2, 7/9, 7/10, 7/17, 8/12, 8/13, 8/14/14
Instrument ID:	SV112
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, FA

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Method: EPA 8270D / 625 — 2014

GC/MS — Semivolatile Organic Compounds — Liquid

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.998					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/2/2014	7/2/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
60	1,2-Dichlorobenzene	2	1.23	1.45	1.22	1.41	1.40	1.15	1.13	0.96	1.24	62%	0.168	0.504	2	
61	1,3-Dichlorobenzene	2	1.16	1.30	1.26	1.30	1.36	1.07	1.08	0.88	1.18	59%	0.160	0.481	2	
62	1,4-Dichlorobenzene	2	1.16	1.40	1.19	1.31	1.33	1.10	1.01	0.94	1.18	59%	0.161	0.482	2	
63	1-Methylnaphthalene	2	1.35	1.76	1.44	1.53	1.55	1.40	1.36	1.26	1.46	73%	0.155	0.466	2	
64	2-Chloronaphthalene	2	1.48	1.91	1.54	1.62	1.71	1.49	1.42	1.36	1.57	78%	0.177	0.531	2	
65	2-Methylnaphthalene	2	1.50	1.84	1.48	1.55	1.67	1.49	1.37	1.36	1.53	77%	0.158	0.475	2	
66	Hexachlorobutadiene	2	1.28	1.48	1.33	1.40	1.41	1.17	1.12	1.03	1.28	64%	0.158	0.473	2	
67	Hexachloroethane	2	1.02	1.11	0.98	1.14	1.16	0.82	0.89	0.76	0.985	49%	0.150	0.451	2	
68	Naphthalene	2	1.40	1.64	1.48	1.52	1.56	1.42	1.32	1.20	1.44	72%	0.140	0.418	2	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.896					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014	7/2/2014	7/2/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
69	Bis(2-Ethylhexyl)phthalate	2	2.71	3.27	3.64	3.48	3.38	3.42	3.11	2.61	2.75	3.15	158%	0.377	1.09	3	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
70	NitrosoDiPhenylAmine(NDPA)/DPA	2	1.44	1.45	1.29	1.36	1.38	1.40	1.37	1.57	1.41	70%	0.0824	0.247	2	

Table (MDL)		Data File	MDL 01	MDL 03	MDL 04	MDL 05	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.998					
		Date Analyzed	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/2/2014	7/2/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
71	Biphenyl	2	1.57	1.54	1.70	1.68	1.11	1.51	1.51	1.53	1.52	76%	0.181	0.543	2	

Comments: Buchi Concentration

Technical Director: _____ Date Effective: 8-2-14

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 4 of 5	
Analyst:	AS
Date:	6/26, 6/27, 7/1, 7/2, 7/8, 7/10, 7/17, 8/12, 8/13, 8/14/14
Instrument ID:	SV112
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, FA

Method: EPA 8270D / 625 **2014**

GC/MS **Semivolatile Organic Compounds** **Liquid**

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	7/9/2014	7/9/2014	7/9/2014	7/10/2014	7/10/2014	7/17/2014	7/17/2014	7/17/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
72	2,4-Dimethylphenol	3	0.88	0.58	0.71	0.65	0.77	0.72	0.73	1.01	0.756	25%	0.134	0.403	5	
73	3,3'-Dichlorobenzidine	3	4.26	3.77	3.86	3.88	4.04	4.11	3.87	3.86	3.96	132%	0.164	0.493	5	
74	Aniline	3	1.17	0.89	0.94	1.00	1.04	1.05	0.97	0.86	0.990	33%	0.0989	0.296	2	
75	Di-n-octylphthalate	3	4.67	4.50	4.70	4.60	4.90	4.84	4.67	4.70	4.70	157%	0.126	0.378	5	
76	M-Toluidine	3	1.33	0.83	0.79	1.25	1.25	1.25	1.02	1.09	1.10	37%	0.206	0.616	10	
	2,4,6-Tribromophenol	50	43.7	35.8	40.0	34.5	37.5	35.5	35.2	29.8	36.5	73%				
	2-Fluorobiphenyl	25	21.5	18.6	20.7	15.6	17.2	21.3	20.9	15.1	18.9	75%				
	2-Fluorophenol	25	23.6	22.9	26.0	16.1	19.8	21.5	20.9	19.2	21.2	85%				
	4-Terphenyl-d14	25	26.5	20.8	25.0	18.2	21.0	22.1	20.6	16.1	21.3	85%				
	Nitrobenzene-d5	50	19.7	17.7	20.2	12.8	15.0	16.1	15.1	14.4	16.4	33%				
	Phenol-d6	25	16.3	14.7	16.7	11.0	12.9	15.5	14.9	12.7	14.3	57%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
77	4,6-Dinitro-o-cresol	5	1.89	1.59	1.84	3.02	2.73	2.44	2.33	2.24	2.26	45%	0.478	1.43	10	
78	4-Nitrophenol	5	3.68	3.61	3.83	4.17	4.16	3.98	3.96	3.92	3.91	78%	0.202	0.607	10	
79	Atrazine	5	6.82	6.52	6.96	8.10	7.88	7.42	7.71	7.37	7.35	147%	0.548	1.64	10	
80	Pentachlorophenol	5	4.44	4.03	4.25	4.87	4.60	4.17	4.05	3.40	4.23	85%	0.440	1.32	5	
81	Pyridine	5	0.74	0.60	1.02	1.57	1.24	1.93	1.94	1.77	1.35	27%	0.530	1.59	5	
	2,4,6-Tribromophenol	50	32.3	31.4	32.9	43.7	42.0	42.7	42.0	39.4	38.3	77%				
	2-Fluorobiphenyl	25	17.2	18.1	17.7	22.4	21.2	20.4	19.1	19.7	19.5	78%				
	2-Fluorophenol	25	16.2	16.4	24.4	29.7	26.2	24.4	21.5	22.6	22.7	91%				
	4-Terphenyl-d14	25	22.8	23.4	20.7	24.8	25.0	23.9	24.3	23.9	23.6	94%				
	Nitrobenzene-d5	50	14.4	14.8	17.4	21.8	20.5	19.8	17.5	17.7	18.0	36%				
	Phenol-d6	25	13.4	12.9	17.0	19.6	18.6	17.5	15.5	16.4	16.4	65%				

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 5 of 5	
Analyst:	AS
Date:	6/26, 6/27, 7/1, 7/2, 7/9, 7/10, 7/17, 8/12, 8/13, 8/14/14
Instrument ID:	SV112
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, FA

Method: EPA 8270D / 625 **2014**

GC/MS **Semivolatile Organic Compounds** **Liquid**

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
82	2,4-Dinitrophenol	20	17.2	16.6	18.3	18.7	19.3	11.5	14.0	14.6	16.3	81%	2.68	8.05	20	
83	Benzoic Acid	20	11.2	11.2	10.7	11.7	11.7	9.82	10.7	10.3	10.9	55%	0.651	1.95	50	
84	Caprolactam	20	6.62	6.34	7.54	7.78	7.41	5.34	6.26	6.33	6.70	34%	0.819	2.45	10	
85	Hexachlorocyclopentadiene	20	4.82	4.83	4.06	5.36	5.93	2.21	3.18	3.38	4.22	21%	1.24	3.73	10	
	2,4,6-Tribromophenol	50	39.6	40.2	44.6	44.7	46.7	30.2	38.6	41.8	40.8	82%				
	2-Fluorobiphenyl	25	18.5	18.8	21.3	21.3	21.9	14.8	17.9	18.3	19.1	76%				
	2-Fluorophenol	25	19.9	19.8	27.4	28.9	30.3	18.2	22.8	23.8	23.9	96%				
	4-Terphenyl-d14	25	23.1	24.0	25.5	24.1	24.5	17.1	21.1	22.5	22.7	91%				
	Nitrobenzene-d5	50	17.2	17.3	20.9	21.3	22.3	14.1	17.3	18.1	18.6	37%				
	Phenol-d6	25	15.4	15.1	20.0	20.3	20.4	13.0	15.8	16.7	17.1	68%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 3.143					
		Date Analyzed	8/12/2014	8/12/2014	8/12/2014	8/13/2014	8/14/2014	8/14/2014	8/14/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
86	Benzidine	20	6.07	10.6	7.94	12.0	7.83	5.23	11.2	8.70	43%	2.62	8.22	20	
	2-Fluorobiphenyl	25	12.6	18.0	15.0	18.3	12.9	19.4	21.0	16.7	67%				
	4-Terphenyl-d14	25	14.5	21.3	17.9	23.0	22.6	14.4	22.9	19.5	78%				
	Nitrobenzene-d5	50	11.7	17.1	14.0	17.1	19.7	10.9	17.8	15.5	31%				

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	AS
Date:	6/26, 6/27, 7/1, 7/2/14
Instrument ID:	SV112
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, FA

Method: EPA 8270D / 625 **2014**

GC/MS **Semivolatile Organic Compounds** **Liquid**

Initial Weight/Volume: 1000ml
Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	6/26/2014	6/26/2014	6/27/2014	6/27/2014	6/27/2014	7/1/2014	7/1/2014	7/1/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
1	Parathion	5	9.76	9.44	10.2	11.2	10.9	10.7	11.0	10.6	10.5	209%	0.614	1.84	10	
	2,4,6-Tribromophenol	50	32.27	31.37	32.9	43.73	41.98	42.71	42.02	39.42	38.3	77%				
	2-Fluorobiphenyl	25	17.15	18.1	17.71	22.4	21.23	20.4	19.13	19.66	19.5	78%				
	2-Fluorophenol	25	16.17	16.39	24.36	29.71	26.2	24.44	21.45	22.64	22.7	91%				
	4-Terphenyl-d14	25	22.78	23.44	20.68	24.79	24.99	23.93	24.32	23.89	23.6	94%				
	Nitrobenzene-d5	50	14.44	14.81	17.36	21.84	20.45	19.78	17.52	17.69	18.0	36%				
	Phenol-d6	25	13.41	12.92	16.95	19.61	18.57	17.45	15.52	16.43	16.4	65%				

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 1 of 5	
Analyst:	JB
Date:	6/4, 6/11, 6/12, 6/24, 7/11, 7/15, 7/16, 8/9, 8/11, 8/13/14
Instrument ID:	SV103
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, MA, FA, AD, JB, SO

Method: EPA 8270D / 625 **2014**

GC/MS **Semivolatile Organic Compounds** **Liquid**

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/11/2014	6/11/2014	6/12/2014	6/12/2014	6/12/2014	6/24/2014	6/24/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
1	1,2,4,5-Tetrachlorobenzene	2	1.60	1.58	1.68	1.21	1.54	0.67	0.76	1.25	1.18	1.17	1.26	63%	0.348	0.981	10	
2	1,2,4-Trichlorobenzene	2	1.36	1.41	1.45	1.19	1.46	0.60	0.65	1.14	1.06	0.98	1.13	57%	0.314	0.885	5	
3	1-Chloro-2-nitrobenzene	2	1.16	1.22	1.31	1.33	1.65	1.10	1.08	1.14	1.17	1.02	1.22	61%	0.180	0.508	5	
4	1-Methylnaphthalene	2	1.36	1.45	1.51	1.31	1.64	0.81	0.85	1.32	1.3	1.18	1.27	64%	0.266	0.750	2	
5	2,4,5-Trichlorophenol	2	1.32	1.36	1.47	1.55	2.09	1.25	1.27	1.44	1.13	0.82	1.37	69%	0.325	0.918	5	
6	2,4,6-Trichlorophenol	2	1.23	1.33	1.50	1.45	1.86	1.25	1.23	1.36	0.93	0.86	1.30	65%	0.284	0.800	5	
7	2,4-Dichlorophenol	2	1.46	1.53	1.62	1.36	1.71	1.18	1.23	1.34	1.03	0.81	1.33	66%	0.275	0.775	5	
8	2,4-Dimethylphenol	2	0.43	0.25	0.82	0.12	0.24	0.57	0.88	0.89	0.18	0.11	0.449	22%	0.318	0.898	5	
9	2,4-Dinitrotoluene	2	1.29	1.36	1.33	1.43	2.13	1.06	1.18	1.23	1.12	1.06	1.32	66%	0.312	0.879	5	
10	2,6-Dinitrotoluene	2	1.09	1.15	1.31	1.63	2.21	1.17	1.15	1.28	1.32	1.2	1.35	68%	0.338	0.953	5	
11	2-Chloroaniline	2	1.32	1.37	1.55	1.34	1.63	1.26	1.29	1.38	1.27	1.14	1.36	68%	0.142	0.402	5	
12	2-Chloronaphthalene	2	1.22	1.29	1.43	1.40	1.76	0.87	0.92	1.38	1.33	1.26	1.29	64%	0.254	0.717	2	
13	2-Chlorophenol	2	1.40	1.42	1.52	1.22	1.38	1.11	1.08	1.32	1.11	0.93	1.25	62%	0.188	0.530	2	
14	2-Methylnaphthalene	2	1.25	1.40	1.45	1.32	1.64	0.77	0.80	1.28	1.28	1.16	1.24	62%	0.271	0.764	2	
15	2-Methylphenol	2	1.08	0.95	1.32	0.77	0.82	1.01	1.01	1.19	0.64	0.33	0.912	46%	0.286	0.806	5	
16	2-Nitroaniline	2	1.12	1.19	1.30	1.44	2.01	1.02	1.03	1.19	1.07	1.06	1.24	62%	0.300	0.846	5	
17	2-Nitrophenol	2	1.27	1.27	1.46	1.28	1.56	0.99	0.98	1.22	0.97	0.85	1.19	59%	0.231	0.651	5	
18	3,3'-Dichlorobenzidine	2	1.46	1.23	1.48	0.84	0.90	1.09	1.06	1.21	0.56	0.24	1.01	50%	0.388	1.10	5	
19	3-Chloroaniline	2	1.29	1.42	1.65	0.98	1.23	1.11	1.04	1.14	0.85	0.8	1.15	58%	0.259	0.731	10	
20	3-Methylphenol/4-Methylphenol	2	1.08	1.00	1.23	0.78	1.07	0.92	0.94	1.00	0.87	0.42	0.931	47%	0.218	0.615	5	
21	3-Nitroaniline	2	1.26	1.28	1.40	1.17	1.62	1.19	1.11	1.11	0.88	0.93	1.20	60%	0.216	0.608	5	
22	4,6-Dinitro-o-cresol	2	1.09	1.07	1.03	0.83	1.64	0.62	0.75	0.87	0.63	0.63	0.916	46%	0.313	0.882	10	
23	4-Chloroaniline	2	1.68	1.15	1.46	1.02	1.12	1.63	1.57	1.63	1.25	0.91	1.34	67%	0.285	0.804	5	
24	4-Nitroaniline	2	1.16	1.14	1.26	1.20	1.92	1.02	1.00	1.15	0.75	0.8	1.14	57%	0.321	0.906	5	
25	4-Nitrophenol	2	1.01	0.92	0.91	0.81	1.07	0.66	0.66	0.77	0.51	0.51	0.783	39%	0.197	0.556	10	
26	Acenaphthene	2	1.61	1.72	1.75	1.47	1.85	1.05	1.15	1.46	1.42	1.45	1.49	75%	0.254	0.717	2	
27	Acetophenone	2	1.51	1.48	1.60	1.43	1.70	1.28	1.21	1.45	1.36	1.19	1.42	71%	0.165	0.464	5	
28	Benzyl Alcohol	2	1.24	1.24	1.43	1.08	1.39	1.11	1.06	1.15	1.09	0.96	1.18	59%	0.149	0.421	2	
29	Bis(2-chloroethoxy)methane	2	1.22	1.27	1.33	1.41	1.67	1.26	1.20	1.39	1.27	1.22	1.32	66%	0.141	0.397	5	
30	Bis(2-chloroethyl)ether	2	1.43	1.42	1.51	1.35	1.49	1.16	1.21	1.43	1.24	1.09	1.33	67%	0.147	0.416	2	

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 2 of 5	
Analyst:	JB
Date:	6/4, 6/11, 6/12, 6/24, 7/11, 7/15, 7/16, 8/9, 8/11, 8/13/14
Instrument ID:	SV103
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, MA, FA, AD, JB, SO

Method: EPA 8270D / 625 — 2014

GC/MS — **Semivolatile Organic Compounds** — **Liquid**

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10						
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/11/2014	6/11/2014	6/12/2014	6/12/2014	6/12/2014	6/24/2014	6/24/2014	T value used for calculating MDL: 2.998					
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
31	Bis(2-chloroisopropyl)ether	2	1.56	1.52	1.57	1.31	1.44	1.08	1.05	1.34	1.33	1.21	1.34	67%	0.187	0.526	2	
32	Butyl benzyl phthalate	2	1.41	1.44	1.47	1.41	2.32	1.24	1.37	1.35	0.92	1.1	1.40	70%	0.366	1.03	5	
33	Diethyl phthalate	2	1.49	1.55	1.56	1.68	2.29	1.39	1.43	1.55	1.55	1.6	1.61	80%	0.253	0.714	5	
34	Dimethyl phthalate	2	1.59	1.58	1.66	1.67	2.22	1.41	1.42	1.54	1.55	1.56	1.62	81%	0.227	0.642	5	
35	Di-n-butylphthalate	2	1.68	1.72	1.79	1.65	2.48	1.34	1.37	1.46	1.31	1.49	1.63	81%	0.343	0.969	5	
36	Diphenamid	2	1.60	1.69	1.75	1.74	2.51	1.42	1.44	1.56	1.45	1.61	1.68	84%	0.316	0.893	5	
37	Hexachlorocyclopentadiene	2	0.81	0.77	0.86	0.70	0.95	0.15	0.17	0.37	0.56	0.53	0.587	29%	0.282	0.797	10	
38	Isophorone	2	1.30	1.28	1.37	1.42	1.74	1.20	1.19	1.27	1.3	1.25	1.33	67%	0.159	0.450	5	
39	Naphthalene	2	1.49	1.58	1.62	1.32	1.54	0.79	0.89	1.36	1.26	1.13	1.30	65%	0.286	0.807	2	
40	NitrosoDiPhenylAmine(NDPA)/DPA	2	1.37	1.40	1.52	1.33	1.64	1.30	1.34	1.48	1.17	0.69	1.32	66%	0.258	0.727	2	
41	Nitrobenzene	2	1.76	1.77	1.64	1.39	1.63	1.25	1.24	1.54	1.55	1.16	1.49	75%	0.221	0.623	2	
42	n-Nitrosodimethylamine	2	1.29	1.33	1.37	1.38	1.61	1.10	1.12	1.30	0.81	0.70	1.20	60%	0.275	0.777	2	
43	n-Nitrosodi-n-propylamine	2	0.98	1.04	1.13	0.79	0.93	0.75	0.77	0.85	1.23	1.13	0.960	48%	0.170	0.479	5	
44	P-Chloro-M-Cresol	2	1.29	1.36	1.51	1.33	1.82	1.23	1.23	1.37	1.10	0.94	1.32	66%	0.236	0.665	2	
45	Pentachloronitrobenzene	2	1.63	1.47	1.64	1.74	2.53	1.33	1.32	1.60	1.42	1.68	1.64	82%	0.347	0.978	10	
46	Pentachlorophenol	2	1.30	1.40	1.47	0.98	1.86	0.46	0.69	0.74	0.84	0.90	1.06	53%	0.430	1.21	5	
47	Phenanthrene	2	1.75	1.88	1.95	1.62	2.15	1.41	1.44	1.62	1.67	1.78	1.73	86%	0.227	0.641	2	
48	Phenol	2	0.70	0.68	0.75	0.68	0.82	0.61	0.67	0.81	0.71	0.55	0.698	35%	0.0826	0.233	5	
49	Pyridine	2	0.56	0.52	0.42	0.14	0.28	0.79	0.83	0.76	0.47	0.20	0.497	25%	0.245	0.691	5	
	Surrogate																	
	2,4,6-Tribromophenol	50	43.2	43.3	46.1	36.3	48.2	37.4	38.2	40.8	38.1	33.2	40.5	81%				
	2-Fluorobiphenyl	25	16.4	16.6	16.7	18.4	22.4	18.2	18.1	19.8	19.7	18.2	18.4	74%				
	2-Fluorophenol	25	24.5	24.2	25.5	18.8	21.4	20.1	19.7	24.2	23.4	18.3	22.0	88%				
	4-Terphenyl-d14	25	17.9	18.6	18.4	21.0	29.5	21.5	22.0	23.2	24.0	25.0	22.1	88%				
	Nitrobenzene-d5	50	16.3	16.4	16.0	15.2	17.7	15.2	14.4	16.7	17.4	15.1	16.0	32%				
	Phenol-d6	25	15.7	15.3	16.1	13.6	16.9	14.3	13.4	16.4	16.1	13.9	15.2	61%				

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 3 of 5	
Analyst:	JB
Date:	6/4, 6/11, 6/12, 6/24, 7/11, 7/15, 7/16, 8/9, 8/11, 8/13/14
Instrument ID:	SV103
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, MA, FA, AD, JB, SO

Method: EPA 8270D / 625 — 2014

GC/MS — Semivolatile Organic Compounds — Liquid

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10						
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/11/2014	6/12/2014	6/12/2014	6/12/2014	6/24/2014	6/24/2014	T value used for calculating MDL: 2.896					
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
45	4-Bromophenyl phenyl ether	2	1.40	1.56	1.53	1.59	1.18	1.27	1.58	1.45	1.39	1.44	72%	0.144	0.416	2	
46	4-Chlorophenyl phenyl ether	2	1.46	1.56	1.58	1.52	1.11	1.20	1.57	1.43	1.47	1.43	72%	0.168	0.485	2	
47	Acenaphthylene	2	1.24	1.29	1.41	1.46	1.02	1.08	1.38	1.19	1.21	1.25	63%	0.148	0.429	2	
48	Anthracene	2	1.64	1.75	1.73	1.51	1.24	1.33	1.43	1.44	1.44	1.50	75%	0.175	0.505	2	
49	Azobenzene	2	1.53	1.59	1.57	1.47	1.18	1.28	1.41	1.46	1.34	1.43	71%	0.137	0.398	2	
50	Benzo(a)anthracene	2	1.74	1.79	1.92	1.70	1.48	1.58	1.62	1.51	1.62	1.66	83%	0.140	0.406	2	
51	Benzo(a)pyrene	2	1.58	1.66	1.79	1.51	1.32	1.46	1.40	1.24	1.33	1.48	74%	0.177	0.514	2	
52	Benzo(b)fluoranthene	2	1.63	1.68	1.83	1.55	1.44	1.45	1.43	1.32	1.48	1.53	77%	0.156	0.451	2	
53	Benzo(ghi)perylene	2	1.71	1.76	1.90	1.53	1.47	1.52	1.71	1.33	1.40	1.59	80%	0.187	0.542	2	
54	Benzo(k)fluoranthene	2	1.58	1.64	1.75	1.58	1.44	1.48	1.49	1.55	1.57	1.56	78%	0.0929	0.269	2	
55	Carbazole	2	1.56	1.60	1.73	1.58	1.38	1.41	1.56	1.46	1.50	1.53	77%	0.107	0.310	2	
56	Chrysene	2	1.75	1.81	1.93	1.76	1.59	1.61	1.75	1.72	1.82	1.75	87%	0.104	0.302	2	
57	Dibenzo(a,h)anthracene	2	1.72	1.76	1.82	1.48	1.45	1.46	1.59	1.28	1.24	1.53	77%	0.205	0.594	2	
58	Dibenzofuran	2	1.59	1.67	1.61	1.50	1.12	1.23	1.52	1.45	1.42	1.46	73%	0.180	0.521	2	
59	Fluoranthene	2	1.49	1.57	1.67	1.56	1.41	1.48	1.57	1.54	1.66	1.55	78%	0.0834	0.241	2	
60	Fluorene	2	1.50	1.56	1.60	1.51	1.14	1.20	1.46	1.48	1.44	1.43	72%	0.157	0.455	2	
61	Hexachlorobenzene	2	1.45	1.48	1.51	1.67	1.23	1.34	1.80	1.66	1.57	1.52	76%	0.175	0.508	2	
62	Pyrene	2	1.45	1.50	1.57	1.52	1.38	1.47	1.55	1.50	1.60	1.50	75%	0.067	0.193	2	

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 4 of 5	
Analyst:	JB
Date:	6/4, 6/11, 6/12, 6/24, 7/11, 7/15, 7/16, 8/9, 8/11, 8/13/14
Instrument ID:	SV103
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, MA, FA, AD, JB, SO

Method: EPA 8270D / 625 **2014**

GC/MS **Semivolatile Organic Compounds** **Liquid**

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/11/2014	6/11/2014	6/12/2014	6/12/2014	6/12/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
63	Benzoic Acid	5	4.14	4.20	4.10	6.36	6.56	6.30	6.14	6.14	5.40	108%	1.18	3.54	50	
64	Dichloran	5	4.65	5.75	5.04	4.19	4.23	4.37	4.26	4.35	4.64	93%	0.574	1.72	5	
	2,4,6-Tribromophenol	50	43.2	43.3	46.1	36.3	48.2	37.4	38.2	40.8	41.8	84%				
	2-Fluorobiphenyl	25	16.4	16.6	16.7	18.4	22.4	18.2	18.1	19.8	18.1	72%				
	2-Fluorophenol	25	24.5	24.2	25.5	18.8	21.4	20.1	19.7	24.2	22.0	88%				
	4-Terphenyl-d14	25	17.9	18.6	18.4	21.0	29.5	21.5	22.0	23.2	21.3	85%				
	Nitrobenzene-d5	50	16.3	16.4	16.0	15.2	17.7	15.2	14.4	16.7	15.9	32%				
	Phenol-d6	25	15.7	15.3	16.1	13.6	16.9	14.3	13.4	16.4	15.0	60%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.998					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/11/2014	6/11/2014	6/12/2014	6/24/2014	6/24/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
3	1,2-Dichlorobenzene	2	1.22	1.33	1.43	1.11	1.27	1.08	0.98	0.88	1.16	58%	0.184	0.552	2	
4	1,3-Dichlorobenzene	2	1.24	1.30	1.38	1.11	1.26	1.03	0.95	0.83	1.14	57%	0.190	0.570	2	
5	1,4-Dichlorobenzene	2	1.23	1.37	1.44	1.14	1.29	1.06	0.99	0.91	1.18	59%	0.186	0.559	2	
46	Biphenyl	2	1.67	1.77	1.76	1.39	1.80	1.43	1.36	1.41	1.57	79%	0.193	0.578	2	
65	Hexachlorobutadiene	2	1.38	1.38	1.52	1.21	1.52	1.09	1.02	0.95	1.26	63%	0.223	0.669	2	
67	Hexachloroethane	2	1.24	1.29	1.32	1.11	1.28	0.89	0.97	0.86	1.12	56%	0.190	0.569	2	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 3.143					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/11/2014	6/12/2014	6/12/2014	6/12/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
70	M-Toluidine	2	0.89	0.55	1.07	0.26	1.91	1.73	1.69	1.16	58%	0.637	2.00	10	

Comments: Buchi Concentration

Determination of Method Detection Limits

Alpha Analytical Inc.

Westborough, MA

Approved

Page 5 of 5	
Analyst:	JB
Date:	6/4, 6/11, 6/12, 6/24, 7/11, 7/15, 7/16, 8/9, 8/11, 8/13/14
Instrument ID:	SV103
Column ID:	RXI-5 SIL MS
Prep Method:	EPA 3510C
Prep Chemist:	EA, BM, LS, DM, MA, FA, AD, JB, SO

Method: EPA 8270D / 625 — 2014

GC/MS — Semivolatile Organic Compounds — Liquid

Initial Weight/Volume: 1000ml

Final Volume: 1ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	7/11/2014	7/11/2014	7/11/2014	7/15/2014	7/15/2014	7/16/2014	7/16/2014	7/16/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
12	2,4-Dinitrophenol	3	1.84	1.43	1.67	0.94	1.19	0.58	0.65	0.58	1.11	37%	0.501	1.50	20	
35	Aniline	3	0.97	0.64	0.42	1.04	1.16	1.14	1.00	1.01	0.923	31%	0.258	0.773	2	
60	Di-n-octylphthalate	3	2.85	2.24	2.64	2.57	2.72	2.9	2.64	2.13	2.59	86%	0.273	0.817	5	
34	Indeno(1,2,3-cd)Pyrene	3	2.61	2.12	2.41	2.07	2.22	2.55	2.42	1.93	2.29	76%	0.243	0.728	2	
	2,4,6-Tribromophenol	50	39.1	30.0	33.0	29.3	31.7	34.1	33.6	28.2	33.0	66%				
	2-Fluorobiphenyl	25	19.3	16.9	18.7	13.5	14.7	17.6	16.1	14.0	16.7	67%				
	2-Fluorophenol	25	20.9	19.4	21.4	15.3	18.6	20.8	20.3	18.1	19.5	78%				
	4-Terphenyl-d14	25	23.3	18.2	21.2	16.0	17.3	18.6	17.4	14.3	18.9	75%				
	Nitrobenzene-d5	50	21.0	18.6	21.5	15.0	17.4	18.6	17.1	15.4	18.5	37%				
	Phenol-d6	25	15.9	13.9	15.7	11.5	13.3	14.8	14.4	12.5	14.2	57%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 3.143					
		Date Analyzed	7/11/2014	7/11/2014	7/11/2014	7/15/2014	7/16/2014	7/16/2014	7/16/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
50	Bis(2-Ethylhexyl)phthalate	3	3.00	2.33	2.92	3.30	3.18	2.90	2.15	2.83	94%	0.428	1.34	3	

Table (MDL)		Data File	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 09	T value used for calculating MDL: 3.143					
		Date Analyzed	8/9/2014	8/9/2014	8/11/2014	8/11/2014	8/11/2014	8/13/2014	8/13/2014						
No.	Analytes	Target conc. (ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	Mean (ug/kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/kg)	Current RL (ug/kg)	Comment
38	Benzidine	20	13.4	12.0	15.9	16.9	15.3	13.8	18.3	15.1	75%	2.15	6.76	20	
	2-Fluorobiphenyl	25	18.7	15.7	21.1	21.1	16.7	23.5	22.4	19.9	79%				
	4-Terphenyl-d14	25	21.0	19.9	24.3	24.8	23.8	26.4	26.9	23.9	95%				
	Nitrobenzene-d5	50	14.8	12.1	14.5	15.5	10.7	18.8	17.5	14.8	30%				

Comments: Buchi Concentration

Semivolatile Sample Data

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: L1606763-01	Date Collected :	03/09/16 11:40
Client ID	: MW12_030916	Date Received :	03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed :	03/15/16 18:23
Sample Matrix	: WATER	Date Extracted :	03/14/16
Analytical Method	: 1,8270D	Dilution Factor :	1
Lab File ID	: 06763-01	Analyst	: AL
Sample Amount	: 1000 ml	Instrument ID	: SV112.I
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.66	U
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.67	U
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.73	U
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.73	U
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.71	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.4	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.84	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.1	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.62	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.73	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.70	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.63	U
77-47-4	Hexachlorocyclopentadiene	ND	20	7.8	U
78-59-1	Isophorone	ND	5.0	0.60	U
98-95-3	Nitrobenzene	ND	2.0	0.75	U
86-30-6	NitrosoDiPhenylAmine(NDPA)/DPA	ND	2.0	0.64	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.70	U
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	3.0	0.91	U
85-68-7	Butyl benzyl phthalate	ND	5.0	1.3	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.69	U
117-84-0	Di-n-octylphthalate	ND	5.0	1.1	U
84-66-2	Diethyl phthalate	ND	5.0	0.63	U
131-11-3	Dimethyl phthalate	ND	5.0	0.65	U
92-52-4	Biphenyl	ND	2.0	0.76	U

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 18:23
Sample Matrix	: WATER	Date Extracted	: 03/14/16
Analytical Method	: 1,8270D	Dilution Factor	: 1
Lab File ID	: 06763-01	Analyst	: AL
Sample Amount	: 1000 ml	Instrument ID	: SV112.I
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-47-8	4-Chloroaniline	ND	5.0	0.63	U
88-74-4	2-Nitroaniline	ND	5.0	1.1	U
99-09-2	3-Nitroaniline	ND	5.0	1.1	U
100-01-6	4-Nitroaniline	ND	5.0	1.3	U
132-64-9	Dibenzofuran	ND	2.0	0.66	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.67	U
98-86-2	Acetophenone	ND	5.0	0.85	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.68	U
59-50-7	P-Chloro-M-Cresol	ND	2.0	0.62	U
95-57-8	2-Chlorophenol	ND	2.0	0.63	U
120-83-2	2,4-Dichlorophenol	ND	5.0	0.77	U
105-67-9	2,4-Dimethylphenol	ND	5.0	1.6	U
88-75-5	2-Nitrophenol	ND	10	1.5	U
100-02-7	4-Nitrophenol	ND	10	1.8	U
51-28-5	2,4-Dinitrophenol	ND	20	5.5	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.1	U
108-95-2	Phenol	ND	5.0	1.9	U
95-48-7	2-Methylphenol	ND	5.0	1.0	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.1	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.72	U
65-85-0	Benzoic Acid	ND	50	13.	U
100-51-6	Benzyl Alcohol	ND	2.0	0.72	U
86-74-8	Carbazole	ND	2.0	0.63	U

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: WG873638-1	Date Collected :	NA
Client ID	: WG873638-1BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	03/14/16 23:29
Sample Matrix	: WATER	Date Extracted :	03/14/16
Analytical Method	: 1,8270D	Dilution Factor :	1
Lab File ID	: 873638-1	Analyst	: AL
Sample Amount	: 1000 ml	Instrument ID	: SV103.I
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
83-32-9	Acenaphthene	ND	2.0	0.59	U
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.66	U
92-87-5	Benzidine	ND	20	8.1	U
62-75-9	n-Nitrosodimethylamine	ND	2.0	0.67	U
118-74-1	Hexachlorobenzene	ND	2.0	0.58	U
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.67	U
91-58-7	2-Chloronaphthalene	ND	2.0	0.64	U
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.73	U
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.73	U
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.71	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.4	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.84	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.1	U
103-33-3	Azobenzene	ND	2.0	0.75	U
206-44-0	Fluoranthene	ND	2.0	0.57	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.62	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.73	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.70	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.63	U
87-68-3	Hexachlorobutadiene	ND	2.0	0.66	U
77-47-4	Hexachlorocyclopentadiene	ND	20	7.8	U
67-72-1	Hexachloroethane	ND	2.0	0.68	U
78-59-1	Isophorone	ND	5.0	0.60	U
91-20-3	Naphthalene	ND	2.0	0.68	U

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: WG873638-1	Date Collected	: NA
Client ID	: WG873638-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/14/16 23:29
Sample Matrix	: WATER	Date Extracted	: 03/14/16
Analytical Method	: 1,8270D	Dilution Factor	: 1
Lab File ID	: 873638-1	Analyst	: AL
Sample Amount	: 1000 ml	Instrument ID	: SV103.I
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
98-95-3	Nitrobenzene	ND	2.0	0.75	U
86-30-6	NitrosoDiPhenylAmine(NDPA)/DPA	ND	2.0	0.64	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.70	U
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	3.0	0.91	U
85-68-7	Butyl benzyl phthalate	ND	5.0	1.3	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.69	U
117-84-0	Di-n-octylphthalate	ND	5.0	1.1	U
84-66-2	Diethyl phthalate	ND	5.0	0.63	U
131-11-3	Dimethyl phthalate	ND	5.0	0.65	U
56-55-3	Benzo(a)anthracene	ND	2.0	0.61	U
50-32-8	Benzo(a)pyrene	ND	2.0	0.54	U
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.64	U
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.60	U
218-01-9	Chrysene	ND	2.0	0.54	U
208-96-8	Acenaphthylene	ND	2.0	0.66	U
120-12-7	Anthracene	ND	2.0	0.64	U
191-24-2	Benzo(ghi)perylene	ND	2.0	0.61	U
86-73-7	Fluorene	ND	2.0	0.62	U
85-01-8	Phenanthrene	ND	2.0	0.61	U
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.55	U
193-39-5	Indeno(1,2,3-cd)Pyrene	ND	2.0	0.71	U
129-00-0	Pyrene	ND	2.0	0.57	U
92-52-4	Biphenyl	ND	2.0	0.76	U
62-53-3	Aniline	ND	2.0	0.65	U

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: WG873638-1	Date Collected :	NA
Client ID	: WG873638-1BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	03/14/16 23:29
Sample Matrix	: WATER	Date Extracted :	03/14/16
Analytical Method	: 1,8270D	Dilution Factor :	1
Lab File ID	: 873638-1	Analyst	: AL
Sample Amount	: 1000 ml	Instrument ID	: SV103.I
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-47-8	4-Chloroaniline	ND	5.0	0.63	U
88-74-4	2-Nitroaniline	ND	5.0	1.1	U
99-09-2	3-Nitroaniline	ND	5.0	1.1	U
100-01-6	4-Nitroaniline	ND	5.0	1.3	U
132-64-9	Dibenzofuran	ND	2.0	0.66	U
91-57-6	2-Methylnaphthalene	ND	2.0	0.72	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.67	U
98-86-2	Acetophenone	ND	5.0	0.85	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.68	U
59-50-7	P-Chloro-M-Cresol	ND	2.0	0.62	U
95-57-8	2-Chlorophenol	ND	2.0	0.63	U
120-83-2	2,4-Dichlorophenol	ND	5.0	0.77	U
105-67-9	2,4-Dimethylphenol	ND	5.0	1.6	U
88-75-5	2-Nitrophenol	ND	10	1.5	U
100-02-7	4-Nitrophenol	ND	10	1.8	U
51-28-5	2,4-Dinitrophenol	ND	20	5.5	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.1	U
87-86-5	Pentachlorophenol	ND	10	3.4	U
108-95-2	Phenol	ND	5.0	1.9	U
95-48-7	2-Methylphenol	ND	5.0	1.0	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.1	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.72	U
65-85-0	Benzoic Acid	ND	50	13.	U
100-51-6	Benzyl Alcohol	ND	2.0	0.72	U

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: WG873638-1	Date Collected	: NA
Client ID	: WG873638-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/14/16 23:29
Sample Matrix	: WATER	Date Extracted	: 03/14/16
Analytical Method	: 1,8270D	Dilution Factor	: 1
Lab File ID	: 873638-1	Analyst	: AL
Sample Amount	: 1000 ml	Instrument ID	: SV103.I
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
86-74-8	Carbazole	ND	2.0	0.63	U
110-86-1	Pyridine	ND	5.0	1.2	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	3.6	U
1912-24-9	Atrazine	ND	10	1.8	U
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	0.93	U

Tentatively Identified Compounds
SemiVolatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number:**	170301202
Lab ID	: WG873638-1	**Date Collected**	: NA
Client ID	: WG873638-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 03/14/16 23:29
Sample Matrix	: WATER	**Date Extracted**	: 03/14/16
Analytical Method	: 1,8270D	**Dilution Factor**	: 1
Lab File ID	: 873638-1	**Analyst**	: AL
Sample Amount	: 1000 ml	**Instrument ID**	: SV103.I
Extraction Method	: EPA 3510C	**GC Column**	:
Extract Volume	: 1000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	1 uL

Number TICS found: 0 **Concentration Units: ug/L**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\06763-01.D
Lab Smp Id:
Inj Date : 15-MAR-2016 18:23
Operator : jb Inst ID: SV112.i
Smp Info : l1606763-01,32,ny,als,
Misc Info : wg874362,wg873638,ICAL12150
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Meth Date : 16-Mar-2016 11:35 andrewsmit Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NYTCLcombo.sub
Target Version: 4.12
Processing Host: A1-001720

Concentration Formula: Amt * DF * 1000 * 1/Vo*vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Sample Volume Extracted (mL)
vf	1.000	Extract Final Volume (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$	3 2-Fluorophenol	112	3.380	3.377	(0.725)	180029	22.6276	22.6	
$	6 Phenol-d6	99	4.344	4.343	(0.932)	150180	14.5909	14.6	
	7 Phenol	94	Compound Not Detected.						
	8 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
	9 2-Chlorophenol	128	Compound Not Detected.						
	10 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	11 1,4-Dichlorobenzene-d4	152	4.661	4.664	(1.000)	239294	40.0000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	14 Benzyl alcohol	79	Compound Not Detected.						
	13 1,2-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol	108	Compound Not Detected.						
	16 Bis(2-chloroisopropyl)ether	45	Compound Not Detected.						
	19 3-Methylphenol/4-Methylphenol	108	Compound Not Detected.						
	17 Acetophenone	105	Compound Not Detected.						
	18 n-Nitrosodi-n-propylamine	70	Compound Not Detected.						
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.118)	177393	18.8332	18.8	
	23 Nitrobenzene	77	Compound Not Detected.						
	24 Isophorone	82	Compound Not Detected.						
	26 2-Nitrophenol	139	Compound Not Detected.						
	27 2,4-Dimethylphenol	107	Compound Not Detected.						
	28 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
	30 Benzoic acid	105	Compound Not Detected.						

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
	29	2,4-Dichlorophenol	162	Compound Not Detected.						
	31	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	32	Naphthalene-d8	136	5.910	5.910	(1.000)	996401	40.0000		
	36	4-Chloroaniline	65	Compound Not Detected.						
	41	p-Chloro-m-cresol	107	Compound Not Detected.						
	44	1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
	45	Hexachlorocyclopentadiene	237	Compound Not Detected.						
	46	2,4,6-Trichlorophenol	196	Compound Not Detected.						
	47	2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	48	2-Fluorobiphenyl	172	6.989	6.989	(1.182)	364047	20.6386	20.6	
	49	Biphenyl	154	Compound Not Detected.						
	51	2-Nitroaniline	138	Compound Not Detected.						
	53	Dimethyl phthalate	163	Compound Not Detected.						
	55	2,6-Dinitrotoluene	165	Compound Not Detected.						
	58	3-Nitroaniline	138	Compound Not Detected.						
*	59	Acenaphthene-d10	164	7.626	7.629	(1.000)	559079	40.0000		
	61	2,4-Dinitrophenol	184	Compound Not Detected.						
	62	4-Nitrophenol	65	Compound Not Detected.						
	63	Dibenzofuran	168	Compound Not Detected.						
	64	2,4-Dinitrotoluene	165	Compound Not Detected.						
	67	Diethyl phthalate	149	Compound Not Detected.						
	69	4-Chlorophenyl phenyl ether	204	Compound Not Detected.						
	70	4-Nitroaniline	138	Compound Not Detected.						
	71	4,6-Dinitro-o-cresol	198	Compound Not Detected.						
	72	NDPA/DPA	169	Compound Not Detected.						
$	74	2,4,6-Tribromophenol	330	8.397	8.400	(0.926)	111601	42.1633	42.2	
	75	4-Bromophenyl phenyl ether	248	Compound Not Detected.						
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	1058945	40.0000		
	85	Carbazole	167	Compound Not Detected.						
	86	Di-n-butylphthalate	149	Compound Not Detected.						
$	92	4-Terphenyl-d14	244	10.666	10.669	(1.176)	400995	21.4443	21.4	
	94	Butyl benzyl phthalate	149	Compound Not Detected.						
	98	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
*	96	Chrysene-d12	240	11.729	11.735	(1.000)	998130	40.0000		
	100	Bis(2-ethylhexyl)phthalate	149	Compound Not Detected.						
	101	Di-n-octylphthalate	149	Compound Not Detected.						
*	106	Perylene-d12	264	13.211	13.214	(1.000)	951362	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Calibration Date: 15-MAR-2016
Lab File ID: 06763-01.D
Calibration Time: 12:35
Lab Smp Id:
Analysis Type: SV
Level: LOW
Quant Type: ISTD
Sample Type: WATER
Operator: jb
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Misc Info: wg874362,wg873638,ICAL12150

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	329736	164868	659472	239294	-27.43
32 Naphthalene-d8	1331284	665642	2662568	996401	-25.15
59 Acenaphthene-d10	728009	364005	1456018	559079	-23.20
82 Phenanthrene-d10	1403129	701565	2806258	1058945	-24.53
96 Chrysene-d12	1335911	667956	2671822	998130	-25.28
106 Perylene-d12	1240417	620209	2480834	951362	-23.30

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.06
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.74	11.24	12.24	11.73	-0.05
106 Perylene-d12	13.21	12.71	13.71	13.21	-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.

Alpha Analytical Labs

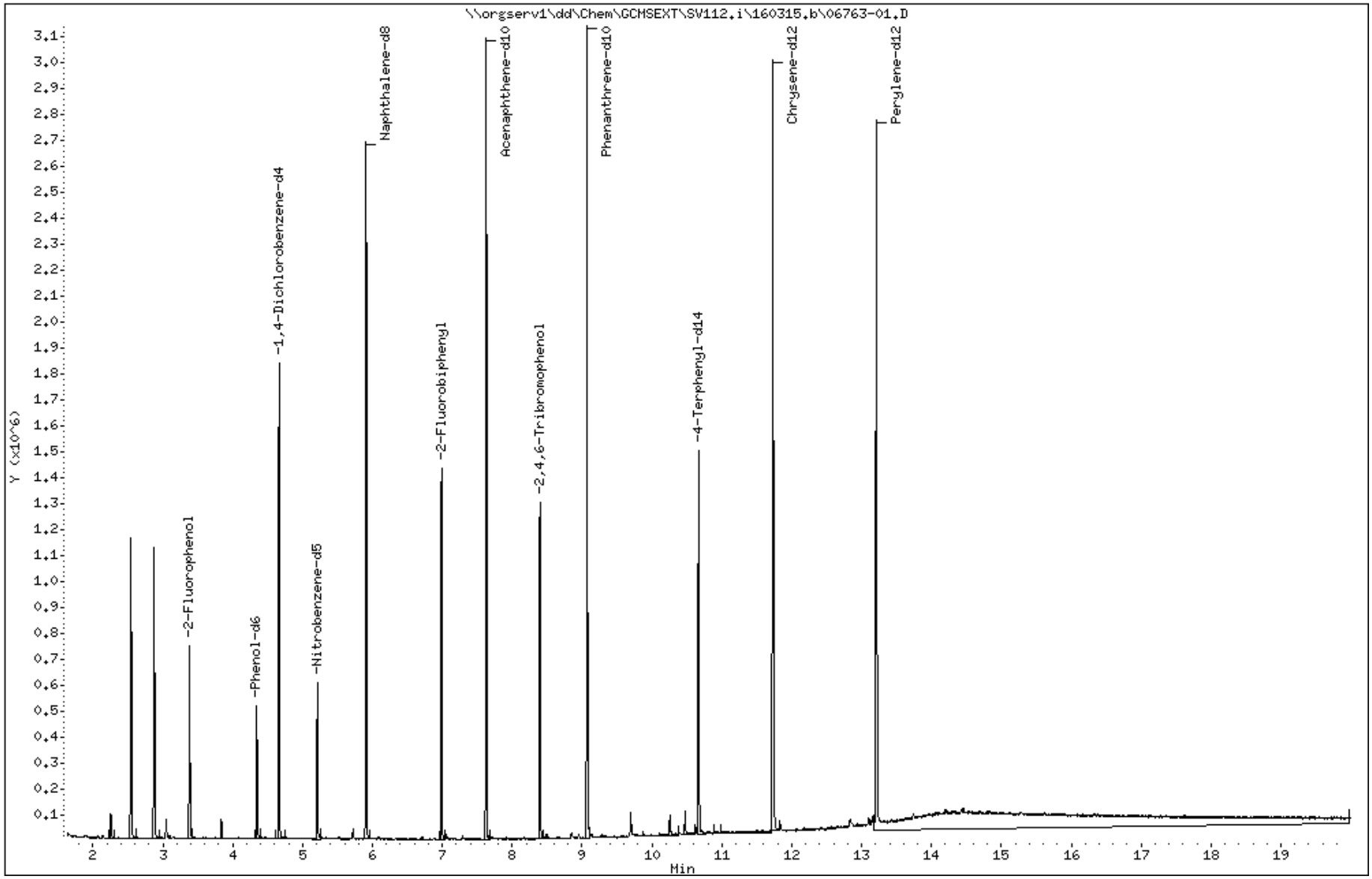
RECOVERY REPORT

Client Name: Client SDG: 160315.b
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: jb
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: mcp8270spk.spk Quant Type: ISTD
Sublist File: NYTCLcombo.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Misc Info: wg874362,wg873638,ICAL12150

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorophenol	50.0	22.6	45.26	21-120
$ 6 Phenol-d6	50.0	14.6	29.18	10-120
$ 22 Nitrobenzene-d5	25.0	18.8	75.33	23-120
$ 48 2-Fluorobiphenyl	25.0	20.6	82.55	15-120
$ 74 2,4,6-Tribromophen	50.0	42.2	84.33	10-120
$ 92 4-Terphenyl-d14	25.0	21.4	85.78	33-120

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\06763-01.D
Date : 15-MAR-2016 18:23
Client ID:
Sample Info: 11606763-01,32,ny,als,
Purge Volume: 1000.0
Column phase: RTx-5

Instrument: SV112.i
Operator: jb
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : l1606763-01,32,ny,als,
wg874362,wg873638,ICAL12150

Instrument ID : SV112.i
Method : SV112ABN.m
File : 06763-01.D
Injection Date : 15-MAR-2016 18:23
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

There are no manual integrations in this file.

Semivolatiles Standards Data

Initial Calibration

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Calibration File Names:

Level 1: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL1.D
Level 2: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL2.D
Level 3: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL3.D
Level 4: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL4.D
Level 5: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL5.D
Level 6: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL6.D
Level 7: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL7.D
Level 8: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL8.D
Level 9: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL9.D
Level 10: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL10.D

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
1 n-Nitrosodimethylamine	0.90902	0.92175	0.94730	0.88269	0.94923	0.91039					
	1.05452	0.91441	0.87822	0.86726			AVRG		0.92348		5.79117
2 Pyridine	1.41848	1.57010	1.52126	1.55591	1.60709	1.60348					
	1.83338	1.58028	1.52886	1.52455			AVRG		1.57434		6.73133
4 Benzaldehyde	1.14055	1.15904	1.13271	1.08588	1.13097	1.10876					
	1.12050	1.13467	1.12168	1.05719			AVRG		1.11920		2.60943

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Aniline	2.13341	2.15059	2.16508	2.16738	2.12981	2.14046					
	2.50928	2.20340	2.18565	2.16829			AVRG		2.19534		5.13306
7 Phenol	1.85736	1.86261	1.92038	1.88510	1.85294	1.87394					
	2.19839	1.92193	1.91971	1.91343			AVRG		1.92058		5.28132
8 Bis(2-chloroethyl)ether	1.43649	1.46003	1.44053	1.45211	1.44289	1.40172					
	1.63955	1.43819	1.42849	1.42305			AVRG		1.45630		4.55585
9 2-Chlorophenol	1.39348	1.41178	1.39644	1.40279	1.40466	1.42398					
	1.65415	1.47143	1.47674	1.46475			AVRG		1.45002		5.41828
10 1,3-Dichlorobenzene	1.64196	1.60327	1.56754	1.59610	1.57652	1.56752					
	1.83479	1.60811	1.57917	1.56491			AVRG		1.61399		5.03122
12 1,4-Dichlorobenzene	1.66512	1.72875	1.68062	1.61914	1.63457	1.62127					
	1.87927	1.64827	1.61434	1.59996			AVRG		1.66913		4.97525
14 1,2-Dichlorobenzene	1.51919	1.57295	1.53069	1.51742	1.52451	1.53003					
	1.77881	1.57302	1.54901	1.52369			AVRG		1.56193		5.05524

FORM VI-NYTCL-8270

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
13 Benzyl alcohol	1.18654	1.13519	1.17116	1.14201	1.15166	1.16388					
	1.41455	1.27975	1.30698	1.32673			AVRG		1.22784		7.88515
15 2-Methylphenol	1.24645	1.20622	1.23807	1.24233	1.22036	1.22754					
	1.46567	1.30147	1.31641	1.31034			AVRG		1.27749		6.01686
16 Bis(2-chloroisopropyl)ether	2.51459	2.43523	2.38674	2.35536	2.32063	2.32774					
	2.72552	2.37876	2.34721	2.27738			AVRG		2.40692		5.39607
17 Acetophenone	2.05810	1.87490	1.81614	1.79636	1.86526	1.89104					
	1.87522	1.90379	1.97182	1.94409			AVRG		1.89967		4.01730
18 n-Nitrosodi-n-propylamine	1.05127	1.02278	1.01377	1.02367	1.02432	1.00504					
	1.21824	1.10299	1.11532	1.12252			AVRG		1.06999		6.38983
19 3-Methylphenol/4-Methylphenol	1.25601	1.26938	1.26636	1.28593	1.26031	1.30097					
	1.58457	1.41361	1.41407	1.41115			AVRG		1.34624		7.97176
20 m-Toluidine	1.79372	1.83655	1.70508	1.71550	1.78947	1.94086					
	1.97162	2.06625	2.05399	2.10181			AVRG		1.89749		7.82453

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
21 Hexachloroethane	0.70023	0.64952	0.65863	0.64277	0.67432	0.68588						
	0.79891	0.70853	0.70282	0.70017			AVRG		0.69218		6.39722	
23 Nitrobenzene	0.38355	0.37660	0.36797	0.36971	0.37733	0.37206						
	0.43216	0.37590	0.37483	0.37771			AVRG		0.38078		4.88085	
24 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
25 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
26 Isophorone	2.70315	2.71685	2.60511	2.64567	2.59905	2.66862						
	3.23021	2.93032	3.03052	2.99176			AVRG		2.81213		7.73871	
27 2-Chloroaniline	1.74781	1.75868	1.73456	1.68500	1.70939	1.72245						
	1.74550	1.76258	1.82858	1.79302			AVRG		1.74876		2.34541	
28 2-Nitrophenol	+++++	+++++	+++++	0.60814	0.67978	0.73897						
	0.93986	0.83212	0.85890	0.85659			AVRG		0.78777		14.76785	

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
29 2,4-Dimethylphenol	+++++	+++++	1.36913	1.32048	1.32180	1.33462					
	1.66396	1.48874	1.51966	1.52544			AVRG		1.44298		8.70669
30 Bis(2-chloroethoxy)methane	1.66255	1.71753	1.65046	1.66938	1.63220	1.64637					
	2.00053	1.77915	1.81201	1.78945			AVRG		1.73596		6.56160
32 2,4-Dichlorophenol	0.27040	0.26019	0.26904	0.27741	0.28084	0.28268					
	0.32950	0.29185	0.29461	0.29346			AVRG		0.28500		6.77456
31 Benzoic acid	+++++	+++++	+++++	+++++	15919	47313					
	186056	359234	620064	917997			LINR	0.18527	0.31756		0.99877
33 1,2,4-Trichlorobenzene	0.34598	0.32801	0.31584	0.31854	0.32487	0.31441					
	0.36145	0.31722	0.31589	0.31670			AVRG		0.32589		4.81898
35 Naphthalene	0.99188	1.01037	1.00603	0.99884	0.99872	0.97257					
	1.11930	0.98553	0.97954	0.97952			AVRG		1.00423		4.20721
36 a-Terpineol	1.18234	1.15193	1.17927	1.08902	1.14552	1.16153					
	1.20056	1.20954	1.27105	1.27797			AVRG		1.18687		4.80834

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
37 3-Chloroaniline	+++++	+++++	+++++	0.14558	0.15133	0.14626					
	0.16119	0.16868	0.19027	0.20699			AVRG		0.16719		14.05203
38 4-Chloroaniline	0.12782	0.13770	0.12843	0.13692	0.13526	0.13340					
	0.15692	0.13901	0.13905	0.14051			AVRG		0.13750		5.88230
39 2,6-Dichlorophenol	1.09063	1.07306	1.04271	1.09839	1.08169	1.11989					
	1.16481	1.18606	1.25129	1.28360			AVRG		1.13921		7.02599
40 Hexachlorobutadiene	0.18114	0.19713	0.19403	0.18490	0.18507	0.18833					
	0.21150	0.18416	0.18309	0.18610			AVRG		0.18954		4.83471
41 1-chloro-2-nitrobenzene	0.59543	0.53535	0.52857	0.53801	0.53455	0.55011					
	0.57538	0.58360	0.64485	0.65397			AVRG		0.57398		7.99370
42 Caprolactam	0.17018	0.17116	0.15373	0.15837	0.15876	0.16842					
	0.19001	0.18240	0.19698	0.19714			AVRG		0.17472		9.20271
43 p-Chloro-m-cresol	0.29058	0.27859	0.27314	0.28074	0.28154	0.27728					
	0.33808	0.29780	0.30595	0.31261			AVRG		0.29363		6.94267

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

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Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
44 2-Methylnaphthalene	0.67396	0.66677	0.66034	0.66446	0.65697	0.65111					
	0.75684	0.66976	0.68325	0.68922			AVRG		0.67727		4.46633
45 1-Methylnaphthalene	0.22767	0.22645	0.23052	0.23312	0.21959	0.22362					
	0.26033	0.23355	0.23905	0.23794			AVRG		0.23318		4.85411
46 1,2,4,5-Tetrachlorobenzene	0.57608	0.55675	0.56513	0.54932	0.56664	0.56602					
	0.54584	0.56607	0.55102	0.54257			AVRG		0.55854		1.97044
47 Hexachlorocyclopentadiene	0.18141	0.19270	0.18374	0.19937	0.19614	0.20787					
	0.25268	0.22640	0.23903	0.24282			AVRG		0.21222		12.24496
48 2,4,6-Trichlorophenol	0.16430	0.17558	0.18252	0.18928	0.19640	0.19519					
	0.23977	0.21367	0.21714	0.21862			AVRG		0.19925		11.50583
49 2,4,5-Trichlorophenol	0.18367	0.20941	0.20023	0.20574	0.19873	0.21562					
	0.24631	0.22404	0.23127	0.23852			AVRG		0.21535		9.10489
51 Biphenyl	1.56728	1.46956	1.48945	1.47420	1.50498	1.51484					
	1.50372	1.54463	1.51802	1.49688			AVRG		1.50835		1.99107

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 2-Chloronaphthalene	0.61511	0.64332	0.62597	0.62783	0.62296	0.60343					
	0.71917	0.63505	0.64548	0.65748			AVRG		0.63958		5.00661
53 2-Nitroaniline	0.17589	0.18195	0.18912	0.19011	0.20010	0.21048					
	0.25238	0.23353	0.24222	0.24107			AVRG		0.21169		13.36600
54 1,4-Dinitrobenzene	+++++	+++++	+++++	0.17112	0.18571	0.19622					
	0.24425	0.22206	0.22295	0.22737			AVRG		0.20995		12.41907
55 Dimethyl phthalate	1.34355	1.34061	1.33505	1.33050	1.29958	1.31774					
	1.52983	1.36066	1.37814	1.36240			AVRG		1.35981		4.69943
56 1,3-Dinitrobenzene	+++++	+++++	0.19874	0.20734	0.21636	0.22861					
	0.27279	0.24794	0.25228	0.24891			AVRG		0.23412		10.88932
57 2,6-Dinitrotoluene	0.14810	0.15040	0.15025	0.16639	0.16626	0.16614					
	0.19835	0.17923	0.18677	0.18605			AVRG		0.16979		10.24504
58 Acenaphthylene	0.96499	0.97063	0.96966	1.00578	0.97370	0.96948					
	1.14331	1.02316	1.04702	1.05206			AVRG		1.01198		5.63102

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

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Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
59 1,2-Dinitrobenzene	0.12797	0.14200	0.14646	0.14545	0.15435	0.15548					
	0.18640	0.16693	0.16851	0.16481			AVRG		0.15584		10.61864
60 3-Nitroaniline	0.29600	0.33551	0.34592	0.34305	0.34820	0.35089					
	0.42330	0.38039	0.38380	0.37907			AVRG		0.35861		9.63178
62 Acenaphthene	1.19464	1.12463	1.14825	1.13097	1.13660	1.10267					
	1.29457	1.13418	1.13651	1.12891			AVRG		1.15319		4.75806
63 2,4-Dinitrophenol	+++++	+++++	+++++	3363	9834	25385					
	91736	170164	292065	424498			WLINR	0.08006	0.25579		0.99844
64 4-Nitrophenol	+++++	+++++	+++++	0.24884	0.27820	0.28575					
	0.34621	0.31381	0.31626	0.31203			AVRG		0.30016		10.56211
65 Dibenzofuran	1.70338	1.65192	1.64815	1.62375	1.60959	1.60316					
	1.87302	1.63854	1.63945	1.64051			AVRG		1.66315		4.73079
66 2,4-Dinitrotoluene	0.33389	0.37556	0.37681	0.38823	0.40713	0.42230					
	0.49791	0.45316	0.45775	0.45525			AVRG		0.41680		11.90782

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

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Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
67 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	0.26681	0.30693	0.33080					
	0.39957	0.35727	0.36557	0.36750			AVRG		0.34206		12.94421
68 2,3,4,6-Tetrachlorophenol	+++++	0.25399	0.26946	0.28887	0.30128	0.32410					
	0.39155	0.34323	0.34981	0.35438			AVRG		0.31963		13.98105
69 Diethyl phthalate	1.38112	1.33880	1.36314	1.35404	1.34156	1.35489					
	1.59008	1.41342	1.44080	1.44969			AVRG		1.40275		5.49072
70 Fluorene	1.35386	1.30306	1.33998	1.30641	1.32168	1.31538					
	1.54099	1.36220	1.38129	1.38507			AVRG		1.36099		5.12853
71 4-Chlorophenyl phenyl ether	0.61544	0.63301	0.61695	0.63476	0.61809	0.62316					
	0.71277	0.63551	0.63682	0.64574			AVRG		0.63723		4.45578
72 4-Nitroaniline	0.28221	0.33400	0.32565	0.32747	0.33992	0.35881					
	0.42768	0.38993	0.38854	0.38499			AVRG		0.35592		11.89065
73 4,6-Dinitro-o-cresol	+++++	+++++	+++++	5283	13879	33741					
	112311	207371	355311	514738			WLINR	0.05780	0.30906		0.99888

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
74 NDPA/DPA	1.12550	1.09756	1.10654	1.09147	1.10747	1.11072						
	1.30702	1.16927	1.17784	1.18107			AVRG		1.14745		5.71618	
75 Azobenzene	1.37330	1.37259	1.36487	1.41585	1.37687	1.40394						
	1.64587	1.45531	1.46380	1.46717			AVRG		1.43396		5.88364	
77 Thionazin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
78 4-Bromophenyl phenyl ether	0.35999	0.36040	0.34363	0.35016	0.35153	0.35024						
	0.40382	0.36009	0.37086	0.37352			AVRG		0.36242		4.77373	
79 Hexachlorobenzene	0.41201	0.38114	0.38310	0.38060	0.37085	0.36672						
	0.42034	0.38001	0.38949	0.39329			AVRG		0.38775		4.37378	
80 Dimethoate	+++++	+++++	+++++	0.43815	0.47167	0.50830						
	0.55817	0.57328	0.57671	0.59645			AVRG		0.53182		11.26913	
81 Dichloran	+++++	+++++	+++++	0.13659	0.15461	0.16592						
	0.18201	0.18599	0.18501	0.18934			AVRG		0.17135		11.56544	

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SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

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Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
82 Atrazine	0.14501	0.15904	0.15787	0.15860	0.17537	0.18488						
	0.18806	0.20217	0.19652	0.20057			AVRG		0.17681		11.63247	
83 Pentachlorophenol	+++++	+++++	1464	3521	11530	28974						
	101216	186878	328069	474796			WLINR	0.06431	0.15793		0.99818	<-
84 Pentachloronitrobenzene	+++++	0.14753	0.13181	0.14286	0.15601	0.16492						
	0.17509	0.17659	0.17814	0.18146			AVRG		0.16160		11.05701	
86 Phenanthrene	1.13688	1.15262	1.14883	1.10791	1.11042	1.10309						
	1.27426	1.12321	1.11171	1.11194			AVRG		1.13809		4.47767	
87 Anthracene	1.02953	1.07634	1.08588	1.08775	1.09885	1.11198						
	1.29778	1.14035	1.12579	1.14092			AVRG		1.11952		6.33696	
88 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
89 Carbazole	1.00435	0.98292	1.00036	1.03122	1.02944	1.02238						
	1.21746	1.06705	1.05836	1.04810			AVRG		1.04616		6.27984	

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
90 Di-n-butylphthalate	1.16261	1.22955	1.23358	1.25426	1.26209	1.28236					
	1.54496	1.36212	1.37781	1.37334			AVRG		1.30827		8.32295
91 parathion	795	1453	2250	4289	8116	25924					
	79979	157036	280107	416913			QUAD	0.07074	1.79813	-0.07127	0.99839
92 Diphenamid	0.42031	0.42906	0.41791	0.44640	0.45816	0.47257					
	0.49971	0.50276	0.50501	0.50110			AVRG		0.46530		7.67911
93 Fluoranthene	1.11369	1.10878	1.11423	1.12028	1.13559	1.12390					
	1.33966	1.18271	1.18283	1.16364			AVRG		1.15853		6.01112
94 Benzidine	594	1087	1879	5066	41569	156894					
	332880	451948	619473	+++++			QUAD	0.09169	0.48675	1.99235	0.99528
95 Pyrene	1.15128	1.14355	1.17549	1.17885	1.18590	1.19022					
	1.39687	1.24411	1.24863	1.23301			AVRG		1.21479		6.06612
97 3,3'-Dimethylbenzidine	3977	7713	16930	25724	59012	135855					
	409342	938703	1357460	2104826			QUAD	0.05160	1.12821	-0.00953	0.99926

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
98 Butyl benzyl phthalate	0.52586	0.51510	0.54759	0.55029	0.56831	0.57017					
	0.69014	0.62080	0.64263	0.63497			AVRG		0.58659		9.77925
99 Bis (2-ethylhexyl) adipate	+++++	+++++	+++++	+++++	1.77225	1.80494					
	2.30000	2.17676	2.45247	2.41343			AVRG		2.15331		13.86678
100 Benzo(a)anthracene	1.23763	1.21515	1.18245	1.17977	1.19135	1.18908					
	1.37123	1.20469	1.21383	1.17230			AVRG		1.21575		4.77864
101 3,3'-Dichlorobenzidine	0.33372	0.38094	0.39892	0.41671	0.42637	0.43512					
	0.50211	0.43640	0.44663	0.43344			AVRG		0.42104		10.49799
103 Chrysene	1.15085	1.21591	1.15253	1.18230	1.17198	1.16909					
	1.34428	1.15212	1.14768	1.12444			AVRG		1.18112		5.27743
104 Bis(2-ethylhexyl)phthalate	0.73876	0.79363	0.81705	0.82637	0.87524	0.90109					
	1.06795	0.93166	0.95914	0.94224			AVRG		0.88531		10.81862
105 Di-n-octylphthalate	+++++	1.22260	1.21481	1.30621	1.40851	1.45750					
	1.76011	1.55853	1.62985	1.56857			AVRG		1.45852		12.89942

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
106 Benzo(b)fluoranthene	1.06532	1.07230	1.07842	1.10851	1.15629	1.15769					
	1.34174	1.21409	1.20946	1.25142			AVRG		1.16552		7.69720
107 Benzo(k)fluoranthene	1.14840	1.18726	1.20582	1.16380	1.16540	1.20010					
	1.40086	1.24709	1.26929	1.22682			AVRG		1.22148		6.03041
108 Benzo(e)pyrene	1.01996	1.00195	1.00951	1.00028	1.04054	1.07196					
	1.09952	1.13294	1.14807	1.10858			AVRG		1.06333		5.29189
109 Benzo(a)pyrene	0.98684	1.02863	1.03886	1.05848	1.09953	1.12489					
	1.31898	1.19974	1.19494	1.18503			AVRG		1.12359		9.02550
111 Perylene	1.12023	1.10351	1.13440	1.11568	1.09349	1.12181					
	1.13689	1.17252	1.17332	1.13848			AVRG		1.13103		2.32346
112 Indeno(1,2,3-cd)pyrene	0.86424	0.94145	0.94161	0.95344	0.99857	0.98517					
	1.16018	1.07379	1.05265	1.05598			AVRG		1.00271		8.44887
113 Dibenzo(a,h)anthracene	0.87410	0.97125	1.01942	0.96524	1.04479	1.02402					
	1.22287	1.10623	1.09740	1.12831			AVRG		1.04536		9.41470

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
114 Benzo(ghi)perylene	0.95937	1.02023	1.03900	1.04075	1.10721	1.10352					
	1.26931	1.16077	1.13511	1.11997			AVRG		1.09552		7.88891
$ 3 2-Fluorophenol	1.29387	1.28245	1.31418	1.30146	1.31273	1.32408					
	1.53393	1.33799	1.31704	1.30327			AVRG		1.33210		5.45104
$ 6 Phenol-d6	1.66696	1.63912	1.64410	1.64364	1.61259	1.62600					
	1.90267	1.68673	1.69624	1.67467			AVRG		1.67927		4.93560
$ 22 Nitrobenzene-d5	1.44531	1.47477	1.40160	1.42645	1.41125	1.44608					
	1.75937	1.57020	1.60411	1.57124			AVRG		1.51104		7.52632
$ 50 2-Fluorobiphenyl	0.70845	0.69440	0.67376	0.69991	0.68518	0.67405					
	0.79418	0.70787	0.72465	0.72787			AVRG		0.70903		4.97219
$ 76 2,4,6-Tribromophenol	634	1766	3037	4493	10231	23272					
	76409	135962	238959	349152			WLINR	0.01738	0.11404		0.99774
$ 96 4-Terphenyl-d14	0.74110	0.74464	0.74572	0.72984	0.73364	0.71498					
	0.85513	0.76099	0.78506	0.77001			AVRG		0.75811		5.23445

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.I Calibration Date(s): 08-MAR-2016 09-MAR-2016

Calibration Times: 20:12 19:55

Average %RSD Results.
Calculated Average %RSD = 7.31378
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

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

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Calibration File Names:

Level 1: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL1.D
Level 2: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL2.D
Level 3: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL3.D
Level 4: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL4.D
Level 5: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL5.D
Level 6: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL6.D
Level 7: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL7.D
Level 8: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL8.D
Level 9: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL9.D
Level 10: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL10.D

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 n-Nitrosodimethylamine	0.87532	0.89794	0.82265	0.87872	0.90244	0.97249					
	1.11352	0.99540	1.01913	1.02745			AVRG		0.95051		9.40549
2 Pyridine	+++++	+++++	+++++	1.24589	1.53640	1.67342					
	2.01683	1.71793	1.73927	1.75414			AVRG		1.66913		14.09703
4 Benzaldehyde	1.05859	0.98148	1.02693	1.05438	1.13322	1.15235					
	1.10053	0.97257	0.94504	0.89577			AVRG		1.03209		8.09787

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
5 Aniline	+++++	12836	29356	50490	111668	306592					
	958098	1538820	2178255	2610742			QUAD	0.04794	0.30694	0.01084	0.99780
7 Phenol	1.79234	1.72108	1.80641	1.92143	1.96254	2.06455					
	2.47237	2.10520	2.06828	1.99354			AVRG		1.99077		10.69768
8 Bis(2-chloroethyl)ether	1.34059	1.17984	1.27873	1.36121	1.36601	1.44633					
	1.73065	1.49297	1.46637	1.44101			AVRG		1.41037		10.42321
9 2-Chlorophenol	1.32633	1.31513	1.34949	1.40186	1.40327	1.44121					
	1.67775	1.47572	1.46889	1.45240			AVRG		1.43121		7.27337
10 1,3-Dichlorobenzene	1.78795	1.57535	1.54929	1.56888	1.53037	1.57155					
	1.80122	1.54276	1.49121	1.47047			AVRG		1.58891		7.15364
12 1,4-Dichlorobenzene	1.84537	1.58044	1.60857	1.62315	1.56938	1.60522					
	1.83415	1.55939	1.50074	1.49028			AVRG		1.62167		7.57577
14 Benzyl alcohol	1.07504	1.06141	1.13771	1.18791	1.22816	1.32131					
	1.60166	1.36316	1.33345	1.30430			AVRG		1.26141		12.76331

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
13 1,2-Dichlorobenzene	1.65041	1.59721	1.50758	1.56481	1.51830	1.51573					
	1.71565	1.44578	1.36012	1.32746			AVRG		1.52031		7.95297
15 2-Methylphenol	1.22299	1.23840	1.22795	1.24346	1.26244	1.32804					
	1.59663	1.36671	1.34870	1.32148			AVRG		1.31568		8.52116
16 Bis(2-chloroisopropyl)ether	2.53195	2.25951	2.21289	2.26338	2.20355	2.20277					
	2.55977	2.22519	2.13565	2.06273			AVRG		2.26574		7.02134
17 Acetophenone	1.77063	1.89918	1.90640	1.96964	2.06983	2.11977					
	2.23081	2.24335	2.28042	2.22273			AVRG		2.07128		8.54018
18 n-Nitrosodi-n-propylamine	1.20562	1.08450	1.12831	1.11466	1.15052	1.17720					
	1.40763	1.21883	1.22186	1.20871			AVRG		1.19178		7.51045
19 3-Methylphenol/4-Methylphenol	1.23214	1.19881	1.27341	1.32667	1.36031	1.41035					
	1.68497	1.44536	1.45448	1.43523			AVRG		1.38217		10.11854
21 m-Toluidine	1.43696	1.24761	1.37997	1.60078	1.79798	1.85572					
	1.67389	1.46745	1.44485	1.36886			AVRG		1.52741		12.94029

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
20 Hexachloroethane	0.73065	0.65818	0.62380	0.65069	0.62917	0.64404					
	0.74617	0.64291	0.63065	0.62306			AVRG		0.65793		6.70167
23 Nitrobenzene	0.32840	0.34404	0.34799	0.37630	0.39213	0.41423					
	0.49220	0.43470	0.42678	0.41834			AVRG		0.39751		12.57429
24 Isophorone	3.25711	3.05386	2.95140	3.05544	3.08781	3.10204					
	3.71246	3.14660	3.14826	3.13161			AVRG		3.16466		6.57641
25 2-Chloroaniline	1.73559	1.63517	1.61361	1.69585	1.75159	1.80711					
	1.82832	1.72750	1.72992	1.62711			AVRG		1.71518		4.26720
26 2-Nitrophenol	+++++	+++++	+++++	0.55511	0.62044	0.66976					
	0.83608	0.75236	0.75540	0.76564			AVRG		0.70783		13.70305
27 2,4-Dimethylphenol	1.40497	1.39608	1.34255	1.35398	1.36604	1.40668					
	1.74909	1.50224	1.51684	1.50393			AVRG		1.45424		8.39091
28 Bis(2-chloroethoxy)methane	1.92493	1.70414	1.71634	1.79958	1.83212	1.84885					
	2.21619	1.89240	1.86807	1.84696			AVRG		1.86496		7.61693

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
30 Benzoic acid	+++++	+++++	+++++	+++++	44936	102153					
	381108	738792	1167905	1482584			WLINR	0.12605	0.32132		0.99871
29 2,4-Dichlorophenol	0.26259	0.25177	0.25046	0.26053	0.27783	0.28097					
	0.33148	0.28989	0.28221	0.27833			AVRG		0.27661		8.51927
31 1,2,4-Trichlorobenzene	0.35831	0.32247	0.30848	0.31589	0.31955	0.31698					
	0.36210	0.31356	0.30252	0.30124			AVRG		0.32211		6.59336
33 Naphthalene	1.13680	1.02703	0.98189	1.00124	1.00470	1.00038					
	1.14117	0.97227	0.92171	0.89730			AVRG		1.00845		7.85382
34 a-Terpineol	0.31070	0.28779	0.28976	0.29795	0.30102	0.29702					
	0.30729	0.29819	0.30374	0.30036			AVRG		0.29938		2.35972
35 3-Chloroaniline	+++++	0.16089	0.17103	0.17275	0.17494	0.17755					
	0.17342	0.14903	0.12887	0.11767			AVRG		0.15846		13.85493
36 4-Chloroaniline	+++++	+++++	+++++	0.12230	0.12967	0.15556					
	0.19225	0.16169	0.15282	0.15131			AVRG		0.15223		14.95023

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
37 2,6-Dichlorophenol	1.17156	1.05816	1.05991	1.12235	1.18273	1.16368					
	1.20705	1.19051	1.23300	1.20500			AVRG		1.15939		5.22023
38 Hexachlorobutadiene	0.19399	0.18604	0.17103	0.17859	0.17926	0.17536					
	0.20030	0.17495	0.17202	0.17193			AVRG		0.18035		5.55056
39 1-chloro-2-nitrobenzene	0.60410	0.53863	0.52882	0.55578	0.57953	0.60429					
	0.66194	0.69489	0.77163	0.79508			AVRG		0.63347		14.91996
40 Caprolactam	0.13650	0.15202	0.15107	0.15770	0.17590	0.17874					
	0.18950	0.19314	0.19939	0.19837			AVRG		0.17323		12.97490
41 p-Chloro-m-cresol	0.26650	0.26322	0.25323	0.27106	0.30029	0.30335					
	0.37171	0.32372	0.31947	0.31856			AVRG		0.29911		12.17362
42 2-Methylnaphthalene	0.69159	0.65713	0.62378	0.62760	0.65484	0.66399					
	0.76807	0.65247	0.62676	0.61118			AVRG		0.65774		6.90856
43 1-Methylnaphthalene	0.27872	0.24305	0.22646	0.23550	0.24095	0.23470					
	0.27366	0.23481	0.22667	0.22197			AVRG		0.24165		8.01510

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
45 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	0.11501	0.12975					
	0.18286	0.17490	0.18685	0.19005			AVRG		0.16324		19.84118
44 1,2,4,5-Tetrachlorobenzene	0.62315	0.58212	0.57271	0.57297	0.58268	0.58985					
	0.60304	0.59280	0.58564	0.58591			AVRG		0.58909		2.53580
46 2,4,6-Trichlorophenol	0.18622	0.17458	0.18196	0.19089	0.20428	0.20549					
	0.24770	0.21581	0.21303	0.21578			AVRG		0.20357		10.49630
47 2,4,5-Trichlorophenol	0.18478	0.18821	0.18855	0.20386	0.21863	0.21113					
	0.25872	0.22874	0.22561	0.22866			AVRG		0.21369		10.88025
49 Biphenyl	1.46141	1.44720	1.43766	1.45678	1.50569	1.51957					
	1.55916	1.50479	1.45018	1.41391			AVRG		1.47563		3.02433
50 2-Chloronaphthalene	0.66817	0.62676	0.60453	0.63209	0.63865	0.64390					
	0.74116	0.62773	0.60188	0.59461			AVRG		0.63795		6.64244
51 2-Nitroaniline	+++++	+++++	+++++	0.14910	0.16776	0.18925					
	0.24382	0.21945	0.22016	0.22380			AVRG		0.20190		16.90755

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	0.12711	0.15151					
	0.20413	0.19327	0.19426	0.20069			AVRG		0.17850		17.69015
53 Dimethyl phthalate	1.44404	1.36667	1.32977	1.33987	1.37502	1.41681					
	1.57656	1.34152	1.26365	1.23659			AVRG		1.36905		7.00665
54 1,3-Dinitrobenzene	+++++	+++++	+++++	0.13690	0.16163	0.18472					
	0.23233	0.20598	0.19744	0.20063			AVRG		0.18852		16.56755
55 2,6-Dinitrotoluene	+++++	0.11702	0.11973	0.13649	0.15401	0.15649					
	0.18718	0.16583	0.16577	0.16724			AVRG		0.15220		15.37344
56 Acenaphthylene	1.05423	1.02425	0.97608	1.01390	1.03693	1.04926					
	1.17718	0.99517	0.94870	0.93139			AVRG		1.02071		6.73631
57 1,2-Dinitrobenzene	+++++	0.10898	0.10083	0.10729	0.12147	0.13668					
	0.15589	0.13505	0.13175	0.13465			AVRG		0.12584		14.02125
58 3-Nitroaniline	+++++	+++++	+++++	0.24673	0.28137	0.34246					
	0.41593	0.37212	0.36229	0.37139			AVRG		0.34175		17.06225

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Acenaphthene	1.21362	1.12423	1.08886	1.09275	1.10088	1.10665					
	1.26974	1.06954	1.00696	0.99201			AVRG		1.10652		7.58223
61 2,4-Dinitrophenol	+++++	+++++	+++++	4875	14006	33294					
	131478	252085	408092	531301			WLINR	0.10795	0.20630		0.99679
62 4-Nitrophenol	+++++	+++++	+++++	0.20825	0.25264	0.27767					
	0.34847	0.32140	0.33132	0.34770			AVRG		0.29821		17.95514
63 Dibenzofuran	1.77246	1.66063	1.65513	1.68885	1.69390	1.73356					
	1.90596	1.60222	1.51542	1.49420			AVRG		1.67223		7.20911
64 2,4-Dinitrotoluene	+++++	0.25481	0.27423	0.31591	0.35048	0.39098					
	0.46247	0.40453	0.39457	0.40211			AVRG		0.36112		18.79551
65 2,3,5,6-Tetrachlorophenol	0.26118	0.26921	0.27514	0.29939	0.31901	0.33371					
	0.39111	0.34929	0.34868	0.35780			AVRG		0.32045		13.49465
66 2,3,4,6-Tetrachlorophenol	0.29554	0.27371	0.28658	0.29781	0.31216	0.32341					
	0.37925	0.33328	0.33674	0.34329			AVRG		0.31818		9.88367

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
67 Diethyl phthalate	1.47064	1.38863	1.35440	1.38492	1.42901	1.45089					
	1.64913	1.43275	1.37396	1.38099			AVRG		1.43153		5.94083
68 Fluorene	1.38669	1.30347	1.25485	1.30226	1.33362	1.36449					
	1.54008	1.30497	1.23086	1.21315			AVRG		1.32344		7.09484
69 4-Chlorophenyl phenyl ether	0.64521	0.62520	0.58558	0.60453	0.62190	0.62563					
	0.71159	0.61394	0.59347	0.59649			AVRG		0.62236		5.80556
70 4-Nitroaniline	+++++	+++++	+++++	0.20905	0.26801	0.31571					
	0.38888	0.35036	0.34642	0.36605			AVRG		0.32064		19.52351
71 4,6-Dinitro-o-cresol	+++++	+++++	+++++	8744	22227	51789					
	177053	329569	506493	655839			WLINR	0.07279	0.25740		0.99823
72 NDPA/DPA	0.99763	1.02550	1.03467	1.06209	1.12212	1.16128					
	1.30727	1.12216	1.06767	1.06460			AVRG		1.09650		8.13477
73 Azobenzene	1.46986	1.40787	1.40039	1.46252	1.51958	1.57335					
	1.81750	1.56700	1.47954	1.47718			AVRG		1.51748		7.90990

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
75 4-Bromophenyl phenyl ether	0.32418	0.32309	0.31437	0.33405	0.34720	0.35332					
	0.41761	0.37015	0.36566	0.38283			AVRG		0.35325		9.01563
76 Hexachlorobenzene	0.43849	0.40976	0.39250	0.39114	0.39815	0.40545					
	0.45991	0.41516	0.42179	0.43207			AVRG		0.41644		5.28731
77 Dimethoate	+++++	+++++	+++++	0.39680	0.48179	0.53047					
	0.60993	0.67026	0.67598	0.66673			AVRG		0.57599		18.92884
78 Dichloran	+++++	+++++	+++++	6359	15273	34939					
	101673	220260	335378	425086			WLINR	0.07705	0.18841		0.99870
79 Atrazine	0.14591	0.16062	0.16310	0.16603	0.18785	0.19165					
	0.21607	0.20906	0.22595	0.21752			AVRG		0.18838		14.99303
80 Pentachlorophenol	+++++	+++++	5810	10748	27128	52786					
	169942	324081	549858	728998			WLINR	0.05035	0.14304		0.99632
81 Pentachloronitrobenzene	0.13122	0.11925	0.12523	0.13418	0.15394	0.16005					
	0.17724	0.18145	0.18257	0.18282			AVRG		0.15480		16.56550

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
83 Phenanthrene	1.20151	1.11426	1.08157	1.09558	1.08624	1.08898					
	1.22929	1.03826	0.97335	0.94726			AVRG		1.08563		8.06599
84 Anthracene	1.02241	1.01722	0.99708	1.02913	1.05282	1.06042					
	1.23943	1.05540	0.98940	0.96262			AVRG		1.04259		7.28079
85 Carbazole	0.93590	0.93496	0.88264	0.94551	1.00056	1.02114					
	1.19129	1.01733	0.96597	0.93641			AVRG		0.98317		8.63002
86 Di-n-butylphthalate	1.01444	1.01679	1.01771	1.08218	1.18394	1.22948					
	1.44567	1.24728	1.15344	1.11490			AVRG		1.15058		11.72553
87 Parathion	+++++	+++++	+++++	6524	17258	41333					
	141253	316638	491538	684627			QUAD	0.14998	6.51893	-0.58980	0.99842
88 Diphenamid	0.43510	0.40753	0.40596	0.42496	0.46713	0.46855					
	0.51348	0.51764	0.50954	0.50086			AVRG		0.46508		9.53388
89 Fluoranthene	1.11154	1.04677	1.06216	1.12228	1.14554	1.17079					
	1.32472	1.14787	1.08437	1.06764			AVRG		1.12837		7.11526

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
90 Benzidine	+++++	+++++	+++++	+++++	0.53414	0.65533						
	0.67624	0.67480	0.69590	0.62262			AVRG		0.64317		9.15415	
91 Pyrene	1.21361	1.13533	1.15672	1.20358	1.20858	1.25088						
	1.37321	1.17687	1.11206	1.08906			AVRG		1.19199		6.78384	
93 3,3'-Dimethylbenzidine	+++++	+++++	2103	4963	58445	202459						
	325475	578456	507190	588524			QUAD	0.14592	-0.11651	0.48702	0.88319	<-
94 Butyl benzyl phthalate	+++++	+++++	0.38082	0.43104	0.47165	0.52994						
	0.65154	0.57605	0.54617	0.54231			AVRG		0.51619		16.57357	
95 Bis (2-ethylhexyl) adipate	6542	13911	24262	43834	107228	230855						
	705339	+++++	+++++	+++++			QUAD	0.01853	2.22242	-0.66618	0.99987	
97 Benzo(a)anthracene	1.27932	1.17957	1.16312	1.17565	1.21391	1.23259						
	1.44253	1.25853	1.21370	1.19341			AVRG		1.23523		6.60909	
98 3,3'-Dichlorobenzidine	+++++	10210	19291	36901	85668	197325						
	600418	1087026	1653641	2077839			WLINR	0.03122	0.48155		0.99790	

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
99 Chrysene	1.31590	1.24855	1.20131	1.20316	1.20236	1.18150					
	1.34367	1.16731	1.14580	1.13191			AVRG		1.21415		5.72163
100 Bis(2-ethylhexyl)phthalate	+++++	+++++	0.59508	0.65344	0.77690	0.83142					
	1.00587	0.88411	0.84755	0.83036			AVRG		0.80309		16.13658
101 Di-n-octylphthalate	+++++	+++++	+++++	0.95937	1.18956	1.34270					
	1.74215	1.52818	1.45570	1.42593			AVRG		1.37766		18.15882
102 Benzo(b)fluoranthene	1.00682	1.00140	1.01407	1.09652	1.12896	1.24300					
	1.47036	1.26603	1.23860	1.27295			AVRG		1.17387		12.90002
103 Benzo(k)fluoranthene	1.11692	1.13952	1.14268	1.17655	1.24350	1.26176					
	1.47969	1.29109	1.26918	1.19602			AVRG		1.23169		8.61711
104 Benzo(e)pyrene	+++++	+++++	1.01054	1.01314	1.06991	1.07560					
	1.16683	1.15739	1.17224	1.15293			AVRG		1.10232		6.20834
105 Benzo(a)pyrene	+++++	0.95629	0.96143	1.01644	1.08315	1.14553					
	1.39254	1.23466	1.21572	1.19760			AVRG		1.13371		12.69068

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
107 Perylene	1.20843	1.09639	1.12578	1.12190	1.13153	1.10965					
	1.16173	1.14568	1.14680	1.13904			AVRG		1.13869		2.72136
108 Indeno(1,2,3-cd)pyrene	+++++	0.91381	0.92457	0.93416	0.99625	1.07523					
	1.31754	1.21366	1.23408	1.29707			AVRG		1.10071		15.11296
109 Dibenzo(a,h)anthracene	0.90211	0.90760	0.92392	1.00403	1.04298	1.10624					
	1.36433	1.22160	1.20724	1.20275			AVRG		1.08828		14.52942
110 Benzo(ghi)perylene	+++++	1.02909	0.99407	1.03579	1.07896	1.13428					
	1.36551	1.20989	1.19991	1.20577			AVRG		1.13925		10.37951
$ 3 2-Fluorophenol	1.26049	1.14069	1.14549	1.23439	1.27009	1.32737					
	1.61323	1.43985	1.44055	1.42724			AVRG		1.32994		11.24849
$ 6 Phenol-d6	1.50556	1.54919	1.53238	1.65212	1.69190	1.80741					
	2.12623	1.80971	1.77757	1.75305			AVRG		1.72051		10.62704
$ 22 Nitrobenzene-d5	1.42198	1.31575	1.38465	1.45245	1.52132	1.58397					
	1.95079	1.69177	1.71698	1.70527			AVRG		1.57449		12.28687

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 48 2-Fluorobiphenyl	0.74925	0.72773	0.68394	0.69471	0.69971	0.70755					
	0.81192	0.68740	0.66390	0.65500			AVRG		0.70811		6.47026
$ 74 2,4,6-Tribromophenol	0.07880	0.08069	0.08725	0.09038	0.09597	0.09942					
	0.12056	0.11115	0.11563	0.11998			AVRG		0.09998		15.93471
$ 92 4-Terphenyl-d14	0.64288	0.65577	0.64235	0.68093	0.69674	0.73163					
	0.83060	0.73460	0.72884	0.71905			AVRG		0.70634		8.03157

FORM VI-NYTCL-8270

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.I Calibration Date(s): 12-MAR-2016 13-MAR-2016

Calibration Times: 11:36 01:09

Average %RSD Results.
Calculated Average %RSD = 10.29839
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

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

FORM VI-NYTCL-8270

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Calibration File Names:
Level 1: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL1.D
Level 2: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL2.D
Level 3: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL3.D
Level 4: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL4.D
Level 5: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL5.D
Level 6: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL6.D
Level 7: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL7.D
Level 8: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL8.D
Level 9: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL9.D
Level 10: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL10.D

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 n-Nitrosodimethylamine	0.90902	0.92175	0.94730	0.88269	0.94923	0.91039					
	1.05452	0.91441	0.87822	0.86726			AVRG		0.92348		5.79117
2 Pyridine	1.41848	1.57010	1.52126	1.55591	1.60709	1.60348					
	1.83338	1.58028	1.52886	1.52455			AVRG		1.57434		6.73133
4 Benzaldehyde	1.14055	1.15904	1.13271	1.08588	1.13097	1.10876					
	1.12050	1.13467	1.12168	1.05719			AVRG		1.11920		2.60943

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Aniline	2.13341	2.15059	2.16508	2.16738	2.12981	2.14046					
	2.50928	2.20340	2.18565	2.16829			AVRG		2.19534		5.13306
7 Phenol	1.85736	1.86261	1.92038	1.88510	1.85294	1.87394					
	2.19839	1.92193	1.91971	1.91343			AVRG		1.92058		5.28132
8 Bis(2-chloroethyl)ether	1.43649	1.46003	1.44053	1.45211	1.44289	1.40172					
	1.63955	1.43819	1.42849	1.42305			AVRG		1.45630		4.55585
9 2-Chlorophenol	1.39348	1.41178	1.39644	1.40279	1.40466	1.42398					
	1.65415	1.47143	1.47674	1.46475			AVRG		1.45002		5.41828
10 1,3-Dichlorobenzene	1.64196	1.60327	1.56754	1.59610	1.57652	1.56752					
	1.83479	1.60811	1.57917	1.56491			AVRG		1.61399		5.03122
12 1,4-Dichlorobenzene	1.66512	1.72875	1.68062	1.61914	1.63457	1.62127					
	1.87927	1.64827	1.61434	1.59996			AVRG		1.66913		4.97525
14 1,2-Dichlorobenzene	1.51919	1.57295	1.53069	1.51742	1.52451	1.53003					
	1.77881	1.57302	1.54901	1.52369			AVRG		1.56193		5.05524

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
13 Benzyl alcohol	1.18654	1.13519	1.17116	1.14201	1.15166	1.16388					
	1.41455	1.27975	1.30698	1.32673			AVRG		1.22784		7.88515
15 2-Methylphenol	1.24645	1.20622	1.23807	1.24233	1.22036	1.22754					
	1.46567	1.30147	1.31641	1.31034			AVRG		1.27749		6.01686
16 Bis(2-chloroisopropyl)ether	2.51459	2.43523	2.38674	2.35536	2.32063	2.32774					
	2.72552	2.37876	2.34721	2.27738			AVRG		2.40692		5.39607
17 Acetophenone	2.05810	1.87490	1.81614	1.79636	1.86526	1.89104					
	1.87522	1.90379	1.97182	1.94409			AVRG		1.89967		4.01730
18 n-Nitrosodi-n-propylamine	1.05127	1.02278	1.01377	1.02367	1.02432	1.00504					
	1.21824	1.10299	1.11532	1.12252			AVRG		1.06999		6.38983
19 3-Methylphenol/4-Methylphenol	1.25601	1.26938	1.26636	1.28593	1.26031	1.30097					
	1.58457	1.41361	1.41407	1.41115			AVRG		1.34624		7.97176
20 m-Toluidine	1.79372	1.83655	1.70508	1.71550	1.78947	1.94086					
	1.97162	2.06625	2.05399	2.10181			AVRG		1.89749		7.82453

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INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
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Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
21 Hexachloroethane	0.70023	0.64952	0.65863	0.64277	0.67432	0.68588						
	0.79891	0.70853	0.70282	0.70017			AVRG		0.69218		6.39722	
23 Nitrobenzene	0.38355	0.37660	0.36797	0.36971	0.37733	0.37206						
	0.43216	0.37590	0.37483	0.37771			AVRG		0.38078		4.88085	
24 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
25 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
26 Isophorone	2.70315	2.71685	2.60511	2.64567	2.59905	2.66862						
	3.23021	2.93032	3.03052	2.99176			AVRG		2.81213		7.73871	
27 2-Chloroaniline	1.74781	1.75868	1.73456	1.68500	1.70939	1.72245						
	1.74550	1.76258	1.82858	1.79302			AVRG		1.74876		2.34541	
28 2-Nitrophenol	+++++	+++++	+++++	0.60814	0.67978	0.73897						
	0.93986	0.83212	0.85890	0.85659			AVRG		0.78777		14.76785	

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INITIAL CALIBRATION DATA

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End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
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Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
29 2,4-Dimethylphenol	+++++	+++++	1.36913	1.32048	1.32180	1.33462					
	1.66396	1.48874	1.51966	1.52544			AVRG		1.44298		8.70669
30 Bis(2-chloroethoxy)methane	1.66255	1.71753	1.65046	1.66938	1.63220	1.64637					
	2.00053	1.77915	1.81201	1.78945			AVRG		1.73596		6.56160
32 2,4-Dichlorophenol	0.27040	0.26019	0.26904	0.27741	0.28084	0.28268					
	0.32950	0.29185	0.29461	0.29346			AVRG		0.28500		6.77456
31 Benzoic acid	+++++	+++++	+++++	+++++	15919	47313					
	186056	359234	620064	917997			LINR	0.18527	0.31756		0.99877
33 1,2,4-Trichlorobenzene	0.34598	0.32801	0.31584	0.31854	0.32487	0.31441					
	0.36145	0.31722	0.31589	0.31670			AVRG		0.32589		4.81898
35 Naphthalene	0.99188	1.01037	1.00603	0.99884	0.99872	0.97257					
	1.11930	0.98553	0.97954	0.97952			AVRG		1.00423		4.20721
36 a-Terpineol	1.18234	1.15193	1.17927	1.08902	1.14552	1.16153					
	1.20056	1.20954	1.27105	1.27797			AVRG		1.18687		4.80834

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Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
37 3-Chloroaniline	+++++	+++++	+++++	0.14558	0.15133	0.14626					
	0.16119	0.16868	0.19027	0.20699			AVRG		0.16719		14.05203
38 4-Chloroaniline	0.12782	0.13770	0.12843	0.13692	0.13526	0.13340					
	0.15692	0.13901	0.13905	0.14051			AVRG		0.13750		5.88230
39 2,6-Dichlorophenol	1.09063	1.07306	1.04271	1.09839	1.08169	1.11989					
	1.16481	1.18606	1.25129	1.28360			AVRG		1.13921		7.02599
40 Hexachlorobutadiene	0.18114	0.19713	0.19403	0.18490	0.18507	0.18833					
	0.21150	0.18416	0.18309	0.18610			AVRG		0.18954		4.83471
41 1-chloro-2-nitrobenzene	0.59543	0.53535	0.52857	0.53801	0.53455	0.55011					
	0.57538	0.58360	0.64485	0.65397			AVRG		0.57398		7.99370
42 Caprolactam	0.17018	0.17116	0.15373	0.15837	0.15876	0.16842					
	0.19001	0.18240	0.19698	0.19714			AVRG		0.17472		9.20271
43 p-Chloro-m-cresol	0.29058	0.27859	0.27314	0.28074	0.28154	0.27728					
	0.33808	0.29780	0.30595	0.31261			AVRG		0.29363		6.94267

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Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
44 2-Methylnaphthalene	0.67396	0.66677	0.66034	0.66446	0.65697	0.65111					
	0.75684	0.66976	0.68325	0.68922			AVRG		0.67727		4.46633
45 1-Methylnaphthalene	0.22767	0.22645	0.23052	0.23312	0.21959	0.22362					
	0.26033	0.23355	0.23905	0.23794			AVRG		0.23318		4.85411
46 1,2,4,5-Tetrachlorobenzene	0.57608	0.55675	0.56513	0.54932	0.56664	0.56602					
	0.54584	0.56607	0.55102	0.54257			AVRG		0.55854		1.97044
47 Hexachlorocyclopentadiene	0.18141	0.19270	0.18374	0.19937	0.19614	0.20787					
	0.25268	0.22640	0.23903	0.24282			AVRG		0.21222		12.24496
48 2,4,6-Trichlorophenol	0.16430	0.17558	0.18252	0.18928	0.19640	0.19519					
	0.23977	0.21367	0.21714	0.21862			AVRG		0.19925		11.50583
49 2,4,5-Trichlorophenol	0.18367	0.20941	0.20023	0.20574	0.19873	0.21562					
	0.24631	0.22404	0.23127	0.23852			AVRG		0.21535		9.10489
51 Biphenyl	1.56728	1.46956	1.48945	1.47420	1.50498	1.51484					
	1.50372	1.54463	1.51802	1.49688			AVRG		1.50835		1.99107

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Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
52 2-Chloronaphthalene	0.61511	0.64332	0.62597	0.62783	0.62296	0.60343					
	0.71917	0.63505	0.64548	0.65748			AVRG		0.63958		5.00661
53 2-Nitroaniline	0.17589	0.18195	0.18912	0.19011	0.20010	0.21048					
	0.25238	0.23353	0.24222	0.24107			AVRG		0.21169		13.36600
54 1,4-Dinitrobenzene	+++++	+++++	+++++	0.17112	0.18571	0.19622					
	0.24425	0.22206	0.22295	0.22737			AVRG		0.20995		12.41907
55 Dimethyl phthalate	1.34355	1.34061	1.33505	1.33050	1.29958	1.31774					
	1.52983	1.36066	1.37814	1.36240			AVRG		1.35981		4.69943
56 1,3-Dinitrobenzene	+++++	+++++	0.19874	0.20734	0.21636	0.22861					
	0.27279	0.24794	0.25228	0.24891			AVRG		0.23412		10.88932
57 2,6-Dinitrotoluene	0.14810	0.15040	0.15025	0.16639	0.16626	0.16614					
	0.19835	0.17923	0.18677	0.18605			AVRG		0.16979		10.24504
58 Acenaphthylene	0.96499	0.97063	0.96966	1.00578	0.97370	0.96948					
	1.14331	1.02316	1.04702	1.05206			AVRG		1.01198		5.63102

Alpha Analytical Labs

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Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
59 1,2-Dinitrobenzene	0.12797	0.14200	0.14646	0.14545	0.15435	0.15548					
	0.18640	0.16693	0.16851	0.16481			AVRG		0.15584		10.61864
60 3-Nitroaniline	0.29600	0.33551	0.34592	0.34305	0.34820	0.35089					
	0.42330	0.38039	0.38380	0.37907			AVRG		0.35861		9.63178
62 Acenaphthene	1.19464	1.12463	1.14825	1.13097	1.13660	1.10267					
	1.29457	1.13418	1.13651	1.12891			AVRG		1.15319		4.75806
63 2,4-Dinitrophenol	+++++	+++++	+++++	3363	9834	25385					
	91736	170164	292065	424498			WLINR	0.08006	0.25579		0.99844
64 4-Nitrophenol	+++++	+++++	+++++	0.24884	0.27820	0.28575					
	0.34621	0.31381	0.31626	0.31203			AVRG		0.30016		10.56211
65 Dibenzofuran	1.70338	1.65192	1.64815	1.62375	1.60959	1.60316					
	1.87302	1.63854	1.63945	1.64051			AVRG		1.66315		4.73079
66 2,4-Dinitrotoluene	0.33389	0.37556	0.37681	0.38823	0.40713	0.42230					
	0.49791	0.45316	0.45775	0.45525			AVRG		0.41680		11.90782

Alpha Analytical Labs

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Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
67 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	0.26681	0.30693	0.33080					
	0.39957	0.35727	0.36557	0.36750			AVRG		0.34206		12.94421
68 2,3,4,6-Tetrachlorophenol	+++++	0.25399	0.26946	0.28887	0.30128	0.32410					
	0.39155	0.34323	0.34981	0.35438			AVRG		0.31963		13.98105
69 Diethyl phthalate	1.38112	1.33880	1.36314	1.35404	1.34156	1.35489					
	1.59008	1.41342	1.44080	1.44969			AVRG		1.40275		5.49072
70 Fluorene	1.35386	1.30306	1.33998	1.30641	1.32168	1.31538					
	1.54099	1.36220	1.38129	1.38507			AVRG		1.36099		5.12853
71 4-Chlorophenyl phenyl ether	0.61544	0.63301	0.61695	0.63476	0.61809	0.62316					
	0.71277	0.63551	0.63682	0.64574			AVRG		0.63723		4.45578
72 4-Nitroaniline	0.28221	0.33400	0.32565	0.32747	0.33992	0.35881					
	0.42768	0.38993	0.38854	0.38499			AVRG		0.35592		11.89065
73 4,6-Dinitro-o-cresol	+++++	+++++	+++++	5283	13879	33741					
	112311	207371	355311	514738			WLINR	0.05780	0.30906		0.99888

Alpha Analytical Labs

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Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
74 NDPA/DPA	1.12550	1.09756	1.10654	1.09147	1.10747	1.11072						
	1.30702	1.16927	1.17784	1.18107			AVRG		1.14745		5.71618	
75 Azobenzene	1.37330	1.37259	1.36487	1.41585	1.37687	1.40394						
	1.64587	1.45531	1.46380	1.46717			AVRG		1.43396		5.88364	
77 Thionazin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
78 4-Bromophenyl phenyl ether	0.35999	0.36040	0.34363	0.35016	0.35153	0.35024						
	0.40382	0.36009	0.37086	0.37352			AVRG		0.36242		4.77373	
79 Hexachlorobenzene	0.41201	0.38114	0.38310	0.38060	0.37085	0.36672						
	0.42034	0.38001	0.38949	0.39329			AVRG		0.38775		4.37378	
80 Dimethoate	+++++	+++++	+++++	0.43815	0.47167	0.50830						
	0.55817	0.57328	0.57671	0.59645			AVRG		0.53182		11.26913	
81 Dichloran	+++++	+++++	+++++	0.13659	0.15461	0.16592						
	0.18201	0.18599	0.18501	0.18934			AVRG		0.17135		11.56544	

Alpha Analytical Labs

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Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
82 Atrazine	0.14501	0.15904	0.15787	0.15860	0.17537	0.18488						
	0.18806	0.20217	0.19652	0.20057			AVRG		0.17681		11.63247	
83 Pentachlorophenol	+++++	+++++	1464	3521	11530	28974						
	101216	186878	328069	474796			WLINR	0.06431	0.15793		0.99818	<-
84 Pentachloronitrobenzene	+++++	0.14753	0.13181	0.14286	0.15601	0.16492						
	0.17509	0.17659	0.17814	0.18146			AVRG		0.16160		11.05701	
86 Phenanthrene	1.13688	1.15262	1.14883	1.10791	1.11042	1.10309						
	1.27426	1.12321	1.11171	1.11194			AVRG		1.13809		4.47767	
87 Anthracene	1.02953	1.07634	1.08588	1.08775	1.09885	1.11198						
	1.29778	1.14035	1.12579	1.14092			AVRG		1.11952		6.33696	
88 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
89 Carbazole	1.00435	0.98292	1.00036	1.03122	1.02944	1.02238						
	1.21746	1.06705	1.05836	1.04810			AVRG		1.04616		6.27984	

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Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
90 Di-n-butylphthalate	1.16261	1.22955	1.23358	1.25426	1.26209	1.28236					
	1.54496	1.36212	1.37781	1.37334			AVRG		1.30827		8.32295
91 parathion	795	1453	2250	4289	8116	25924					
	79979	157036	280107	416913			QUAD	0.07074	1.79813	-0.07127	0.99839
92 Diphenamid	0.42031	0.42906	0.41791	0.44640	0.45816	0.47257					
	0.49971	0.50276	0.50501	0.50110			AVRG		0.46530		7.67911
93 Fluoranthene	1.11369	1.10878	1.11423	1.12028	1.13559	1.12390					
	1.33966	1.18271	1.18283	1.16364			AVRG		1.15853		6.01112
94 Benzidine	594	1087	1879	5066	41569	156894					
	332880	451948	619473	+++++			QUAD	0.09169	0.48675	1.99235	0.99528
95 Pyrene	1.15128	1.14355	1.17549	1.17885	1.18590	1.19022					
	1.39687	1.24411	1.24863	1.23301			AVRG		1.21479		6.06612
97 3,3'-Dimethylbenzidine	3977	7713	16930	25724	59012	135855					
	409342	938703	1357460	2104826			QUAD	0.05160	1.12821	-0.00953	0.99926

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
98 Butyl benzyl phthalate	0.52586	0.51510	0.54759	0.55029	0.56831	0.57017					
	0.69014	0.62080	0.64263	0.63497			AVRG		0.58659		9.77925
99 Bis (2-ethylhexyl) adipate	+++++	+++++	+++++	+++++	1.77225	1.80494					
	2.30000	2.17676	2.45247	2.41343			AVRG		2.15331		13.86678
100 Benzo(a)anthracene	1.23763	1.21515	1.18245	1.17977	1.19135	1.18908					
	1.37123	1.20469	1.21383	1.17230			AVRG		1.21575		4.77864
101 3,3'-Dichlorobenzidine	0.33372	0.38094	0.39892	0.41671	0.42637	0.43512					
	0.50211	0.43640	0.44663	0.43344			AVRG		0.42104		10.49799
103 Chrysene	1.15085	1.21591	1.15253	1.18230	1.17198	1.16909					
	1.34428	1.15212	1.14768	1.12444			AVRG		1.18112		5.27743
104 Bis(2-ethylhexyl)phthalate	0.73876	0.79363	0.81705	0.82637	0.87524	0.90109					
	1.06795	0.93166	0.95914	0.94224			AVRG		0.88531		10.81862
105 Di-n-octylphthalate	+++++	1.22260	1.21481	1.30621	1.40851	1.45750					
	1.76011	1.55853	1.62985	1.56857			AVRG		1.45852		12.89942

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
106 Benzo(b)fluoranthene	1.06532	1.07230	1.07842	1.10851	1.15629	1.15769					
	1.34174	1.21409	1.20946	1.25142			AVRG		1.16552		7.69720
107 Benzo(k)fluoranthene	1.14840	1.18726	1.20582	1.16380	1.16540	1.20010					
	1.40086	1.24709	1.26929	1.22682			AVRG		1.22148		6.03041
108 Benzo(e)pyrene	1.01996	1.00195	1.00951	1.00028	1.04054	1.07196					
	1.09952	1.13294	1.14807	1.10858			AVRG		1.06333		5.29189
109 Benzo(a)pyrene	0.98684	1.02863	1.03886	1.05848	1.09953	1.12489					
	1.31898	1.19974	1.19494	1.18503			AVRG		1.12359		9.02550
111 Perylene	1.12023	1.10351	1.13440	1.11568	1.09349	1.12181					
	1.13689	1.17252	1.17332	1.13848			AVRG		1.13103		2.32346
112 Indeno(1,2,3-cd)pyrene	0.86424	0.94145	0.94161	0.95344	0.99857	0.98517					
	1.16018	1.07379	1.05265	1.05598			AVRG		1.00271		8.44887
113 Dibenzo(a,h)anthracene	0.87410	0.97125	1.01942	0.96524	1.04479	1.02402					
	1.22287	1.10623	1.09740	1.12831			AVRG		1.04536		9.41470

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
114 Benzo(ghi)perylene	0.95937	1.02023	1.03900	1.04075	1.10721	1.10352					
	1.26931	1.16077	1.13511	1.11997			AVRG		1.09552		7.88891
$ 3 2-Fluorophenol	1.29387	1.28245	1.31418	1.30146	1.31273	1.32408					
	1.53393	1.33799	1.31704	1.30327			AVRG		1.33210		5.45104
$ 6 Phenol-d6	1.66696	1.63912	1.64410	1.64364	1.61259	1.62600					
	1.90267	1.68673	1.69624	1.67467			AVRG		1.67927		4.93560
$ 22 Nitrobenzene-d5	1.44531	1.47477	1.40160	1.42645	1.41125	1.44608					
	1.75937	1.57020	1.60411	1.57124			AVRG		1.51104		7.52632
$ 50 2-Fluorobiphenyl	0.70845	0.69440	0.67376	0.69991	0.68518	0.67405					
	0.79418	0.70787	0.72465	0.72787			AVRG		0.70903		4.97219
$ 76 2,4,6-Tribromophenol	634	1766	3037	4493	10231	23272					
	76409	135962	238959	349152			WLINR	0.01738	0.11404		0.99774
$ 96 4-Terphenyl-d14	0.74110	0.74464	0.74572	0.72984	0.73364	0.71498					
	0.85513	0.76099	0.78506	0.77001			AVRG		0.75811		5.23445

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 08-MAR-2016 20:12
End Cal Date : 09-MAR-2016 19:55
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Cal Date : 10-Mar-2016 06:59 SV103.i

Average %RSD Results.	
Calculated Average %RSD =	7.31378
Maximun Average %RSD =	20.00000
* Passed Average %RSD Test.	

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

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\degn.D
Lab Smp Id:
Inj Date : 08-MAR-2016 19:46
Operator : jb Inst ID: SV103.i
Smp Info : deg0308n
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\DDT.m
Meth Date : 08-Mar-2016 11:57 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: degradation
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: A1-001720

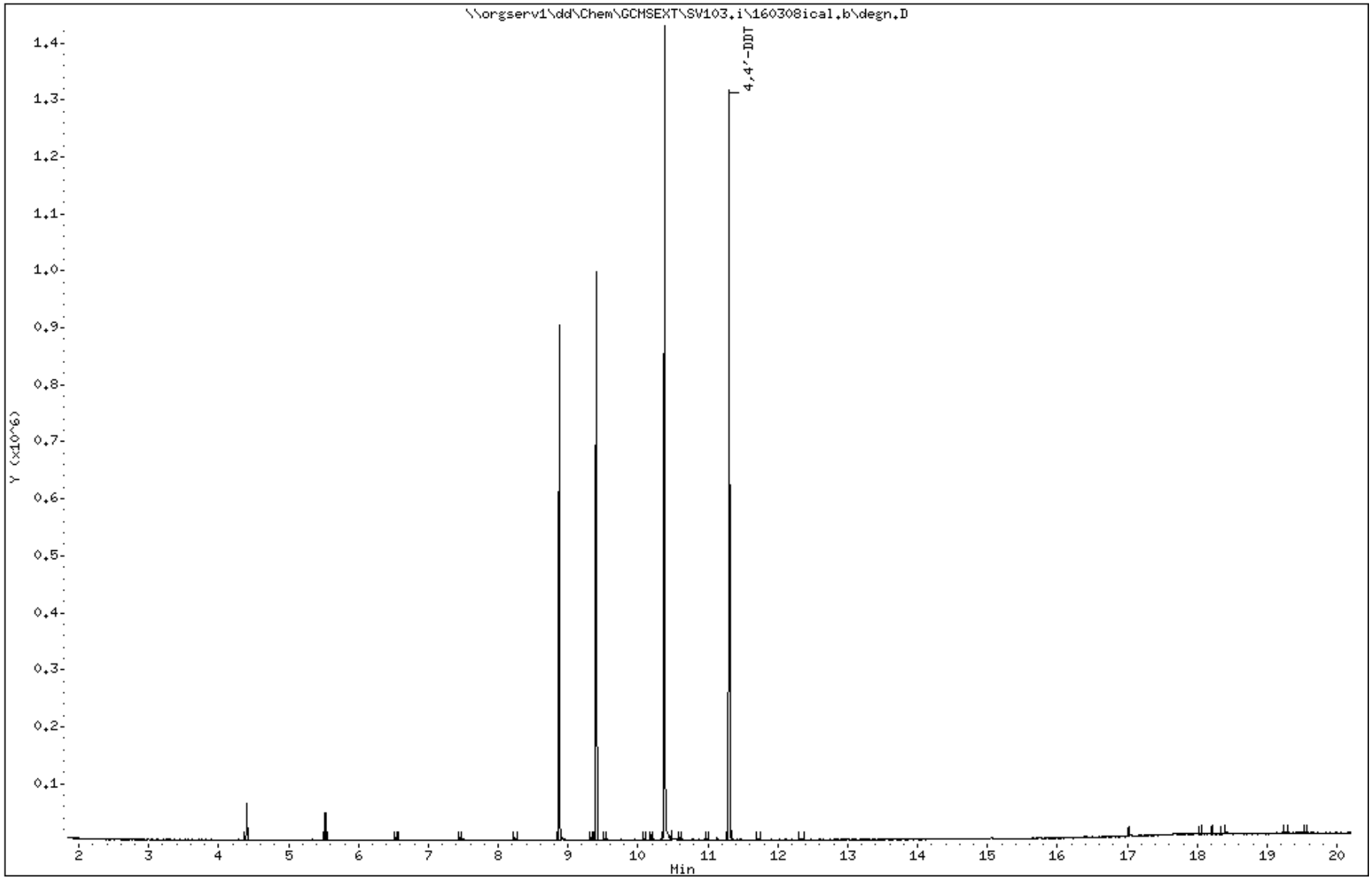
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	Compound Not Detected.						
6 4,4'-DDT	235	11.303	11.410	-0.107	247420			

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\degn.D
Date : 08-MAR-2016 19:46
Client ID:
Sample Info: deg0308n

Instrument: SV103.i

Operator: jb
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : deg0308n

Instrument ID : SV103.i
Method : DDT.m
File : degn.D
Injection Date : 08-MAR-2016 19:46
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: degradation

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftn.D
Lab Smp Id:
Inj Date : 08-MAR-2016 19:46
Operator : jb Inst ID: SV103.i
Smp Info : deg0308n
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftpp.m
Meth Date : 05-Mar-2016 10:30 hlac Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: A1-001720

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.399	9.507	-0.108	198	88640			0.00- 100.00	100.00
9.399	9.507	-0.108	51	42352			30.00- 60.00	47.78
9.399	9.507	-0.108	68	727			0.00- 2.00	1.72
9.399	9.507	-0.108	69	42152			0.00- 0.00	47.55
9.399	9.507	-0.108	70	175			0.00- 2.00	0.42
9.399	9.507	-0.108	127	46904			40.00- 60.00	52.92
9.399	9.507	-0.108	197	398			0.00- 1.00	0.45
9.399	9.507	-0.108	199	6160			5.00- 9.00	6.95
9.399	9.507	-0.108	275	20208			10.00- 30.00	22.80
9.399	9.507	-0.108	365	2689			1.00- 0.00	3.03
9.399	9.507	-0.108	441	8083			0.01- 99.99	86.22
9.399	9.507	-0.108	442	48560			40.00- 99.99	54.78
9.399	9.507	-0.108	443	9375			17.00- 23.00	19.31

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftn.D

Date : 08-MAR-2016 19:46

Client ID:

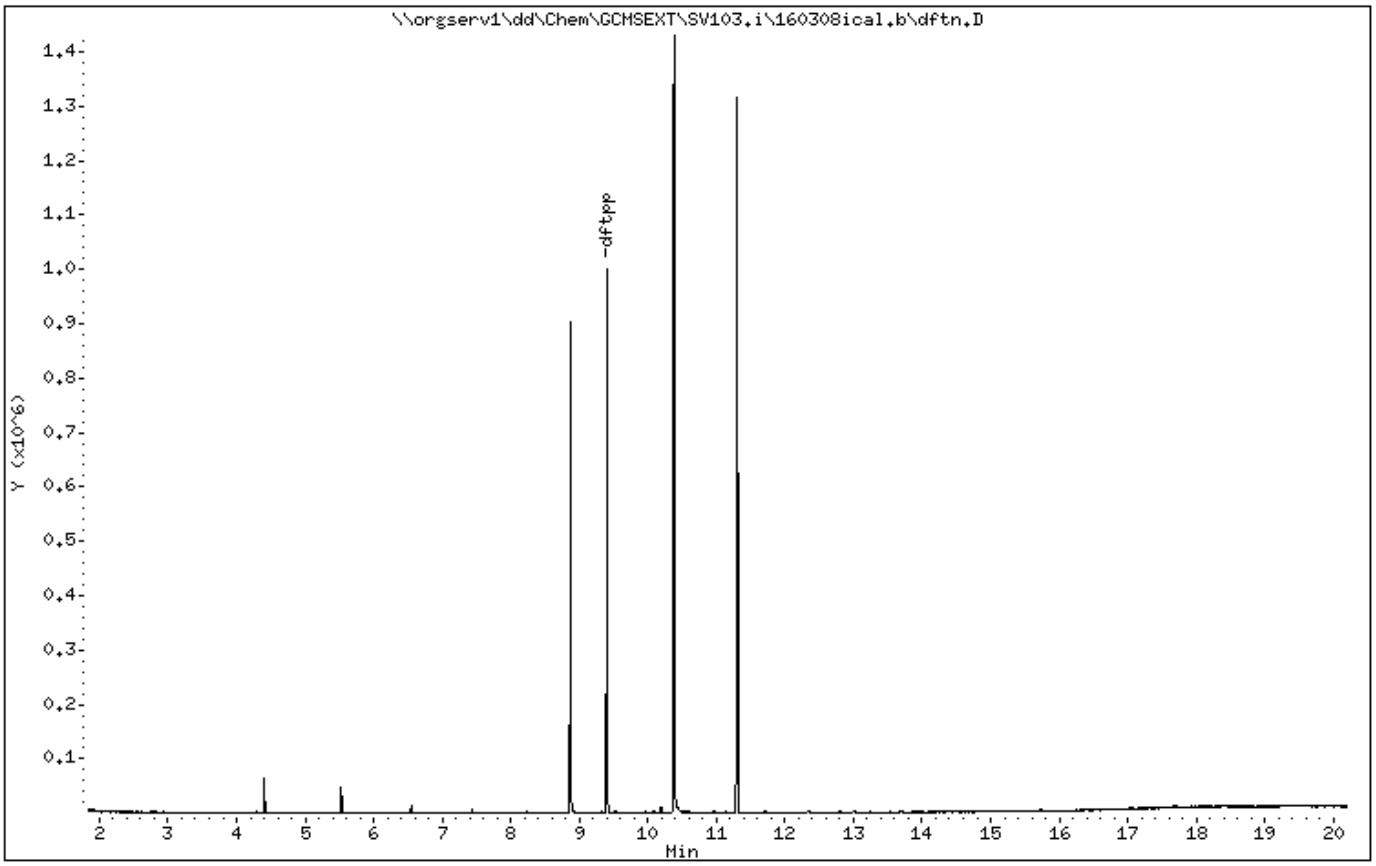
Instrument: SV103.i

Sample Info: deg0308n

Operator: jb

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftn.D

Date : 08-MAR-2016 19:46

Client ID:

Instrument: SV103.i

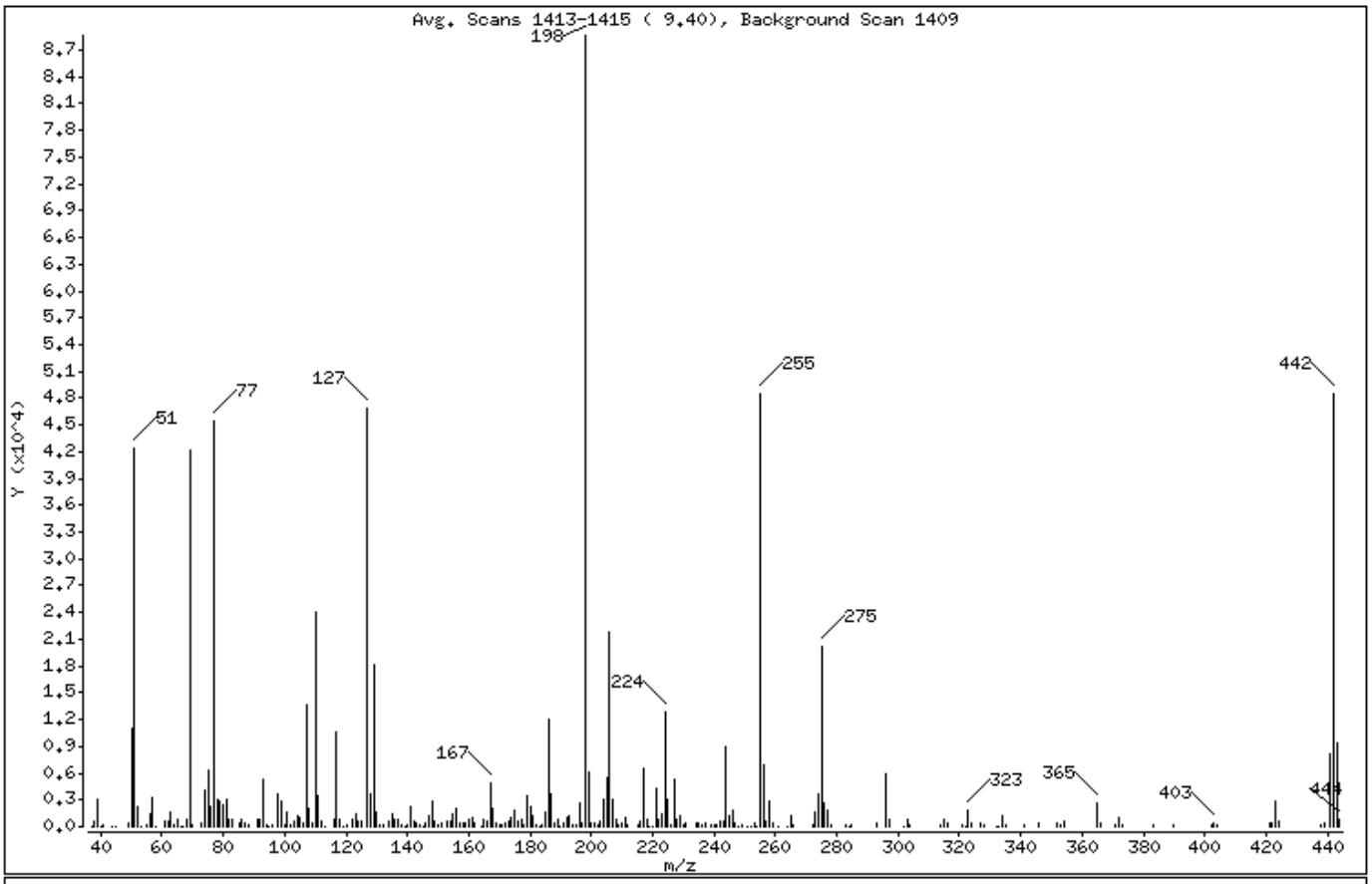
Sample Info: deg0308n

Operator: jb

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	47.78
68	Less than 2.00% of mass 69	0.82 (1.72)
69	Mass 69 relative abundance	47.55
70	Less than 2.00% of mass 69	0.20 (0.42)
127	40.00 - 60.00% of mass 198	52.92
197	Less than 1.00% of mass 198	0.45
199	5.00 - 9.00% of mass 198	6.95
275	10.00 - 30.00% of mass 198	22.80
365	Greater than 1.00% of mass 198	3.03
441	Present, but less than mass 443	9.12
442	40.00 - 99.99% of mass 198	54.78
443	17.00 - 23.00% of mass 442	10.58 (19.31)

Date : 08-MAR-2016 19:46

Client ID: Instrument: SV103.i

Sample Info: deg0308n

Operator: jb

Column phase: Column diameter: 2.00

Data File: dftn.D
Spectrum: Avg. Scans 1413-1415 (9.40), Background Scan 1409
Location of Maximum: 198.00
Number of points: 254

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	68	117.00	10601	186.00	12098	256.00	6957
38.00	533	118.00	785	187.00	3695	257.00	553
39.00	3064	119.00	51	188.00	339	258.00	2917
40.00	68	120.00	135	189.00	746	259.00	448
41.00	198	122.00	902	190.00	71	261.00	54
44.00	19	123.00	1499	191.00	331	264.00	56
45.00	71	124.00	602	192.00	1104	265.00	1204
49.00	360	125.00	682	193.00	1140	266.00	190
50.00	10916	127.00	46904	194.00	191	272.00	180
51.00	42352	128.00	3721	195.00	125	273.00	1586
52.00	2222	129.00	18136	196.00	2692	274.00	3625
53.00	55	130.00	1623	197.00	398	275.00	20208
55.00	268	131.00	269	198.00	88640	276.00	2734
56.00	1334	132.00	131	199.00	6160	277.00	1819
57.00	3186	134.00	596	200.00	506	278.00	285
58.00	63	135.00	1433	201.00	344	283.00	189
61.00	535	136.00	756	202.00	199	284.00	96
62.00	579	137.00	844	203.00	593	285.00	304
63.00	1576	138.00	178	204.00	3032	293.00	438
64.00	191	139.00	55	205.00	5432	296.00	5893
65.00	770	140.00	177	206.00	21872	297.00	790
66.00	51	141.00	2253	207.00	3126	302.00	65
67.00	52	142.00	703	208.00	785	303.00	788
68.00	727	143.00	488	209.00	205	304.00	140
69.00	42152	144.00	120	210.00	414	314.00	295
70.00	175	145.00	51	211.00	1035	315.00	745
73.00	403	146.00	418	212.00	105	316.00	325
74.00	4061	147.00	1157	215.00	192	321.00	198
75.00	6227	148.00	2902	216.00	528	322.00	61
76.00	2150	149.00	559	217.00	6551	323.00	1764
77.00	45384	150.00	143	218.00	739	324.00	331
78.00	3153	151.00	385	219.00	56	327.00	317
79.00	2764	153.00	706	220.00	50	328.00	211
80.00	2367	154.00	543	221.00	4281	332.00	65
81.00	3084	155.00	1338	222.00	768	333.00	90

Date : 08-MAR-2016 19:46

Client ID: Instrument: SV103.i

Sample Info: deg0308n

Operator: jb

Column phase: Column diameter: 2.00

Data File: dftn.D
Spectrum: Avg. Scans 1413-1415 (9.40), Background Scan 1409
Location of Maximum: 198.00
Number of points: 254

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	863	156.00	1979	223.00	1372	334.00	1159
83.00	770	157.00	380	224.00	12736	335.00	254
85.00	471	158.00	422	225.00	3158	341.00	226
86.00	763	159.00	376	226.00	288	346.00	393
87.00	345	160.00	809	227.00	5308	352.00	501
88.00	124	161.00	998	228.00	839	353.00	265
91.00	738	162.00	337	229.00	1236	354.00	510
92.00	764	164.00	60	230.00	149	365.00	2689
93.00	5254	165.00	878	231.00	483	366.00	428
94.00	298	166.00	698	234.00	376	371.00	142
95.00	52	167.00	4850	235.00	410	372.00	938
96.00	204	168.00	2065	236.00	233	373.00	198
98.00	3574	169.00	410	237.00	444	383.00	214
99.00	2831	170.00	161	239.00	196	390.00	147
100.00	192	171.00	160	240.00	145	402.00	291
101.00	1712	172.00	422	241.00	215	403.00	417
102.00	102	173.00	628	242.00	695	404.00	159
103.00	595	174.00	969	243.00	654	421.00	351
104.00	1189	175.00	1846	244.00	9046	422.00	402
105.00	983	176.00	540	245.00	1279	423.00	2789
106.00	327	177.00	836	246.00	1801	424.00	533
107.00	13632	178.00	295	247.00	361	438.00	102
108.00	2062	179.00	3557	248.00	54	439.00	346
109.00	427	180.00	2257	249.00	284	441.00	8083
110.00	23960	181.00	1197	251.00	54	442.00	48560
111.00	3488	182.00	193	252.00	74	443.00	9375
112.00	519	183.00	53	253.00	307	444.00	913
113.00	53	184.00	201	254.00	74		
116.00	777	185.00	1679	255.00	48464		

Alpha Analytical Labs

Manual Integration

Sample Info : deg0308n

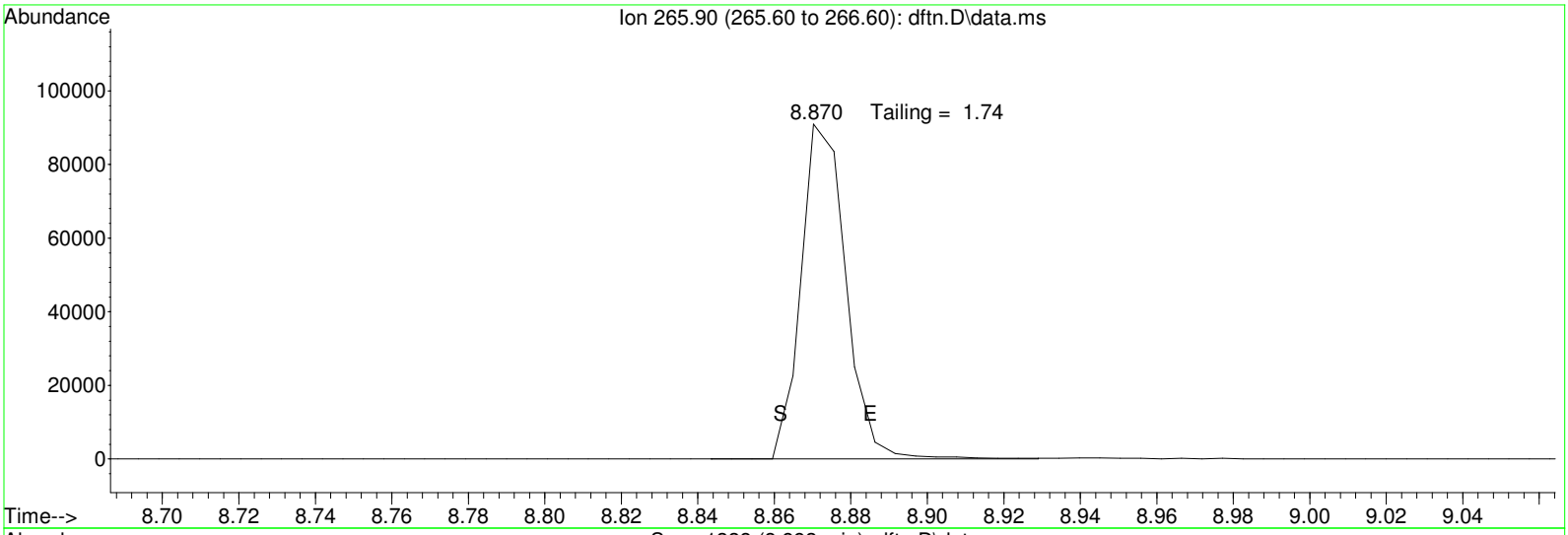
Instrument ID : SV103.i
Method : dftpp.m
File : dftn.D
Injection Date : 08-MAR-2016 19:46
Quantitation : ESTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: DFTPP

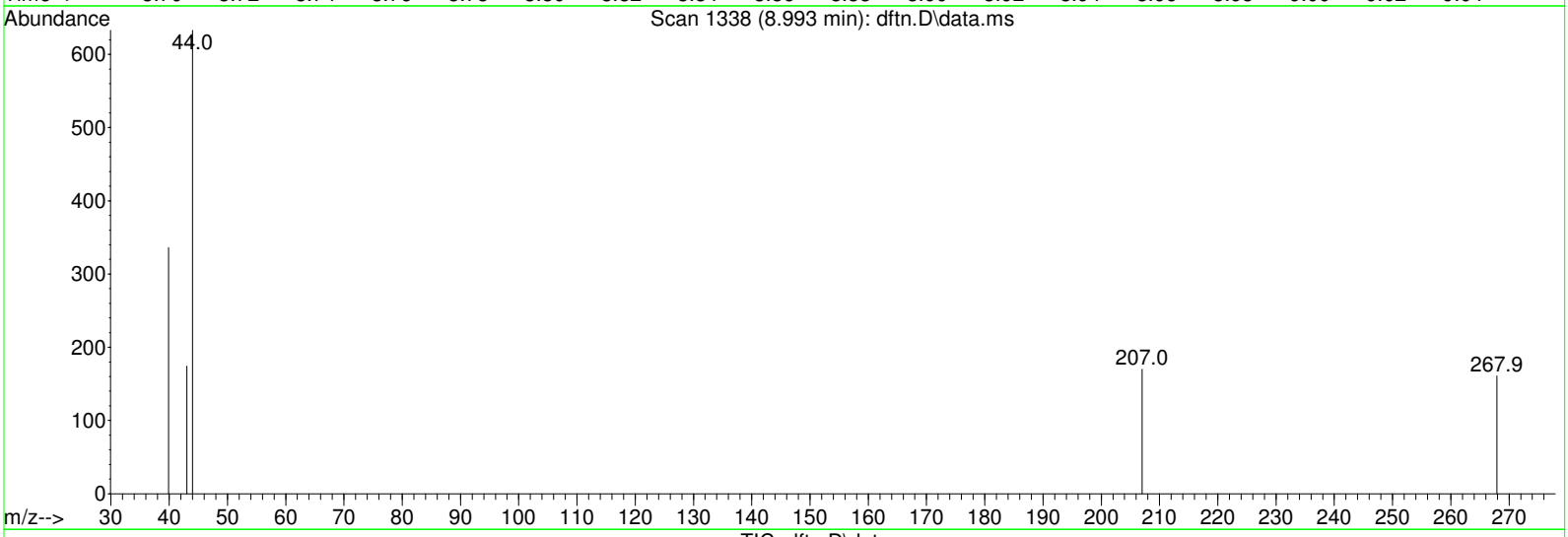
There are no manual integrations in this file.

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160308ical.b\
Data File : dftn.D
Acq On : 8 Mar 2016 7:46 pm
Operator : hl
Sample : deg0308n
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 09 09:06:01 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Wed Mar 09 07:22:55 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftn.D\data.ms

(1) pentachlorophenol (T)

8.991min 0.00 d

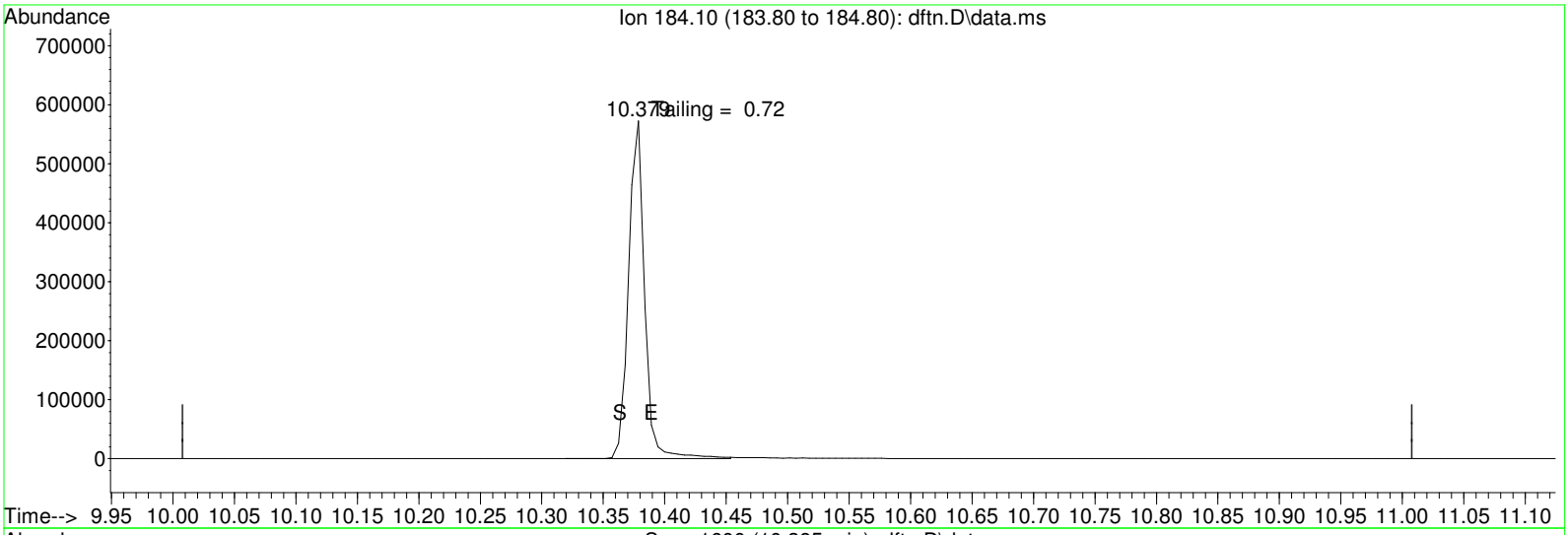
response 0

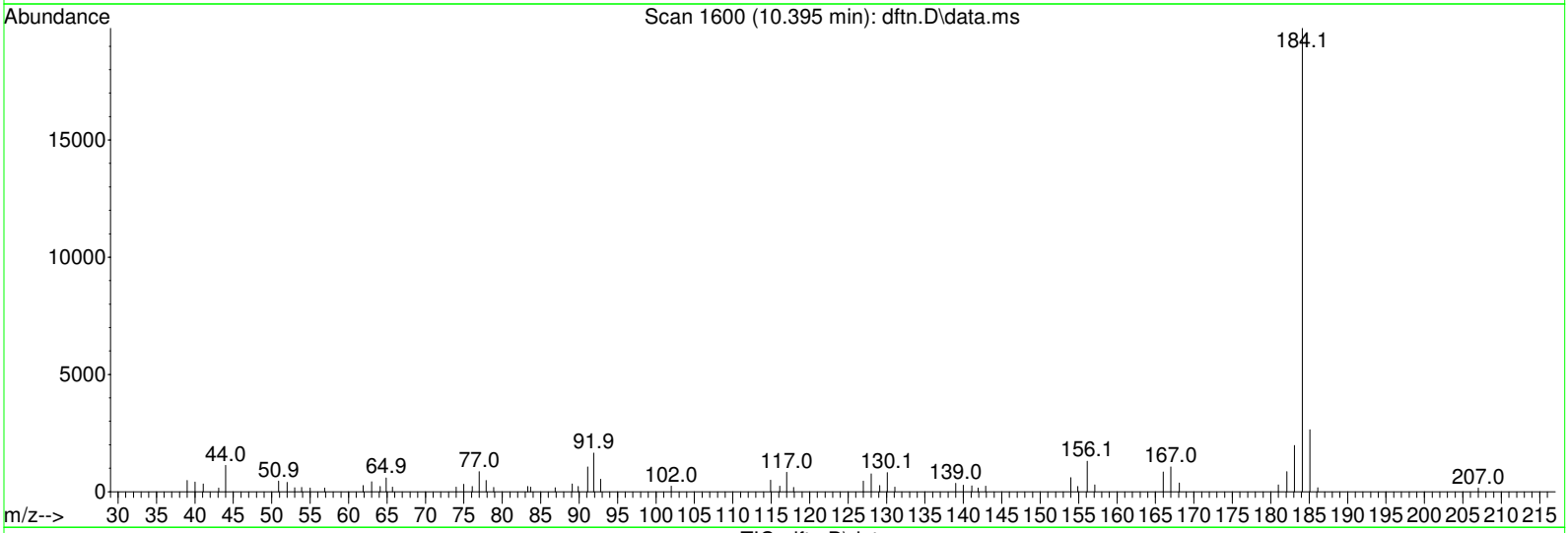
Ion	Exp%	Act%
265.90	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160308ical.b\
Data File : dftn.D
Acq On : 8 Mar 2016 7:46 pm
Operator : hl
Sample : deg0308n
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 09 09:06:01 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Wed Mar 09 07:22:55 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftn.D\data.ms

(3) benzidine (T)

10.508min 0.00 d

response 0

Ion	Exp%	Act%
184.10	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL1.D
Lab Smp Id:
Inj Date : 08-MAR-2016 20:12
Operator : hl Inst ID: SV103.i
Smp Info : ABN 1 LOT# 5806
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:30 Cal File: BENZL2.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.981	1.981	(0.425)	2473	1.00000	0.984	
	2 Pyridine	79	2.029	2.029	(0.435)	3859	1.00000	0.901	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	3520	1.00000	0.971	
	5 Aniline	93	4.345	4.345	(0.931)	5804	1.00000	0.972	
$	6 Phenol-d6	99	4.339	4.339	(0.930)	4535	1.00000	0.993	
	7 Phenol	94	4.356	4.356	(0.934)	5053	1.00000	0.967	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	3908	1.00000	0.986	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	3791	1.00000	0.961	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	4467	1.00000	1.02	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	108821	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	4530	1.00000	0.998	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	4133	1.00000	0.973	
	13 Benzyl alcohol	79	4.816	4.816	(1.032)	3228	1.00000	0.966	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	3391	1.00000	0.976	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	6841	1.00000	1.04(M)	M2
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	2860	1.00000	0.982	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	1905	1.00000	1.01	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	3417	1.00000	0.933	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	3932	1.00000	0.956	
	23 Nitrobenzene	77	5.227	5.227	(0.885)	4237	1.00000	1.01	
	26 Isophorone	82	5.473	5.473	(1.173)	7354	1.00000	0.961	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	1573	1.00000	0.734(M)	M2
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	3587	1.00000	0.914	
	30 Bis(2-chloroethoxy)methane	93	5.703	5.703	(1.222)	4523	1.00000	0.958	
	32 2,4-Dichlorophenol	162	5.778	5.778	(0.978)	2987	1.00000	0.949	
	31 Benzoic acid	105	Compound Not Detected.						
	33 1,2,4-Trichlorobenzene	180	5.859	5.859	(0.992)	3822	1.00000	1.06	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	441869	40.0000		
	35 Naphthalene	128	5.923	5.923	(1.003)	10957	1.00000	0.988	
	38 4-Chloroaniline	65	5.998	5.998	(1.015)	1412	1.00000	0.930	
	40 Hexachlorobutadiene	225	6.072	6.072	(1.028)	2001	1.00000	0.956	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	3210	1.00000	0.990	
	44 2-Methylnaphthalene	142	6.602	6.602	(1.118)	7445	1.00000	0.995	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	2515	1.00000	0.976	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	2004	1.00000	0.855	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	1815	1.00000	0.825	
	49	2,4,5-Trichlorophenol	196	6.918	6.918	(1.171)	2029	1.00000	0.853	
$	50	2-Fluorobiphenyl	172	6.976	6.976	(1.181)	7826	1.00000	0.999	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	6795	1.00000	0.962	
	53	2-Nitroaniline	138	7.180	7.180	(1.215)	1943	1.00000	0.831	
	54	1,4-Dinitrobenzene	168	7.313	7.313	(0.961)	919	1.00000	0.727	
	55	Dimethyl phthalate	163	7.383	7.383	(0.970)	8084	1.00000	0.988(M)	M2
	56	1,3-Dinitrobenzene	168	7.388	7.388	(0.971)	1001	1.00000	0.710	
	57	2,6-Dinitrotoluene	165	7.426	7.426	(1.257)	1636	1.00000	0.872	
	58	Acenaphthylene	152	7.468	7.468	(1.264)	10660	1.00000	0.954	
	59	1,2-Dinitrobenzene	168	7.468	7.468	(0.982)	770	1.00000	0.821	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	1781	1.00000	0.825	
*	61	Acenaphthene-d10	164	7.608	7.608	(1.000)	240675	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	7188	1.00000	1.04	
	63	2,4-Dinitrophenol	184	Compound Not Detected.						
	65	Dibenzofuran	168	7.811	7.811	(1.027)	10249	1.00000	1.02	
	64	4-Nitrophenol	65	7.768	7.768	(1.021)	1421	1.00000	0.787	
	66	2,4-Dinitrotoluene	165	7.811	7.811	(1.027)	2009	1.00000	0.801	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.038)	701	1.00000	0.340	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.044)	1036	1.00000	0.539	
	69	Diethyl phthalate	149	8.073	8.073	(1.061)	8310	1.00000	0.984	
	70	Fluorene	166	8.137	8.137	(1.070)	8146	1.00000	0.995	
	71	4-Chlorophenyl phenyl ether	204	8.158	8.158	(1.072)	3703	1.00000	0.966	
	72	4-Nitroaniline	138	8.164	8.164	(1.073)	1698	1.00000	0.793	
	73	4,6-Dinitro-o-cresol	198	8.201	8.201	(1.078)	822	1.00000	2.75	
	74	NDPA/DPA	169	8.276	8.276	(1.088)	6772	1.00000	0.981	
	75	Azobenzene	77	8.308	8.308	(1.092)	8263	1.00000	0.958	
$	76	2,4,6-Tribromophenol	330	8.372	8.372	(0.926)	634	1.00000	1.20(M)	M2
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.134)	2166	1.00000	0.993	
	79	Hexachlorobenzene	284	8.677	8.677	(1.141)	2479	1.00000	1.06	
	83	Pentachlorophenol	266	Compound Not Detected.						
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	441560	40.0000		
	86	Phenanthrene	178	9.062	9.062	(1.002)	12550	1.00000	0.999	
	87	Anthracene	178	9.110	9.110	(1.008)	11365	1.00000	0.920	
	89	Carbazole	167	9.282	9.282	(1.027)	11087	1.00000	0.960	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	12834	1.00000	0.889	
	93	Fluoranthene	202	10.218	10.218	(1.130)	12294	1.00000	0.961	
	95	Pyrene	202	10.437	10.437	(1.154)	12709	1.00000	0.948	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	8181	1.00000	0.978	
	98	Butyl benzyl phthalate	149	11.218	11.218	(1.241)	5805	1.00000	0.896	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	4376	1.00000	0.747	
	100	Benzo(a)anthracene	228	11.844	11.844	(0.999)	13362	1.00000	1.02	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	431856	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.849	11.849	(1.000)	3603	1.00000	0.793	
	103	Chrysene	228	11.886	11.886	(1.003)	12425	1.00000	0.974	
	104	Bis(2-ethylhexyl)phthalate	149	12.025	12.025	(1.014)	7976	1.00000	0.834	
	105	Di-n-octylphthalate	149	12.994	12.994	(1.096)	12047	1.00000	0.765(M)	M2
	106	Benzo(b)fluoranthene	252	13.379	13.379	(0.959)	11131	1.00000	0.914	
	107	Benzo(k)fluoranthene	252	13.416	13.416	(0.962)	11999	1.00000	0.940	
	109	Benzo(a)pyrene	252	13.855	13.855	(0.993)	10311	1.00000	0.878	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	417939	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.534	15.534	(1.113)	9030	1.00000	0.862	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.593	15.593	(1.118)	9133	1.00000	0.836	
114 Benzo(ghi)perylene	276	15.903	15.903	(1.140)	10024	1.00000	0.876	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 04:43
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	111515	55758	223030	108821	-2.42
34 Naphthalene-d8	475121	237561	950242	441869	-7.00
61 Acenaphthene-d10	257993	128997	515986	240675	-6.71
85 Phenanthrene-d10	472131	236066	944262	441560	-6.48
102 Chrysene-d12	425098	212549	850196	431856	1.59
110 Perylene-d12	405887	202944	811774	417939	2.97

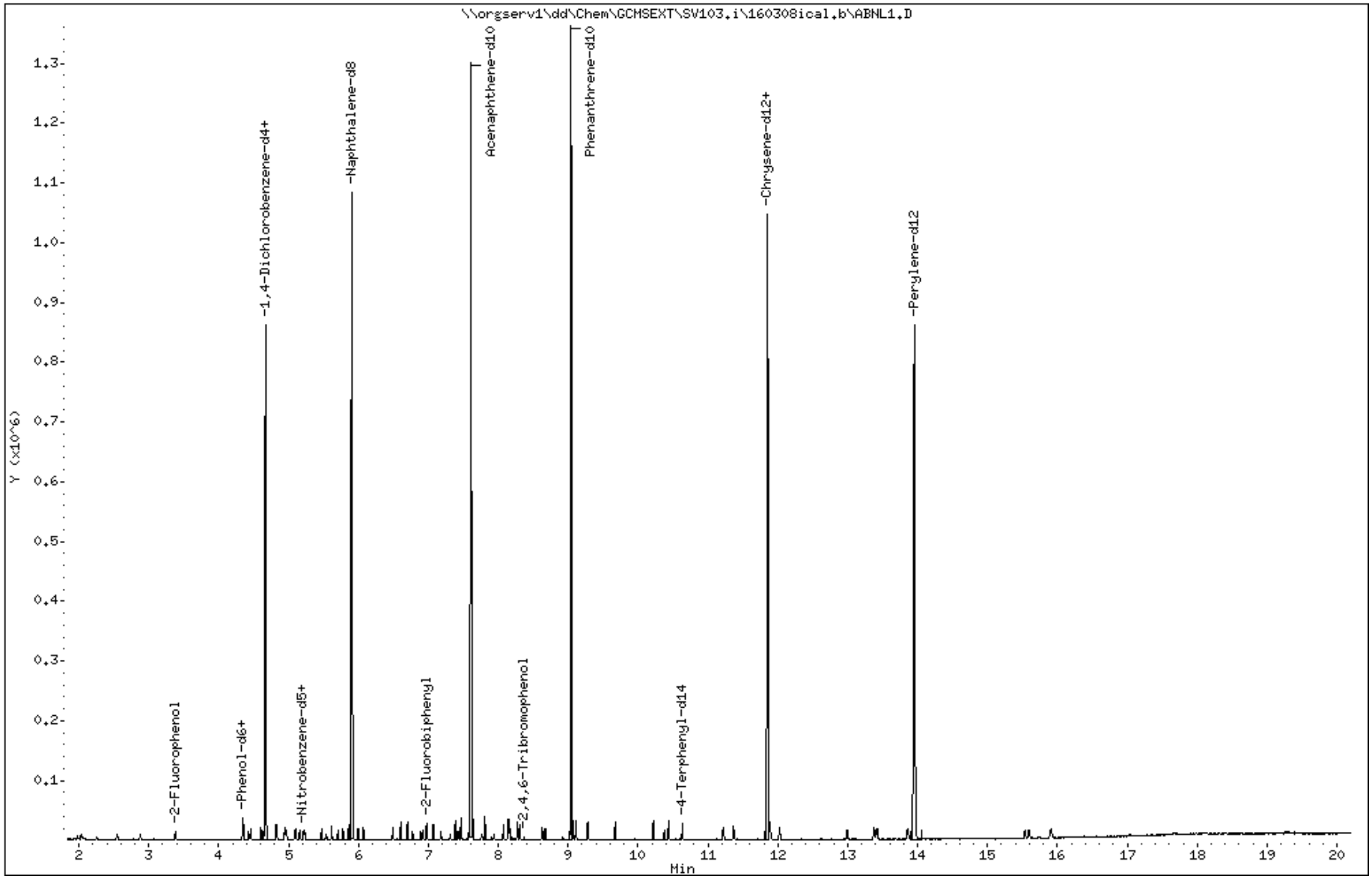
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL1.D
Date : 08-MAR-2016 20:12
Client ID:
Sample Info: ABN 1 LOT# 5806

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



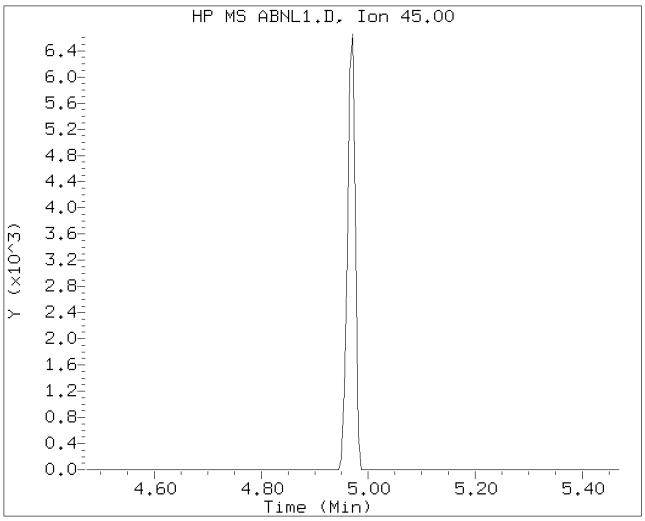
Alpha Analytical Labs

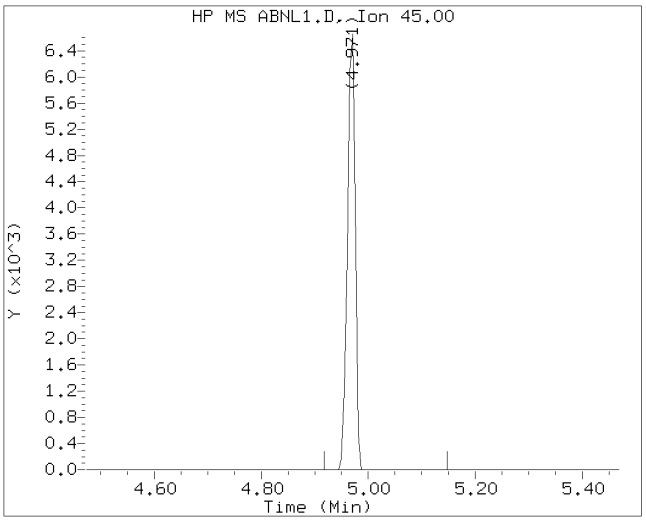
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL1.D
Injection Date : 08-MAR-2016 20:12
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 16: Bis(2-chloroisopropyl)ether

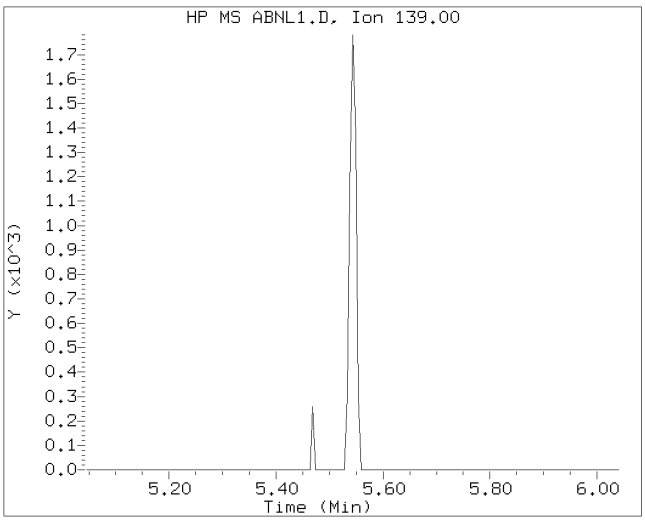


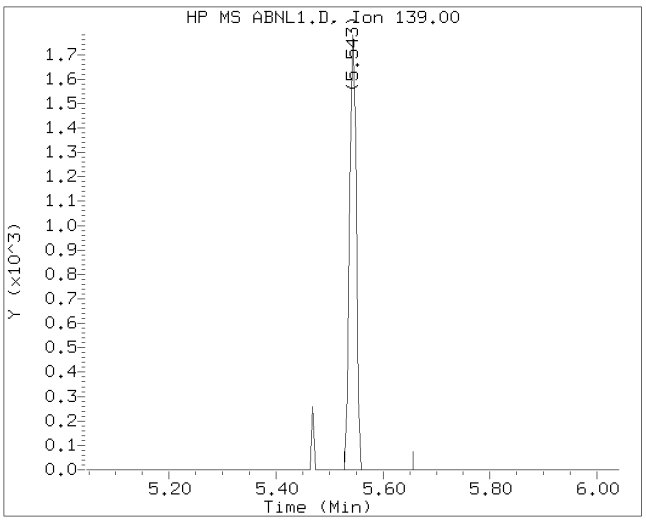


Original Peak Response = 0 Manual Peak Response = 6841 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 28: 2-Nitrophenol





Original Peak Response = 0 Manual Peak Response = 1573 M2

M2 = Peak not found by automatic integration algorithm.

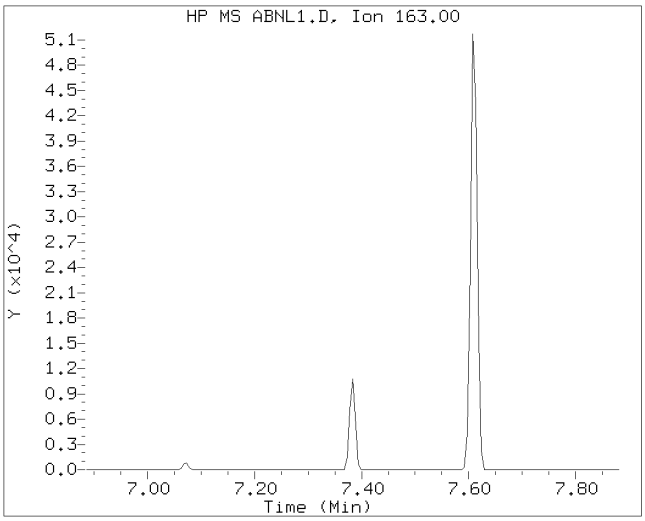
Alpha Analytical Labs

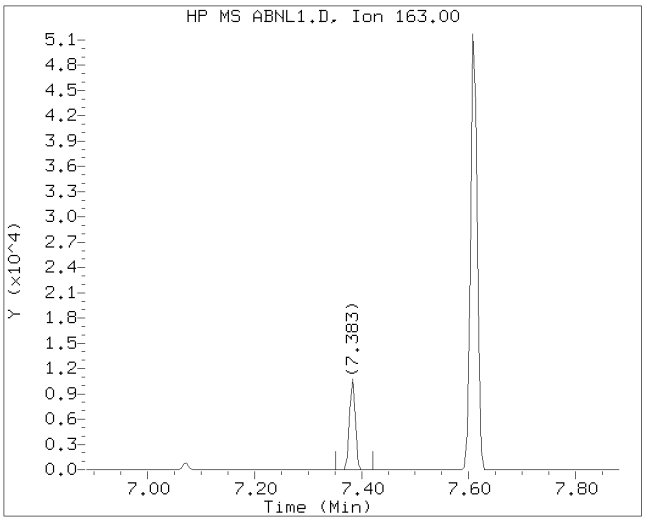
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL1.D
Injection Date : 08-MAR-2016 20:12
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 55: Dimethyl phthalate

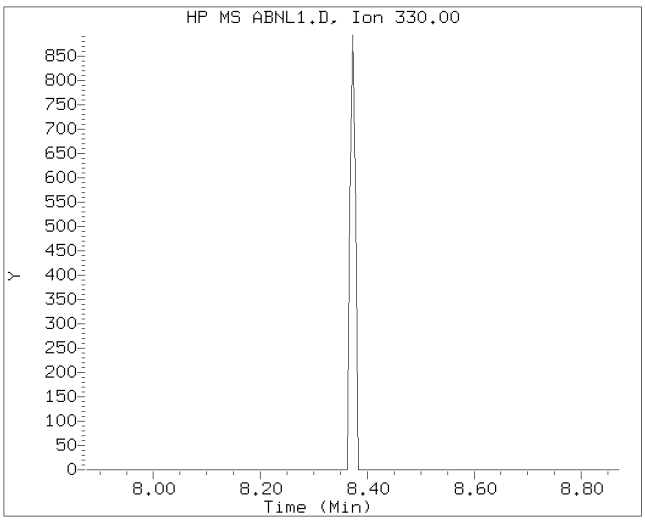


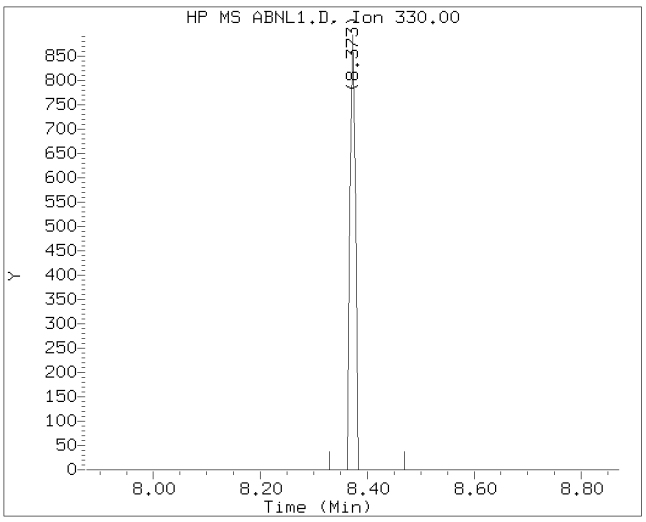


Original Peak Response = 0 Manual Peak Response = 8084 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 76: 2,4,6-Tribromophenol





Original Peak Response = 0 Manual Peak Response = 634 M2

M2 = Peak not found by automatic integration algorithm.

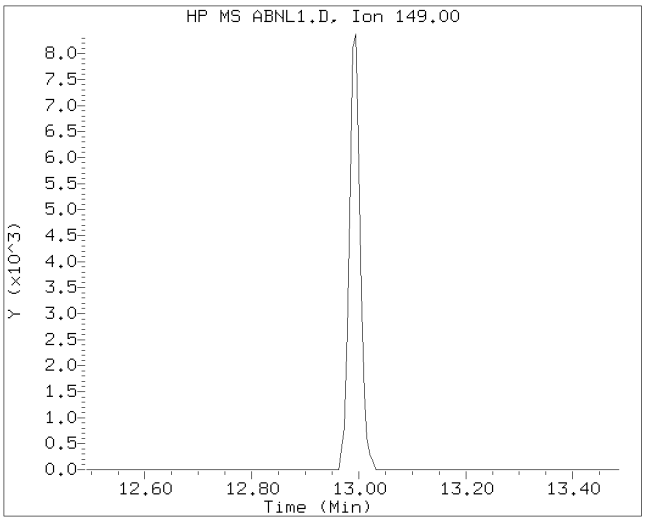
Alpha Analytical Labs

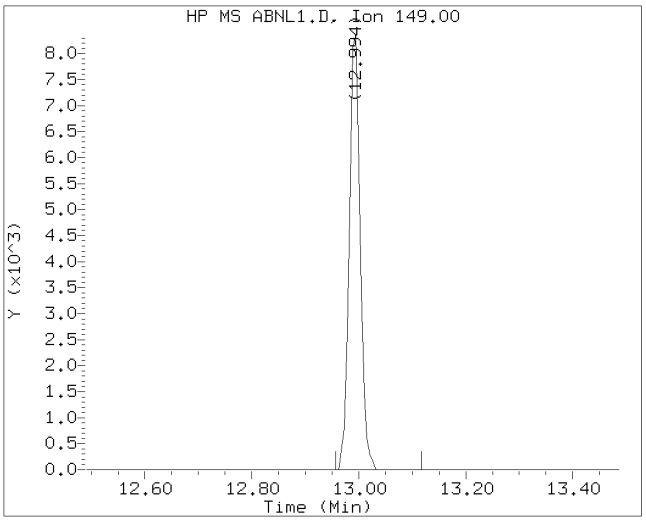
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL1.D
Injection Date : 08-MAR-2016 20:12
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 105: Di-n-octylphthalate





Original Peak Response = 0 Manual Peak Response = 12047 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL2.D
Lab Smp Id:
Inj Date : 08-MAR-2016 20:37
Operator : hl Inst ID: SV103.i
Smp Info : ABN 2 LOT# 5807
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:04 Cal File: BENZL1.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	1	n-Nitrosodimethylamine	74	1.975	1.975	(0.423)	5502	2.00000	2.00	
	2	Pyridine	79	2.013	2.013	(0.431)	9372	2.00000	1.99	
$	3	2-Fluorophenol	112	3.377	3.377	(0.724)	7655	2.00000	1.92	
	5	Aniline	93	4.345	4.345	(0.931)	12837	2.00000	1.96	
$	6	Phenol-d6	99	4.339	4.339	(0.930)	9784	2.00000	1.95	
	7	Phenol	94	4.355	4.355	(0.934)	11118	2.00000	1.94	
	8	Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	8715	2.00000	2.00	
	9	2-Chlorophenol	128	4.457	4.457	(0.955)	8427	2.00000	1.95	
	10	1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	9570	2.00000	1.99	
*	11	1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	119381	40.0000		
	12	1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	10319	2.00000	2.07	
	14	1,2-Dichlorobenzene	146	4.826	4.826	(1.034)	9389	2.00000	2.01	
	13	Benzyl alcohol	79	4.815	4.815	(1.032)	6776	2.00000	1.85	
	15	2-Methylphenol	108	4.944	4.944	(1.060)	7200	2.00000	1.89	
	16	Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	14536	2.00000	2.02(M)	M2
	18	n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	6105	2.00000	1.91	
	21	Hexachloroethane	117	5.158	5.158	(1.105)	3877	2.00000	1.88	
	19	3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	7577	2.00000	1.88	
$	22	Nitrobenzene-d5	82	5.211	5.211	(1.117)	8803	2.00000	1.95	
	23	Nitrobenzene	77	5.227	5.227	(0.885)	9107	2.00000	1.98	
	26	Isophorone	82	5.468	5.468	(1.172)	16217	2.00000	1.93	
	28	2-Nitrophenol	139	5.543	5.543	(1.188)	3487	2.00000	1.48	
	29	2,4-Dimethylphenol	107	5.618	5.618	(1.204)	7962	2.00000	1.85	
	30	Bis(2-chloroethoxy)methane	93	5.703	5.703	(1.222)	10252	2.00000	1.98	
	32	2,4-Dichlorophenol	162	5.778	5.778	(0.978)	6292	2.00000	1.82	
	31	Benzoic acid	105	Compound Not Detected.						M2
	33	1,2,4-Trichlorobenzene	180	5.858	5.858	(0.992)	7932	2.00000	2.01	
*	34	Naphthalene-d8	136	5.907	5.907	(1.000)	483644	40.0000		
	35	Naphthalene	128	5.923	5.923	(1.003)	24433	2.00000	2.01	
	38	4-Chloroaniline	65	5.992	5.992	(1.014)	3330	2.00000	2.00	
	40	Hexachlorobutadiene	225	6.072	6.072	(1.028)	4767	2.00000	2.08	
	43	p-Chloro-m-cresol	107	6.490	6.490	(1.099)	6737	2.00000	1.90	
	44	2-Methylnaphthalene	142	6.602	6.602	(1.118)	16124	2.00000	1.97	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	5476	2.00000	1.94	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	4660	2.00000	1.82	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	4246	2.00000	1.76	
	49	2,4,5-Trichlorophenol	196	6.917	6.917	(1.171)	5064	2.00000	1.94	
$	50	2-Fluorobiphenyl	172	6.976	6.976	(1.181)	16792	2.00000	1.96	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	15557	2.00000	2.01	
	53	2-Nitroaniline	138	7.180	7.180	(1.215)	4400	2.00000	1.72	
	54	1,4-Dinitrobenzene	168	7.313	7.313	(0.961)	2294	2.00000	1.65	
	55	Dimethyl phthalate	163	7.383	7.383	(0.970)	17777	2.00000	1.97(M)	M2
	56	1,3-Dinitrobenzene	168	7.388	7.388	(0.971)	2476	2.00000	1.60	
	57	2,6-Dinitrotoluene	165	7.426	7.426	(1.257)	3637	2.00000	1.77	
	58	Acenaphthylene	152	7.468	7.468	(1.264)	23472	2.00000	1.92	
	59	1,2-Dinitrobenzene	168	7.468	7.468	(0.982)	1883	2.00000	1.82	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	4449	2.00000	1.87	
*	61	Acenaphthene-d10	164	7.607	7.607	(1.000)	265207	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	14913	2.00000	1.95	
	63	2,4-Dinitrophenol	184	7.682	7.682	(1.010)	667	2.00000	3.60	
	65	Dibenzofuran	168	7.811	7.811	(1.027)	21905	2.00000	1.99	
	64	4-Nitrophenol	65	7.763	7.763	(1.020)	3267	2.00000	1.64	
	66	2,4-Dinitrotoluene	165	7.811	7.811	(1.027)	4980	2.00000	1.80	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.038)	2856	2.00000	1.26	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.044)	3368	2.00000	1.59	
	69	Diethyl phthalate	149	8.073	8.073	(1.061)	17753	2.00000	1.91	
	70	Fluorene	166	8.137	8.137	(1.070)	17279	2.00000	1.91	
	71	4-Chlorophenyl phenyl ether	204	8.158	8.158	(1.072)	8394	2.00000	1.99	
	72	4-Nitroaniline	138	8.164	8.164	(1.073)	4429	2.00000	1.88	
	73	4,6-Dinitro-o-cresol	198	8.201	8.201	(1.078)	2091	2.00000	3.33	
	74	NDPA/DPA	169	8.276	8.276	(1.088)	14554	2.00000	1.91	
	75	Azobenzene	77	8.308	8.308	(1.092)	18201	2.00000	1.91	
$	76	2,4,6-Tribromophenol	330	8.372	8.372	(0.926)	1766	2.00000	2.01	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.134)	4779	2.00000	1.99	
	79	Hexachlorobenzene	284	8.677	8.677	(1.141)	5054	2.00000	1.96	
	83	Pentachlorophenol	266	8.875	8.875	(0.982)	505	2.00000	2.84	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	471637	40.0000		
	86	Phenanthrene	178	9.062	9.062	(1.002)	27181	2.00000	2.02	
	87	Anthracene	178	9.110	9.110	(1.008)	25382	2.00000	1.92	
	89	Carbazole	167	9.282	9.282	(1.027)	23179	2.00000	1.88	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	28995	2.00000	1.88	
	93	Fluoranthene	202	10.218	10.218	(1.130)	26147	2.00000	1.91	
	95	Pyrene	202	10.437	10.437	(1.154)	26967	2.00000	1.88	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	17560	2.00000	1.96	
	98	Butyl benzyl phthalate	149	11.218	11.218	(1.241)	12147	2.00000	1.76	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	10517	2.00000	1.64	
	100	Benzo(a)anthracene	228	11.838	11.838	(0.999)	27251	2.00000	2.00	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	448521	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.844	11.844	(0.999)	8543	2.00000	1.81	
	103	Chrysene	228	11.886	11.886	(1.003)	27268	2.00000	2.06	
	104	Bis(2-ethylhexyl)phthalate	149	12.025	12.025	(1.014)	17798	2.00000	1.79	
	105	Di-n-octylphthalate	149	12.988	12.988	(1.096)	27418	2.00000	1.68	
	106	Benzo(b)fluoranthene	252	13.373	13.373	(0.959)	23356	2.00000	1.84	
	107	Benzo(k)fluoranthene	252	13.416	13.416	(0.962)	25860	2.00000	1.94	
	109	Benzo(a)pyrene	252	13.855	13.855	(0.993)	22405	2.00000	1.83	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	435626	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.534	15.534	(1.113)	20506	2.00000	1.88	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.593	15.593	(1.118)	21155	2.00000	1.86(M)	M4
114 Benzo(ghi)perylene	276	15.909	15.909	(1.140)	22222	2.00000	1.86	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 04:43
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	111515	55758	223030	119381	7.05
34 Naphthalene-d8	475121	237561	950242	483644	1.79
61 Acenaphthene-d10	257993	128997	515986	265207	2.80
85 Phenanthrene-d10	472131	236066	944262	471637	-0.10
102 Chrysene-d12	425098	212549	850196	448521	5.51
110 Perylene-d12	405887	202944	811774	435626	7.33

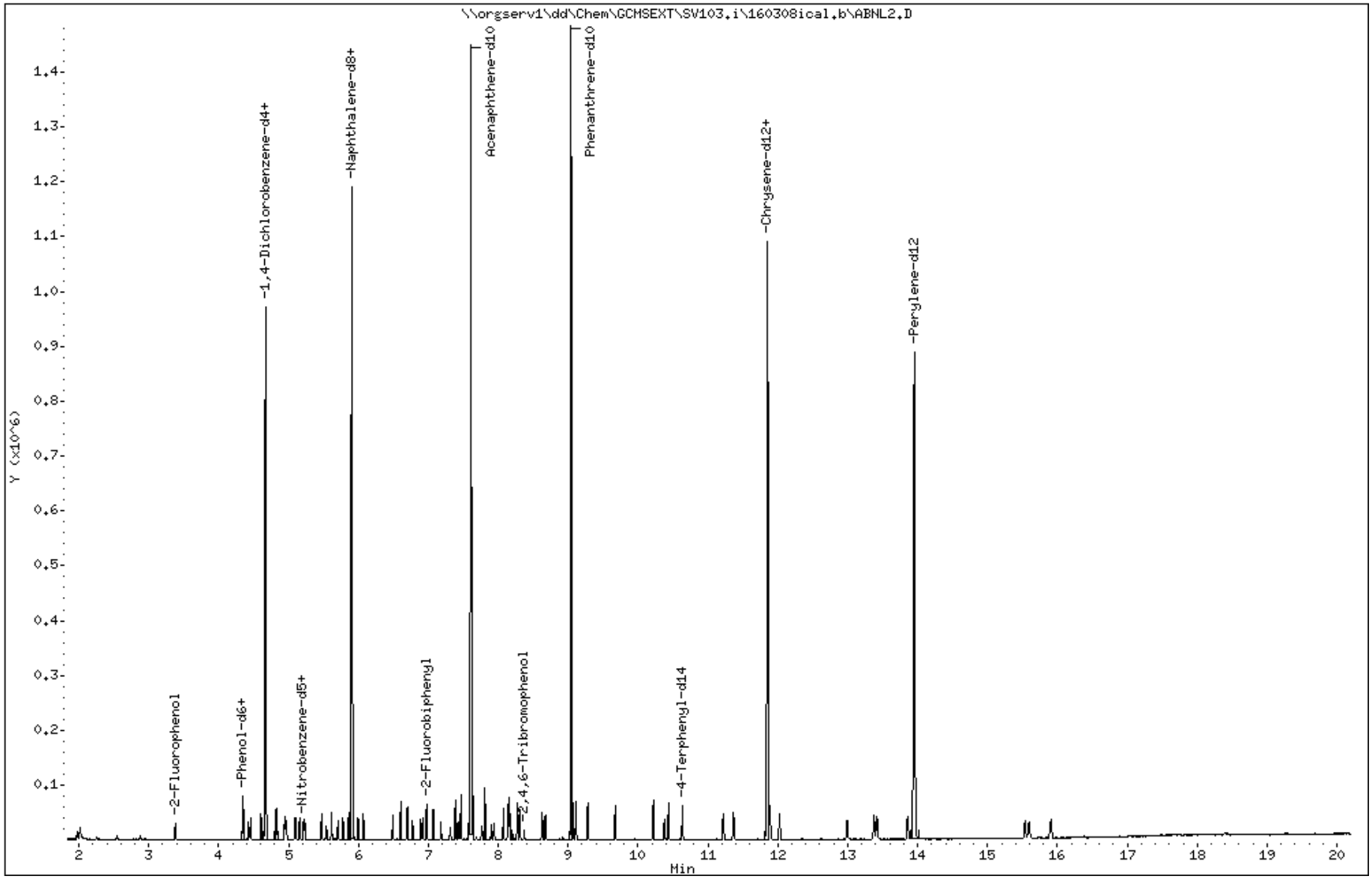
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL2.D
Date : 08-MAR-2016 20:37
Client ID:
Sample Info: ABN 2 LOT# 5807

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



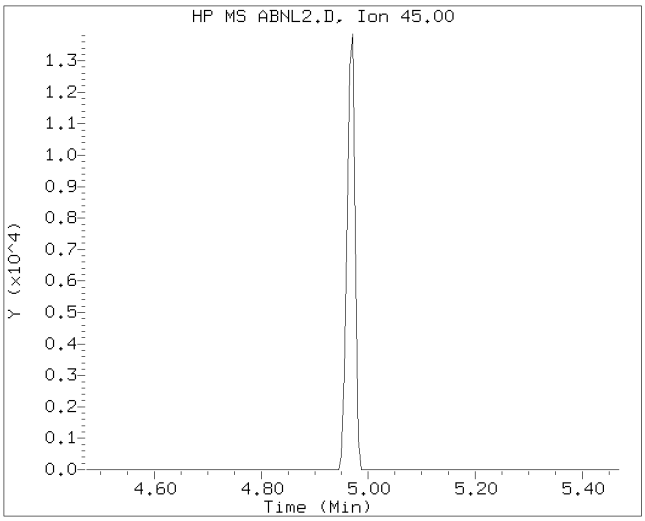
Alpha Analytical Labs

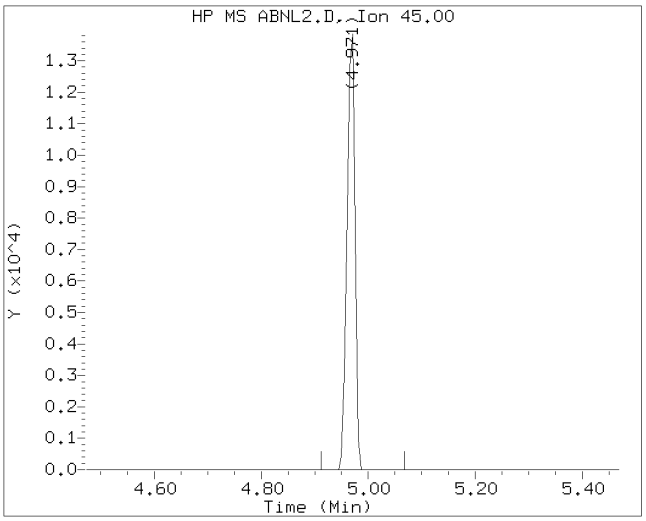
Manual Integration

Sample Info : ABN 2 LOT# 5807

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL2.D
Injection Date : 08-MAR-2016 20:37
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 16: Bis(2-chloroisopropyl)ether

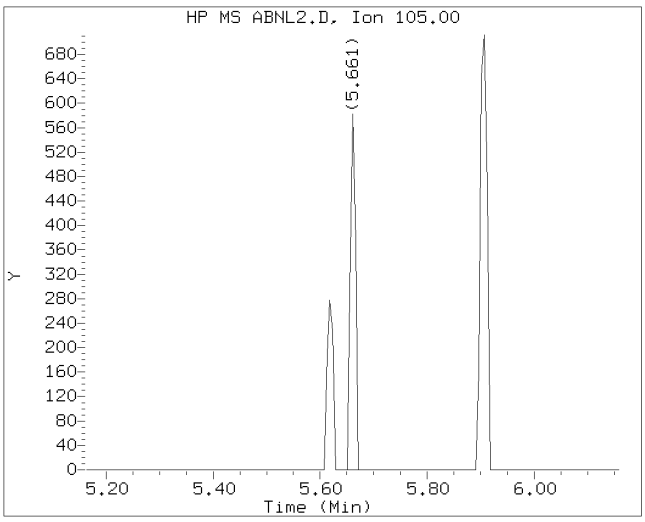


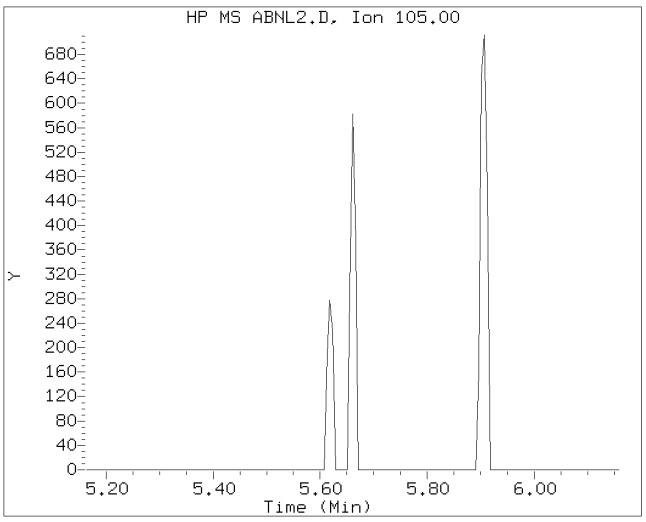


Original Peak Response = 0 Manual Peak Response = 14536 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 31: Benzoic acid





Original Peak Response = 400 Manual Peak Response = 0 M2

M2 = Peak not found by automatic integration algorithm.

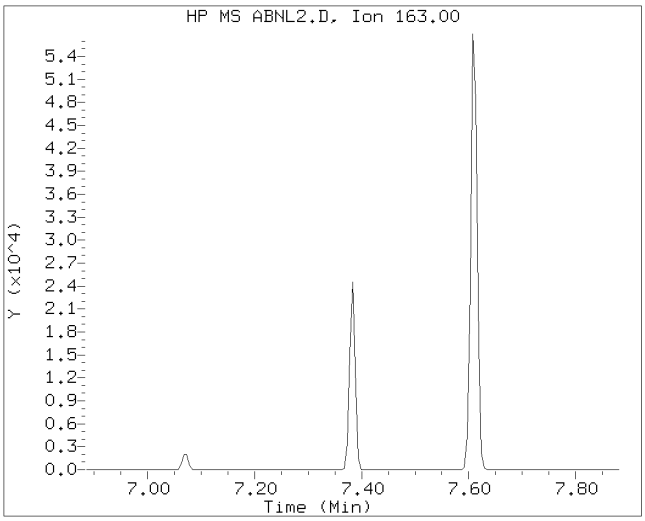
Alpha Analytical Labs

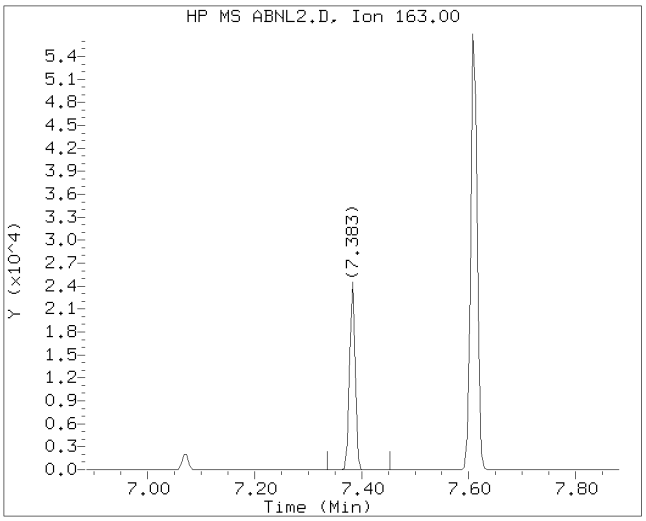
Manual Integration

Sample Info : ABN 2 LOT# 5807

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL2.D
Injection Date : 08-MAR-2016 20:37
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 55: Dimethyl phthalate

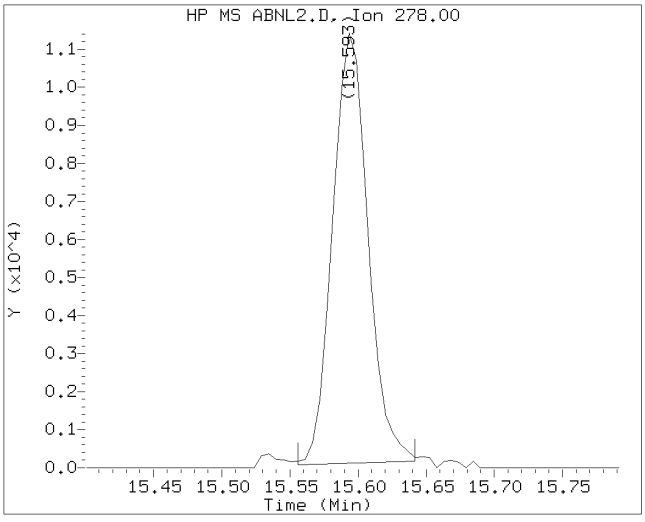


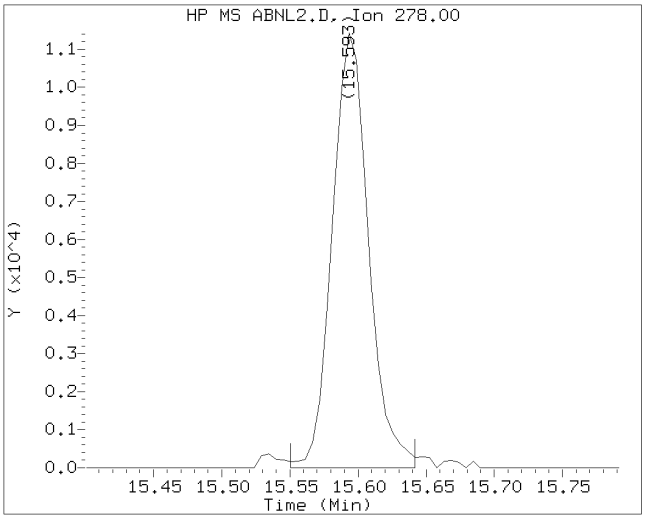


Original Peak Response = 0 Manual Peak Response = 17777 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 113: Dibenzo(a,h)anthracene





Original Peak Response = 20429 Manual Peak Response = 21155 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL3.D
Lab Smp Id:
Inj Date : 08-MAR-2016 21:03
Operator : hl Inst ID: SV103.i
Smp Info : ABN 3 LOT# 5808
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:30 Cal File: BENZL2.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.975	1.975	(0.423)	8637	3.00000	3.08	
	2 Pyridine	79	2.013	2.013	(0.431)	13870	3.00000	2.90	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	11982	3.00000	2.96	
	5 Aniline	93	4.345	4.345	(0.931)	19740	3.00000	2.96	
$	6 Phenol-d6	99	4.339	4.339	(0.930)	14990	3.00000	2.94	
	7 Phenol	94	4.356	4.356	(0.934)	17509	3.00000	3.00	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	13134	3.00000	2.97	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	12732	3.00000	2.89	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	14292	3.00000	2.91	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	121566	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	15323	3.00000	3.02	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	13956	3.00000	2.94	
	13 Benzyl alcohol	79	4.816	4.816	(1.032)	10678	3.00000	2.86	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	11288	3.00000	2.91	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	21761	3.00000	2.97(M)	M2
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	9243	3.00000	2.84	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	6005	3.00000	2.85	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	11546	3.00000	2.82	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	12779	3.00000	2.78	
	23 Nitrobenzene	77	5.227	5.227	(0.885)	13546	3.00000	2.90	
	26 Isophorone	82	5.468	5.468	(1.172)	23752	3.00000	2.78	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	5621	3.00000	2.35	
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	12483	3.00000	2.85	
	30 Bis(2-chloroethoxy)methane	93	5.709	5.709	(1.224)	15048	3.00000	2.85	
	32 2,4-Dichlorophenol	162	5.778	5.778	(0.978)	9904	3.00000	2.83	
	31 Benzoic acid	105	5.666	5.666	(0.959)	1574	3.00000	7.81(M)	M7
	33 1,2,4-Trichlorobenzene	180	5.859	5.859	(0.992)	11627	3.00000	2.91	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	490840	40.0000		
	35 Naphthalene	128	5.923	5.923	(1.003)	37035	3.00000	3.00	
	38 4-Chloroaniline	65	5.998	5.998	(1.015)	4728	3.00000	2.80	
	40 Hexachlorobutadiene	225	6.072	6.072	(1.028)	7143	3.00000	3.07	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	10055	3.00000	2.79	
	44 2-Methylnaphthalene	142	6.602	6.602	(1.118)	24309	3.00000	2.92	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	8486	3.00000	2.96	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	6764	3.00000	2.60	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	6719	3.00000	2.75	
	49	2,4,5-Trichlorophenol	196	6.918	6.918	(1.171)	7371	3.00000	2.79	
$	50	2-Fluorobiphenyl	172	6.976	6.976	(1.181)	24803	3.00000	2.85	
	52	2-Chloronaphthalene	162	7.067	7.067	(1.196)	23044	3.00000	2.94	
	53	2-Nitroaniline	138	7.180	7.180	(1.215)	6962	3.00000	2.68	
	54	1,4-Dinitrobenzene	168	7.313	7.313	(0.961)	3323	3.00000	2.41	
	55	Dimethyl phthalate	163	7.383	7.383	(0.970)	26279	3.00000	2.94(M)	M2
	56	1,3-Dinitrobenzene	168	7.388	7.388	(0.971)	3912	3.00000	2.55	
	57	2,6-Dinitrotoluene	165	7.426	7.426	(1.257)	5531	3.00000	2.65	
	58	Acenaphthylene	152	7.468	7.468	(1.264)	35696	3.00000	2.87	
	59	1,2-Dinitrobenzene	168	7.468	7.468	(0.982)	2883	3.00000	2.82	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	6809	3.00000	2.89	
*	61	Acenaphthene-d10	164	7.608	7.608	(1.000)	262452	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	22602	3.00000	2.99	
	63	2,4-Dinitrophenol	184	7.682	7.682	(1.010)	1638	3.00000	4.18	
	65	Dibenzofuran	168	7.811	7.811	(1.027)	32442	3.00000	2.97	
	64	4-Nitrophenol	65	7.763	7.763	(1.020)	5235	3.00000	2.66	
	66	2,4-Dinitrotoluene	165	7.811	7.811	(1.027)	7417	3.00000	2.71	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.038)	4899	3.00000	2.18	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.044)	5304	3.00000	2.53	
	69	Diethyl phthalate	149	8.073	8.073	(1.061)	26832	3.00000	2.92	
	70	Fluorene	166	8.137	8.137	(1.070)	26376	3.00000	2.95	
	71	4-Chlorophenyl phenyl ether	204	8.158	8.158	(1.072)	12144	3.00000	2.90	
	72	4-Nitroaniline	138	8.164	8.164	(1.073)	6410	3.00000	2.74	
	73	4,6-Dinitro-o-cresol	198	8.201	8.201	(1.078)	3468	3.00000	4.02	
	74	NDPA/DPA	169	8.276	8.276	(1.088)	21781	3.00000	2.89	
	75	Azobenzene	77	8.308	8.308	(1.092)	26866	3.00000	2.86	
$	76	2,4,6-Tribromophenol	330	8.372	8.372	(0.926)	3037	3.00000	2.97	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.134)	6764	3.00000	2.84	
	79	Hexachlorobenzene	284	8.677	8.677	(1.141)	7541	3.00000	2.96	
	83	Pentachlorophenol	266	8.875	8.875	(0.982)	1464	3.00000	3.36	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	468989	40.0000		
	86	Phenanthrene	178	9.062	9.062	(1.002)	40409	3.00000	3.03(M)	M4
	87	Anthracene	178	9.110	9.110	(1.008)	38195	3.00000	2.91	
	89	Carbazole	167	9.282	9.282	(1.027)	35187	3.00000	2.87	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	43390	3.00000	2.83	
	93	Fluoranthene	202	10.218	10.218	(1.130)	39192	3.00000	2.88	
	95	Pyrene	202	10.437	10.437	(1.154)	41347	3.00000	2.90	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	26230	3.00000	2.95	
	98	Butyl benzyl phthalate	149	11.218	11.218	(1.241)	19261	3.00000	2.80	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	16240	3.00000	2.48	
	100	Benzo(a)anthracene	228	11.838	11.838	(0.999)	40706	3.00000	2.92	
*	102	Chrysene-d12	240	11.849	11.849	(1.000)	459001	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.844	11.844	(1.000)	13733	3.00000	2.84	
	103	Chrysene	228	11.886	11.886	(1.003)	39676	3.00000	2.93	
	104	Bis(2-ethylhexyl)phthalate	149	12.025	12.025	(1.015)	28127	3.00000	2.77	
	105	Di-n-octylphthalate	149	12.994	12.994	(1.097)	41820	3.00000	2.50	
	106	Benzo(b)fluoranthene	252	13.379	13.379	(0.959)	36740	3.00000	2.78	
	107	Benzo(k)fluoranthene	252	13.416	13.416	(0.962)	41080	3.00000	2.96	
	109	Benzo(a)pyrene	252	13.855	13.855	(0.993)	35392	3.00000	2.77	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	454243	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.534	15.534	(1.113)	32079	3.00000	2.82	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.593	15.593	(1.118)	34730	3.00000	2.92	
114 Benzo(ghi)perylene	276	15.909	15.909	(1.140)	35397	3.00000	2.84	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 04:43
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	111515	55758	223030	121566	9.01
34 Naphthalene-d8	475121	237561	950242	490840	3.31
61 Acenaphthene-d10	257993	128997	515986	262452	1.73
85 Phenanthrene-d10	472131	236066	944262	468989	-0.67
102 Chrysene-d12	425098	212549	850196	459001	7.98
110 Perylene-d12	405887	202944	811774	454243	11.91

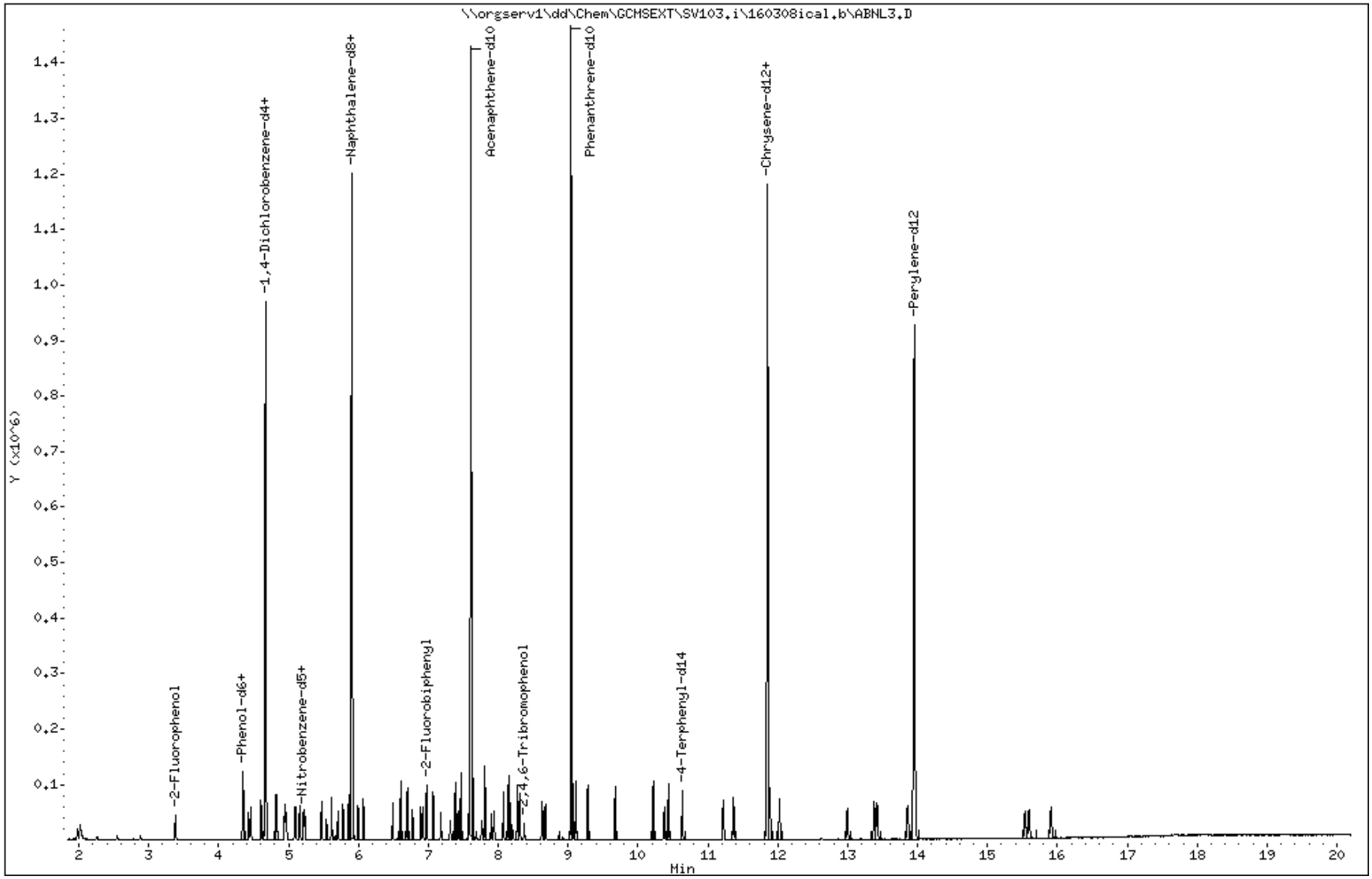
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL3.D
Date : 08-MAR-2016 21:03
Client ID:
Sample Info: ABN 3 LOT# 5808

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



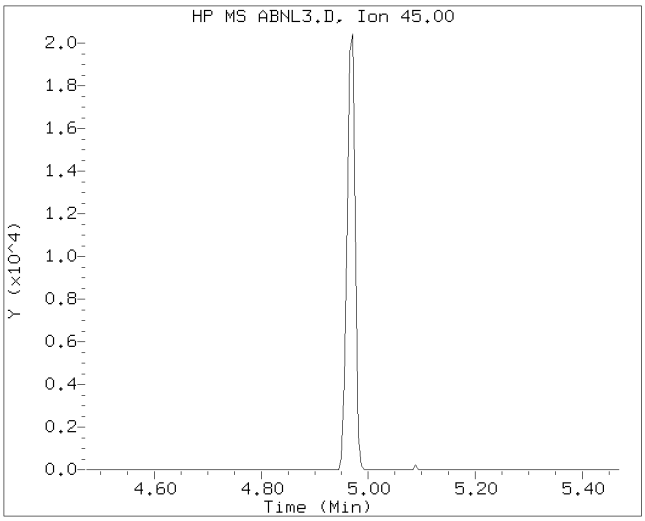
Alpha Analytical Labs

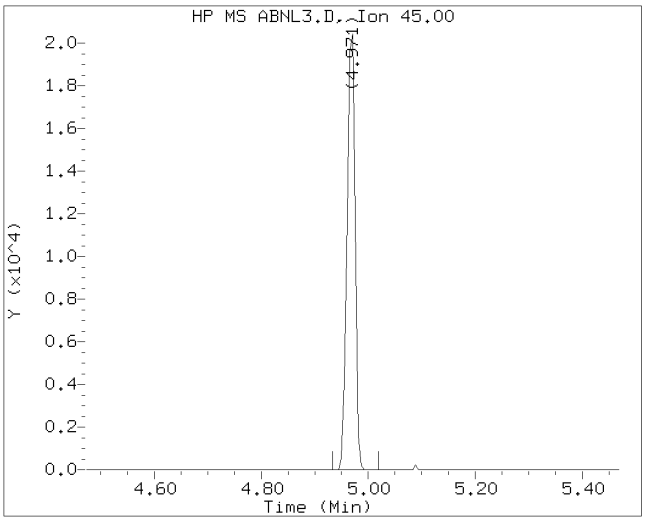
Manual Integration

Sample Info : ABN 3 LOT# 5808

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL3.D
Injection Date : 08-MAR-2016 21:03
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 16: Bis(2-chloroisopropyl)ether

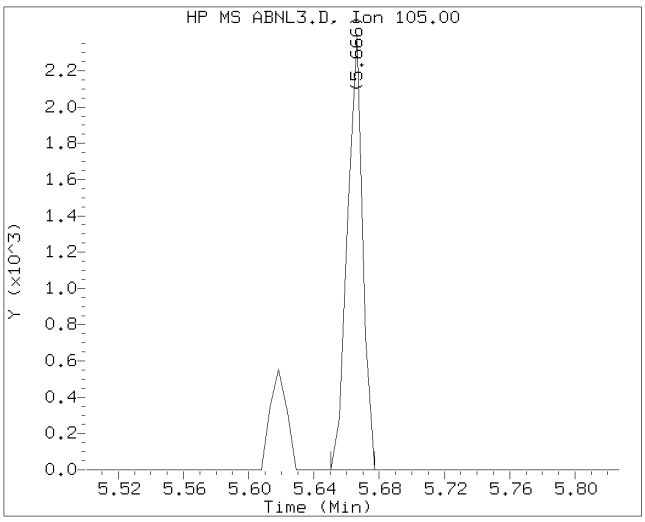


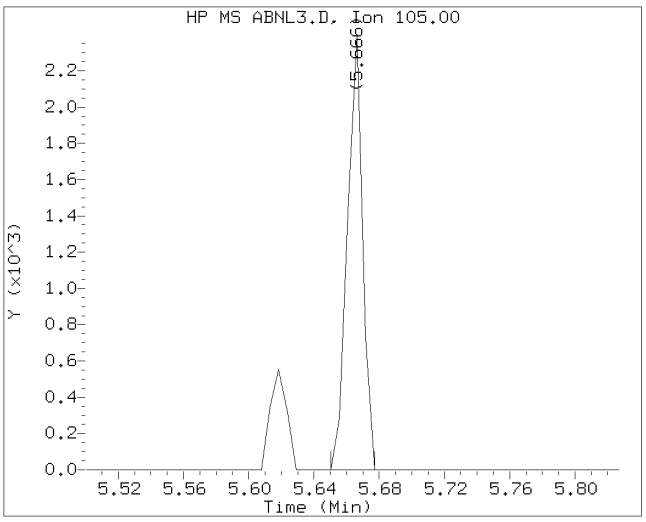


Original Peak Response = 0 Manual Peak Response = 21761 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 31: Benzoic acid





Original Peak Response = 1574 Manual Peak Response = 1574 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

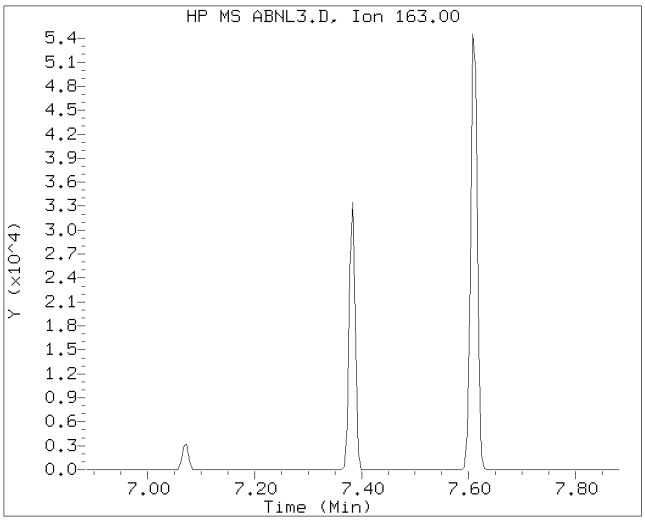
Alpha Analytical Labs

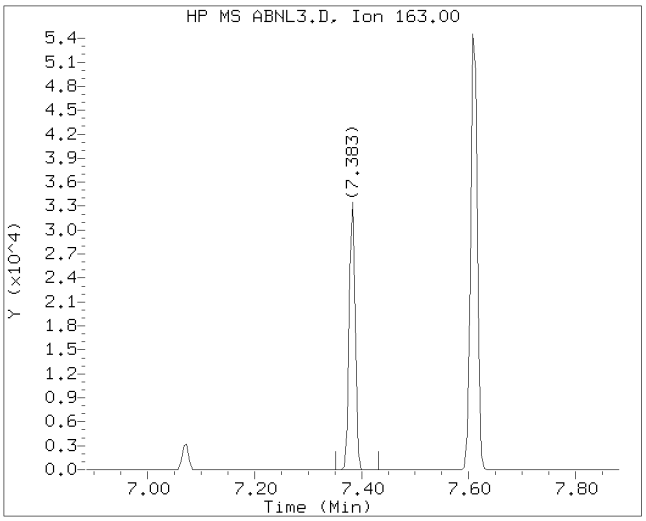
Manual Integration

Sample Info : ABN 3 LOT# 5808

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL3.D
Injection Date : 08-MAR-2016 21:03
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 55: Dimethyl phthalate

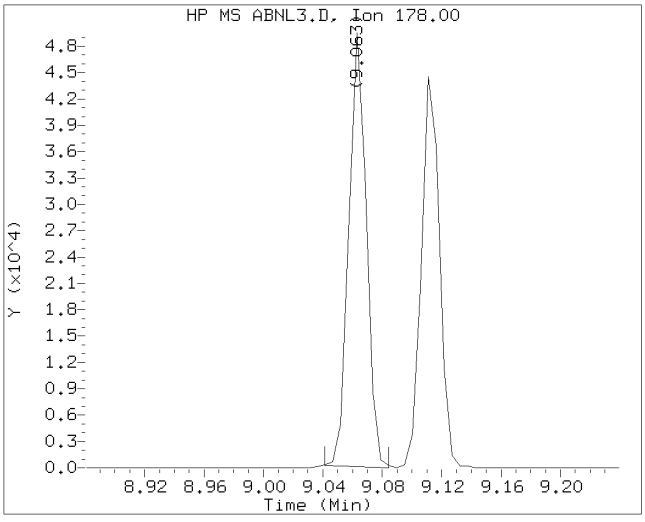


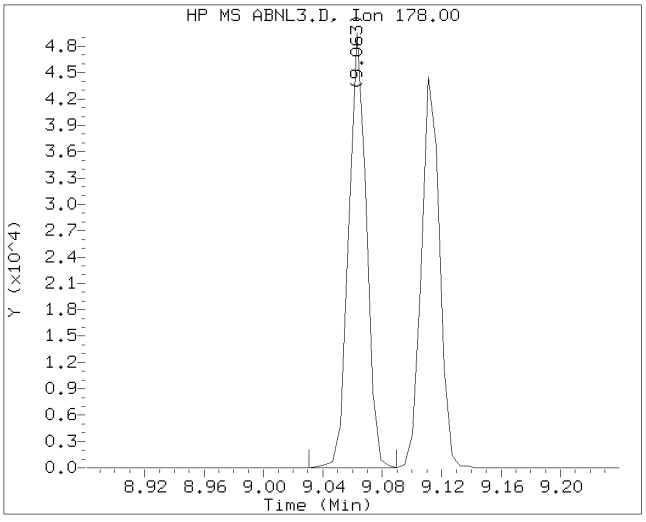


Original Peak Response = 0 Manual Peak Response = 26279 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 86: Phenanthrene





Original Peak Response = 40004 Manual Peak Response = 40409 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL4.D
Lab Smp Id:
Inj Date : 08-MAR-2016 21:28
Operator : hl Inst ID: SV103.i
Smp Info : ABN 5 LOT# 5809
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:55 Cal File: BENZL3.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.975	1.975	(0.423)	11420	5.00000	4.78	
	2 Pyridine	79	2.007	2.007	(0.430)	20130	5.00000	4.94	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	16838	5.00000	4.88	
	5 Aniline	93	4.345	4.345	(0.931)	28041	5.00000	4.94	
$	6 Phenol-d6	99	4.339	4.339	(0.930)	21265	5.00000	4.89	
	7 Phenol	94	4.356	4.356	(0.934)	24389	5.00000	4.91	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	18787	5.00000	4.98	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	18149	5.00000	4.84	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	20650	5.00000	4.94	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	103502	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	20948	5.00000	4.85	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	19632	5.00000	4.86	
	13 Benzyl alcohol	79	4.815	4.815	(1.032)	14775	5.00000	4.65	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	16073	5.00000	4.86	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	30473	5.00000	4.89	
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	13244	5.00000	4.78	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	8316	5.00000	4.64	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	16637	5.00000	4.78	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	18455	5.00000	4.72	
	23 Nitrobenzene	77	5.227	5.227	(0.885)	19169	5.00000	4.85	
	26 Isophorone	82	5.468	5.468	(1.172)	34229	5.00000	4.70	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	7868	5.00000	3.86	
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	17084	5.00000	4.58	
	30 Bis(2-chloroethoxy)methane	93	5.709	5.709	(1.224)	21598	5.00000	4.81	
	32 2,4-Dichlorophenol	162	5.778	5.778	(0.978)	14383	5.00000	4.87	
	31 Benzoic acid	105	5.671	5.671	(0.960)	3923	5.00000	8.60	
	33 1,2,4-Trichlorobenzene	180	5.858	5.858	(0.992)	16516	5.00000	4.89	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	414786	40.0000		
	35 Naphthalene	128	5.923	5.923	(1.003)	51788	5.00000	4.97	
	38 4-Chloroaniline	65	5.992	5.992	(1.014)	7099	5.00000	4.98	
	40 Hexachlorobutadiene	225	6.072	6.072	(1.028)	9587	5.00000	4.88	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	14556	5.00000	4.78	
	44 2-Methylnaphthalene	142	6.602	6.602	(1.118)	34451	5.00000	4.90	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	12087	5.00000	5.00	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	10337	5.00000	4.70	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	9814	5.00000	4.75	
	49	2,4,5-Trichlorophenol	196	6.918	6.918	(1.171)	10667	5.00000	4.78	
$	50	2-Fluorobiphenyl	172	6.976	6.976	(1.181)	36289	5.00000	4.94	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	32552	5.00000	4.91	
	53	2-Nitroaniline	138	7.180	7.180	(1.215)	9857	5.00000	4.49	
	54	1,4-Dinitrobenzene	168	7.313	7.313	(0.961)	4886	5.00000	4.08	
	55	Dimethyl phthalate	163	7.383	7.383	(0.970)	37989	5.00000	4.89(M)	M2
	56	1,3-Dinitrobenzene	168	7.388	7.388	(0.971)	5920	5.00000	4.43	
	57	2,6-Dinitrotoluene	165	7.426	7.426	(1.257)	8627	5.00000	4.90	
	58	Acenaphthylene	152	7.468	7.468	(1.264)	52148	5.00000	4.97	
	59	1,2-Dinitrobenzene	168	7.468	7.468	(0.982)	4153	5.00000	4.67	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	9795	5.00000	4.78	
*	61	Acenaphthene-d10	164	7.607	7.607	(1.000)	228419	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	32292	5.00000	4.90	
	63	2,4-Dinitrophenol	184	7.682	7.682	(1.010)	3363	5.00000	5.50	
	65	Dibenzofuran	168	7.811	7.811	(1.027)	46362	5.00000	4.88	
	64	4-Nitrophenol	65	7.763	7.763	(1.020)	7105	5.00000	4.14	
	66	2,4-Dinitrotoluene	165	7.811	7.811	(1.027)	11085	5.00000	4.66	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.038)	7618	5.00000	3.90	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.044)	8248	5.00000	4.52	
	69	Diethyl phthalate	149	8.073	8.073	(1.061)	38661	5.00000	4.83	
	70	Fluorene	166	8.142	8.142	(1.070)	37301	5.00000	4.80	
	71	4-Chlorophenyl phenyl ether	204	8.158	8.158	(1.072)	18124	5.00000	4.98	
	72	4-Nitroaniline	138	8.164	8.164	(1.073)	9350	5.00000	4.60	
	73	4,6-Dinitro-o-cresol	198	8.201	8.201	(1.078)	5283	5.00000	5.30	
	74	NDPA/DPA	169	8.276	8.276	(1.088)	31164	5.00000	4.76	
	75	Azobenzene	77	8.308	8.308	(1.092)	40426	5.00000	4.94	
$	76	2,4,6-Tribromophenol	330	8.372	8.372	(0.926)	4493	5.00000	4.60	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.134)	9998	5.00000	4.83	
	79	Hexachlorobenzene	284	8.677	8.677	(1.141)	10867	5.00000	4.91	
	83	Pentachlorophenol	266	8.875	8.875	(0.982)	3521	5.00000	4.78	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	403049	40.0000		
	86	Phenanthrene	178	9.062	9.062	(1.002)	55818	5.00000	4.87	
	87	Anthracene	178	9.110	9.110	(1.008)	54802	5.00000	4.86	
	89	Carbazole	167	9.282	9.282	(1.027)	51954	5.00000	4.93	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	63191	5.00000	4.79	
	93	Fluoranthene	202	10.218	10.218	(1.130)	56441	5.00000	4.83	
	95	Pyrene	202	10.437	10.437	(1.154)	59392	5.00000	4.85	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	36770	5.00000	4.81	
	98	Butyl benzyl phthalate	149	11.223	11.223	(1.241)	27724	5.00000	4.69	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	23320	5.00000	4.18	
	100	Benzo(a)anthracene	228	11.838	11.838	(0.999)	56815	5.00000	4.85	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	385261	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.849	11.849	(1.000)	20068	5.00000	4.95	
	103	Chrysene	228	11.886	11.886	(1.003)	56937	5.00000	5.00	
	104	Bis(2-ethylhexyl)phthalate	149	12.025	12.025	(1.014)	39796	5.00000	4.67	
	105	Di-n-octylphthalate	149	12.994	12.994	(1.096)	62904	5.00000	4.48	
	106	Benzo(b)fluoranthene	252	13.379	13.379	(0.959)	52941	5.00000	4.76	
	107	Benzo(k)fluoranthene	252	13.416	13.416	(0.962)	55582	5.00000	4.76	
	109	Benzo(a)pyrene	252	13.855	13.855	(0.993)	50552	5.00000	4.71	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	382071	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.540	15.540	(1.114)	45535	5.00000	4.75	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.593	15.593	(1.118)	46099	5.00000	4.62	
114 Benzo(ghi)perylene	276	15.909	15.909	(1.140)	49705	5.00000	4.75	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 04:43
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	111515	55758	223030	103502	-7.19
34 Naphthalene-d8	475121	237561	950242	414786	-12.70
61 Acenaphthene-d10	257993	128997	515986	228419	-11.46
85 Phenanthrene-d10	472131	236066	944262	403049	-14.63
102 Chrysene-d12	425098	212549	850196	385261	-9.37
110 Perylene-d12	405887	202944	811774	382071	-5.87

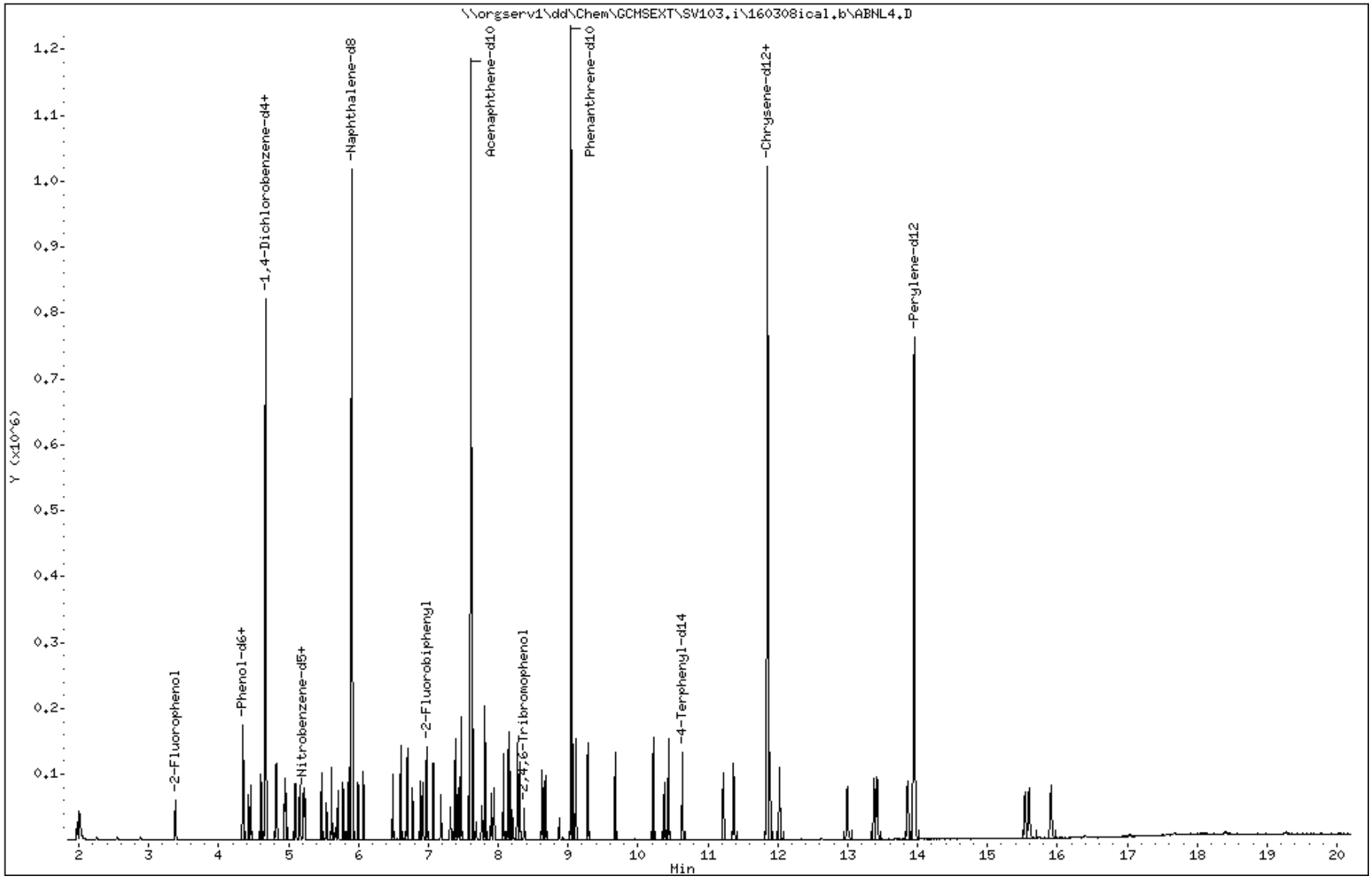
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL4.D
Date : 08-MAR-2016 21:28
Client ID:
Sample Info: ABN 5 LOT# 5809

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



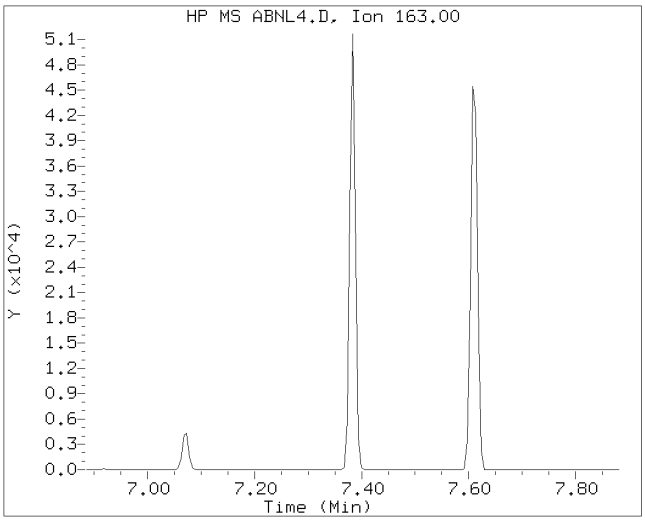
Alpha Analytical Labs

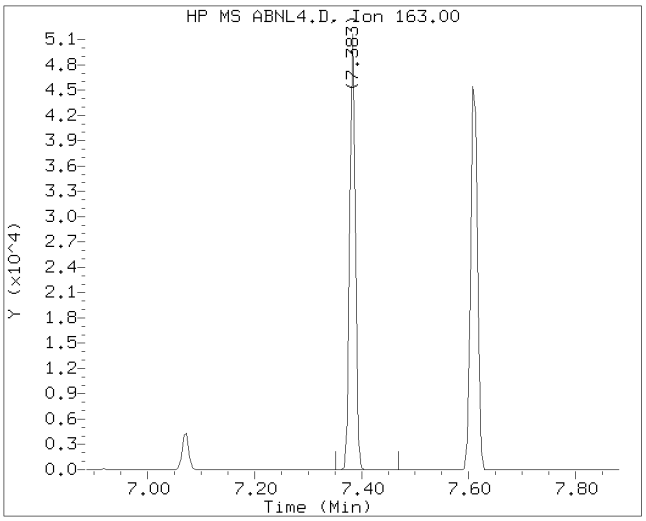
Manual Integration

Sample Info : ABN 5 LOT# 5809

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL4.D
Injection Date : 08-MAR-2016 21:28
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

Compound # 55: Dimethyl phthalate





Original Peak Response = 0 Manual Peak Response = 37989 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL5.D
Lab Smp Id:
Inj Date : 08-MAR-2016 21:54
Operator : hl Inst ID: SV103.i
Smp Info : ABN 10 LOT# 5810
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:21 Cal File: BENZL4.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.970	1.970	(0.422)	27633	10.0000	10.3	
	2 Pyridine	79	2.002	2.002	(0.429)	46784	10.0000	10.2	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	38215	10.0000	9.85	
	5 Aniline	93	4.345	4.345	(0.931)	62001	10.0000	9.70	
$	6 Phenol-d6	99	4.339	4.339	(0.930)	46944	10.0000	9.60	
	7 Phenol	94	4.355	4.355	(0.934)	53941	10.0000	9.65	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	42004	10.0000	9.91	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	40891	10.0000	9.69	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	45894	10.0000	9.77	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	116444	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	47584	10.0000	9.79	
	14 1,2-Dichlorobenzene	146	4.831	4.831	(1.036)	44380	10.0000	9.76	
	13 Benzyl alcohol	79	4.815	4.815	(1.032)	33526	10.0000	9.38	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	35526	10.0000	9.55	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	67556	10.0000	9.64	
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	29819	10.0000	9.57	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	19630	10.0000	9.74	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	36689	10.0000	9.36	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	41083	10.0000	9.34	
	23 Nitrobenzene	77	5.227	5.227	(0.885)	43370	10.0000	9.91	
	26 Isophorone	82	5.468	5.468	(1.172)	75661	10.0000	9.24	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	19789	10.0000	8.63	
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	38479	10.0000	9.16	
	30 Bis(2-chloroethoxy)methane	93	5.703	5.703	(1.222)	47515	10.0000	9.40	
	32 2,4-Dichlorophenol	162	5.778	5.778	(0.978)	32280	10.0000	9.85	
	31 Benzoic acid	105	5.682	5.682	(0.962)	15919	10.0000	11.8	
	33 1,2,4-Trichlorobenzene	180	5.858	5.858	(0.992)	37341	10.0000	9.97	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	459759	40.0000		
	35 Naphthalene	128	5.923	5.923	(1.003)	114793	10.0000	9.94	
	38 4-Chloroaniline	65	5.992	5.992	(1.014)	15547	10.0000	9.84	
	40 Hexachlorobutadiene	225	6.072	6.072	(1.028)	21272	10.0000	9.76	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	32360	10.0000	9.59	
	44 2-Methylnaphthalene	142	6.602	6.602	(1.118)	75512	10.0000	9.70	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	25240	10.0000	9.42	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	22544	10.0000	9.24	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	22574	10.0000	9.86	
	49	2,4,5-Trichlorophenol	196	6.917	6.917	(1.171)	22842	10.0000	9.23(M)	M4
$	50	2-Fluorobiphenyl	172	6.976	6.976	(1.181)	78754	10.0000	9.66	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	71603	10.0000	9.74	
	53	2-Nitroaniline	138	7.180	7.180	(1.216)	23000	10.0000	9.45	
	54	1,4-Dinitrobenzene	168	7.313	7.313	(0.961)	11470	10.0000	8.84	
	55	Dimethyl phthalate	163	7.383	7.383	(0.970)	80267	10.0000	9.56(M)	M2
	56	1,3-Dinitrobenzene	168	7.388	7.388	(0.971)	13363	10.0000	9.24(H)	
	57	2,6-Dinitrotoluene	165	7.426	7.426	(1.257)	19110	10.0000	9.79	
	58	Acenaphthylene	152	7.468	7.468	(1.264)	111917	10.0000	9.62	
	59	1,2-Dinitrobenzene	168	7.468	7.468	(0.982)	9533	10.0000	9.90	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	21506	10.0000	9.71	
*	61	Acenaphthene-d10	164	7.607	7.607	(1.000)	247056	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	70201	10.0000	9.86	
	63	2,4-Dinitrophenol	184	7.682	7.682	(1.010)	9834	10.0000	9.43	
	65	Dibenzofuran	168	7.811	7.811	(1.027)	99415	10.0000	9.68	
	64	4-Nitrophenol	65	7.763	7.763	(1.020)	17183	10.0000	9.27	
	66	2,4-Dinitrotoluene	165	7.811	7.811	(1.027)	25146	10.0000	9.77	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.038)	18957	10.0000	8.97	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.044)	18608	10.0000	9.42	
	69	Diethyl phthalate	149	8.073	8.073	(1.061)	82860	10.0000	9.56	
	70	Fluorene	166	8.142	8.142	(1.070)	81632	10.0000	9.71	
	71	4-Chlorophenyl phenyl ether	204	8.158	8.158	(1.072)	38176	10.0000	9.70	
	72	4-Nitroaniline	138	8.164	8.164	(1.073)	20995	10.0000	9.55	
	73	4,6-Dinitro-o-cresol	198	8.201	8.201	(1.078)	13879	10.0000	9.58	
	74	NDPA/DPA	169	8.276	8.276	(1.088)	68402	10.0000	9.65	
	75	Azobenzene	77	8.308	8.308	(1.092)	85041	10.0000	9.60	
$	76	2,4,6-Tribromophenol	330	8.372	8.372	(0.926)	10231	10.0000	8.98	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.134)	21712	10.0000	9.70	
	79	Hexachlorobenzene	284	8.677	8.677	(1.141)	22905	10.0000	9.56	
	83	Pentachlorophenol	266	8.870	8.870	(0.981)	11530	10.0000	9.32	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	432967	40.0000		
	86	Phenanthrene	178	9.062	9.062	(1.002)	120194	10.0000	9.76	
	87	Anthracene	178	9.110	9.110	(1.008)	118941	10.0000	9.82	
	89	Carbazole	167	9.282	9.282	(1.027)	111428	10.0000	9.84	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	136611	10.0000	9.65	
	93	Fluoranthene	202	10.218	10.218	(1.130)	122918	10.0000	9.80	
	95	Pyrene	202	10.437	10.437	(1.154)	128364	10.0000	9.76	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	79411	10.0000	9.68	
	98	Butyl benzyl phthalate	149	11.223	11.223	(1.241)	61515	10.0000	9.69	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	51592	10.0000	8.23	
	100	Benzo(a)anthracene	228	11.838	11.838	(0.999)	122054	10.0000	9.80	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	409799	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.849	11.849	(1.000)	43682	10.0000	10.1	
	103	Chrysene	228	11.886	11.886	(1.003)	120069	10.0000	9.92	
	104	Bis(2-ethylhexyl)phthalate	149	12.025	12.025	(1.014)	89668	10.0000	9.89	
	105	Di-n-octylphthalate	149	12.993	12.993	(1.096)	144302	10.0000	9.66	
	106	Benzo(b)fluoranthene	252	13.379	13.379	(0.959)	118407	10.0000	9.92	
	107	Benzo(k)fluoranthene	252	13.421	13.421	(0.962)	119340	10.0000	9.54	
	109	Benzo(a)pyrene	252	13.860	13.860	(0.993)	112595	10.0000	9.78	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	409610	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.539	15.539	(1.114)	102256	10.0000	9.96	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.598	15.598	(1.118)	106989	10.0000	9.99(M)	M2
114 Benzo(ghi)perylene	276	15.908	15.908	(1.140)	113381	10.0000	10.1	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 04:43
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	111515	55758	223030	116444	4.42
34 Naphthalene-d8	475121	237561	950242	459759	-3.23
61 Acenaphthene-d10	257993	128997	515986	247056	-4.24
85 Phenanthrene-d10	472131	236066	944262	432967	-8.30
102 Chrysene-d12	425098	212549	850196	409799	-3.60
110 Perylene-d12	405887	202944	811774	409610	0.92

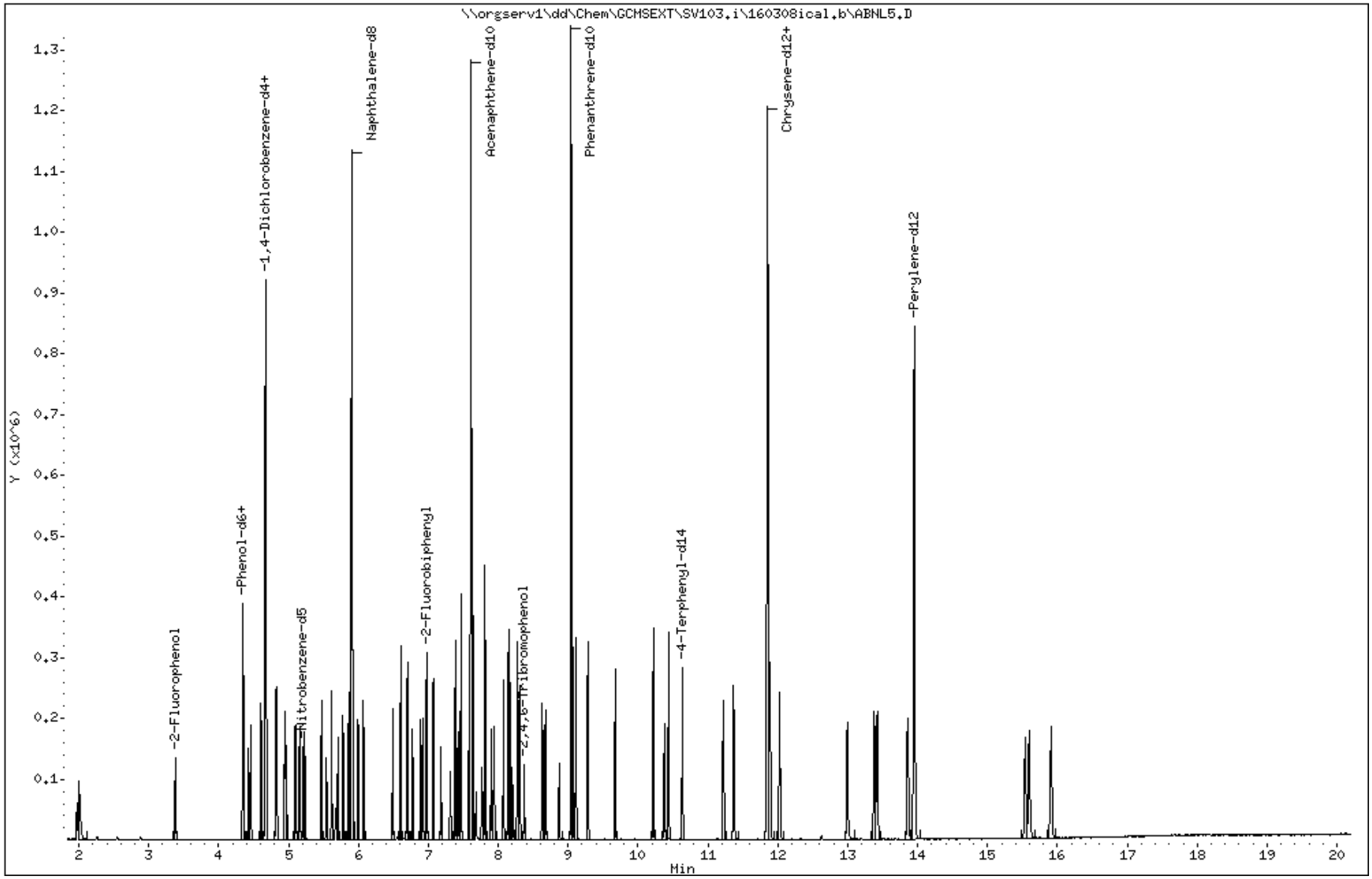
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.01
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL5.D
Date : 08-MAR-2016 21:54
Client ID:
Sample Info: ABN 10 LOT# 5810

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



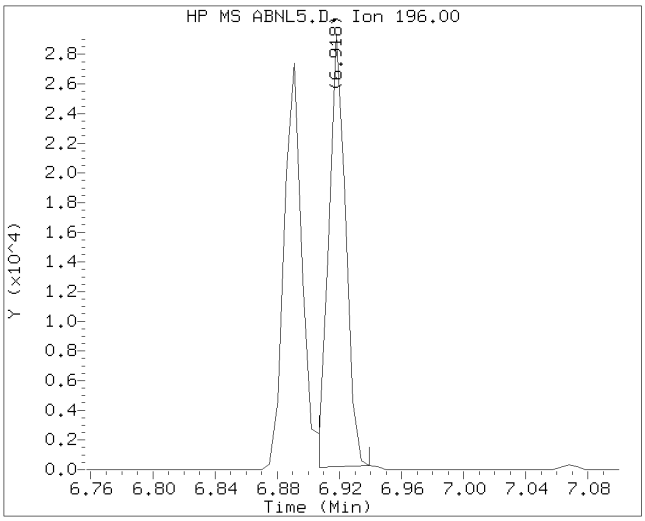
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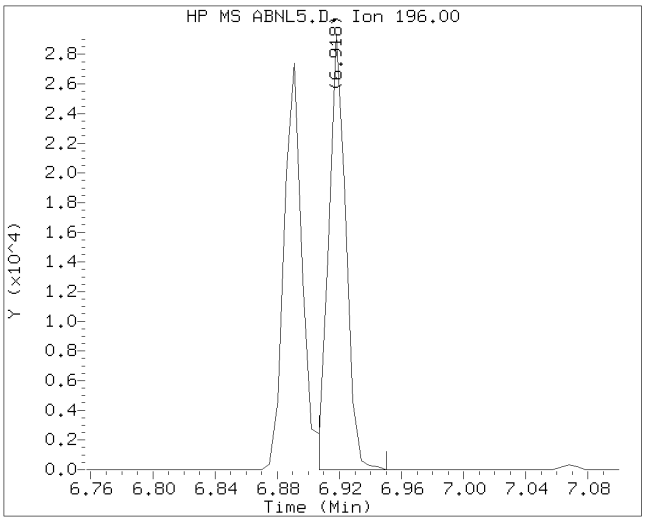
Manual Integration

Sample Info : ABN 10 LOT# 5810

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL5.D
Injection Date : 08-MAR-2016 21:54
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

Compound # 49: 2,4,5-Trichlorophenol

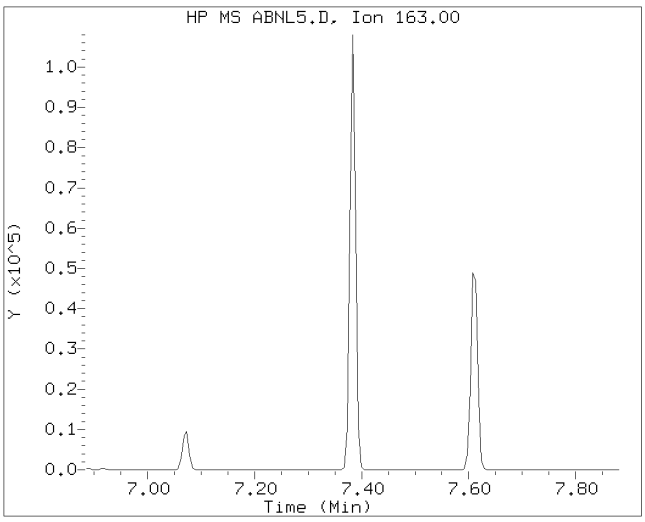


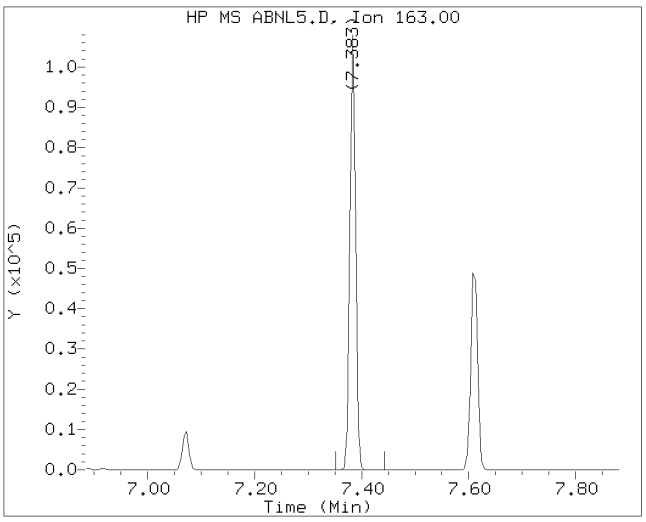


Original Peak Response = 22251 Manual Peak Response = 22842 M4

M4 = Poor automated baseline construction.

Compound # 55: Dimethyl phthalate





Original Peak Response = 0 Manual Peak Response = 80267 M2

M2 = Peak not found by automatic integration algorithm.

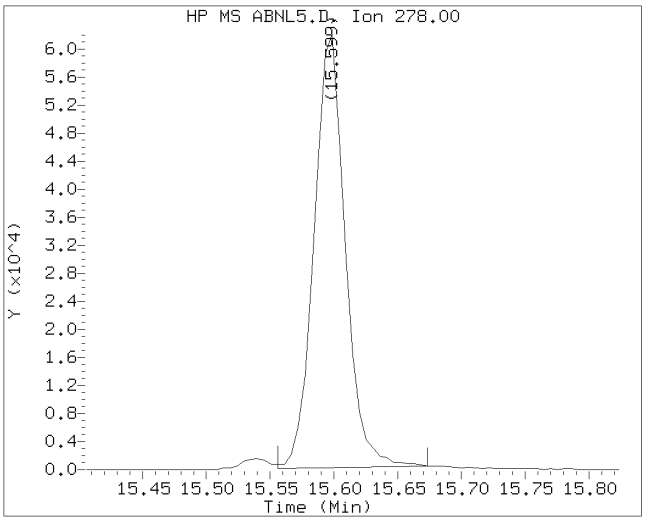
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Manual Integration

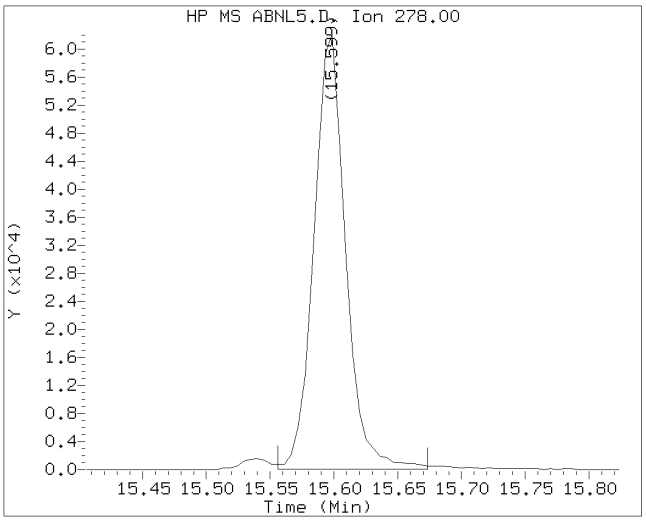
Sample Info : ABN 10 LOT# 5810

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL5.D
Injection Date : 08-MAR-2016 21:54
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

Compound # 113: Dibenzo(a,h)anthracene



Original Peak Response = 105484



Manual Peak Response = 106989 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL6.D
Lab Smp Id:
Inj Date : 08-MAR-2016 22:19
Operator : hl Inst ID: SV103.i
Smp Info : ABN 20 LOT# 5811
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:47 Cal File: BENZL5.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.970	1.970	(0.422)	56758	20.0000	19.7	
	2 Pyridine	79	1.997	1.997	(0.428)	99969	20.0000	20.4	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	82550	20.0000	19.9	
	5 Aniline	93	4.345	4.345	(0.931)	133447	20.0000	19.5	
$	6 Phenol-d6	99	4.345	4.345	(0.931)	101373	20.0000	19.4	
	7 Phenol	94	4.356	4.356	(0.934)	116831	20.0000	19.5	
	8 Bis(2-chloroethyl)ether	93	4.431	4.431	(0.950)	87390	20.0000	19.2	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	88778	20.0000	19.6	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	97727	20.0000	19.4	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	124690	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	101078	20.0000	19.4	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	95390	20.0000	19.6	
	13 Benzyl alcohol	79	4.816	4.816	(1.032)	72562	20.0000	19.0	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	76531	20.0000	19.2	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	145123	20.0000	19.3	
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	62659	20.0000	18.8	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	42761	20.0000	19.8	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	81109	20.0000	19.3	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	90156	20.0000	19.1	
	23 Nitrobenzene	77	5.228	5.228	(0.885)	93567	20.0000	19.5	
	26 Isophorone	82	5.468	5.468	(1.172)	166375	20.0000	19.0	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	46071	20.0000	18.8	
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	83207	20.0000	18.5	
	30 Bis(2-chloroethoxy)methane	93	5.709	5.709	(1.224)	102643	20.0000	19.0	
	32 2,4-Dichlorophenol	162	5.778	5.778	(0.978)	71088	20.0000	19.8	
	31 Benzoic acid	105	5.698	5.698	(0.965)	47313	20.0000	19.2	
	33 1,2,4-Trichlorobenzene	180	5.859	5.859	(0.992)	79069	20.0000	19.3	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	502965	40.0000		
	35 Naphthalene	128	5.923	5.923	(1.003)	244585	20.0000	19.4	
	38 4-Chloroaniline	65	5.992	5.992	(1.014)	33548	20.0000	19.4	
	40 Hexachlorobutadiene	225	6.073	6.073	(1.028)	47362	20.0000	19.9	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	69730	20.0000	18.9	
	44 2-Methylnaphthalene	142	6.602	6.602	(1.118)	163744	20.0000	19.2	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	56236	20.0000	19.2	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	52275	20.0000	19.6	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	49086	20.0000	19.6	
	49	2,4,5-Trichlorophenol	196	6.918	6.918	(1.171)	54225	20.0000	20.0(M)	M4
$	50	2-Fluorobiphenyl	172	6.977	6.977	(1.181)	169512	20.0000	19.0	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	151753	20.0000	18.9	
	53	2-Nitroaniline	138	7.180	7.180	(1.215)	52933	20.0000	19.9	
	54	1,4-Dinitrobenzene	168	7.313	7.313	(0.961)	26302	20.0000	18.7	
	55	Dimethyl phthalate	163	7.383	7.383	(0.970)	176634	20.0000	19.4(M)	M7
	56	1,3-Dinitrobenzene	168	7.388	7.388	(0.971)	30644	20.0000	19.5	
	57	2,6-Dinitrotoluene	165	7.426	7.426	(1.257)	41782	20.0000	19.6	
	58	Acenaphthylene	152	7.469	7.469	(1.264)	243807	20.0000	19.2	
	59	1,2-Dinitrobenzene	168	7.469	7.469	(0.982)	20841	20.0000	20.0	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	47034	20.0000	19.6	
*	61	Acenaphthene-d10	164	7.608	7.608	(1.000)	268086	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	147805	20.0000	19.1	
	63	2,4-Dinitrophenol	184	7.683	7.683	(1.010)	25385	20.0000	18.0	
	65	Dibenzofuran	168	7.811	7.811	(1.027)	214892	20.0000	19.3	
	64	4-Nitrophenol	65	7.768	7.768	(1.021)	38303	20.0000	19.0	
	66	2,4-Dinitrotoluene	165	7.811	7.811	(1.027)	56606	20.0000	20.3	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.038)	44341	20.0000	19.3	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.044)	43443	20.0000	20.3	
	69	Diethyl phthalate	149	8.073	8.073	(1.061)	181614	20.0000	19.3	
	70	Fluorene	166	8.143	8.143	(1.070)	176317	20.0000	19.3	
	71	4-Chlorophenyl phenyl ether	204	8.159	8.159	(1.072)	83530	20.0000	19.6	
	72	4-Nitroaniline	138	8.169	8.169	(1.074)	48096	20.0000	20.2	
	73	4,6-Dinitro-o-cresol	198	8.201	8.201	(1.078)	33741	20.0000	18.6	
	74	NDPA/DPA	169	8.276	8.276	(1.088)	148884	20.0000	19.4	
	75	Azobenzene	77	8.308	8.308	(1.092)	188188	20.0000	19.6	
$	76	2,4,6-Tribromophenol	330	8.373	8.373	(0.926)	23272	20.0000	18.3	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.134)	46947	20.0000	19.3	
	79	Hexachlorobenzene	284	8.677	8.677	(1.141)	49156	20.0000	18.9	
	83	Pentachlorophenol	266	8.870	8.870	(0.981)	28974	20.0000	18.4	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	462839	40.0000		
	86	Phenanthrene	178	9.062	9.062	(1.002)	255277	20.0000	19.4	
	87	Anthracene	178	9.111	9.111	(1.008)	257334	20.0000	19.9	
	89	Carbazole	167	9.282	9.282	(1.027)	236599	20.0000	19.5	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	296762	20.0000	19.6	
	93	Fluoranthene	202	10.218	10.218	(1.130)	260092	20.0000	19.4	
	95	Pyrene	202	10.437	10.437	(1.154)	275439	20.0000	19.6	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	165460	20.0000	18.9	
	98	Butyl benzyl phthalate	149	11.223	11.223	(1.241)	131948	20.0000	19.4	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	112529	20.0000	16.8	
	100	Benzo(a)anthracene	228	11.838	11.838	(0.999)	253044	20.0000	19.6	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	425613	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.849	11.849	(1.000)	92597	20.0000	20.7	
	103	Chrysene	228	11.887	11.887	(1.003)	248789	20.0000	19.8	
	104	Bis(2-ethylhexyl)phthalate	149	12.026	12.026	(1.014)	191757	20.0000	20.4	
	105	Di-n-octylphthalate	149	12.994	12.994	(1.096)	310166	20.0000	20.0	
	106	Benzo(b)fluoranthene	252	13.379	13.379	(0.959)	238789	20.0000	19.9	
	107	Benzo(k)fluoranthene	252	13.422	13.422	(0.962)	247538	20.0000	19.6	
	109	Benzo(a)pyrene	252	13.855	13.855	(0.993)	232024	20.0000	20.0	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	412528	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.540	15.540	(1.114)	203206	20.0000	19.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.599	15.599	(1.118)	211219	20.0000	19.6	
114 Benzo(ghi)perylene	276	15.909	15.909	(1.140)	227617	20.0000	20.1	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 04:43
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	111515	55758	223030	124690	11.81
34 Naphthalene-d8	475121	237561	950242	502965	5.86
61 Acenaphthene-d10	257993	128997	515986	268086	3.91
85 Phenanthrene-d10	472131	236066	944262	462839	-1.97
102 Chrysene-d12	425098	212549	850196	425613	0.12
110 Perylene-d12	405887	202944	811774	412528	1.64

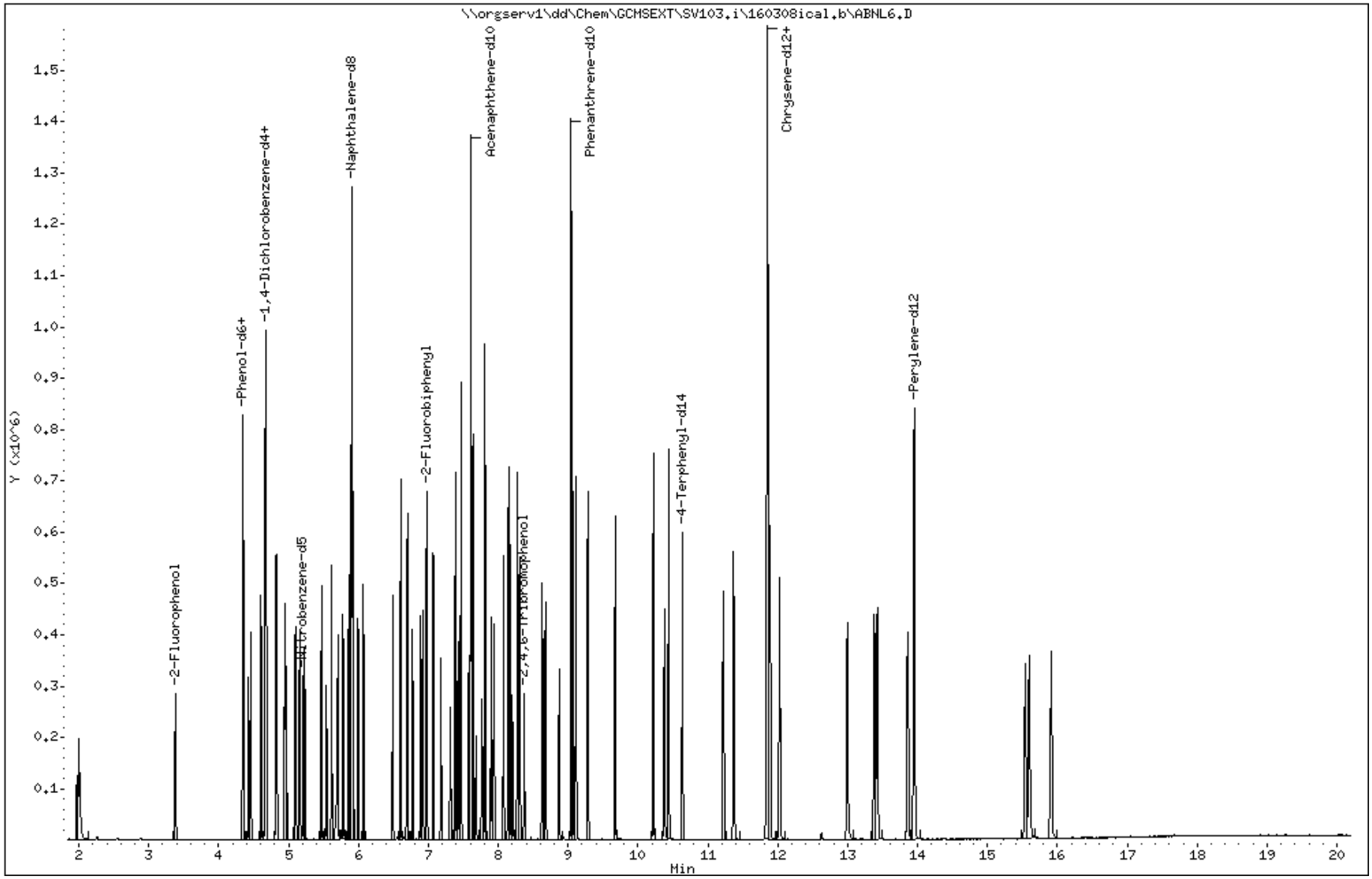
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL6.D
Date : 08-MAR-2016 22:19
Client ID:
Sample Info: ABN 20 LOT# 5811

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



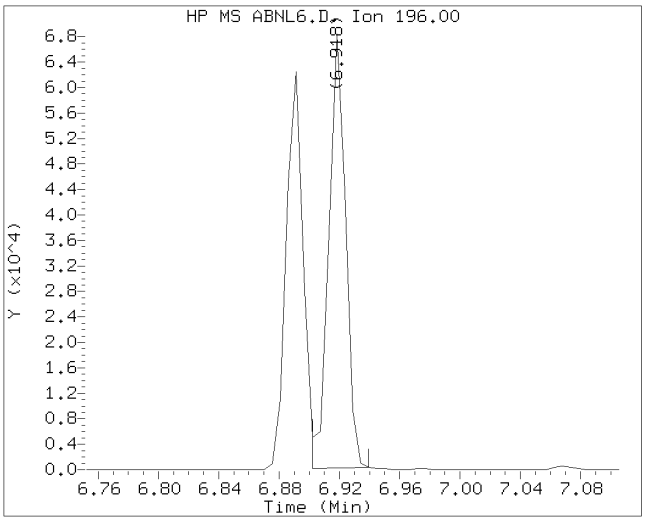
Alpha Analytical Labs

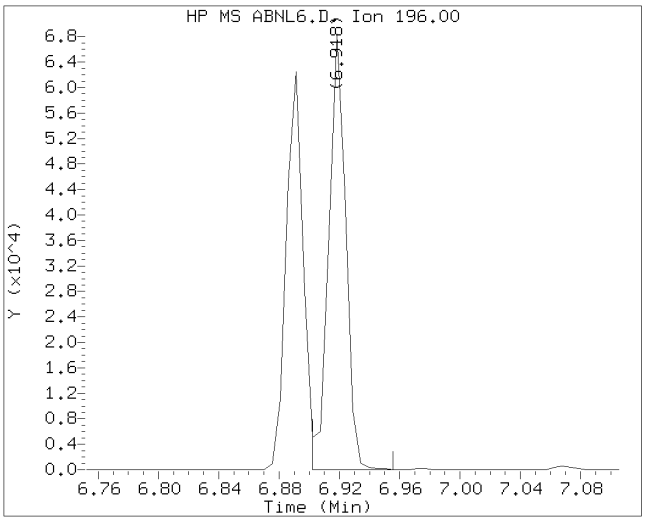
Manual Integration

Sample Info : ABN 20 LOT# 5811

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL6.D
Injection Date : 08-MAR-2016 22:19
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

Compound # 49: 2,4,5-Trichlorophenol

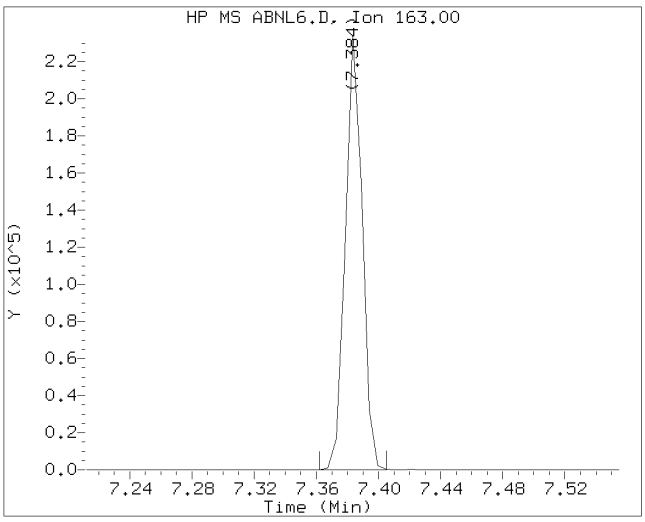


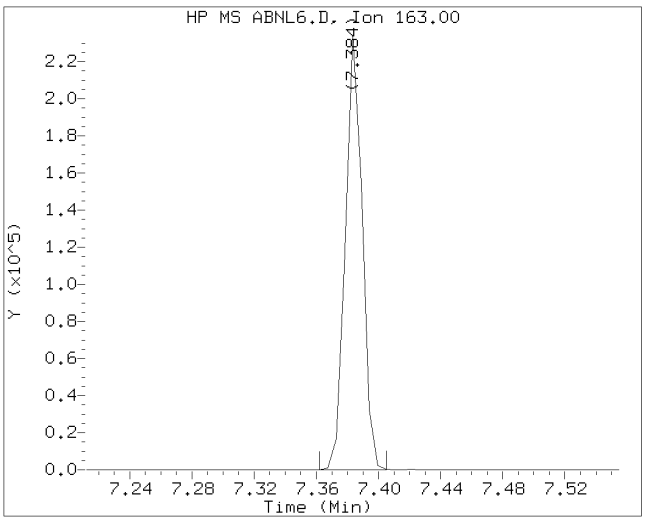


Original Peak Response = 53480 Manual Peak Response = 54225 M4

M4 = Poor automated baseline construction.

Compound # 55: Dimethyl phthalate





Original Peak Response = 176634 Manual Peak Response = 176634 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL7.D
Lab Smp Id:
Inj Date : 08-MAR-2016 22:45
Operator : hl Inst ID: SV103.i
Smp Info : ABN 50 LOT# 5812
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:12 Cal File: BENZL6.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.965	1.965	(0.421)	164397	50.0000	57.1	
	2 Pyridine	79	1.991	1.991	(0.427)	285819	50.0000	58.2	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	239136	50.0000	57.6	
	5 Aniline	93	4.345	4.345	(0.931)	391190	50.0000	57.2	
$	6 Phenol-d6	99	4.345	4.345	(0.931)	296621	50.0000	56.6	
	7 Phenol	94	4.356	4.356	(0.934)	342723	50.0000	57.2	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	255601	50.0000	56.3	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	257878	50.0000	57.0	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	286039	50.0000	56.8	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	124718	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	292973	50.0000	56.3	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	277312	50.0000	56.9	
	13 Benzyl alcohol	79	4.821	4.821	(1.033)	220525	50.0000	57.6	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	228495	50.0000	57.4	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	424901	50.0000	56.6	
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	189920	50.0000	56.9	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	124548	50.0000	57.7	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	247031	50.0000	58.8	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	274282	50.0000	58.2	
	23 Nitrobenzene	77	5.227	5.227	(0.885)	282694	50.0000	56.7	
	26 Isophorone	82	5.473	5.473	(1.173)	503581	50.0000	57.4	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	146522	50.0000	59.6	
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	259407	50.0000	57.6	
	30 Bis(2-chloroethoxy)methane	93	5.709	5.709	(1.224)	311878	50.0000	57.6	
	32 2,4-Dichlorophenol	162	5.784	5.784	(0.979)	215536	50.0000	57.8	
	31 Benzoic acid	105	5.730	5.730	(0.970)	186056	50.0000	52.2	
	33 1,2,4-Trichlorobenzene	180	5.859	5.859	(0.992)	236434	50.0000	55.4	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	523308	40.0000		
	35 Naphthalene	128	5.928	5.928	(1.004)	732172	50.0000	55.7	
	38 4-Chloroaniline	65	5.998	5.998	(1.015)	102644	50.0000	57.0	
	40 Hexachlorobutadiene	225	6.072	6.072	(1.028)	138347	50.0000	55.8	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	221151	50.0000	57.6	
	44 2-Methylnaphthalene	142	6.607	6.607	(1.119)	495078	50.0000	55.9	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	170289	50.0000	55.8	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	165288	50.0000	59.5	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	156839	50.0000	60.2	
	49	2,4,5-Trichlorophenol	196	6.918	6.918	(1.171)	161117	50.0000	57.2(M)	M4
$	50	2-Fluorobiphenyl	172	6.976	6.976	(1.181)	519503	50.0000	56.0	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	470432	50.0000	56.2	
	53	2-Nitroaniline	138	7.185	7.185	(1.216)	165090	50.0000	59.6	
	54	1,4-Dinitrobenzene	168	7.319	7.319	(0.961)	86264	50.0000	58.2	
	55	Dimethyl phthalate	163	7.388	7.388	(0.970)	540305	50.0000	56.2(M)	M7
	56	1,3-Dinitrobenzene	168	7.394	7.394	(0.971)	96345	50.0000	58.2	
	57	2,6-Dinitrotoluene	165	7.431	7.431	(1.258)	129749	50.0000	58.4	
	58	Acenaphthylene	152	7.468	7.468	(1.264)	747879	50.0000	56.5	
	59	1,2-Dinitrobenzene	168	7.474	7.474	(0.982)	65834	50.0000	59.8	
	60	3-Nitroaniline	138	7.586	7.586	(0.996)	149502	50.0000	59.0	
*	61	Acenaphthene-d10	164	7.613	7.613	(1.000)	282544	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	457215	50.0000	56.1	
	63	2,4-Dinitrophenol	184	7.682	7.682	(1.009)	91736	50.0000	54.0	
	65	Dibenzofuran	168	7.811	7.811	(1.026)	661514	50.0000	56.3	
	64	4-Nitrophenol	65	7.768	7.768	(1.020)	122276	50.0000	57.7	
	66	2,4-Dinitrotoluene	165	7.816	7.816	(1.027)	175852	50.0000	59.7	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.037)	141120	50.0000	58.4	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.043)	138286	50.0000	61.2	
	69	Diethyl phthalate	149	8.078	8.078	(1.061)	561584	50.0000	56.7	
	70	Fluorene	166	8.142	8.142	(1.070)	544246	50.0000	56.6	
	71	4-Chlorophenyl phenyl ether	204	8.164	8.164	(1.072)	251735	50.0000	55.9	
	72	4-Nitroaniline	138	8.174	8.174	(1.074)	151049	50.0000	60.1	
	73	4,6-Dinitro-o-cresol	198	8.207	8.207	(1.078)	112311	50.0000	53.8	
	74	NDPA/DPA	169	8.276	8.276	(1.087)	461613	50.0000	57.0	
	75	Azobenzene	77	8.314	8.314	(1.092)	581289	50.0000	57.4	
$	76	2,4,6-Tribromophenol	330	8.378	8.378	(0.927)	76409	50.0000	55.6	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.133)	142621	50.0000	55.7	
	79	Hexachlorobenzene	284	8.677	8.677	(1.140)	148455	50.0000	54.2	
	83	Pentachlorophenol	266	8.875	8.875	(0.982)	101216	50.0000	55.1	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	487821	40.0000		
	86	Phenanthrene	178	9.068	9.068	(1.003)	777012	50.0000	56.0	
	87	Anthracene	178	9.116	9.116	(1.008)	791357	50.0000	58.0	
	89	Carbazole	167	9.282	9.282	(1.027)	742377	50.0000	58.2	
	90	Di-n-butylphthalate	149	9.672	9.672	(1.070)	942077	50.0000	59.0	
	93	Fluoranthene	202	10.218	10.218	(1.130)	816895	50.0000	57.8	
	95	Pyrene	202	10.437	10.437	(1.154)	851778	50.0000	57.5	
$	96	4-Terphenyl-d14	244	10.635	10.635	(1.176)	521441	50.0000	56.4	
	98	Butyl benzyl phthalate	149	11.223	11.223	(1.241)	420828	50.0000	58.8	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	358564	50.0000	53.4	
	100	Benzo(a)anthracene	228	11.844	11.844	(0.999)	788976	50.0000	56.4	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	460303	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.849	11.849	(1.000)	288901	50.0000	59.6	
	103	Chrysene	228	11.892	11.892	(1.003)	773471	50.0000	56.9	
	104	Bis(2-ethylhexyl)phthalate	149	12.025	12.025	(1.014)	614475	50.0000	60.3	
	105	Di-n-octylphthalate	149	12.994	12.994	(1.096)	1012729	50.0000	60.3	
	106	Benzo(b)fluoranthene	252	13.384	13.384	(0.959)	739829	50.0000	57.6	
	107	Benzo(k)fluoranthene	252	13.427	13.427	(0.962)	772426	50.0000	57.3	
	109	Benzo(a)pyrene	252	13.865	13.865	(0.994)	727278	50.0000	58.7	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	441116	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.550	15.550	(1.115)	639717	50.0000	57.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.604	15.604	(1.118)	674286	50.0000	58.5	
114 Benzo(ghi)perylene	276	15.925	15.925	(1.141)	699891	50.0000	57.9	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	124718	6.74
34 Naphthalene-d8	493378	246689	986756	523308	6.07
61 Acenaphthene-d10	275172	137586	550344	282544	2.68
85 Phenanthrene-d10	484920	242460	969840	487821	0.60
102 Chrysene-d12	455989	227995	911978	460303	0.95
110 Perylene-d12	429399	214700	858798	441116	2.73

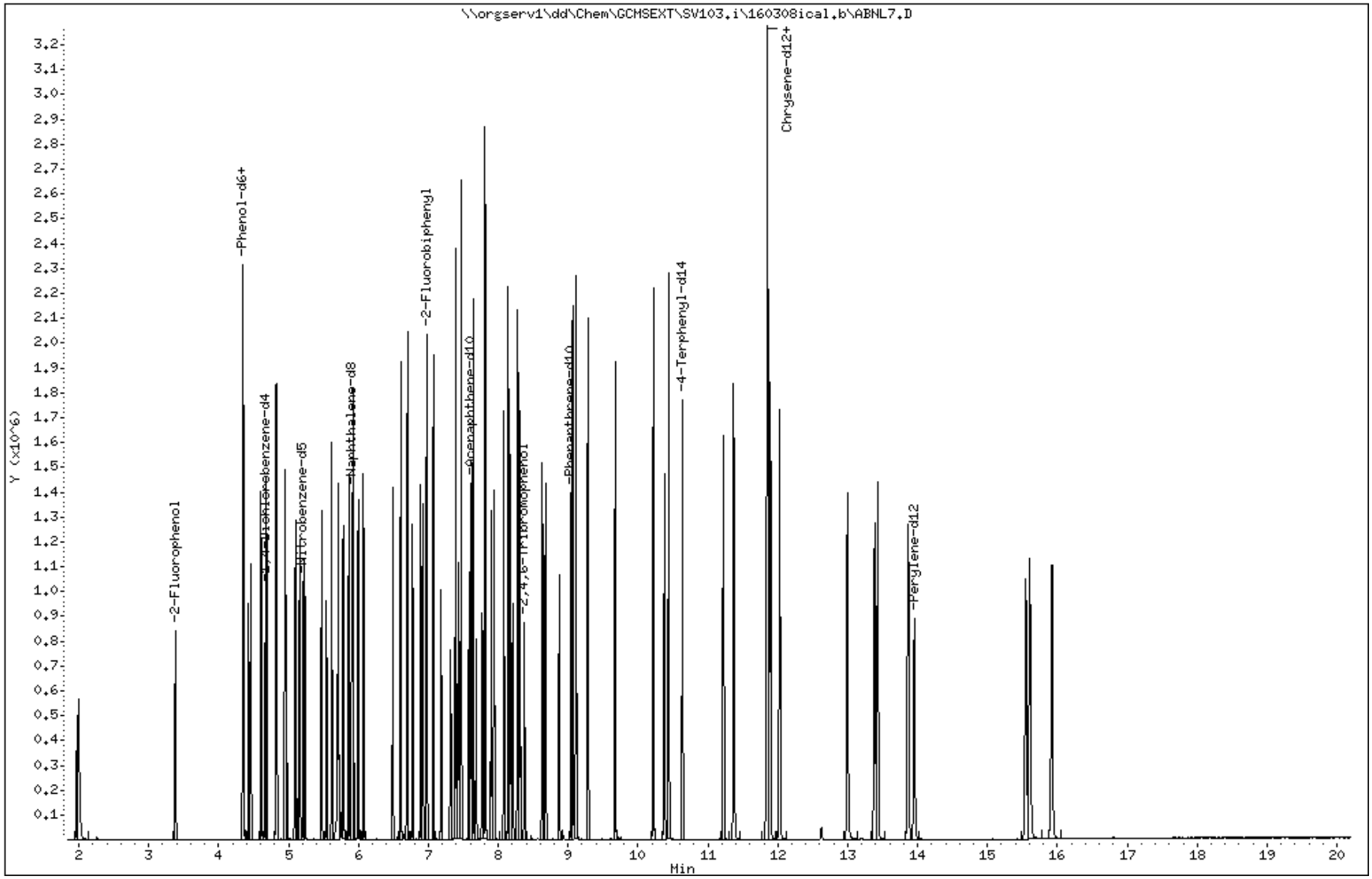
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL7.D
Date : 08-MAR-2016 22:45
Client ID:
Sample Info: ABN 50 LOT# 5812

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



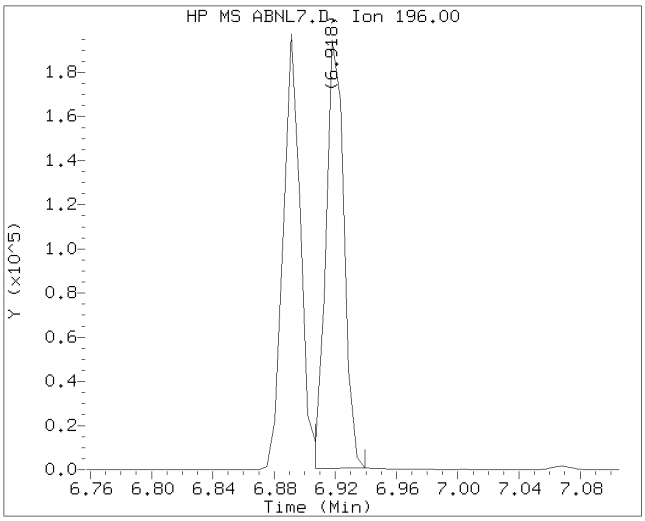
Alpha Analytical Labs

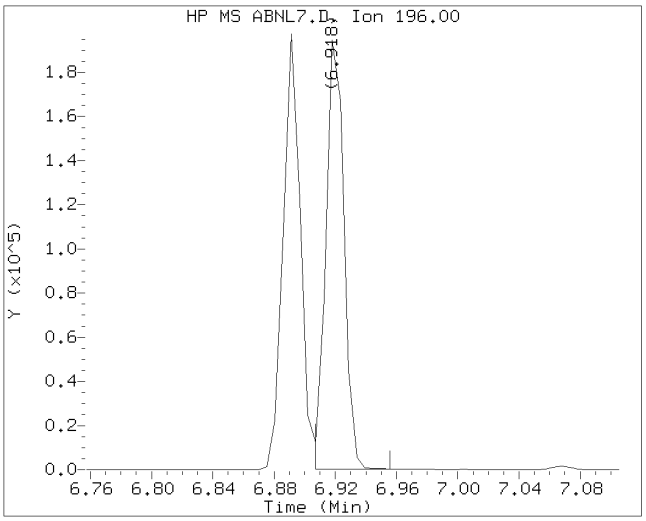
Manual Integration

Sample Info : ABN 50 LOT# 5812

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL7.D
Injection Date : 08-MAR-2016 22:45
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

Compound # 49: 2,4,5-Trichlorophenol

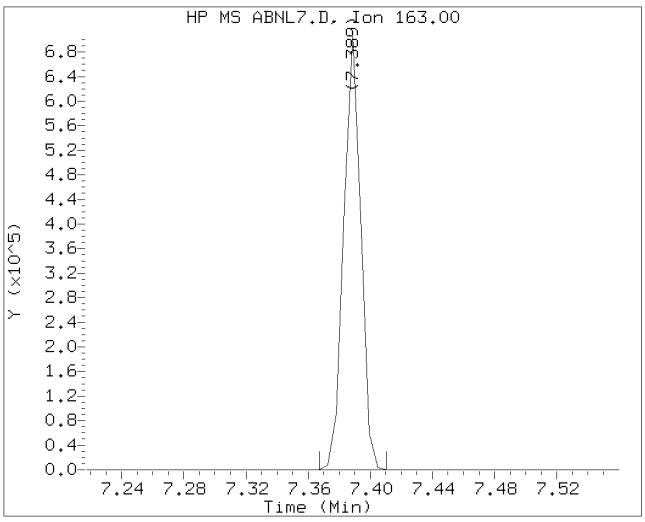


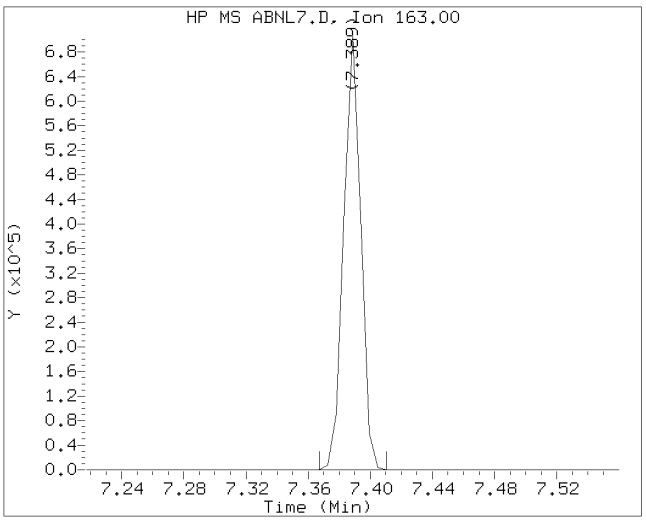


Original Peak Response = 159800 Manual Peak Response = 161117 M4

M4 = Poor automated baseline construction.

Compound # 55: Dimethyl phthalate





Original Peak Response = 540305 Manual Peak Response = 540305 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL8.D
Lab Smp Id:
Inj Date : 08-MAR-2016 23:11
Operator : hl Inst ID: SV103.i
Smp Info : ABN 100 LOT# 5813
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:38 Cal File: BENZL7.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.965	1.965	(0.421)	274729	100.000	99.0	
	2 Pyridine	79	1.992	1.992	(0.427)	474788	100.000	100	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	401991	100.000	100	
	5 Aniline	93	4.345	4.345	(0.931)	662002	100.000	100	
$	6 Phenol-d6	99	4.350	4.350	(0.932)	506769	100.000	100	
	7 Phenol	94	4.361	4.361	(0.935)	577434	100.000	100	
	8 Bis(2-chloroethyl)ether	93	4.431	4.431	(0.950)	432096	100.000	98.8	
	9 2-Chlorophenol	128	4.463	4.463	(0.956)	442083	100.000	101	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	483149	100.000	99.6	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	120178	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	495215	100.000	98.8	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	472607	100.000	101	
	13 Benzyl alcohol	79	4.821	4.821	(1.033)	384493	100.000	104	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	391021	100.000	102	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	714687	100.000	98.8	
	18 n-Nitrosodi-n-propylamine	70	5.094	5.094	(1.092)	331389	100.000	103	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	212874	100.000	102	
	19 3-Methylphenol/4-Methylphenol	108	5.110	5.110	(1.095)	424711	100.000	105	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	471758	100.000	104	
	23 Nitrobenzene	77	5.233	5.233	(0.886)	480666	100.000	98.7	
	26 Isophorone	82	5.474	5.474	(1.173)	880401	100.000	104	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	250005	100.000	106	
	29 2,4-Dimethylphenol	107	5.623	5.623	(1.205)	447285	100.000	103	
	30 Bis(2-chloroethoxy)methane	93	5.709	5.709	(1.224)	534537	100.000	102	
	32 2,4-Dichlorophenol	162	5.784	5.784	(0.979)	373185	100.000	102	
	31 Benzoic acid	105	5.752	5.752	(0.974)	359234	100.000	95.9	
	33 1,2,4-Trichlorobenzene	180	5.864	5.864	(0.993)	405626	100.000	97.3	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	511478	40.0000		
	35 Naphthalene	128	5.928	5.928	(1.004)	1260190	100.000	98.1	
	38 4-Chloroaniline	65	5.998	5.998	(1.015)	177756	100.000	101	
	40 Hexachlorobutadiene	225	6.073	6.073	(1.028)	235479	100.000	97.2	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	380800	100.000	101	
	44 2-Methylnaphthalene	142	6.607	6.607	(1.119)	856424	100.000	98.9	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	298634	100.000	100	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	289499	100.000	107	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	273214	100.000	107	
	49	2,4,5-Trichlorophenol	196	6.923	6.923	(1.172)	286473	100.000	104(M)	M4
$	50	2-Fluorobiphenyl	172	6.977	6.977	(1.181)	905151	100.000	99.8	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	812030	100.000	99.3	
	53	2-Nitroaniline	138	7.185	7.185	(1.216)	298615	100.000	110	
	54	1,4-Dinitrobenzene	168	7.319	7.319	(0.961)	155818	100.000	106	
	55	Dimethyl phthalate	163	7.394	7.394	(0.971)	954754	100.000	100(M)	M7
	56	1,3-Dinitrobenzene	168	7.394	7.394	(0.971)	173973	100.000	106	
	57	2,6-Dinitrotoluene	165	7.431	7.431	(1.258)	229186	100.000	106	
	58	Acenaphthylene	152	7.469	7.469	(1.264)	1308309	100.000	101	
	59	1,2-Dinitrobenzene	168	7.479	7.479	(0.982)	117133	100.000	107	
	60	3-Nitroaniline	138	7.586	7.586	(0.996)	266915	100.000	106	
*	61	Acenaphthene-d10	164	7.613	7.613	(1.000)	280674	40.0000		
	62	Acenaphthene	154	7.645	7.645	(1.004)	795837	100.000	98.4	
	63	2,4-Dinitrophenol	184	7.688	7.688	(1.010)	170164	100.000	98.0	
	65	Dibenzofuran	168	7.811	7.811	(1.026)	1149740	100.000	98.5	
	64	4-Nitrophenol	65	7.773	7.773	(1.021)	220194	100.000	104	
	66	2,4-Dinitrotoluene	165	7.822	7.822	(1.027)	317973	100.000	109	
	67	2,3,5,6-Tetrachlorophenol	232	7.902	7.902	(1.038)	250692	100.000	104	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.043)	240840	100.000	107	
	69	Diethyl phthalate	149	8.084	8.084	(1.062)	991775	100.000	101	
	70	Fluorene	166	8.143	8.143	(1.070)	955835	100.000	100	
	71	4-Chlorophenyl phenyl ether	204	8.164	8.164	(1.072)	445926	100.000	99.7	
	72	4-Nitroaniline	138	8.180	8.180	(1.074)	273605	100.000	110(M)	M4
	73	4,6-Dinitro-o-cresol	198	8.212	8.212	(1.079)	207371	100.000	97.9	
	74	NDPA/DPA	169	8.282	8.282	(1.088)	820457	100.000	102	
	75	Azobenzene	77	8.314	8.314	(1.092)	1021169	100.000	101	
$	76	2,4,6-Tribromophenol	330	8.378	8.378	(0.926)	135962	100.000	96.5	
	78	4-Bromophenyl phenyl ether	248	8.635	8.635	(1.134)	252672	100.000	99.4	
	79	Hexachlorobenzene	284	8.683	8.683	(1.141)	266645	100.000	98.0	
	83	Pentachlorophenol	266	8.875	8.875	(0.981)	186878	100.000	97.7	
*	85	Phenanthrene-d10	188	9.046	9.046	(1.000)	497577	40.0000		
	86	Phenanthrene	178	9.068	9.068	(1.002)	1397204	100.000	98.7	
	87	Anthracene	178	9.116	9.116	(1.008)	1418526	100.000	102	
	89	Carbazole	167	9.287	9.287	(1.027)	1327345	100.000	102	
	90	Di-n-butylphthalate	149	9.678	9.678	(1.070)	1694403	100.000	104	
	93	Fluoranthene	202	10.223	10.223	(1.130)	1471222	100.000	102	
	95	Pyrene	202	10.442	10.442	(1.154)	1547605	100.000	102	
$	96	4-Terphenyl-d14	244	10.640	10.640	(1.176)	946634	100.000	100	
	98	Butyl benzyl phthalate	149	11.223	11.223	(1.241)	772242	100.000	106	
	99	Bis (2-ethylhexyl) adipate	129	11.373	11.373	(2.437)	653997	100.000	101	
	100	Benzo(a)anthracene	228	11.849	11.849	(0.999)	1463807	100.000	99.1	
*	102	Chrysene-d12	240	11.860	11.860	(1.000)	486035	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.854	11.854	(1.000)	530269	100.000	104	
	103	Chrysene	228	11.897	11.897	(1.003)	1399923	100.000	97.5	
	104	Bis(2-ethylhexyl)phthalate	149	12.026	12.026	(1.014)	1132051	100.000	105	
	105	Di-n-octylphthalate	149	12.999	12.999	(1.096)	1893751	100.000	107	
	106	Benzo(b)fluoranthene	252	13.390	13.390	(0.959)	1386755	100.000	104	
	107	Benzo(k)fluoranthene	252	13.438	13.438	(0.963)	1424454	100.000	102	
	109	Benzo(a)pyrene	252	13.871	13.871	(0.994)	1370364	100.000	107	
*	110	Perylene-d12	264	13.956	13.956	(1.000)	456888	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.561	15.561	(1.115)	1226510	100.000	107	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.615	15.615	(1.119)	1263559	100.000	106	
114 Benzo(ghi)perylene	276	15.935	15.935	(1.142)	1325854	100.000	106	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	120178	2.86
34 Naphthalene-d8	493378	246689	986756	511478	3.67
61 Acenaphthene-d10	275172	137586	550344	280674	2.00
85 Phenanthrene-d10	484920	242460	969840	497577	2.61
102 Chrysene-d12	455989	227995	911978	486035	6.59
110 Perylene-d12	429399	214700	858798	456888	6.40

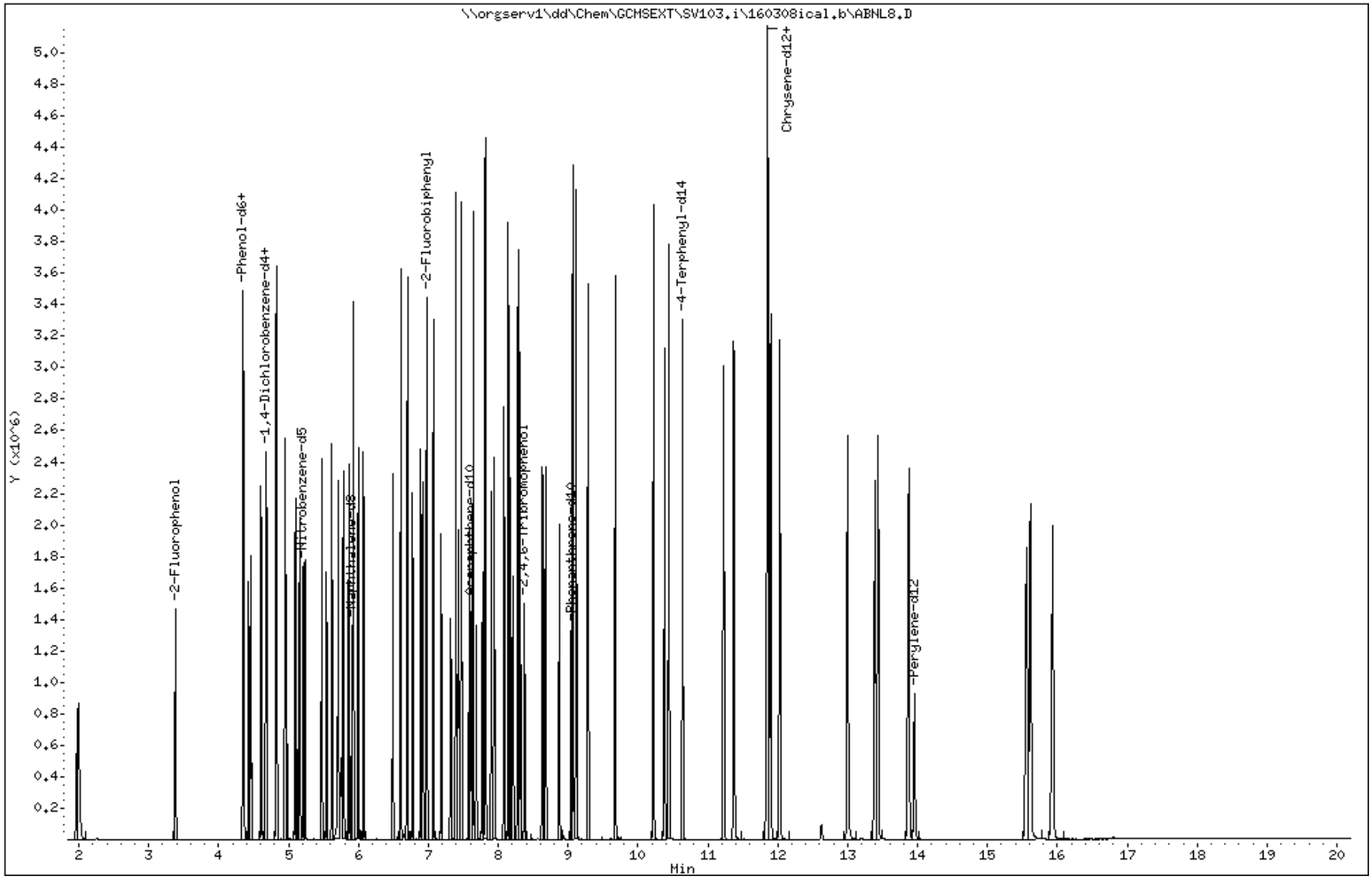
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.05	0.06
102 Chrysene-d12	11.85	11.35	12.35	11.86	0.05
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL8.D
Date : 08-MAR-2016 23:11
Client ID:
Sample Info: ABN 100 LOT# 5813

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



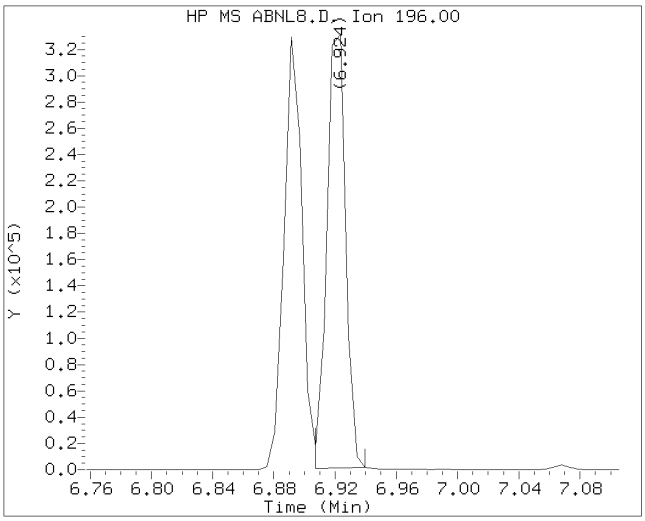
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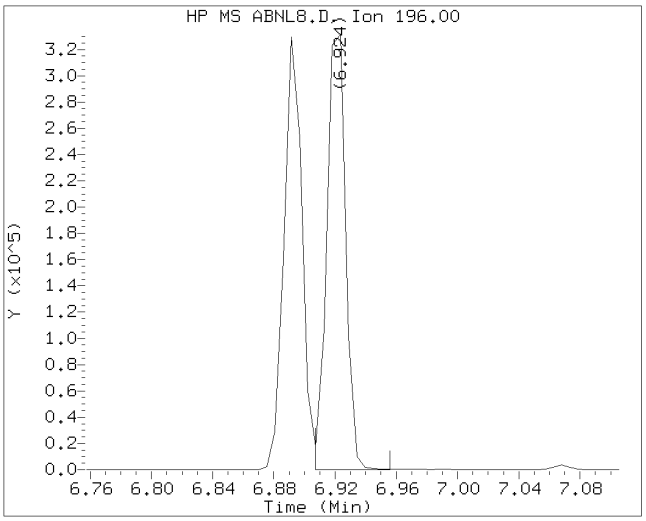
Manual Integration

Sample Info : ABN 100 LOT# 5813

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL8.D
Injection Date : 08-MAR-2016 23:11
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

Compound # 49: 2,4,5-Trichlorophenol

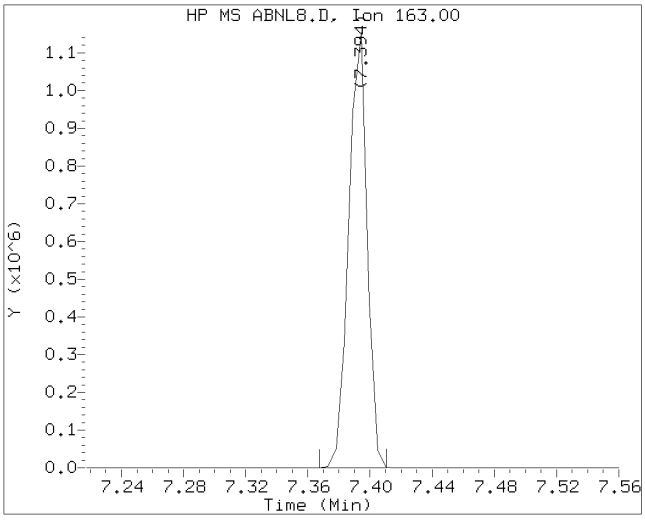


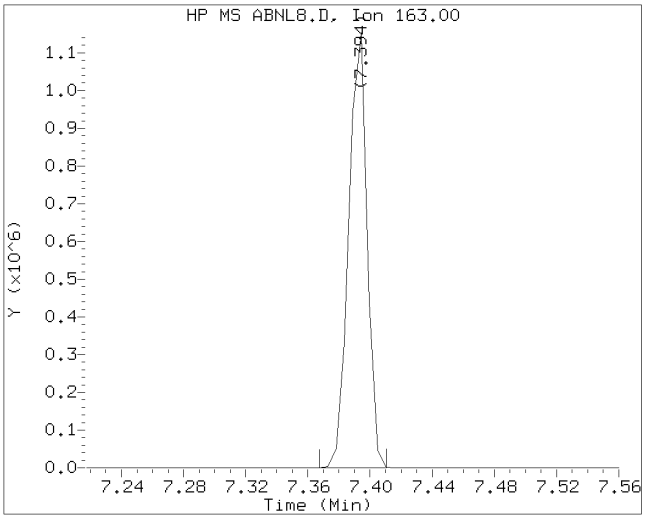


Original Peak Response = 283643 Manual Peak Response = 286473 M4

M4 = Poor automated baseline construction.

Compound # 55: Dimethyl phthalate





Original Peak Response = 954754 Manual Peak Response = 954754 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

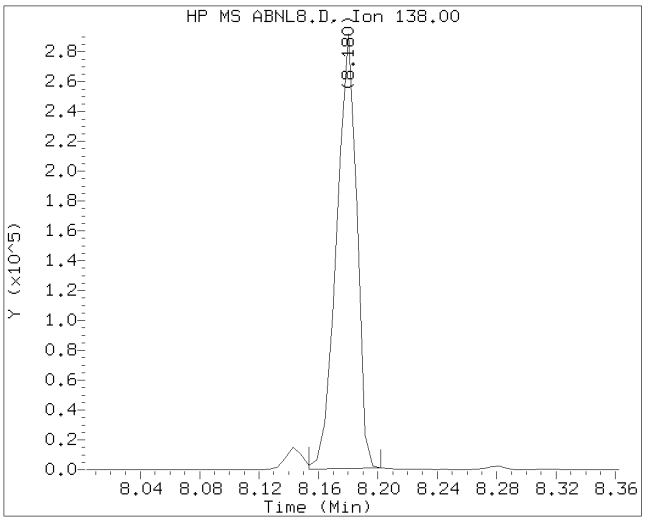
Alpha Analytical Labs

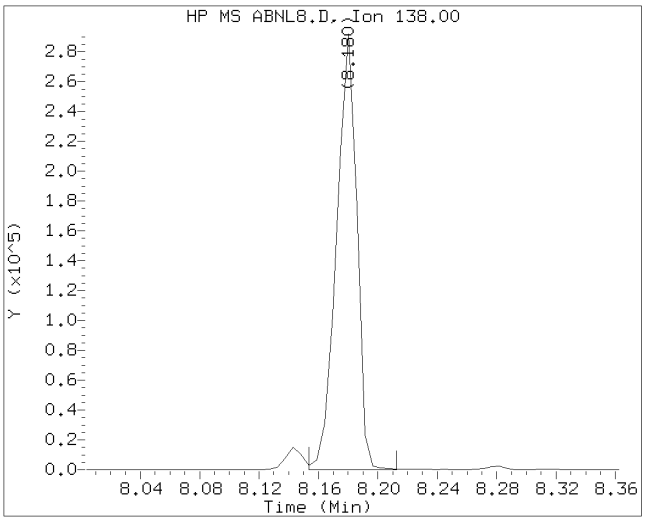
Manual Integration

Sample Info : ABN 100 LOT# 5813

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL8.D
Injection Date : 08-MAR-2016 23:11
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

Compound # 72: 4-Nitroaniline





Original Peak Response = 271074 Manual Peak Response = 273605 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL9.D
Lab Smp Id:
Inj Date : 08-MAR-2016 23:36
Operator : hl Inst ID: SV103.i
Smp Info : ABN 150 LOT# 5814
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:03 Cal File: BENZL8.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.965	1.965	(0.421)	422793	150.000	143	
	2 Pyridine	79	1.986	1.986	(0.426)	736025	150.000	146	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	634053	150.000	148	
	5 Aniline	93	4.350	4.350	(0.932)	1052220	150.000	149	
$	6 Phenol-d6	99	4.350	4.350	(0.932)	816604	150.000	152	
	7 Phenol	94	4.366	4.366	(0.936)	924188	150.000	150	
	8 Bis(2-chloroethyl)ether	93	4.436	4.436	(0.951)	687705	150.000	147	
	9 2-Chlorophenol	128	4.462	4.462	(0.956)	710934	150.000	153	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	760248	150.000	147	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	128379	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	777178	150.000	145	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	745724	150.000	149	
	13 Benzyl alcohol	79	4.826	4.826	(1.034)	629210	150.000	160	
	15 2-Methylphenol	108	4.955	4.955	(1.062)	633747	150.000	154	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	1129995	150.000	146	
	18 n-Nitrosodi-n-propylamine	70	5.099	5.099	(1.093)	536939	150.000	156	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	338354	150.000	152	
	19 3-Methylphenol/4-Methylphenol	108	5.110	5.110	(1.095)	680764	150.000	158	
$	22 Nitrobenzene-d5	82	5.217	5.217	(1.118)	772252	150.000	159	
	23 Nitrobenzene	77	5.233	5.233	(0.886)	779237	150.000	148	
	26 Isophorone	82	5.479	5.479	(1.174)	1458957	150.000	162	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	413495	150.000	164	
	29 2,4-Dimethylphenol	107	5.623	5.623	(1.205)	731595	150.000	158	
	30 Bis(2-chloroethoxy)methane	93	5.714	5.714	(1.225)	872341	150.000	156	
	32 2,4-Dichlorophenol	162	5.789	5.789	(0.980)	612482	150.000	155	
	31 Benzoic acid	105	5.778	5.778	(0.978)	620064	150.000	148	
	33 1,2,4-Trichlorobenzene	180	5.864	5.864	(0.993)	656722	150.000	145	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	554380	40.0000		
	35 Naphthalene	128	5.928	5.928	(1.004)	2036398	150.000	146	
	38 4-Chloroaniline	65	5.998	5.998	(1.015)	289065	150.000	152	
	40 Hexachlorobutadiene	225	6.078	6.078	(1.029)	380628	150.000	145	
	43 p-Chloro-m-cresol	107	6.495	6.495	(1.100)	636039	150.000	156	
	44 2-Methylnaphthalene	142	6.607	6.607	(1.119)	1420418	150.000	151	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	496976	150.000	154	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	496921	150.000	169	
	48	2,4,6-Trichlorophenol	196	6.896	6.896	(1.168)	451425	150.000	163	
	49	2,4,5-Trichlorophenol	196	6.923	6.923	(1.172)	480803	150.000	161	
$	50	2-Fluorobiphenyl	172	6.982	6.982	(1.182)	1506488	150.000	153	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	1341909	150.000	151	
	53	2-Nitroaniline	138	7.190	7.190	(1.217)	503567	150.000	172	
	54	1,4-Dinitrobenzene	168	7.324	7.324	(0.962)	261016	150.000	159	
	55	Dimethyl phthalate	163	7.399	7.399	(0.972)	1613475	150.000	152(M)	M7
	56	1,3-Dinitrobenzene	168	7.399	7.399	(0.972)	295356	150.000	162	
	57	2,6-Dinitrotoluene	165	7.436	7.436	(1.259)	388274	150.000	165	
	58	Acenaphthylene	152	7.474	7.474	(1.265)	2176674	150.000	155	
	59	1,2-Dinitrobenzene	168	7.484	7.484	(0.983)	197289	150.000	162	
	60	3-Nitroaniline	138	7.591	7.591	(0.997)	449342	150.000	160	
*	61	Acenaphthene-d10	164	7.613	7.613	(1.000)	312203	40.0000		
	62	Acenaphthene	154	7.645	7.645	(1.004)	1330582	150.000	148	
	63	2,4-Dinitrophenol	184	7.693	7.693	(1.011)	292065	150.000	149	
	65	Dibenzofuran	168	7.816	7.816	(1.027)	1919409	150.000	148	
	64	4-Nitrophenol	65	7.779	7.779	(1.022)	370261	150.000	158	
	66	2,4-Dinitrotoluene	165	7.821	7.821	(1.027)	535917	150.000	165	
	67	2,3,5,6-Tetrachlorophenol	232	7.902	7.902	(1.038)	427999	150.000	160	
	68	2,3,4,6-Tetrachlorophenol	232	7.944	7.944	(1.044)	409540	150.000	164	
	69	Diethyl phthalate	149	8.084	8.084	(1.062)	1686829	150.000	154	
	70	Fluorene	166	8.148	8.148	(1.070)	1617165	150.000	152	
	71	4-Chlorophenyl phenyl ether	204	8.164	8.164	(1.072)	745563	150.000	150	
	72	4-Nitroaniline	138	8.190	8.190	(1.076)	454887	150.000	164	
	73	4,6-Dinitro-o-cresol	198	8.217	8.217	(1.079)	355311	150.000	150	
	74	NDPA/DPA	169	8.287	8.287	(1.089)	1378972	150.000	154	
	75	Azobenzene	77	8.319	8.319	(1.093)	1713763	150.000	153	
$	76	2,4,6-Tribromophenol	330	8.378	8.378	(0.926)	238959	150.000	148	
	78	4-Bromophenyl phenyl ether	248	8.634	8.634	(1.134)	434184	150.000	153	
	79	Hexachlorobenzene	284	8.683	8.683	(1.141)	455997	150.000	151	
	83	Pentachlorophenol	266	8.875	8.875	(0.981)	328069	150.000	148	
*	85	Phenanthrene-d10	188	9.046	9.046	(1.000)	570026	40.0000		
	86	Phenanthrene	178	9.073	9.073	(1.003)	2376383	150.000	146	
	87	Anthracene	178	9.121	9.121	(1.008)	2406491	150.000	151	
	89	Carbazole	167	9.287	9.287	(1.027)	2262350	150.000	152	
	90	Di-n-butylphthalate	149	9.677	9.677	(1.070)	2945205	150.000	158	
	93	Fluoranthene	202	10.223	10.223	(1.130)	2528414	150.000	153	
	95	Pyrene	202	10.442	10.442	(1.154)	2669076	150.000	154	
$	96	4-Terphenyl-d14	244	10.640	10.640	(1.176)	1678137	150.000	155	
	98	Butyl benzyl phthalate	149	11.229	11.229	(1.241)	1373688	150.000	164	
	99	Bis (2-ethylhexyl) adipate	129	11.373	11.373	(2.437)	1180671	150.000	171	
	100	Benzo(a)anthracene	228	11.849	11.849	(0.999)	2552333	150.000	150	
*	102	Chrysene-d12	240	11.865	11.865	(1.000)	560725	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.860	11.860	(1.000)	939136	150.000	159	
	103	Chrysene	228	11.902	11.902	(1.003)	2413238	150.000	146	
	104	Bis(2-ethylhexyl)phthalate	149	12.031	12.031	(1.014)	2016804	150.000	162	
	105	Di-n-octylphthalate	149	12.999	12.999	(1.096)	3427110	150.000	168	
	106	Benzo(b)fluoranthene	252	13.400	13.400	(0.960)	2398605	150.000	156	
	107	Benzo(k)fluoranthene	252	13.443	13.443	(0.963)	2517259	150.000	156	
	109	Benzo(a)pyrene	252	13.881	13.881	(0.995)	2369805	150.000	160	
*	110	Perylene-d12	264	13.956	13.956	(1.000)	528853	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.572	15.572	(1.116)	2087611	150.000	157	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.625	15.625	(1.120)	2176367	150.000	157	
114 Benzo(ghi)perylene	276	15.946	15.946	(1.143)	2251140	150.000	155	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABNL9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

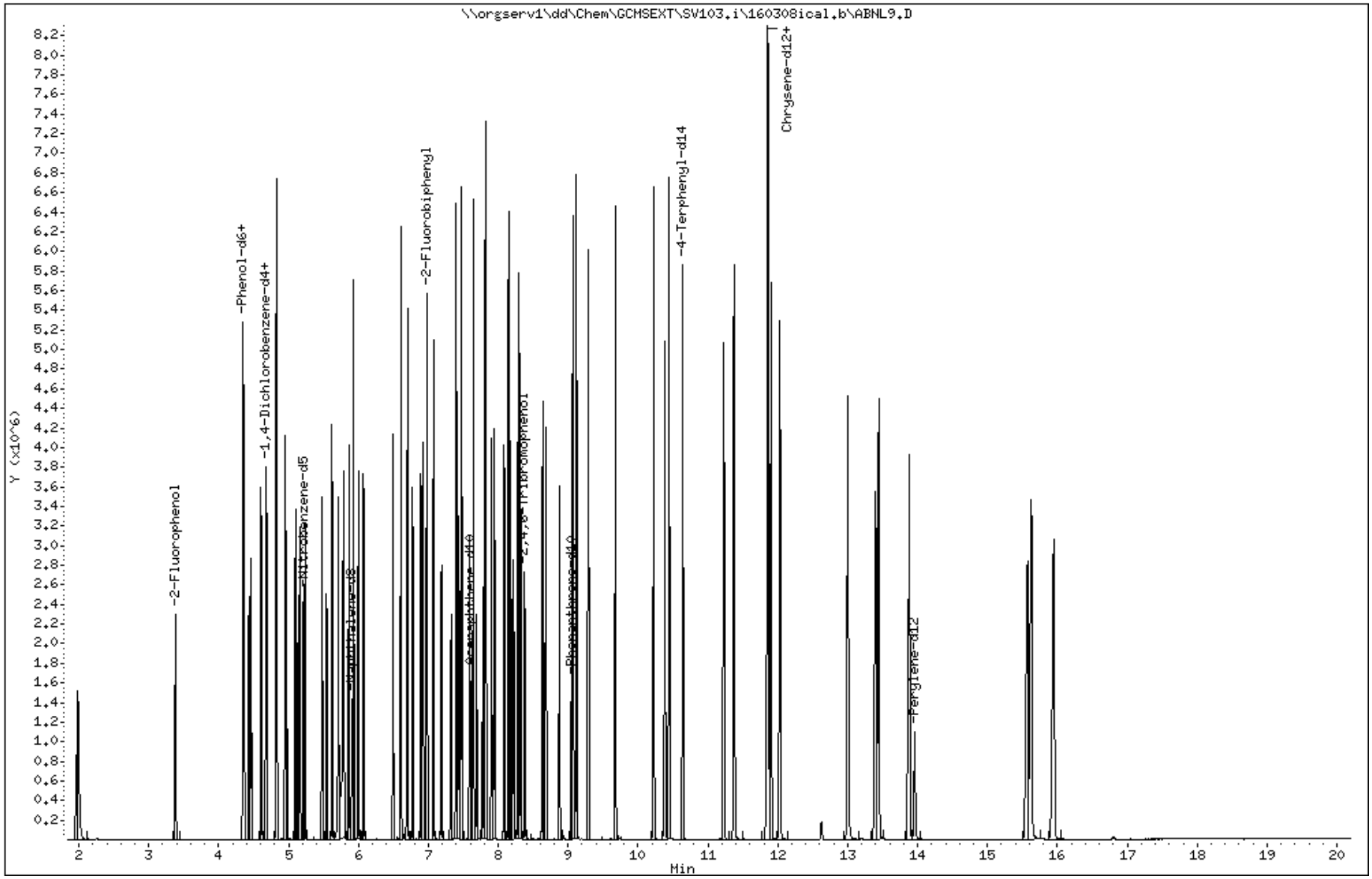
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	128379	9.87
34 Naphthalene-d8	493378	246689	986756	554380	12.36
61 Acenaphthene-d10	275172	137586	550344	312203	13.46
85 Phenanthrene-d10	484920	242460	969840	570026	17.55
102 Chrysene-d12	455989	227995	911978	560725	22.97
110 Perylene-d12	429399	214700	858798	528853	23.16

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.05	0.06
102 Chrysene-d12	11.85	11.35	12.35	11.87	0.09
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL9.D
Date : 08-MAR-2016 23:36
Client ID:
Sample Info: ABN 150 LOT# 5814

Instrument: SV103.i
Operator: hl
Column phase: RTx-5
Column diameter: 0.32



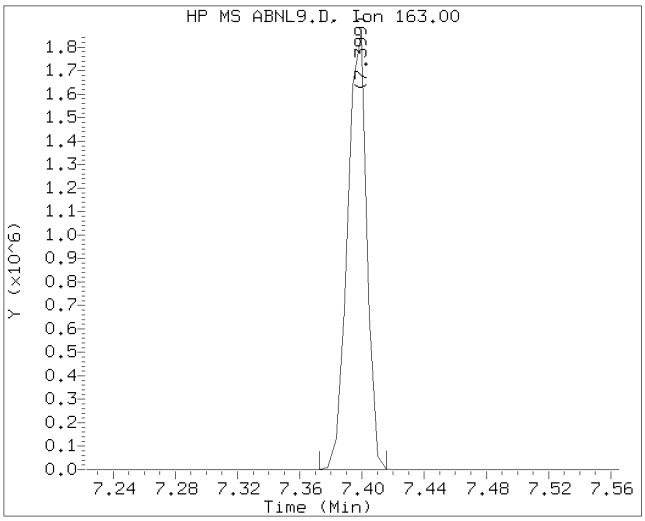
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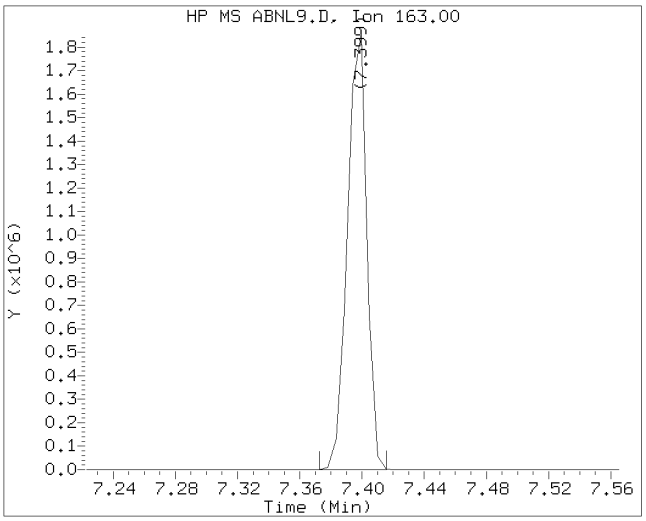
Manual Integration

Sample Info : ABN 150 LOT# 5814

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL9.D
Injection Date : 08-MAR-2016 23:36
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

Compound # 55: Dimethyl phthalate





Original Peak Response = 1613475 Manual Peak Response = 1613475 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL10.D
Lab Smp Id:
Inj Date : 09-MAR-2016 00:02
Operator : hl Inst ID: SV103.i
Smp Info : ABN 200 LOT# 5805
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 06:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:29 Cal File: BENZL9.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.965	1.965	(0.421)	598436	200.000	188	
	2 Pyridine	79	1.986	1.986	(0.426)	1051984	200.000	194	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	899293	200.000	196	
	5 Aniline	93	4.350	4.350	(0.932)	1496186	200.000	198	
$	6 Phenol-d6	99	4.356	4.356	(0.934)	1155572	200.000	199	
	7 Phenol	94	4.372	4.372	(0.937)	1320322	200.000	199	
	8 Bis(2-chloroethyl)ether	93	4.436	4.436	(0.951)	981950	200.000	195	
	9 2-Chlorophenol	128	4.463	4.463	(0.956)	1010718	200.000	202	
	10 1,3-Dichlorobenzene	146	4.612	4.612	(0.989)	1079835	200.000	194	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	138006	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	1104021	200.000	192	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	1051395	200.000	195	
	13 Benzyl alcohol	79	4.826	4.826	(1.034)	915482	200.000	216	
	15 2-Methylphenol	108	4.955	4.955	(1.062)	904173	200.000	205	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	1571460	200.000	189	
	18 n-Nitrosodi-n-propylamine	70	5.104	5.104	(1.094)	774572	200.000	210	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	483137	200.000	202	
	19 3-Methylphenol/4-Methylphenol	108	5.115	5.115	(1.096)	973739	200.000	210	
$	22 Nitrobenzene-d5	82	5.217	5.217	(1.118)	1084204	200.000	208	
	23 Nitrobenzene	77	5.238	5.238	(0.887)	1118772	200.000	198	
	26 Isophorone	82	5.484	5.484	(1.175)	2064404	200.000	213	
	28 2-Nitrophenol	139	5.548	5.548	(1.189)	591073	200.000	217	
	29 2,4-Dimethylphenol	107	5.629	5.629	(1.206)	1052598	200.000	211	
	30 Bis(2-chloroethoxy)methane	93	5.714	5.714	(1.225)	1234771	200.000	206	
	32 2,4-Dichlorophenol	162	5.789	5.789	(0.980)	869242	200.000	206	
	31 Benzoic acid	105	5.800	5.800	(0.982)	917997	200.000	203	
	33 1,2,4-Trichlorobenzene	180	5.864	5.864	(0.993)	938078	200.000	194	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	592405	40.0000		
	35 Naphthalene	128	5.933	5.933	(1.005)	2901357	200.000	195	
	38 4-Chloroaniline	65	6.003	6.003	(1.016)	416188	200.000	204	
	40 Hexachlorobutadiene	225	6.078	6.078	(1.029)	551225	200.000	196	
	43 p-Chloro-m-cresol	107	6.495	6.495	(1.100)	925948	200.000	213	
	44 2-Methylnaphthalene	142	6.607	6.607	(1.119)	2041480	200.000	204	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.704	6.704	(1.135)	704782	200.000	204	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	719246	200.000	229	
	48	2,4,6-Trichlorophenol	196	6.896	6.896	(1.168)	647546	200.000	219	
	49	2,4,5-Trichlorophenol	196	6.923	6.923	(1.172)	706502	200.000	222	
$	50	2-Fluorobiphenyl	172	6.982	6.982	(1.182)	2155975	200.000	205	
	52	2-Chloronaphthalene	162	7.078	7.078	(1.198)	1947476	200.000	206	
	53	2-Nitroaniline	138	7.190	7.190	(1.217)	714054	200.000	228	
	54	1,4-Dinitrobenzene	168	7.329	7.329	(0.963)	383589	200.000	216	
	55	Dimethyl phthalate	163	7.404	7.404	(0.973)	2298448	200.000	200(M)	M7
	56	1,3-Dinitrobenzene	168	7.404	7.404	(0.973)	419921	200.000	213	
	57	2,6-Dinitrotoluene	165	7.442	7.442	(1.260)	551088	200.000	219	
	58	Acenaphthylene	152	7.474	7.474	(1.265)	3116223	200.000	208	
	59	1,2-Dinitrobenzene	168	7.490	7.490	(0.984)	278051	200.000	212	
	60	3-Nitroaniline	138	7.597	7.597	(0.998)	639518	200.000	211	
*	61	Acenaphthene-d10	164	7.613	7.613	(1.000)	337411	40.0000		
	62	Acenaphthene	154	7.650	7.650	(1.005)	1904525	200.000	196	
	63	2,4-Dinitrophenol	184	7.693	7.693	(1.011)	424498	200.000	200	
	65	Dibenzofuran	168	7.816	7.816	(1.027)	2767630	200.000	197	
	64	4-Nitrophenol	65	7.784	7.784	(1.022)	526404	200.000	208	
	66	2,4-Dinitrotoluene	165	7.827	7.827	(1.028)	768028	200.000	218	
	67	2,3,5,6-Tetrachlorophenol	232	7.907	7.907	(1.039)	619994	200.000	215	
	68	2,3,4,6-Tetrachlorophenol	232	7.945	7.945	(1.044)	597863	200.000	222(M)	M4
	69	Diethyl phthalate	149	8.089	8.089	(1.063)	2445714	200.000	207	
	70	Fluorene	166	8.148	8.148	(1.070)	2336691	200.000	204	
	71	4-Chlorophenyl phenyl ether	204	8.164	8.164	(1.072)	1089401	200.000	203	
	72	4-Nitroaniline	138	8.196	8.196	(1.077)	649502	200.000	216(M)	M4
	73	4,6-Dinitro-o-cresol	198	8.223	8.223	(1.080)	514738	200.000	200	
	74	NDPA/DPA	169	8.287	8.287	(1.089)	1992534	200.000	206	
	75	Azobenzene	77	8.319	8.319	(1.093)	2475195	200.000	205	
$	76	2,4,6-Tribromophenol	330	8.383	8.383	(0.927)	349152	200.000	202	
	78	4-Bromophenyl phenyl ether	248	8.635	8.635	(1.134)	630153	200.000	206	
	79	Hexachlorobenzene	284	8.688	8.688	(1.141)	663504	200.000	203	
	83	Pentachlorophenol	266	8.881	8.881	(0.982)	474796	200.000	200	
*	85	Phenanthrene-d10	188	9.046	9.046	(1.000)	608674	40.0000		
	86	Phenanthrene	178	9.073	9.073	(1.003)	3384033	200.000	195	
	87	Anthracene	178	9.121	9.121	(1.008)	3472240	200.000	204	
	89	Carbazole	167	9.292	9.292	(1.027)	3189750	200.000	200	
	90	Di-n-butylphthalate	149	9.678	9.678	(1.070)	4179584	200.000	210	
	93	Fluoranthene	202	10.228	10.228	(1.131)	3541387	200.000	201	
	95	Pyrene	202	10.448	10.448	(1.155)	3752498	200.000	203	
$	96	4-Terphenyl-d14	244	10.646	10.646	(1.177)	2343440	200.000	203	
	98	Butyl benzyl phthalate	149	11.229	11.229	(1.241)	1932463	200.000	216	
	99	Bis (2-ethylhexyl) adipate	129	11.373	11.373	(2.437)	1665339	200.000	224	
	100	Benzo(a)anthracene	228	11.854	11.854	(0.999)	3526561	200.000	193	
*	102	Chrysene-d12	240	11.870	11.870	(1.000)	601649	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.865	11.865	(1.000)	1303890	200.000	206	
	103	Chrysene	228	11.908	11.908	(1.003)	3382578	200.000	190	
	104	Bis(2-ethylhexyl)phthalate	149	12.031	12.031	(1.014)	2834493	200.000	213	
	105	Di-n-octylphthalate	149	13.004	13.004	(1.096)	4718657	200.000	215	
	106	Benzo(b)fluoranthene	252	13.406	13.406	(0.960)	3405647	200.000	215	
	107	Benzo(k)fluoranthene	252	13.454	13.454	(0.964)	3338692	200.000	201	
	109	Benzo(a)pyrene	252	13.887	13.887	(0.995)	3224957	200.000	211	
*	110	Perylene-d12	264	13.962	13.962	(1.000)	544285	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.582	15.582	(1.116)	2873774	200.000	211	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.636	15.636	(1.120)	3070602	200.000	216	
114 Benzo(ghi)perylene	276	15.957	15.957	(1.143)	3047907	200.000	204	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 08-MAR-2016
Lab File ID: ABNL10.D Calibration Time: 22:45
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	138006	18.11
34 Naphthalene-d8	493378	246689	986756	592405	20.07
61 Acenaphthene-d10	275172	137586	550344	337411	22.62
85 Phenanthrene-d10	484920	242460	969840	608674	25.52
102 Chrysene-d12	455989	227995	911978	601649	31.94
110 Perylene-d12	429399	214700	858798	544285	26.76

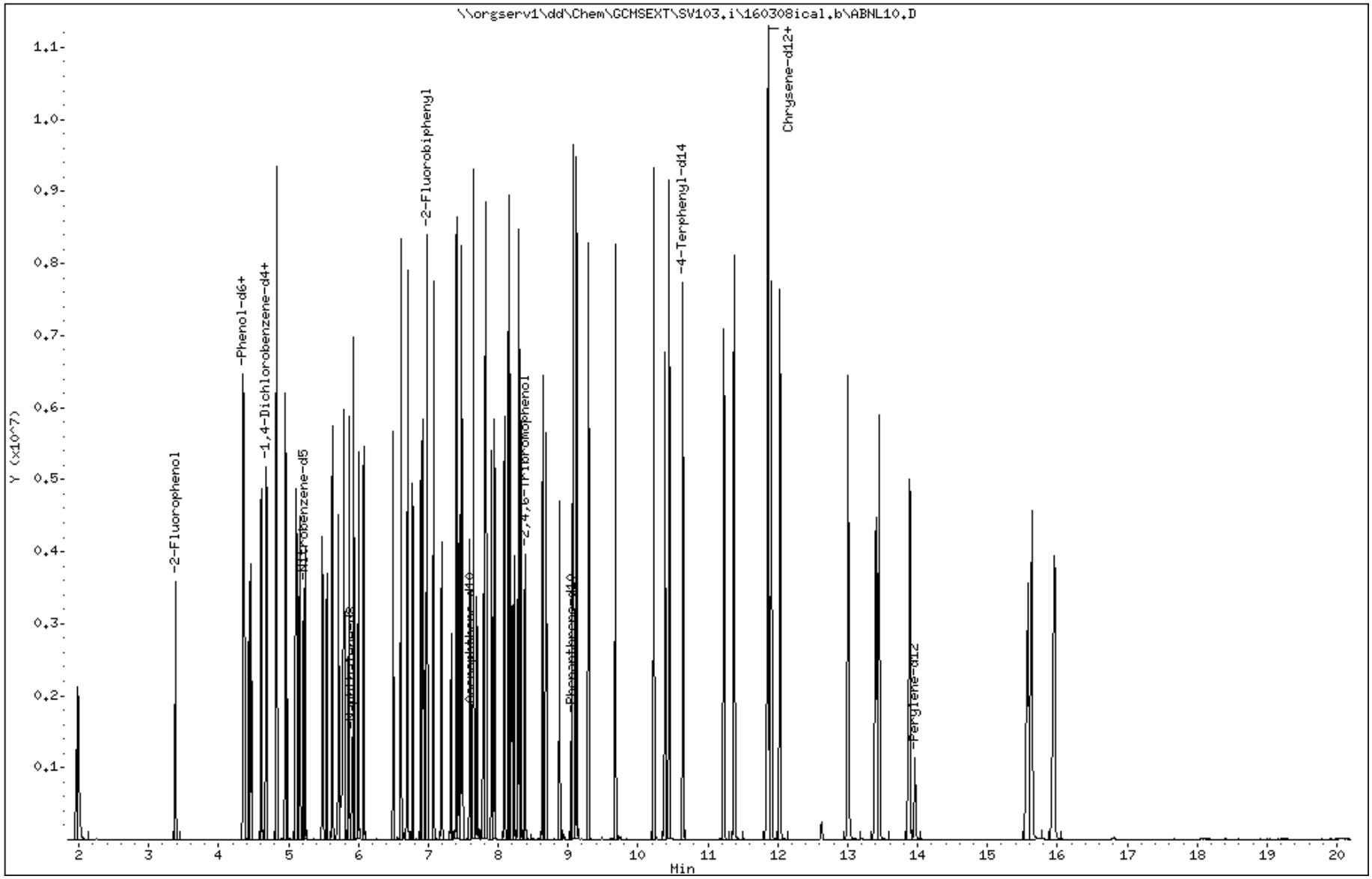
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.05	0.06
102 Chrysene-d12	11.85	11.35	12.35	11.87	0.13
110 Perylene-d12	13.95	13.45	14.45	13.96	0.08

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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNL10.D
Date : 09-MAR-2016 00:02
Client ID:
Sample Info: ABN 200 LOT# 5805

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



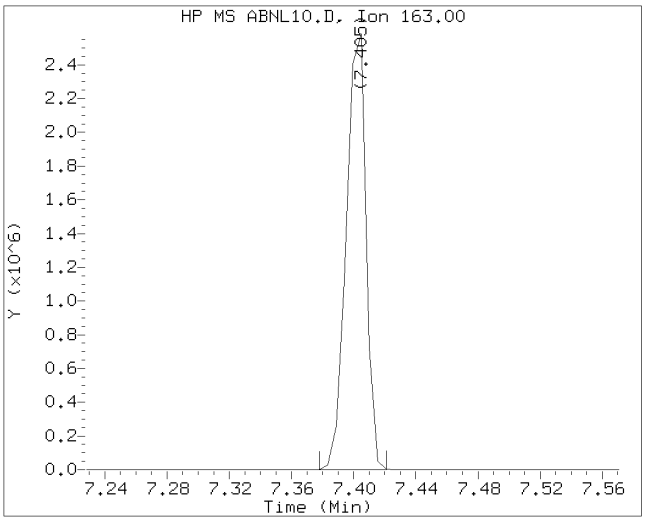
Alpha Analytical Labs

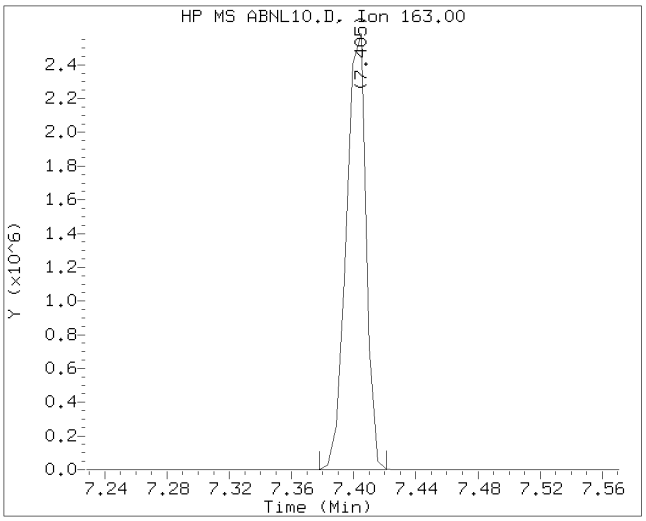
Manual Integration

Sample Info : ABN 200 LOT# 5805

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL10.D
Injection Date : 09-MAR-2016 00:02
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

Compound # 55: Dimethyl phthalate

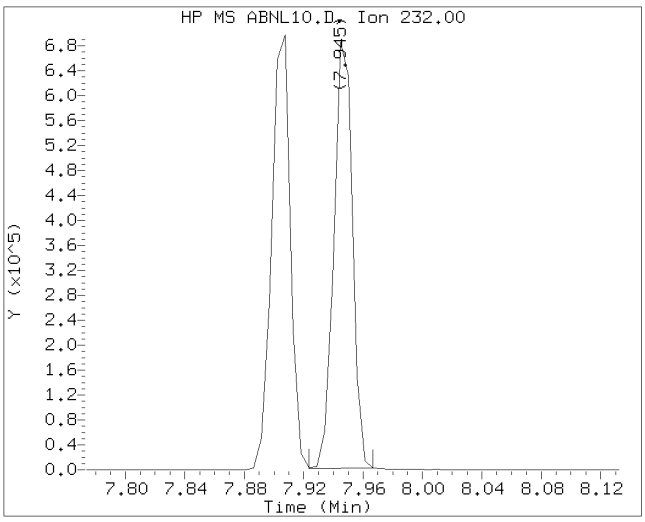


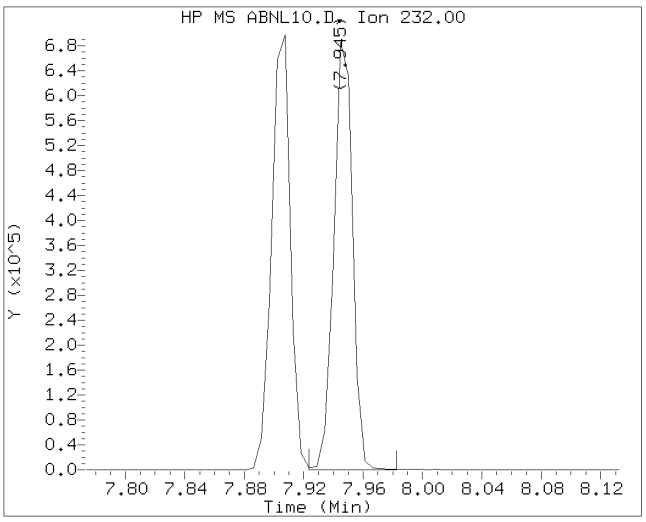


Original Peak Response = 2298448 Manual Peak Response = 2298448 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

Compound # 68: 2,3,4,6-Tetrachlorophenol





Original Peak Response = 590780 Manual Peak Response = 597863 M4

M4 = Poor automated baseline construction.

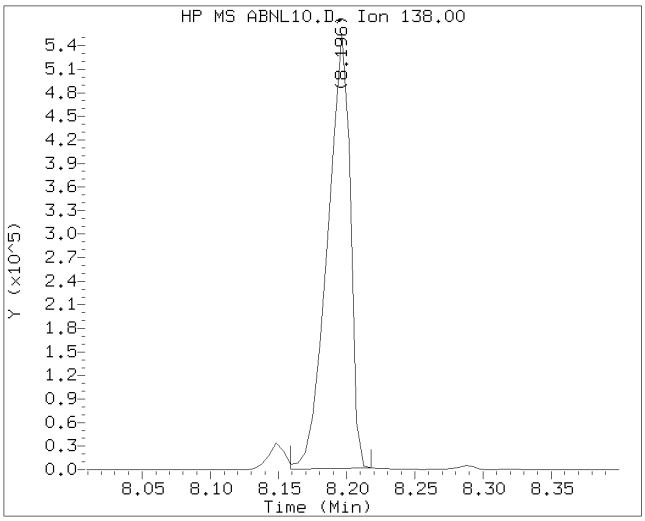
Alpha Analytical Labs

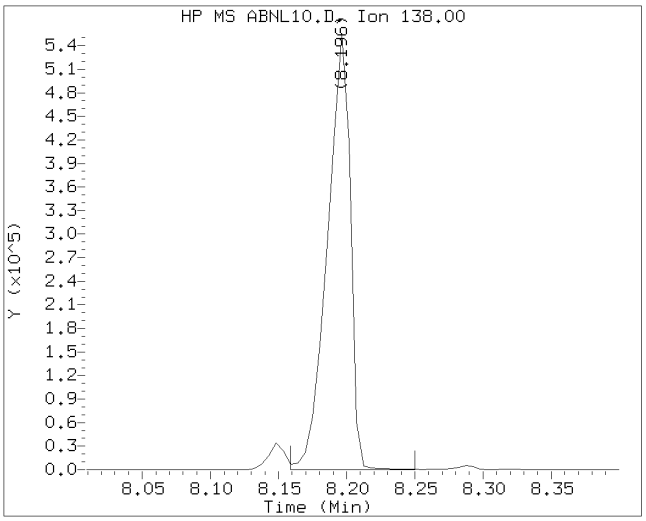
Manual Integration

Sample Info : ABN 200 LOT# 5805

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABNL10.D
Injection Date : 09-MAR-2016 00:02
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

Compound # 72: 4-Nitroaniline





Original Peak Response = 642685 Manual Peak Response = 649502 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L1.D
Lab Smp Id:
Inj Date : 09-MAR-2016 00:27
Operator : hl Inst ID: SV103.i
Smp Info : AP9 1 LOT#5832
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:57 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.232	4.232	(0.907)	3084	1.00000	1.02	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	108158	40.0000		
	17 Acetophenone	105	5.067	5.067	(1.086)	5565	1.00000	1.08	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	4726	1.00000	0.999	
*	34 Naphthalene-d8	136	5.901	5.901	(1.000)	448697	40.0000		
	36 a-Terpineol	59	5.960	5.960	(1.277)	3197	1.00000	0.996	
	37 3-Chloroaniline	65	5.976	5.976	(1.013)	1672	1.00000	0.892	
	39 2,6-Dichlorophenol	162	6.003	6.003	(1.287)	2949	1.00000	0.957	
	41 1-chloro-2-nitrobenzene	111	6.254	6.254	(1.340)	1610	1.00000	1.04	
	42 Caprolactam	55	6.292	6.292	(1.066)	1909	1.00000	0.974	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	3343	1.00000	1.03	
	51 Biphenyl	154	7.067	7.067	(0.929)	9095	1.00000	1.04	
*	61 Acenaphthene-d10	164	7.607	7.607	(1.000)	232122	40.0000		
	80 Dimethoate	87	8.720	8.720	(1.146)	2383	1.00000	0.772	
	81 Dichloran	206	8.736	8.736	(1.148)	839	1.00000	0.844	
	84 Pentachloronitrobenzene	237	8.886	8.886	(1.168)	731	1.00000	0.780	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	403793	40.0000		
	92 Diphenamid	167	9.950	9.950	(1.101)	4243	1.00000	0.903	
*	102 Chrysene-d12	240	11.849	11.849	(1.000)	368972	40.0000		
	108 Benzo(e)pyrene	252	13.780	13.780	(0.988)	9135	1.00000	0.959	
*	110 Perylene-d12	264	13.951	13.951	(1.000)	358249	40.0000		
	111 Perylene	252	13.988	13.988	(1.003)	10033	1.00000	0.990	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	108158	-7.43
34 Naphthalene-d8	493378	246689	986756	448697	-9.06
61 Acenaphthene-d10	275172	137586	550344	232122	-15.64
85 Phenanthrene-d10	484920	242460	969840	403793	-16.73
102 Chrysene-d12	455989	227995	911978	368972	-19.08
110 Perylene-d12	429399	214700	858798	358249	-16.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-0.00

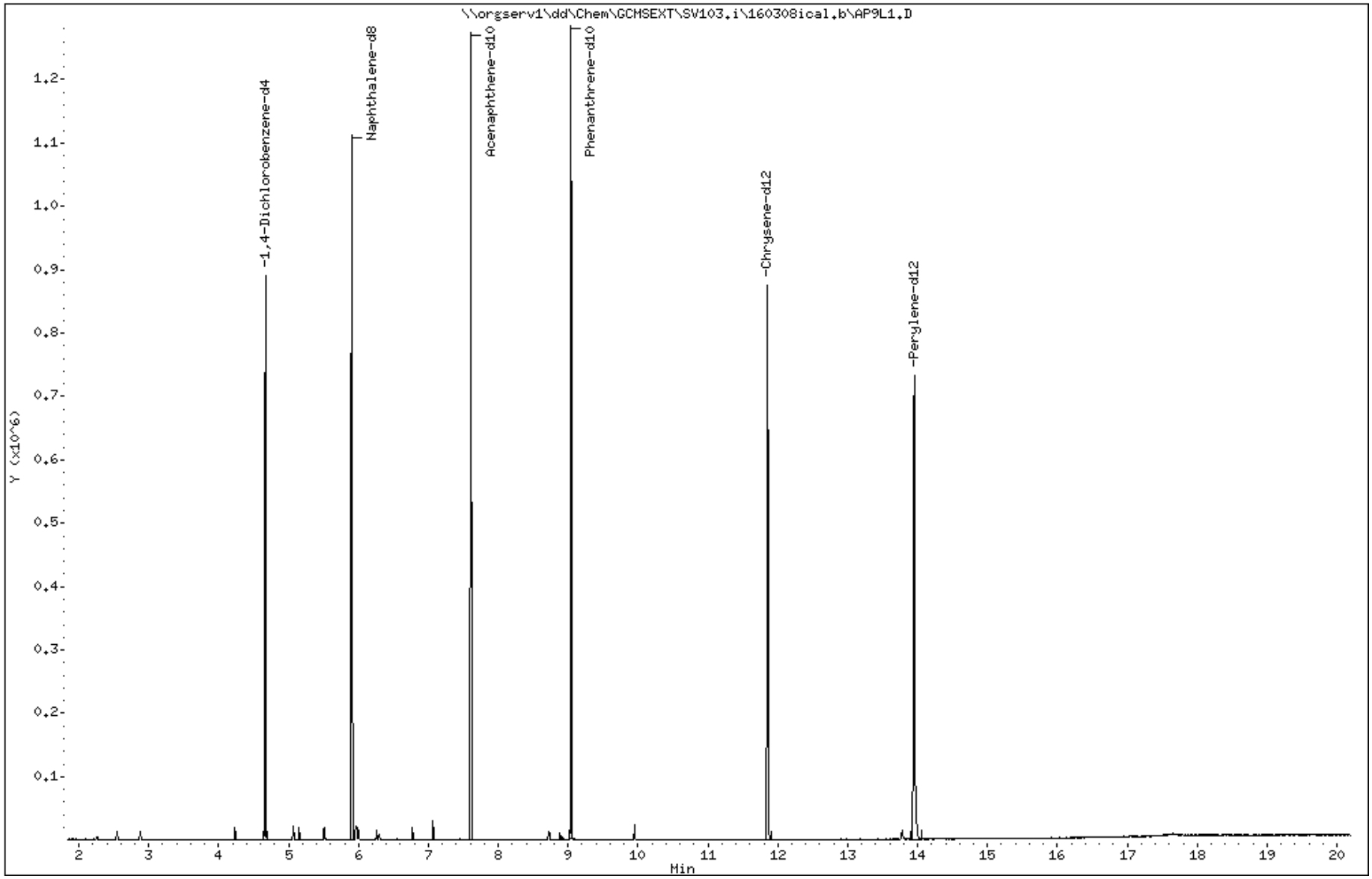
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L1.D
Date : 09-MAR-2016 00:27
Client ID:
Sample Info: AP9 1 LOT#5832

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 1 LOT#5832

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L1.D
Injection Date : 09-MAR-2016 00:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L2.D
Lab Smp Id:
Inj Date : 09-MAR-2016 00:53
Operator : hl Inst ID: SV103.i
Smp Info : AP9 2 LOT#5833
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:57 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:04 Cal File: BENZL1.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.233	4.233	(0.907)	6363	2.00000	2.07	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	109798	40.0000		
	17 Acetophenone	105	5.067	5.067	(1.086)	10293	2.00000	1.97	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	9655	2.00000	2.01	
*	34 Naphthalene-d8	136	5.901	5.901	(1.000)	445661	40.0000		
	36 a-Terpineol	59	5.960	5.960	(1.277)	6324	2.00000	1.94	
	37 3-Chloroaniline	65	5.976	5.976	(1.013)	3197	2.00000	1.72	
	39 2,6-Dichlorophenol	162	6.003	6.003	(1.287)	5891	2.00000	1.88	
	41 1-chloro-2-nitrobenzene	111	6.254	6.254	(1.340)	2939	2.00000	1.86	
	42 Caprolactam	55	6.292	6.292	(1.066)	3814	2.00000	1.96	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	6544	2.00000	1.99	
	51 Biphenyl	154	7.067	7.067	(0.929)	17273	2.00000	1.95	
*	61 Acenaphthene-d10	164	7.608	7.608	(1.000)	235077	40.0000		
	80 Dimethoate	87	8.720	8.720	(1.146)	4960	2.00000	1.59	
	81 Dichloran	206	8.736	8.736	(1.148)	1603	2.00000	1.59	
	84 Pentachloronitrobenzene	237	8.886	8.886	(1.168)	1734	2.00000	1.82	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	415280	40.0000		
	92 Diphenamid	167	9.950	9.950	(1.101)	8909	2.00000	1.84	
*	102 Chrysene-d12	240	11.854	11.854	(1.000)	386430	40.0000		
	108 Benzo(e)pyrene	252	13.780	13.780	(0.988)	19239	2.00000	1.88	
*	110 Perylene-d12	264	13.951	13.951	(1.000)	384030	40.0000		
	111 Perylene	252	13.989	13.989	(1.003)	21189	2.00000	1.95	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	109798	-6.03
34 Naphthalene-d8	493378	246689	986756	445661	-9.67
61 Acenaphthene-d10	275172	137586	550344	235077	-14.57
85 Phenanthrene-d10	484920	242460	969840	415280	-14.36
102 Chrysene-d12	455989	227995	911978	386430	-15.25
110 Perylene-d12	429399	214700	858798	384030	-10.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

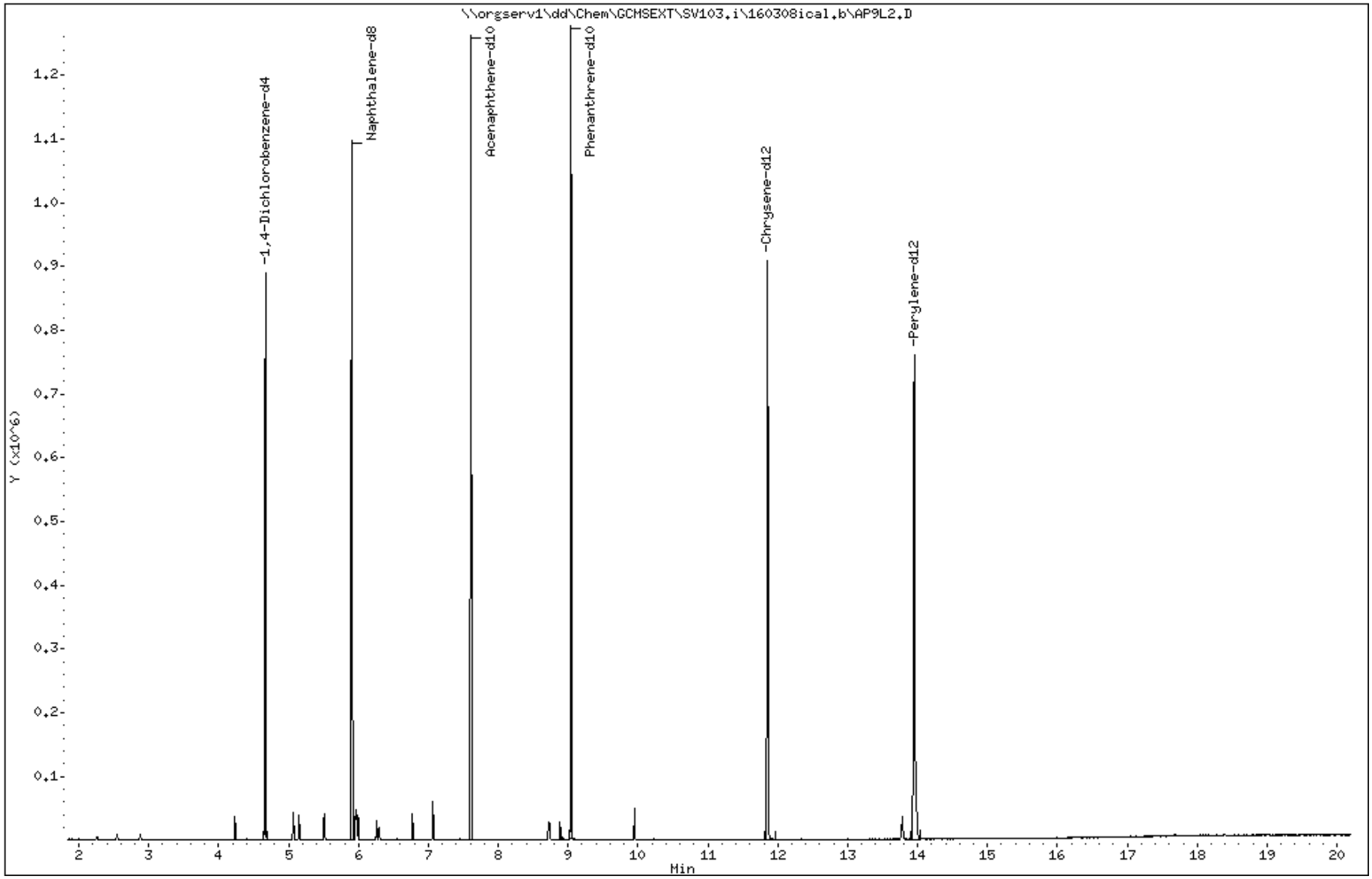
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L2.D
Date : 09-MAR-2016 00:53
Client ID:
Sample Info: AP9 2 LOT#5833

Column phase: RTx-5

Instrument: SV103.i

Operator: hl
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 2 LOT#5833

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L2.D
Injection Date : 09-MAR-2016 00:53
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L3.D
Lab Smp Id:
Inj Date : 09-MAR-2016 01:19
Operator : hl Inst ID: SV103.i
Smp Info : AP9 3 LOT#5834
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:57 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:30 Cal File: BENZL2.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.232	4.232	(0.907)	9414	3.00000	3.04	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	110814	40.0000		
	17 Acetophenone	105	5.067	5.067	(1.086)	15094	3.00000	2.87	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	14416	3.00000	2.98	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	442246	40.0000		
	36 a-Terpineol	59	5.960	5.960	(1.277)	9801	3.00000	2.98	
	37 3-Chloroaniline	65	5.976	5.976	(1.012)	5037	3.00000	2.72	
	39 2,6-Dichlorophenol	162	6.003	6.003	(1.287)	8666	3.00000	2.74	
	41 1-chloro-2-nitrobenzene	111	6.254	6.254	(1.340)	4393	3.00000	2.76	
	42 Caprolactam	55	6.286	6.286	(1.064)	5099	3.00000	2.64	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	9750	3.00000	3.04	
	51 Biphenyl	154	7.067	7.067	(0.929)	25697	3.00000	2.96	
*	61 Acenaphthene-d10	164	7.607	7.607	(1.000)	230036	40.0000		
	80 Dimethoate	87	8.720	8.720	(1.146)	7438	3.00000	2.43	
	81 Dichloran	206	8.736	8.736	(1.148)	2179	3.00000	2.21	
	84 Pentachloronitrobenzene	237	8.886	8.886	(1.168)	2274	3.00000	2.45	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	397375	40.0000		
	92 Diphenamid	167	9.950	9.950	(1.101)	12455	3.00000	2.69	
*	102 Chrysene-d12	240	11.849	11.849	(1.000)	354060	40.0000		
	108 Benzo(e)pyrene	252	13.780	13.780	(0.988)	26070	3.00000	2.85	
*	110 Perylene-d12	264	13.951	13.951	(1.000)	344324	40.0000		
	111 Perylene	252	13.983	13.983	(1.002)	29295	3.00000	3.01	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	110814	-5.16
34 Naphthalene-d8	493378	246689	986756	442246	-10.36
61 Acenaphthene-d10	275172	137586	550344	230036	-16.40
85 Phenanthrene-d10	484920	242460	969840	397375	-18.05
102 Chrysene-d12	455989	227995	911978	354060	-22.35
110 Perylene-d12	429399	214700	858798	344324	-19.81

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-0.00

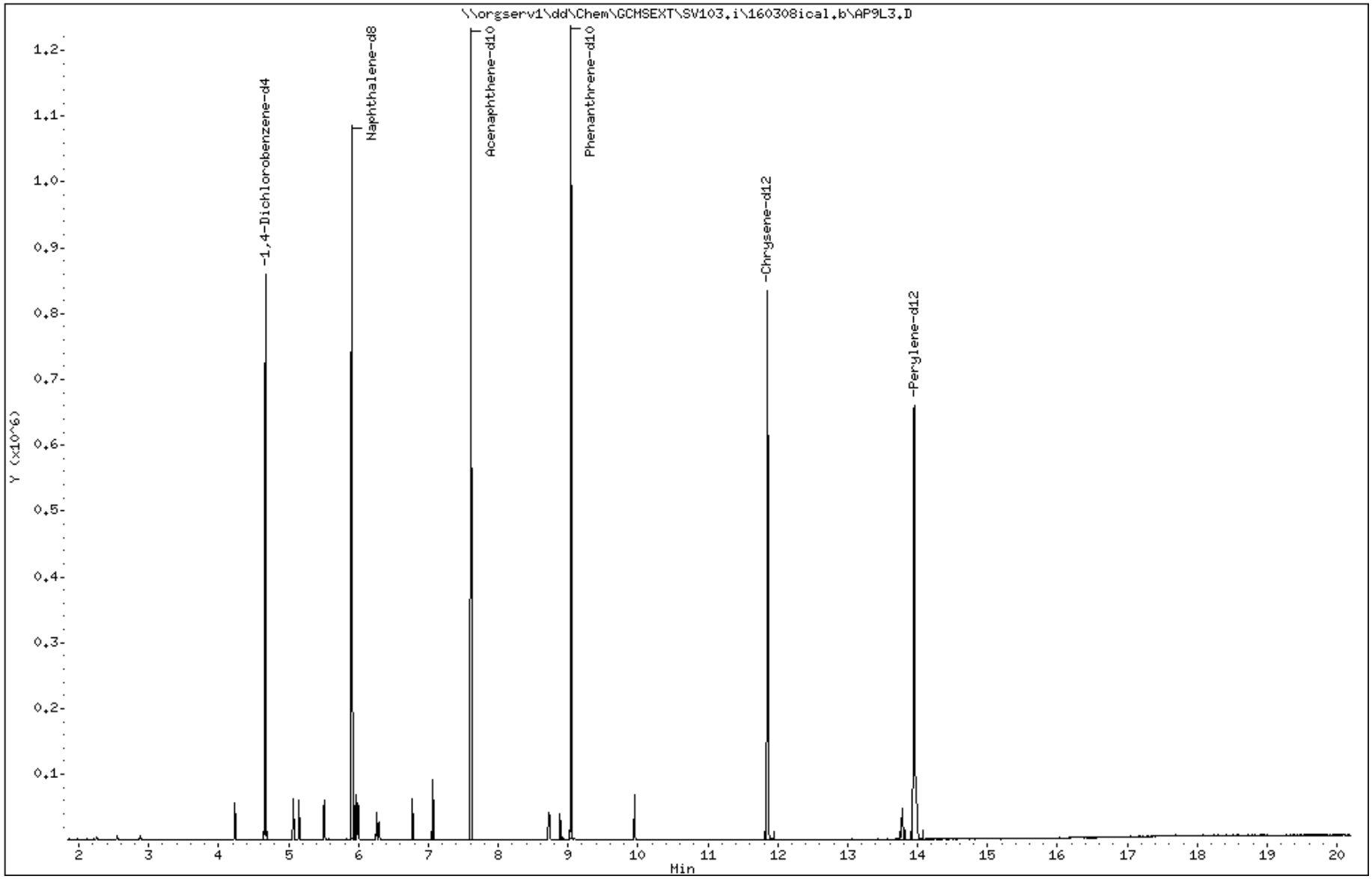
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L3.D
Date : 09-MAR-2016 01:19
Client ID:
Sample Info: AP9 3 LOT#5834

Column phase: RTx-5

Instrument: SV103.i

Operator: hl
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 3 LOT#5834

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L3.D
Injection Date : 09-MAR-2016 01:19
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L4.D
Lab Smp Id:
Inj Date : 09-MAR-2016 01:44
Operator : hl Inst ID: SV103.i
Smp Info : AP9 5 LOT#5835
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:57 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:55 Cal File: BENZL3.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
4	Benzaldehyde	105	4.232	4.232	(0.907)	15192	5.00000	4.85	
* 11	1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	111924	40.0000		
17	Acetophenone	105	5.067	5.067	(1.086)	25132	5.00000	4.73	
27	2-Chloroaniline	127	5.511	5.511	(1.181)	23574	5.00000	4.82	
* 34	Naphthalene-d8	136	5.907	5.907	(1.000)	456543	40.0000		
36	a-Terpineol	59	5.960	5.960	(1.277)	15236	5.00000	4.59	
37	3-Chloroaniline	65	5.976	5.976	(1.012)	8308	5.00000	4.35	
39	2,6-Dichlorophenol	162	6.003	6.003	(1.287)	15367	5.00000	4.82	
41	1-chloro-2-nitrobenzene	111	6.254	6.254	(1.340)	7527	5.00000	4.69	
42	Caprolactam	55	6.292	6.292	(1.065)	9038	5.00000	4.53	
46	1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	16465	5.00000	4.92	
51	Biphenyl	154	7.067	7.067	(0.929)	44187	5.00000	4.89	
* 61	Acenaphthene-d10	164	7.607	7.607	(1.000)	239789	40.0000		
80	Dimethoate	87	8.720	8.720	(1.146)	13133	5.00000	4.12	
81	Dichloran	206	8.736	8.736	(1.148)	4094	5.00000	3.98	
84	Pentachloronitrobenzene	237	8.886	8.886	(1.168)	4282	5.00000	4.42	
* 85	Phenanthrene-d10	188	9.041	9.041	(1.000)	425253	40.0000		
92	Diphenamid	167	9.950	9.950	(1.101)	23729	5.00000	4.80	
* 102	Chrysene-d12	240	11.854	11.854	(1.000)	399977	40.0000		
108	Benzo(e)pyrene	252	13.785	13.785	(0.988)	49885	5.00000	4.70	
* 110	Perylene-d12	264	13.951	13.951	(1.000)	398969	40.0000		
111	Perylene	252	13.988	13.988	(1.003)	55640	5.00000	4.93	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	111924	-4.21
34 Naphthalene-d8	493378	246689	986756	456543	-7.47
61 Acenaphthene-d10	275172	137586	550344	239789	-12.86
85 Phenanthrene-d10	484920	242460	969840	425253	-12.30
102 Chrysene-d12	455989	227995	911978	399977	-12.28
110 Perylene-d12	429399	214700	858798	398969	-7.09

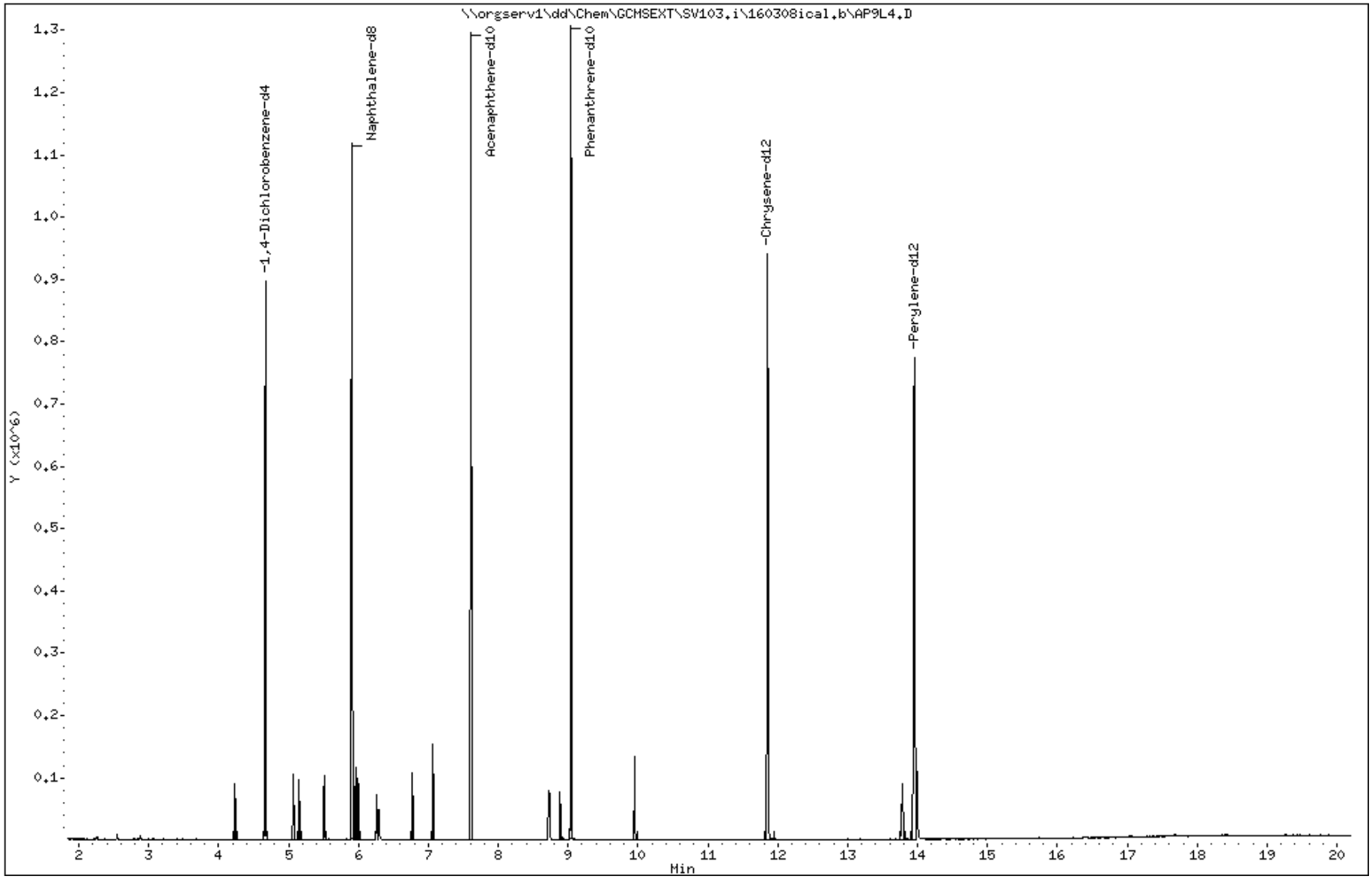
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.01
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L4.D
Date : 09-MAR-2016 01:44
Client ID:
Sample Info: AP9 5 LOT#5835

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 5 LOT#5835

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L4.D
Injection Date : 09-MAR-2016 01:44
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L5.D
Lab Smp Id:
Inj Date : 09-MAR-2016 02:10
Operator : hl Inst ID: SV103.i
Smp Info : AP9 10 LOT#5836
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:21 Cal File: BENZL4.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
4	Benzaldehyde	105	4.233	4.233	(0.907)	37565	10.0000	10.1	
* 11	1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	132859	40.0000		
17	Acetophenone	105	5.067	5.067	(1.086)	61954	10.0000	9.82	
27	2-Chloroaniline	127	5.511	5.511	(1.181)	56777	10.0000	9.77	
* 34	Naphthalene-d8	136	5.907	5.907	(1.000)	541926	40.0000		
36	a-Terpineol	59	5.960	5.960	(1.277)	38048	10.0000	9.65	
37	3-Chloroaniline	65	5.976	5.976	(1.012)	20503	10.0000	9.05	
39	2,6-Dichlorophenol	162	6.003	6.003	(1.287)	35928	10.0000	9.50	
41	1-chloro-2-nitrobenzene	111	6.254	6.254	(1.340)	17755	10.0000	9.31	
42	Caprolactam	55	6.292	6.292	(1.065)	21509	10.0000	9.09	
46	1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	38893	10.0000	10.1	
51	Biphenyl	154	7.067	7.067	(0.929)	103298	10.0000	9.98	
* 61	Acenaphthene-d10	164	7.608	7.608	(1.000)	274550	40.0000		
80	Dimethoate	87	8.720	8.720	(1.146)	32374	10.0000	8.87	
81	Dichloran	206	8.736	8.736	(1.148)	10612	10.0000	9.02	
84	Pentachloronitrobenzene	237	8.886	8.886	(1.168)	10708	10.0000	9.65	
* 85	Phenanthrene-d10	188	9.041	9.041	(1.000)	489501	40.0000		
92	Diphenamid	167	9.950	9.950	(1.101)	56067	10.0000	9.85	
* 102	Chrysene-d12	240	11.854	11.854	(1.000)	455499	40.0000		
108	Benzo(e)pyrene	252	13.780	13.780	(0.988)	118175	10.0000	9.78	
* 110	Perylene-d12	264	13.951	13.951	(1.000)	454285	40.0000		
111	Perylene	252	13.989	13.989	(1.003)	124189	10.0000	9.67	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	132859	13.71
34 Naphthalene-d8	493378	246689	986756	541926	9.84
61 Acenaphthene-d10	275172	137586	550344	274550	-0.23
85 Phenanthrene-d10	484920	242460	969840	489501	0.94
102 Chrysene-d12	455989	227995	911978	455499	-0.11
110 Perylene-d12	429399	214700	858798	454285	5.80

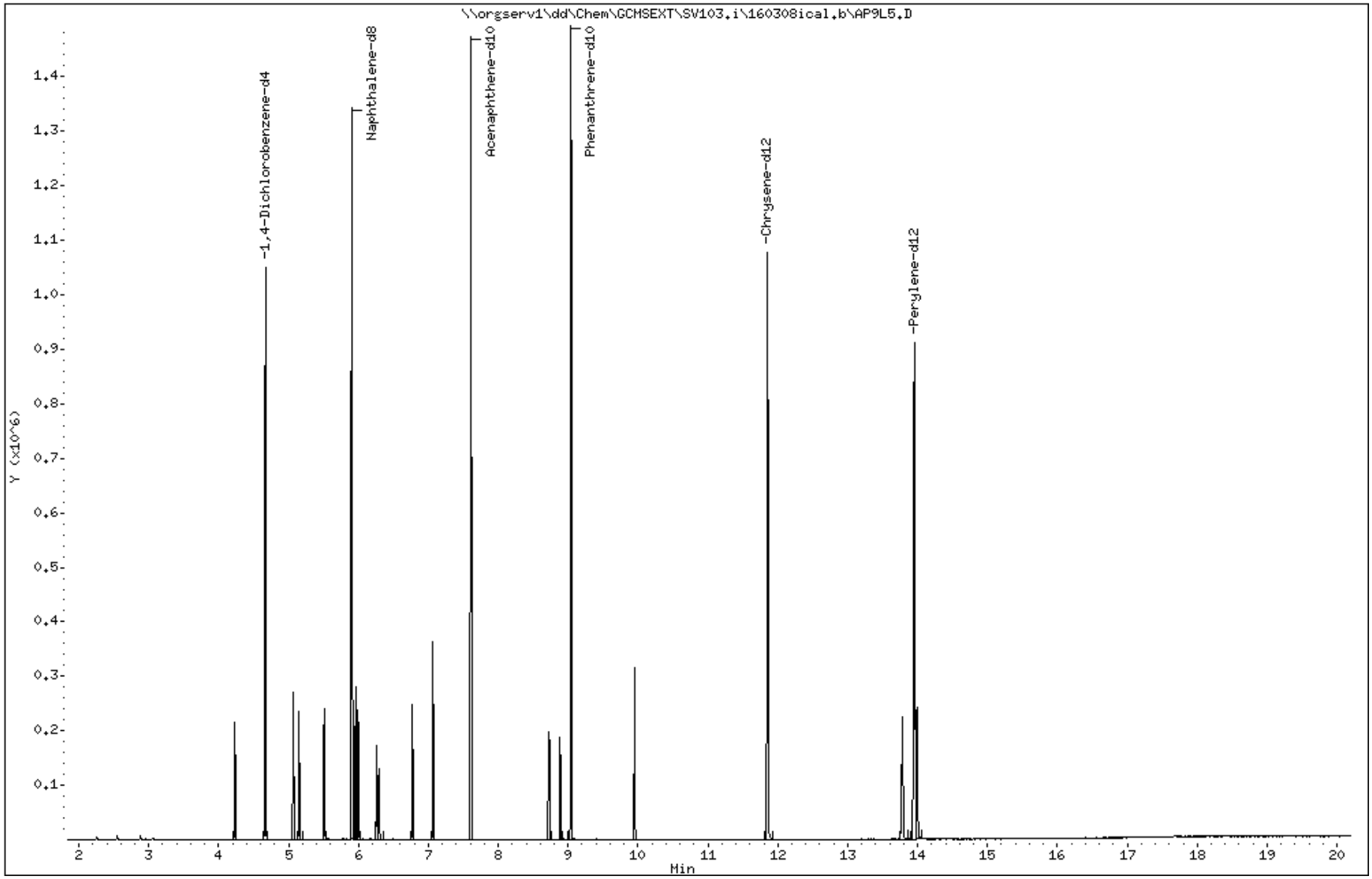
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L5.D
Date : 09-MAR-2016 02:10
Client ID:
Sample Info: AP9 10 LOT#5836

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 10 LOT#5836

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L5.D
Injection Date : 09-MAR-2016 02:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L6.D
Lab Smp Id:
Inj Date : 09-MAR-2016 02:35
Operator : hl Inst ID: SV103.i
Smp Info : AP9 20 LOT#5837
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:47 Cal File: BENZL5.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.233	4.233	(0.907)	69926	20.0000	19.8	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	126134	40.0000		
	17 Acetophenone	105	5.067	5.067	(1.086)	119262	20.0000	19.9	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	108630	20.0000	19.7	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	512162	40.0000		
	36 a-Terpineol	59	5.960	5.960	(1.277)	73254	20.0000	19.6	
	37 3-Chloroaniline	65	5.976	5.976	(1.012)	37454	20.0000	17.5	
	39 2,6-Dichlorophenol	162	6.003	6.003	(1.287)	70628	20.0000	19.7	
	41 1-chloro-2-nitrobenzene	111	6.254	6.254	(1.340)	34694	20.0000	19.2	
	42 Caprolactam	55	6.292	6.292	(1.065)	43129	20.0000	19.3	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	75035	20.0000	20.3	
	51 Biphenyl	154	7.067	7.067	(0.929)	200815	20.0000	20.1	
*	61 Acenaphthene-d10	164	7.608	7.608	(1.000)	265131	40.0000		
	80 Dimethoate	87	8.720	8.720	(1.146)	67383	20.0000	19.1	
	81 Dichloran	206	8.736	8.736	(1.148)	21995	20.0000	19.4	
	84 Pentachloronitrobenzene	237	8.886	8.886	(1.168)	21863	20.0000	20.4	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	479151	40.0000		
	92 Diphenamid	167	9.950	9.950	(1.101)	113217	20.0000	20.3	
*	102 Chrysene-d12	240	11.849	11.849	(1.000)	440387	40.0000		
	108 Benzo(e)pyrene	252	13.780	13.780	(0.988)	236182	20.0000	20.2	
*	110 Perylene-d12	264	13.951	13.951	(1.000)	440653	40.0000		
	111 Perylene	252	13.988	13.988	(1.003)	247165	20.0000	19.8	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 08-MAR-2016
Calibration Time: 22:45
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	116841	58421	233682	126134	7.95
34 Naphthalene-d8	493378	246689	986756	512162	3.81
61 Acenaphthene-d10	275172	137586	550344	265131	-3.65
85 Phenanthrene-d10	484920	242460	969840	479151	-1.19
102 Chrysene-d12	455989	227995	911978	440387	-3.42
110 Perylene-d12	429399	214700	858798	440653	2.62

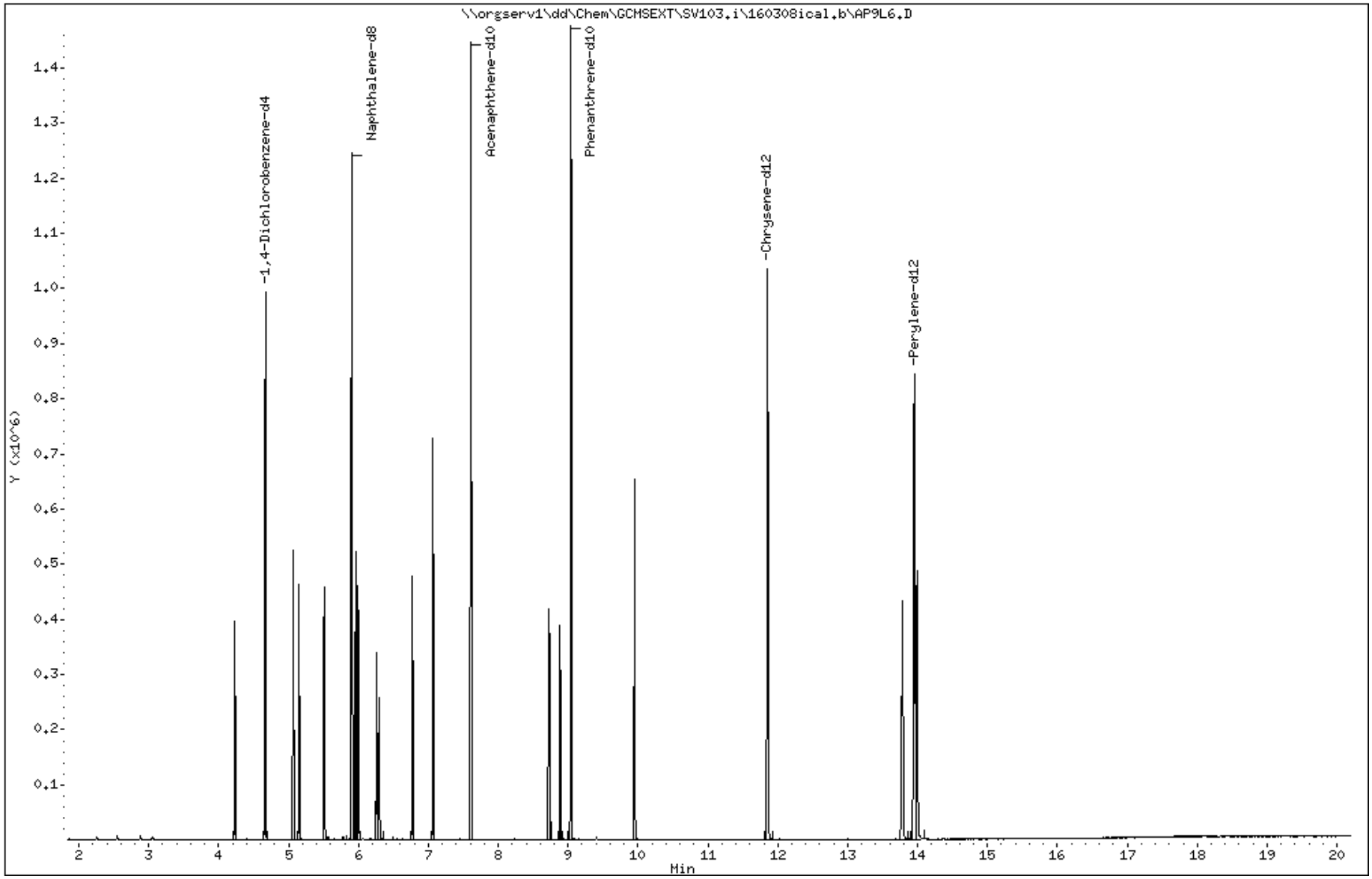
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L6.D
Date : 09-MAR-2016 02:35
Client ID:
Sample Info: AP9 20 LOT#5837

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 20 LOT#5837

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L6.D
Injection Date : 09-MAR-2016 02:35
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L7.D
Lab Smp Id:
Inj Date : 09-MAR-2016 03:01
Operator : hl Inst ID: SV103.i
Smp Info : AP9 50 LOT#5838
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:12 Cal File: BENZL6.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.232	4.232	(0.907)	171092	50.0000	50.0	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	122154	40.0000		
	17 Acetophenone	105	5.067	5.067	(1.086)	286332	50.0000	49.4	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	266525	50.0000	49.9	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	488231	40.0000		
	36 a-Terpineol	59	5.965	5.965	(1.279)	183317	50.0000	50.6	
	37 3-Chloroaniline	65	5.976	5.976	(1.012)	98375	50.0000	48.2	
	39 2,6-Dichlorophenol	162	6.003	6.003	(1.287)	177857	50.0000	51.1	
	41 1-chloro-2-nitrobenzene	111	6.260	6.260	(1.342)	87856	50.0000	50.1	
	42 Caprolactam	55	6.302	6.302	(1.067)	115962	50.0000	54.4	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	182944	50.0000	48.9	
	51 Biphenyl	154	7.067	7.067	(0.929)	503984	50.0000	49.8	
*	61 Acenaphthene-d10	164	7.607	7.607	(1.000)	268127	40.0000		
	80 Dimethoate	87	8.725	8.725	(1.147)	187075	50.0000	52.5	
	81 Dichloran	206	8.741	8.741	(1.149)	61001	50.0000	53.1	
	84 Pentachloronitrobenzene	237	8.886	8.886	(1.168)	58682	50.0000	54.2	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	492137	40.0000		
	92 Diphenamid	167	9.950	9.950	(1.101)	307405	50.0000	53.7	
*	102 Chrysene-d12	240	11.849	11.849	(1.000)	439124	40.0000		
	108 Benzo(e)pyrene	252	13.785	13.785	(0.988)	607507	50.0000	51.7	
*	110 Perylene-d12	264	13.951	13.951	(1.000)	442017	40.0000		
	111 Perylene	252	13.994	13.994	(1.003)	628155	50.0000	50.2	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	122154	-2.06
34 Naphthalene-d8	523308	261654	1046616	488231	-6.70
61 Acenaphthene-d10	282544	141272	565088	268127	-5.10
85 Phenanthrene-d10	487821	243911	975642	492137	0.88
102 Chrysene-d12	460303	230152	920606	439124	-4.60
110 Perylene-d12	441116	220558	882232	442017	0.20

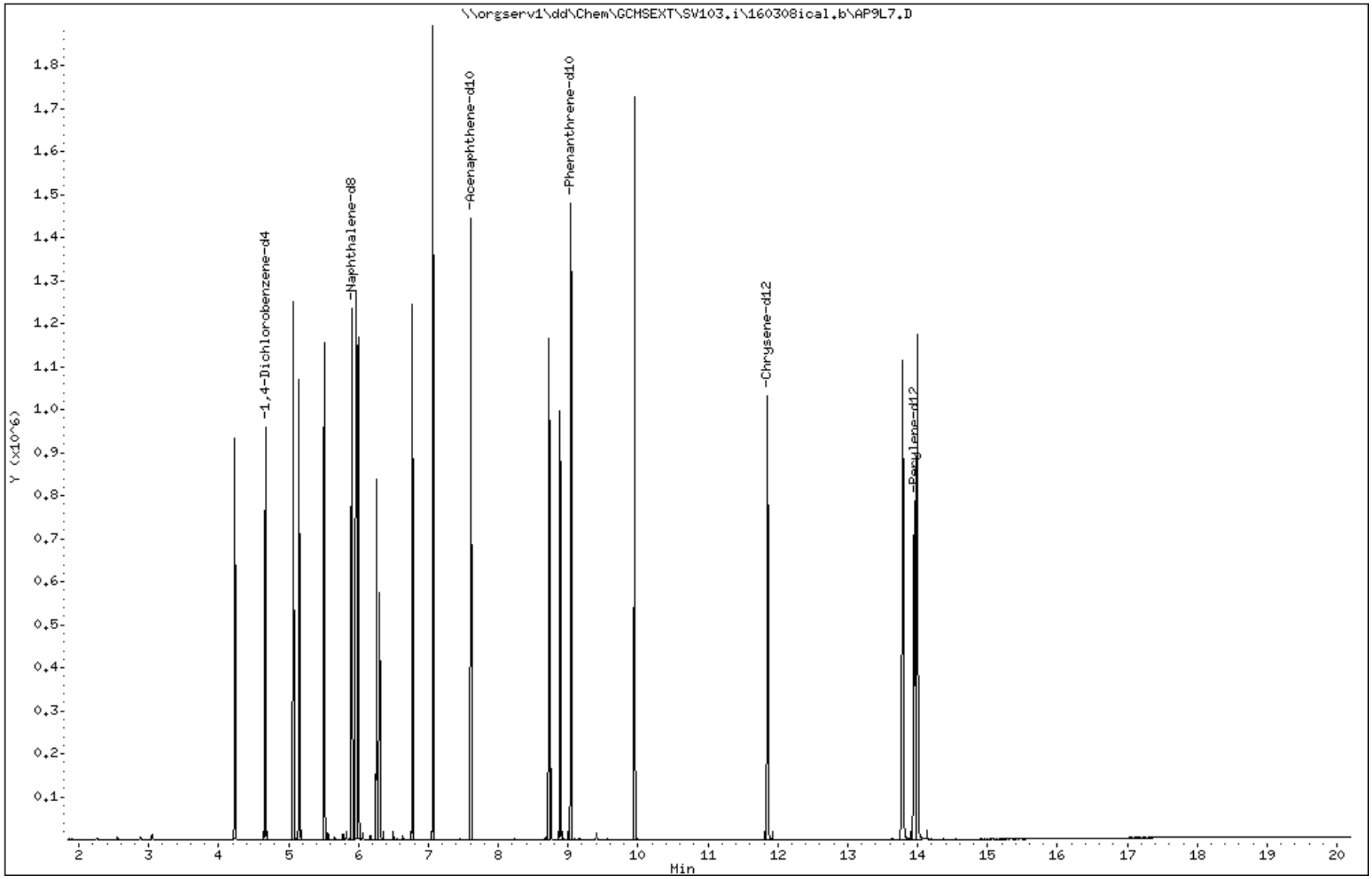
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L7.D
Date : 09-MAR-2016 03:01
Client ID:
Sample Info: AP9 50 LOT#5838

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 50 LOT#5838

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L7.D
Injection Date : 09-MAR-2016 03:01
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L8.D
Lab Smp Id:
Inj Date : 09-MAR-2016 03:26
Operator : hl Inst ID: SV103.i
Smp Info : AP9 100 LOT#5839
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:38 Cal File: BENZL7.D
Als bottle: 18 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
4	Benzaldehyde	105	4.227	4.227	(0.906)	372893	100.000	101	
* 11	1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	131454	40.0000		
17	Acetophenone	105	5.067	5.067	(1.086)	625652	100.000	100	
27	2-Chloroaniline	127	5.511	5.511	(1.181)	579247	100.000	101	
* 34	Naphthalene-d8	136	5.907	5.907	(1.000)	537931	40.0000		
36	a-Terpineol	59	5.965	5.965	(1.279)	397496	100.000	102	
37	3-Chloroaniline	65	5.976	5.976	(1.012)	226839	100.000	101	
39	2,6-Dichlorophenol	162	6.003	6.003	(1.287)	389781	100.000	104	
41	1-chloro-2-nitrobenzene	111	6.260	6.260	(1.342)	191791	100.000	102	
42	Caprolactam	55	6.313	6.313	(1.069)	245301	100.000	104	
46	1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	399007	100.000	101	
51	Biphenyl	154	7.067	7.067	(0.929)	1088777	100.000	102	
* 61	Acenaphthene-d10	164	7.607	7.607	(1.000)	281951	40.0000		
80	Dimethoate	87	8.731	8.731	(1.148)	404095	100.000	108	
81	Dichloran	206	8.741	8.741	(1.149)	131099	100.000	108	
84	Pentachloronitrobenzene	237	8.891	8.891	(1.169)	124475	100.000	109	
* 85	Phenanthrene-d10	188	9.041	9.041	(1.000)	513192	40.0000		
92	Diphenamid	167	9.955	9.955	(1.101)	645036	100.000	108	
* 102	Chrysene-d12	240	11.854	11.854	(1.000)	455682	40.0000		
108	Benzo(e)pyrene	252	13.796	13.796	(0.989)	1305498	100.000	106	
* 110	Perylene-d12	264	13.956	13.956	(1.000)	460926	40.0000		
111	Perylene	252	13.999	13.999	(1.003)	1351110	100.000	104	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	131454	5.40
34 Naphthalene-d8	523308	261654	1046616	537931	2.79
61 Acenaphthene-d10	282544	141272	565088	281951	-0.21
85 Phenanthrene-d10	487821	243911	975642	513192	5.20
102 Chrysene-d12	460303	230152	920606	455682	-1.00
110 Perylene-d12	441116	220558	882232	460926	4.49

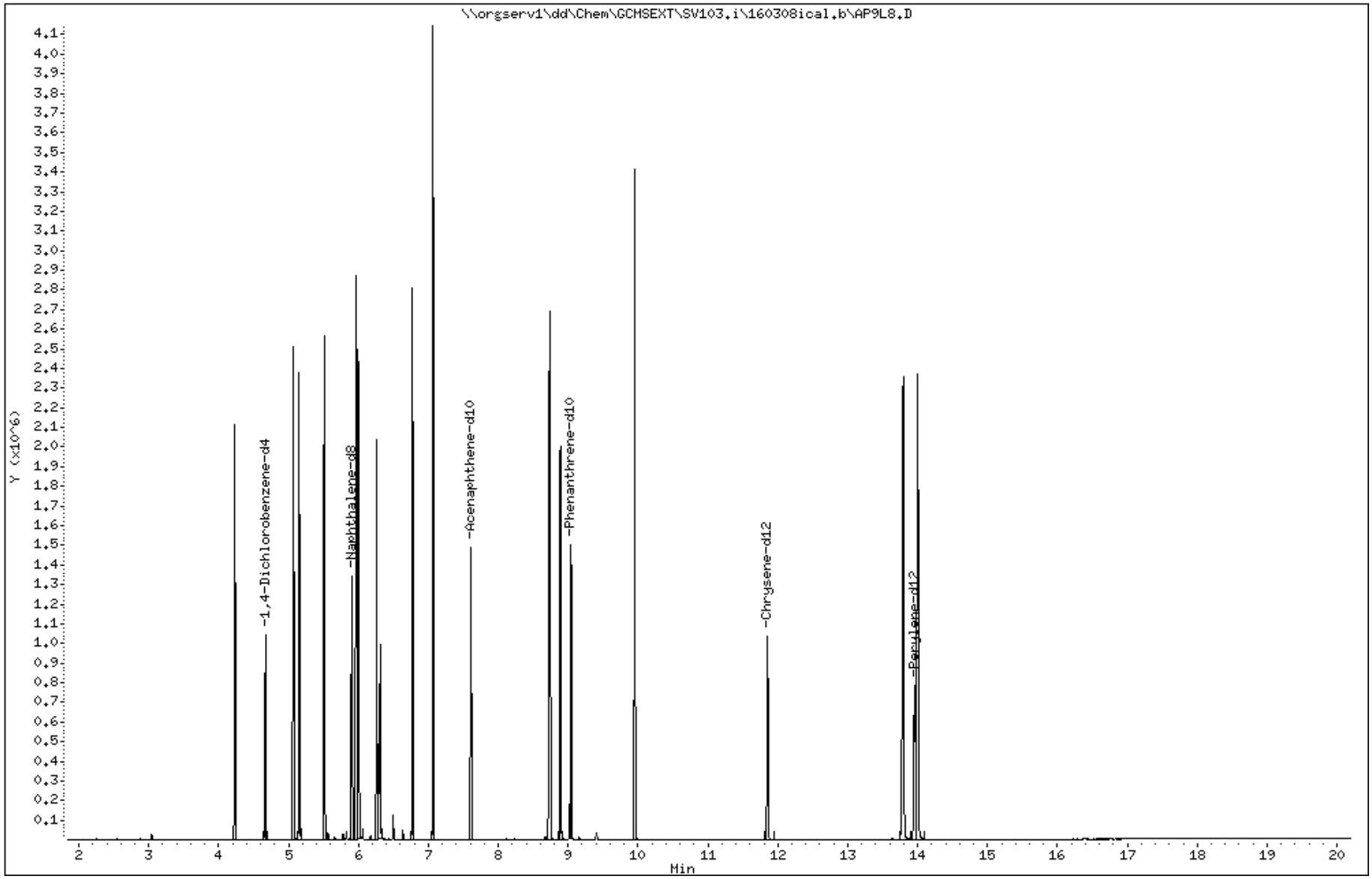
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L8.D
Date : 09-MAR-2016 03:26
Client ID:
Sample Info: AP9 100 LOT#5839

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 100 LOT#5839

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L8.D
Injection Date : 09-MAR-2016 03:26
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L9.D
Lab Smp Id:
Inj Date : 09-MAR-2016 03:52
Operator : hl Inst ID: SV103.i
Smp Info : AP9 150 LOT#5840
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:03 Cal File: BENZL8.D
Als bottle: 19 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.227	4.227	(0.906)	515665	150.000	150	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	122593	40.0000		
	17 Acetophenone	105	5.072	5.072	(1.087)	906491	150.000	156	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	840643	150.000	157	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	517487	40.0000		
	36 a-Terpineol	59	5.966	5.966	(1.279)	584331	150.000	161	
	37 3-Chloroaniline	65	5.982	5.982	(1.013)	369225	150.000	171	
	39 2,6-Dichlorophenol	162	6.008	6.008	(1.288)	575248	150.000	165	
	41 1-chloro-2-nitrobenzene	111	6.260	6.260	(1.342)	296451	150.000	168	
	42 Caprolactam	55	6.319	6.319	(1.070)	382256	150.000	169	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	592367	150.000	148	
	51 Biphenyl	154	7.067	7.067	(0.929)	1631912	150.000	151	
*	61 Acenaphthene-d10	164	7.608	7.608	(1.000)	286674	40.0000		
	80 Dimethoate	87	8.731	8.731	(1.148)	619980	150.000	163	
	81 Dichloran	206	8.741	8.741	(1.149)	198890	150.000	162	
	84 Pentachloronitrobenzene	237	8.891	8.891	(1.169)	191510	150.000	165	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	520721	40.0000		
	92 Diphenamid	167	9.956	9.956	(1.101)	986134	150.000	163	
*	102 Chrysene-d12	240	11.849	11.849	(1.000)	451836	40.0000		
	108 Benzo(e)pyrene	252	13.801	13.801	(0.989)	1949416	150.000	162	
*	110 Perylene-d12	264	13.956	13.956	(1.000)	452797	40.0000		
	111 Perylene	252	14.005	14.005	(1.003)	1992289	150.000	156	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9L9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	122593	-1.70
34 Naphthalene-d8	523308	261654	1046616	517487	-1.11
61 Acenaphthene-d10	282544	141272	565088	286674	1.46
85 Phenanthrene-d10	487821	243911	975642	520721	6.74
102 Chrysene-d12	460303	230152	920606	451836	-1.84
110 Perylene-d12	441116	220558	882232	452797	2.65

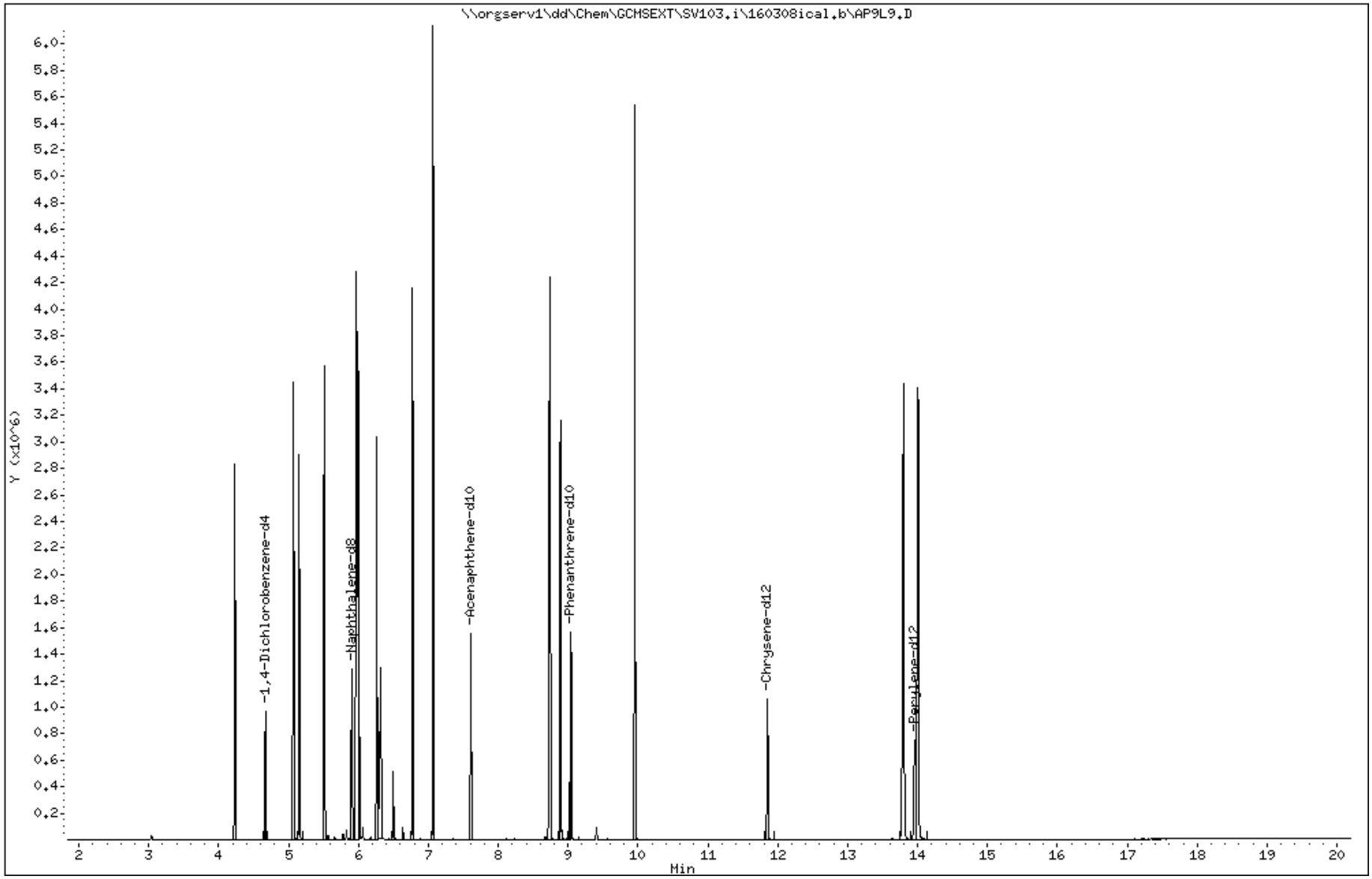
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.04
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L9.D
Date : 09-MAR-2016 03:52
Client ID:
Sample Info: AP9 150 LOT#5840

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 150 LOT#5840

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L9.D
Injection Date : 09-MAR-2016 03:52
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L10.D
Lab Smp Id:
Inj Date : 09-MAR-2016 04:17
Operator : hl Inst ID: SV103.i
Smp Info : AP9 200 LOT#5831
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:58 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:29 Cal File: BENZL9.D
Als bottle: 20 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.233	4.233	(0.907)	575644	200.000	189	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	108901	40.0000		
	17 Acetophenone	105	5.072	5.072	(1.087)	1058569	200.000	205	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	976307	200.000	205	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	463517	40.0000		
	36 a-Terpineol	59	5.971	5.971	(1.280)	695862	200.000	215	
	37 3-Chloroaniline	65	5.982	5.982	(1.013)	479728	200.000	248	
	39 2,6-Dichlorophenol	162	6.008	6.008	(1.288)	698929	200.000	225	
	41 1-chloro-2-nitrobenzene	111	6.260	6.260	(1.342)	356088	200.000	228	
	42 Caprolactam	55	6.324	6.324	(1.071)	456897	200.000	226	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	709647	200.000	194	
	51 Biphenyl	154	7.067	7.067	(0.929)	1957808	200.000	198	
*	61 Acenaphthene-d10	164	7.608	7.608	(1.000)	261586	40.0000		
	80 Dimethoate	87	8.736	8.736	(1.148)	780109	200.000	224	
	81 Dichloran	206	8.747	8.747	(1.150)	247648	200.000	221	
	84 Pentachloronitrobenzene	237	8.891	8.891	(1.169)	237340	200.000	224	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	494935	40.0000		
	92 Diphenamid	167	9.956	9.956	(1.101)	1240068	200.000	215	
*	102 Chrysene-d12	240	11.849	11.849	(1.000)	435207	40.0000		
	108 Benzo(e)pyrene	252	13.807	13.807	(0.989)	2519234	200.000	208	
*	110 Perylene-d12	264	13.962	13.962	(1.000)	454498	40.0000		
	111 Perylene	252	14.010	14.010	(1.003)	2587188	200.000	201	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: AP9L10.D Calibration Time: 03:01
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	108901	-12.68
34 Naphthalene-d8	523308	261654	1046616	463517	-11.43
61 Acenaphthene-d10	282544	141272	565088	261586	-7.42
85 Phenanthrene-d10	487821	243911	975642	494935	1.46
102 Chrysene-d12	460303	230152	920606	435207	-5.45
110 Perylene-d12	441116	220558	882232	454498	3.03

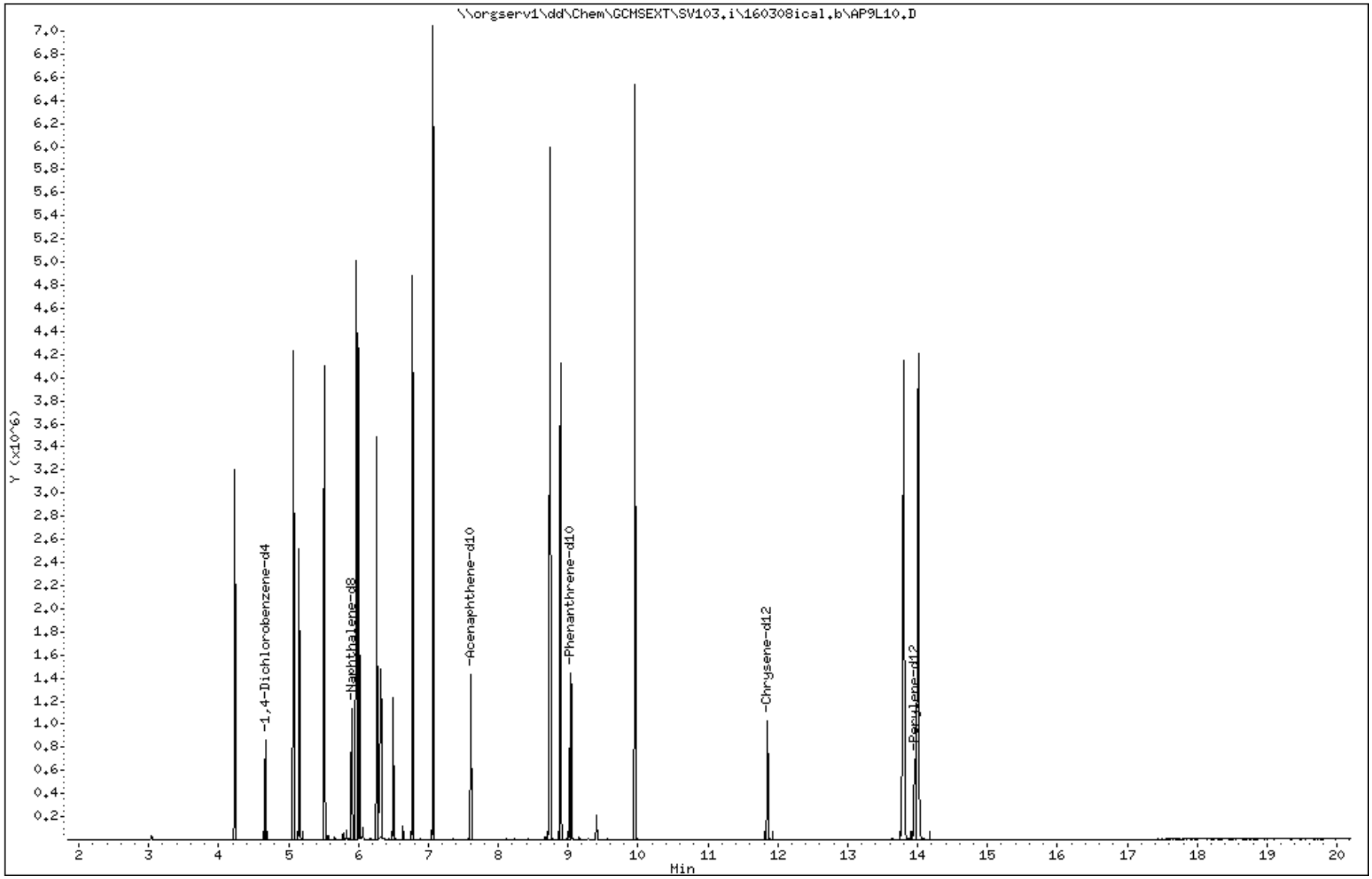
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.04
110 Perylene-d12	13.95	13.45	14.45	13.96	0.08

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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9L10.D
Date : 09-MAR-2016 04:17
Client ID:
Sample Info: AP9 200 LOT#5831

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 200 LOT#5831

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9L10.D
Injection Date : 09-MAR-2016 04:17
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 04:43
Lab File ID: ABNICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 n-Nitrosodimethylamine	0.92348	0.89955	0.89955	0.050	-2.59141	20.00000	Averaged
2 Pyridine	1.57434	1.55795	1.55795	0.050	-1.04077	20.00000	Averaged
$ 3 2-Fluorophenol	1.33210	1.30883	1.30883	0.050	-1.74705	20.00000	Averaged
5 Aniline	2.19534	2.15943	2.15943	0.050	-1.63571	20.00000	Averaged
$ 6 Phenol-d6	1.67927	1.63113	1.63113	0.050	-2.86658	20.00000	Averaged
7 Phenol	1.92058	1.85388	1.85388	0.050	-3.47305	20.00000	Averaged
8 Bis(2-chloroethyl)ether	1.45630	1.41417	1.41417	0.050	-2.89290	20.00000	Averaged
9 2-Chlorophenol	1.45002	1.44850	1.44850	0.050	-0.10495	20.00000	Averaged
10 1,3-Dichlorobenzene	1.61399	1.56304	1.56304	0.050	-3.15676	20.00000	Averaged
12 1,4-Dichlorobenzene	1.66913	1.59949	1.59949	0.050	-4.17251	20.00000	Averaged
14 1,2-Dichlorobenzene	1.56193	1.51647	1.51647	0.050	-2.91082	20.00000	Averaged
13 Benzyl alcohol	1.22784	1.20979	1.20979	0.050	-1.47057	20.00000	Averaged
15 2-Methylphenol	1.27749	1.25956	1.25956	0.050	-1.40293	20.00000	Averaged
16 Bis(2-chloroisopropyl)ether	2.40692	2.30070	2.30070	0.050	-4.41295	20.00000	Averaged
18 n-Nitrosodi-n-propylamine	1.06999	1.05521	1.05521	0.050	-1.38127	20.00000	Averaged
21 Hexachloroethane	0.69218	0.67823	0.67823	0.050	-2.01527	20.00000	Averaged
19 3-Methylphenol/4-Methylphen	1.34624	1.36563	1.36563	0.050	1.44056	20.00000	Averaged
$ 22 Nitrobenzene-d5	1.51104	1.49261	1.49261	0.050	-1.21939	20.00000	Averaged
23 Nitrobenzene	0.38078	0.36804	0.36804	0.050	-3.34574	20.00000	Averaged
26 Isophorone	2.81213	2.82354	2.82354	0.050	0.40573	20.00000	Averaged
28 2-Nitrophenol	0.78777	0.81182	0.81182	0.050	3.05405	20.00000	Averaged
29 2,4-Dimethylphenol	1.44298	1.44451	1.44451	0.050	0.10636	20.00000	Averaged
30 Bis(2-chloroethoxy)methane	1.73596	1.75601	1.75601	0.050	1.15465	20.00000	Averaged
32 2,4-Dichlorophenol	0.28500	0.28412	0.28412	0.050	-0.30786	20.00000	Averaged
31 Benzoic acid	50.00000	45.89466	0.24442	0.050	-8.21068	20.00000	Linear
33 1,2,4-Trichlorobenzene	0.32589	0.31283	0.31283	0.050	-4.00740	20.00000	Averaged
35 Naphthalene	1.00423	0.97092	0.97092	0.050	-3.31702	20.00000	Averaged
38 4-Chloroaniline	0.13750	0.13604	0.13604	0.050	-1.06336	20.00000	Averaged
40 Hexachlorobutadiene	0.18954	0.18007	0.18007	0.050	-4.99719	20.00000	Averaged
43 p-Chloro-m-cresol	0.29363	0.29477	0.29477	0.050	0.38722	20.00000	Averaged
44 2-Methylnaphthalene	0.67727	0.64987	0.64987	0.050	-4.04595	20.00000	Averaged
45 1-Methylnaphthalene	0.23318	0.22760	0.22760	0.050	-2.39305	20.00000	Averaged
47 Hexachlorocyclopentadiene	0.21222	0.21346	0.21346	0.050	0.58558	20.00000	Averaged
48 2,4,6-Trichlorophenol	0.19925	0.20816	0.20816	0.050	4.47378	20.00000	Averaged
49 2,4,5-Trichlorophenol	0.21535	0.20883	0.20883	0.050	-3.02932	20.00000	Averaged
$ 50 2-Fluorobiphenyl	0.70903	0.69036	0.69036	0.050	-2.63383	20.00000	Averaged
52 2-Chloronaphthalene	0.63958	0.63042	0.63042	0.050	-1.43198	20.00000	Averaged
53 2-Nitroaniline	0.21169	0.22544	0.22544	0.050	6.49565	20.00000	Averaged
54 1,4-Dinitrobenzene	0.20995	0.20606	0.20606	0.050	-1.85272	20.00000	Averaged
55 Dimethyl phthalate	1.35981	1.32498	1.32498	0.050	-2.56133	20.00000	Averaged
56 1,3-Dinitrobenzene	0.23412	0.23539	0.23539	0.050	0.54369	20.00000	Averaged
57 2,6-Dinitrotoluene	0.16979	0.17866	0.17866	0.050	5.22284	20.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 04:43
Lab File ID: ABNICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
58 Acenaphthylene	1.01198	0.98371	0.98371	0.050	-2.79344	20.00000	Averaged
59 1,2-Dinitrobenzene	0.15584	0.16479	0.16479	0.050	5.74441	20.00000	Averaged
60 3-Nitroaniline	0.35861	0.36144	0.36144	0.050	0.78670	20.00000	Averaged
62 Acenaphthene	1.15319	1.10071	1.10071	0.050	-4.55098	20.00000	Averaged
63 2,4-Dinitrophenol	50.00000	46.19523	0.21994	0.050	-7.60955	20.00000	Wt Linear
65 Dibenzofuran	1.66315	1.60382	1.60382	0.050	-3.56699	20.00000	Averaged
64 4-Nitrophenol	0.30016	0.30000	0.30000	0.050	-0.05286	20.00000	Averaged
66 2,4-Dinitrotoluene	0.41680	0.43880	0.43880	0.050	5.27887	20.00000	Averaged
67 2,3,5,6-Tetrachlorophenol	0.34206	0.34222	0.34222	0.050	0.04593	20.00000	Averaged
68 2,3,4,6-Tetrachlorophenol	0.31963	0.32952	0.32952	0.050	3.09604	20.00000	Averaged
69 Diethyl phthalate	1.40275	1.37277	1.37277	0.050	-2.13728	20.00000	Averaged
70 Fluorene	1.36099	1.32154	1.32154	0.050	-2.89899	20.00000	Averaged
71 4-Chlorophenyl phenyl ether	0.63723	0.62210	0.62210	0.050	-2.37435	20.00000	Averaged
72 4-Nitroaniline	0.35592	0.37009	0.37009	0.050	3.98130	20.00000	Averaged
73 4,6-Dinitro-o-cresol	50.00000	46.97313	0.27606	0.050	-6.05375	20.00000	Wt Linear
74 NDPA/DPA	1.14745	1.14046	1.14046	0.050	-0.60864	20.00000	Averaged
75 Azobenzene	1.43396	1.42687	1.42687	0.050	-0.49395	20.00000	Averaged
$ 76 2,4,6-Tribromophenol	50.00000	47.09329	0.10583	0.050	-5.81342	20.00000	Wt Linear
78 4-Bromophenyl phenyl ether	0.36242	0.35067	0.35067	0.050	-3.24416	20.00000	Averaged
79 Hexachlorobenzene	0.38775	0.35832	0.35832	0.050	-7.58972	20.00000	Averaged
83 Pentachlorophenol	50.00000	47.51439	0.14196	0.050	-4.97122	20.00000	Wt Linear
86 Phenanthrene	1.13809	1.10181	1.10181	0.050	-3.18722	20.00000	Averaged
87 Anthracene	1.11952	1.10350	1.10350	0.050	-1.43075	20.00000	Averaged
89 Carbazole	1.04616	1.03674	1.03674	0.050	-0.90057	20.00000	Averaged
90 Di-n-butylphthalate	1.30827	1.30963	1.30963	0.050	0.10432	20.00000	Averaged
93 Fluoranthene	1.15853	1.13815	1.13815	0.050	-1.75907	20.00000	Averaged
95 Pyrene	1.21479	1.20359	1.20359	0.050	-0.92240	20.00000	Averaged
$ 96 4-Terphenyl-d14	0.75811	0.73722	0.73722	0.050	-2.75643	20.00000	Averaged
98 Butyl benzyl phthalate	0.58659	0.58789	0.58789	0.050	0.22216	20.00000	Averaged
99 Bis (2-ethylhexyl) adipate	2.15331	2.08703	2.08703	0.050	-3.07809	20.00000	Averaged
100 Benzo(a)anthracene	1.21575	1.17815	1.17815	0.050	-3.09226	20.00000	Averaged
101 3,3'-Dichlorobenzidine	0.42104	0.42981	0.42981	0.050	2.08313	20.00000	Averaged
103 Chrysene	1.18112	1.17516	1.17516	0.050	-0.50447	20.00000	Averaged
104 Bis(2-ethylhexyl)phthalate	0.88531	0.91813	0.91813	0.050	3.70729	20.00000	Averaged
105 Di-n-octylphthalate	1.45852	1.48227	1.48227	0.050	1.62853	20.00000	Averaged
106 Benzo(b)fluoranthene	1.16552	1.18016	1.18016	0.050	1.25587	20.00000	Averaged
107 Benzo(k)fluoranthene	1.22148	1.22178	1.22178	0.050	0.02456	20.00000	Averaged
109 Benzo(a)pyrene	1.12359	1.15217	1.15217	0.050	2.54314	20.00000	Averaged
112 Indeno(1,2,3-cd)pyrene	1.00271	0.98726	0.98726	0.050	-1.54040	20.00000	Averaged
113 Dibenzo(a,h)anthracene	1.04536	1.02698	1.02698	0.050	-1.75830	20.00000	Averaged
114 Benzo(ghi)perylene	1.09552	1.10302	1.10302	0.050	0.68393	20.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 04:43
Lab File ID: ABNICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

Average %D / Drift Results.
Calculated Average %D/Drift = 2.55949
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNICV.D
Lab Smp Id:
Inj Date : 09-MAR-2016 04:43
Operator : hl Inst ID: SV103.i
Smp Info : ABN ICV LOT# 5842
Misc Info : ,ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 10-Mar-2016 07:05 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.970	1.970	(0.422)	131380	50.0000	48.7	
	2 Pyridine	79	1.997	1.997	(0.428)	227541	50.0000	49.5	
$	3 2-Fluorophenol	112	3.382	3.382	(0.725)	191156	50.0000	49.1	
	5 Aniline	93	4.345	4.345	(0.931)	315387	50.0000	49.2	
$	6 Phenol-d6	99	4.345	4.345	(0.931)	238229	50.0000	48.6	
	7 Phenol	94	4.356	4.356	(0.934)	270761	50.0000	48.3	
	8 Bis(2-chloroethyl)ether	93	4.431	4.431	(0.950)	206542	50.0000	48.6	
	9 2-Chlorophenol	128	4.457	4.457	(0.955)	211555	50.0000	49.9	
	10 1,3-Dichlorobenzene	146	4.607	4.607	(0.987)	228284	50.0000	48.4	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	116841	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.003)	233607	50.0000	47.9	
	14 1,2-Dichlorobenzene	146	4.832	4.832	(1.036)	221482	50.0000	48.5	
	13 Benzyl alcohol	79	4.821	4.821	(1.033)	176691	50.0000	49.3	
	15 2-Methylphenol	108	4.949	4.949	(1.061)	183961	50.0000	49.3	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.065)	336020	50.0000	47.8	
	18 n-Nitrosodi-n-propylamine	70	5.088	5.088	(1.091)	154115	50.0000	49.3	
	21 Hexachloroethane	117	5.158	5.158	(1.105)	99056	50.0000	49.0	
	19 3-Methylphenol/4-Methylphenol	108	5.104	5.104	(1.094)	199452	50.0000	50.7	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	217998	50.0000	49.4	
	23 Nitrobenzene	77	5.227	5.227	(0.885)	226980	50.0000	48.3	
	26 Isophorone	82	5.468	5.468	(1.172)	412381	50.0000	50.2	
	28 2-Nitrophenol	139	5.543	5.543	(1.188)	118568	50.0000	51.5	
	29 2,4-Dimethylphenol	107	5.618	5.618	(1.204)	210973	50.0000	50.0	
	30 Bis(2-chloroethoxy)methane	93	5.709	5.709	(1.224)	256467	50.0000	50.6	
	32 2,4-Dichlorophenol	162	5.784	5.784	(0.979)	175223	50.0000	49.8	
	31 Benzoic acid	105	5.725	5.725	(0.969)	150739	50.0000	45.9(H)	
	33 1,2,4-Trichlorobenzene	180	5.859	5.859	(0.992)	192931	50.0000	48.0	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	493378	40.0000		
	35 Naphthalene	128	5.923	5.923	(1.003)	598788	50.0000	48.3	
	38 4-Chloroaniline	65	5.998	5.998	(1.015)	83899	50.0000	49.5	
	40 Hexachlorobutadiene	225	6.073	6.073	(1.028)	111055	50.0000	47.5	
	43 p-Chloro-m-cresol	107	6.490	6.490	(1.099)	181790	50.0000	50.2	
	44 2-Methylnaphthalene	142	6.607	6.607	(1.119)	400787	50.0000	48.0	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.698	6.698	(1.134)	140368	50.0000	48.8	
	47	Hexachlorocyclopentadiene	237	6.773	6.773	(1.147)	131645	50.0000	50.3	
	48	2,4,6-Trichlorophenol	196	6.891	6.891	(1.167)	128377	50.0000	52.2	
	49	2,4,5-Trichlorophenol	196	6.918	6.918	(1.171)	128790	50.0000	48.5	
$	50	2-Fluorobiphenyl	172	6.977	6.977	(1.181)	425758	50.0000	48.7	
	52	2-Chloronaphthalene	162	7.073	7.073	(1.197)	388796	50.0000	49.3	
	53	2-Nitroaniline	138	7.185	7.185	(1.216)	139032	50.0000	53.2	
	54	1,4-Dinitrobenzene	168	7.319	7.319	(0.961)	70879	50.0000	49.1	
	55	Dimethyl phthalate	163	7.388	7.388	(0.970)	455746	50.0000	48.7	
	56	1,3-Dinitrobenzene	168	7.394	7.394	(0.971)	80967	50.0000	50.3	
	57	2,6-Dinitrotoluene	165	7.431	7.431	(1.258)	110185	50.0000	52.6	
	58	Acenaphthylene	152	7.469	7.469	(1.264)	606676	50.0000	48.6	
	59	1,2-Dinitrobenzene	168	7.474	7.474	(0.982)	56682	50.0000	52.9	
	60	3-Nitroaniline	138	7.581	7.581	(0.996)	124321	50.0000	50.4	
*	61	Acenaphthene-d10	164	7.613	7.613	(1.000)	275172	40.0000		
	62	Acenaphthene	154	7.640	7.640	(1.004)	378606	50.0000	47.7	
	63	2,4-Dinitrophenol	184	7.683	7.683	(1.009)	75653	50.0000	46.2	
	65	Dibenzofuran	168	7.811	7.811	(1.026)	551659	50.0000	48.2	
	64	4-Nitrophenol	65	7.768	7.768	(1.020)	103189	50.0000	50.0	
	66	2,4-Dinitrotoluene	165	7.816	7.816	(1.027)	150932	50.0000	52.6	
	67	2,3,5,6-Tetrachlorophenol	232	7.896	7.896	(1.037)	117712	50.0000	50.0	
	68	2,3,4,6-Tetrachlorophenol	232	7.939	7.939	(1.043)	113345	50.0000	51.5	
	69	Diethyl phthalate	149	8.078	8.078	(1.061)	472186	50.0000	48.9	
	70	Fluorene	166	8.143	8.143	(1.070)	454562	50.0000	48.6	
	71	4-Chlorophenyl phenyl ether	204	8.164	8.164	(1.072)	213979	50.0000	48.8	
	72	4-Nitroaniline	138	8.175	8.175	(1.074)	127298	50.0000	52.0	
	73	4,6-Dinitro-o-cresol	198	8.207	8.207	(1.078)	94956	50.0000	47.0	
	74	NDPA/DPA	169	8.276	8.276	(1.087)	392279	50.0000	49.7	
	75	Azobenzene	77	8.314	8.314	(1.092)	490795	50.0000	49.8	
$	76	2,4,6-Tribromophenol	330	8.372	8.372	(0.926)	64148	50.0000	47.1	
	78	4-Bromophenyl phenyl ether	248	8.629	8.629	(1.133)	120617	50.0000	48.4	
	79	Hexachlorobenzene	284	8.677	8.677	(1.140)	123251	50.0000	46.2	
	83	Pentachlorophenol	266	8.875	8.875	(0.982)	86048	50.0000	47.5	
*	85	Phenanthrene-d10	188	9.041	9.041	(1.000)	484920	40.0000		
	86	Phenanthrene	178	9.068	9.068	(1.003)	667864	50.0000	48.4	
	87	Anthracene	178	9.116	9.116	(1.008)	668886	50.0000	49.3	
	89	Carbazole	167	9.282	9.282	(1.027)	628421	50.0000	49.5	
	90	Di-n-butylphthalate	149	9.678	9.678	(1.070)	793833	50.0000	50.0	
	93	Fluoranthene	202	10.218	10.218	(1.130)	689890	50.0000	49.1	
	95	Pyrene	202	10.437	10.437	(1.154)	729554	50.0000	49.5	
$	96	4-Terphenyl-d14	244	10.640	10.640	(1.177)	446863	50.0000	48.6	
	98	Butyl benzyl phthalate	149	11.223	11.223	(1.241)	356349	50.0000	50.1	
	99	Bis (2-ethylhexyl) adipate	129	11.368	11.368	(2.436)	304813	50.0000	48.5	
	100	Benzo(a)anthracene	228	11.844	11.844	(0.999)	671532	50.0000	48.4	
*	102	Chrysene-d12	240	11.854	11.854	(1.000)	455989	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.849	11.849	(1.000)	244985	50.0000	51.0	
	103	Chrysene	228	11.892	11.892	(1.003)	669824	50.0000	49.7	
	104	Bis(2-ethylhexyl)phthalate	149	12.026	12.026	(1.014)	523324	50.0000	51.8	
	105	Di-n-octylphthalate	149	12.994	12.994	(1.096)	844876	50.0000	50.8	
	106	Benzo(b)fluoranthene	252	13.384	13.384	(0.959)	633450	50.0000	50.6	
	107	Benzo(k)fluoranthene	252	13.427	13.427	(0.962)	655791	50.0000	50.0	
	109	Benzo(a)pyrene	252	13.866	13.866	(0.994)	618424	50.0000	51.3	
*	110	Perylene-d12	264	13.951	13.951	(1.000)	429399	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.545	15.545	(1.114)	529912	50.0000	49.2	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.604	15.604	(1.118)	551232	50.0000	49.1	
114 Benzo(ghi)perylene	276	15.919	15.919	(1.141)	592043	50.0000	50.3	

QC Flag Legend

H - Operator selected an alternate compound hit.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 08-MAR-2016
Lab File ID: ABNICV.D Calibration Time: 22:45
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info: ,ICAL12135

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	116841	-6.32
34 Naphthalene-d8	523308	261654	1046616	493378	-5.72
61 Acenaphthene-d10	282544	141272	565088	275172	-2.61
85 Phenanthrene-d10	487821	243911	975642	484920	-0.59
102 Chrysene-d12	460303	230152	920606	455989	-0.94
110 Perylene-d12	441116	220558	882232	429399	-2.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

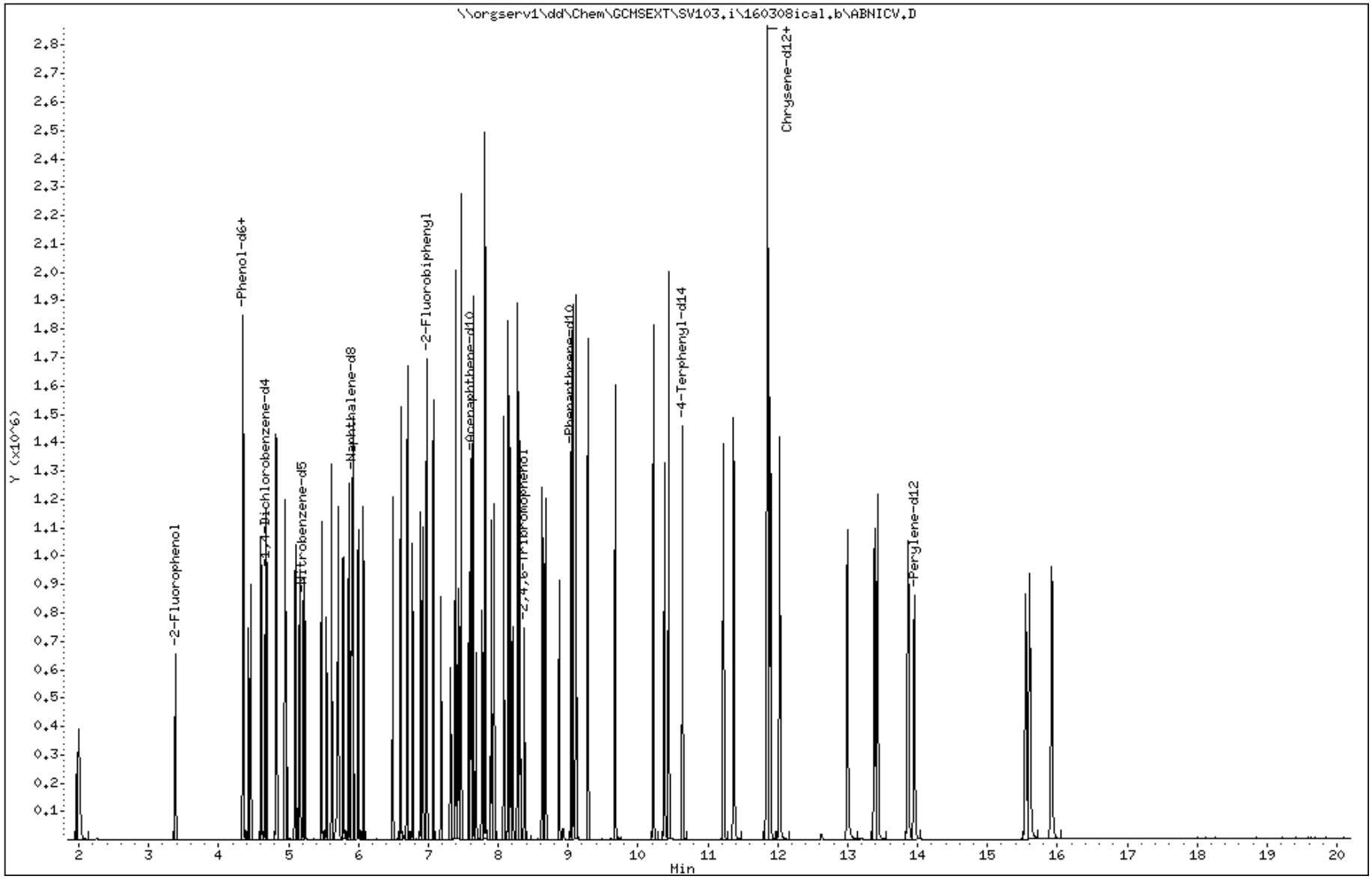
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ABNICV.D
Date : 09-MAR-2016 04:43
Client ID:
Sample Info: ABN ICV LOT# 5842

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info	: ABN ICV LOT# 5842 ,ICAL12135		
Instrument ID	: SV103.i		
Method	: HP2ABNv2.m		
File	: ABNICV.D		
Injection Date	: 09-MAR-2016 04:43		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CCALIB_7	

There are no manual integrations in this file.

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 05:08
Lab File ID: AP9ICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Benzaldehyde	1.11920	1.15057	1.15057	0.050	2.80335	20.00000	Averaged
17 Acetophenone	1.89967	1.88502	1.88502	0.050	-0.77105	20.00000	Averaged
27 2-Chloroaniline	1.74876	1.71999	1.71999	0.050	-1.64508	20.00000	Averaged
36 a-Terpineol	1.18687	1.23535	1.23535	0.050	4.08400	20.00000	Averaged
37 3-Chloroaniline	0.16719	0.18535	0.18535	0.050	10.86344	20.00000	Averaged
39 2,6-Dichlorophenol	1.13921	1.13809	1.13809	0.050	-0.09847	20.00000	Averaged
41 1-chloro-2-nitrobenzene	0.57398	0.59163	0.59163	0.050	3.07543	20.00000	Averaged
42 Caprolactam	0.17472	0.18306	0.18306	0.050	4.77684	20.00000	Averaged
46 1,2,4,5-Tetrachlorobenzene	0.55854	0.54448	0.54448	0.050	-2.51731	20.00000	Averaged
51 Biphenyl	1.50835	1.46248	1.46248	0.050	-3.04159	20.00000	Averaged
80 Dimethoate	0.53182	0.53911	0.53911	0.050	1.37064	20.00000	Averaged
81 Dichloran	0.17135	0.17690	0.17690	0.050	3.23611	20.00000	Averaged
84 Pentachloronitrobenzene	0.16160	0.16867	0.16867	0.050	4.37604	20.00000	Averaged
92 Diphenamid	0.46530	0.49600	0.49600	0.050	6.59700	20.00000	Averaged
108 Benzo(e)pyrene	1.06333	1.06584	1.06584	0.050	0.23602	20.00000	Averaged
111 Perylene	1.13103	1.15957	1.15957	0.050	2.52324	20.00000	Averaged

Average %D / Drift Results.
Calculated Average %D/Drift = 3.25098
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9ICV.D
Lab Smp Id:
Inj Date : 09-MAR-2016 05:08
Operator : hl Inst ID: SV103.i
Smp Info : AP9 ICV LOT#5841
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:03 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.227	4.227	(0.906)	207340	50.0000	51.4	
*	11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	144165	40.0000		
	17 Acetophenone	105	5.067	5.067	(1.086)	339693	50.0000	49.6	
	27 2-Chloroaniline	127	5.511	5.511	(1.181)	309953	50.0000	49.2	
*	34 Naphthalene-d8	136	5.907	5.907	(1.000)	592126	40.0000		
	36 a-Terpineol	59	5.965	5.965	(1.279)	222617	50.0000	52.0	
	37 3-Chloroaniline	65	5.976	5.976	(1.012)	137187	50.0000	55.4	
	39 2,6-Dichlorophenol	162	6.003	6.003	(1.287)	205091	50.0000	50.0	
	41 1-chloro-2-nitrobenzene	111	6.260	6.260	(1.342)	106616	50.0000	51.5	
	42 Caprolactam	55	6.302	6.302	(1.067)	135495	50.0000	52.4	
	46 1,2,4,5-Tetrachlorobenzene	216	6.773	6.773	(0.890)	217610	50.0000	48.7	
	51 Biphenyl	154	7.067	7.067	(0.929)	584497	50.0000	48.5	
*	61 Acenaphthene-d10	164	7.607	7.607	(1.000)	319730	40.0000		
	80 Dimethoate	87	8.725	8.725	(1.147)	215461	50.0000	50.7	
	81 Dichloran	206	8.741	8.741	(1.149)	70699	50.0000	51.6	
	84 Pentachloronitrobenzene	237	8.886	8.886	(1.168)	67412	50.0000	52.2	
*	85 Phenanthrene-d10	188	9.041	9.041	(1.000)	570820	40.0000		
	92 Diphenamid	167	9.950	9.950	(1.101)	353905	50.0000	53.3	
*	102 Chrysene-d12	240	11.854	11.854	(1.000)	521079	40.0000		
	108 Benzo(e)pyrene	252	13.790	13.790	(0.988)	689643	50.0000	50.1	
*	110 Perylene-d12	264	13.956	13.956	(1.000)	517633	40.0000		
	111 Perylene	252	13.994	13.994	(1.003)	750290	50.0000	51.3	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: AP9ICV.D Calibration Time: 04:43
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	109318	54659	218636	144165	31.88
34 Naphthalene-d8	442950	221475	885900	592126	33.68
61 Acenaphthene-d10	231441	115721	462882	319730	38.15
85 Phenanthrene-d10	414182	207091	828364	570820	37.82
102 Chrysene-d12	405936	202968	811872	521079	28.36
110 Perylene-d12	369329	184665	738658	517633	40.15

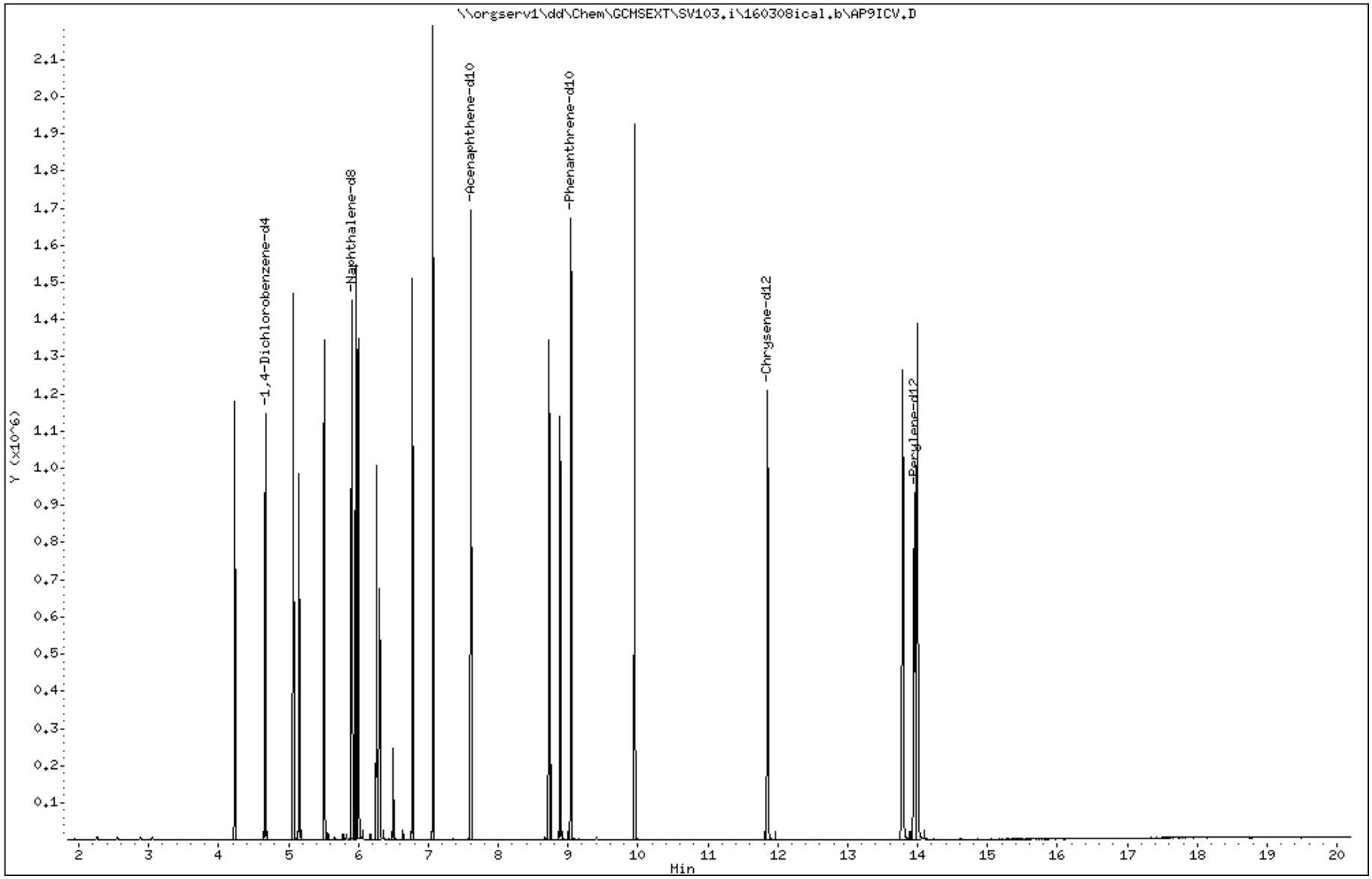
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\AP9ICV.D
Date : 09-MAR-2016 05:08
Client ID:
Sample Info: AP9 ICV LOT#5841

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 ICV LOT#5841

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : AP9ICV.D
Injection Date : 09-MAR-2016 05:08
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\degna.D
Lab Smp Id:
Inj Date : 09-MAR-2016 05:34
Operator : jb Inst ID: SV103.i
Smp Info : deg0308na
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\DDT.m
Meth Date : 08-Mar-2016 11:57 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: degradation
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: A1-001720

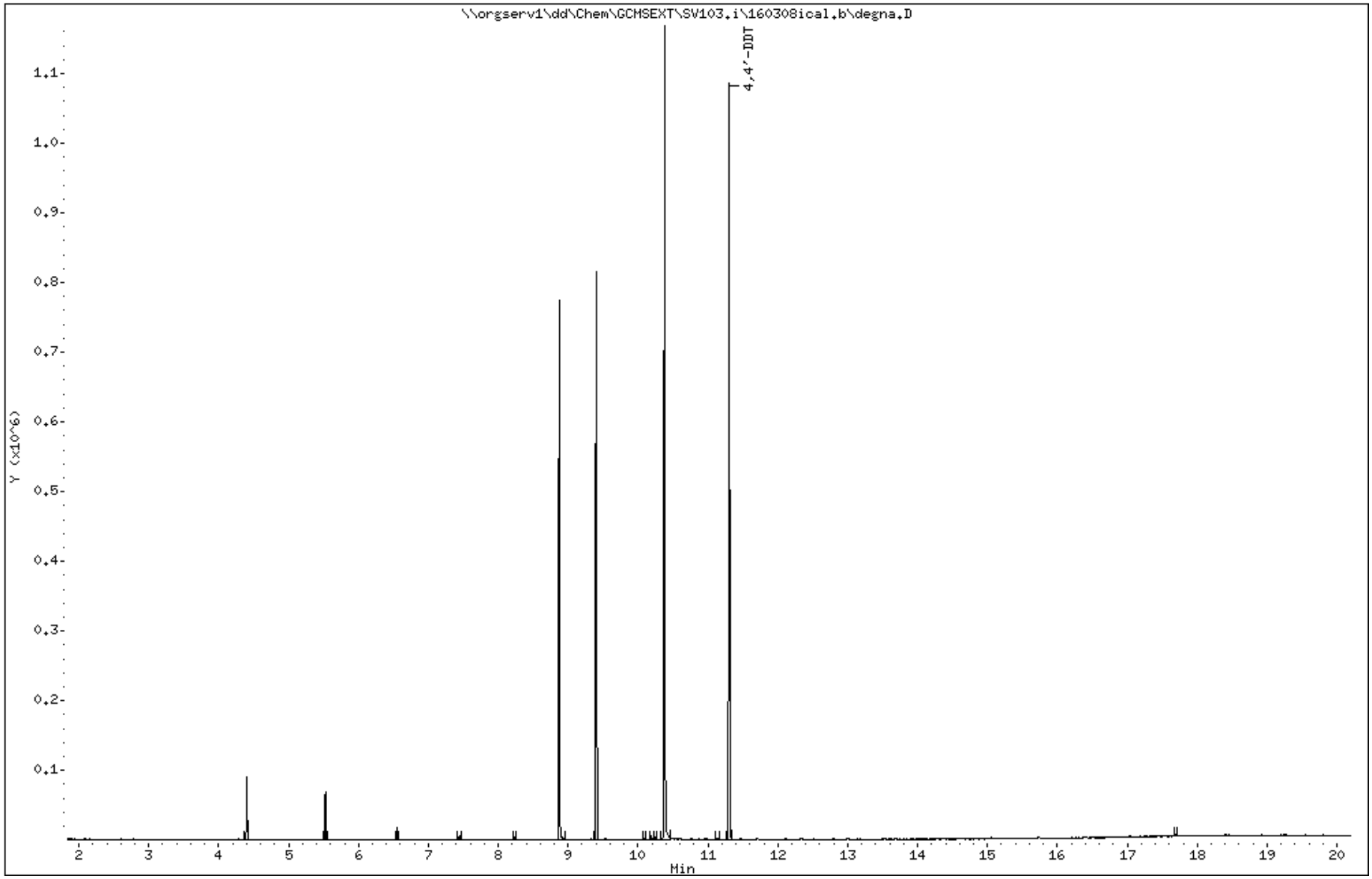
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	Compound Not Detected.						
6 4,4'-DDT	235	11.304	11.410	-0.106	202351			

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\degna.D
Date : 09-MAR-2016 05:34
Client ID:
Sample Info: deg0308na

Instrument: SV103.i

Operator: jb
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : deg0308na

Instrument ID : SV103.i
Method : DDT.m
File : degna.D
Injection Date : 09-MAR-2016 05:34
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: degradation

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftna.D
Lab Smp Id:
Inj Date : 09-MAR-2016 05:34
Operator : jb Inst ID: SV103.i
Smp Info : deg0308na
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftpp.m
Meth Date : 05-Mar-2016 10:30 hlac Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: A1-001720

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.399	9.507	-0.108	198	72832			0.00- 100.00	100.00
9.399	9.507	-0.108	51	33688			30.00- 60.00	46.25
9.399	9.507	-0.108	68	527			0.00- 2.00	1.53
9.399	9.507	-0.108	69	34368			0.00- 0.00	47.19
9.399	9.507	-0.108	70	127			0.00- 2.00	0.37
9.399	9.507	-0.108	127	37752			40.00- 60.00	51.83
9.399	9.507	-0.108	197	529			0.00- 1.00	0.73
9.399	9.507	-0.108	199	5056			5.00- 9.00	6.94
9.399	9.507	-0.108	275	16384			10.00- 30.00	22.50
9.399	9.507	-0.108	365	2424			1.00- 0.00	3.33
9.399	9.507	-0.108	441	6717			0.01- 99.99	80.82
9.399	9.507	-0.108	442	39904			40.00- 99.99	54.79
9.399	9.507	-0.108	443	8311			17.00- 23.00	20.83

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftna.D

Date : 09-MAR-2016 05:34

Client ID:

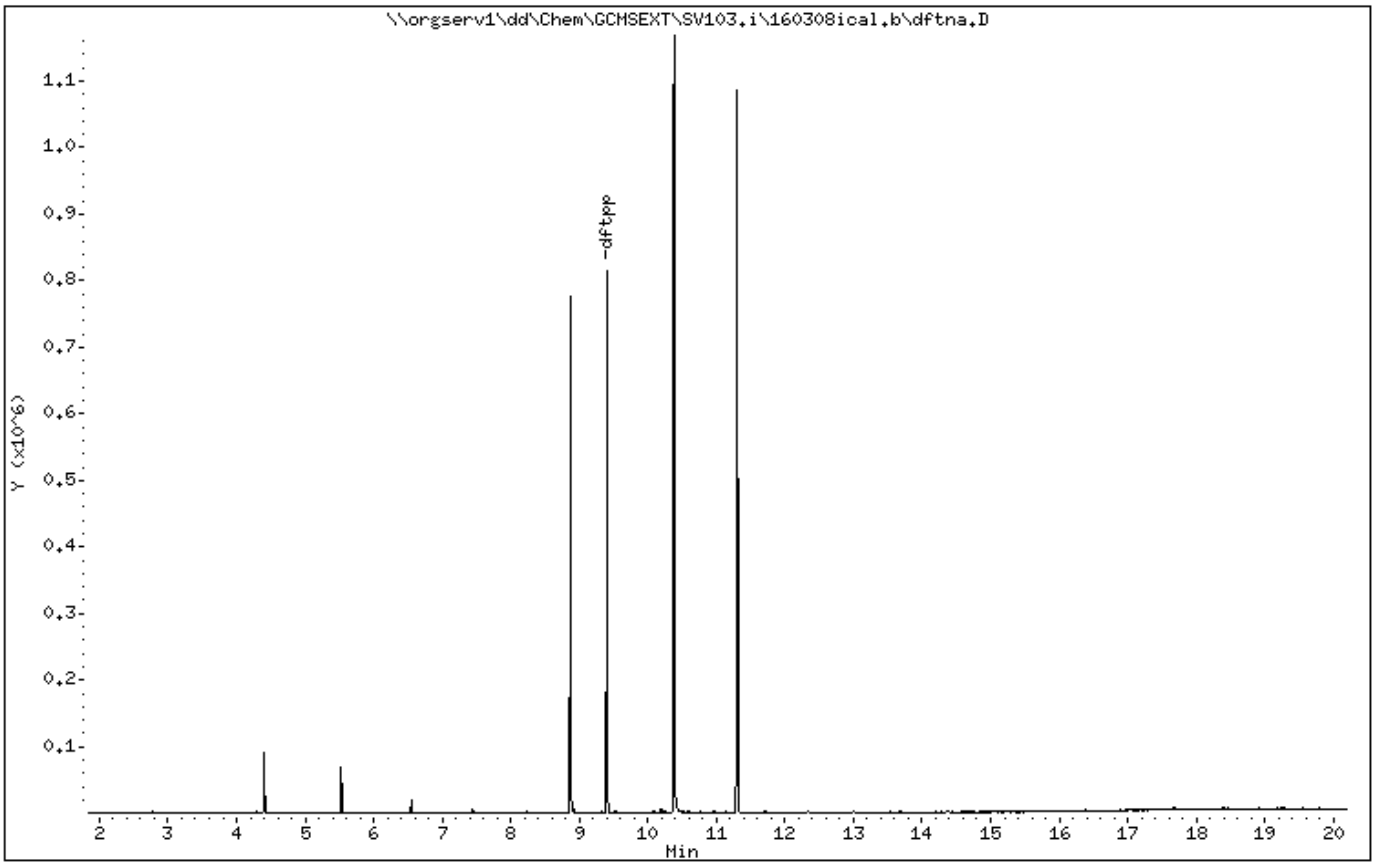
Instrument: SV103.i

Sample Info: deg0308na

Operator: jb

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftna.D

Date : 09-MAR-2016 05:34

Client ID:

Instrument: SV103.i

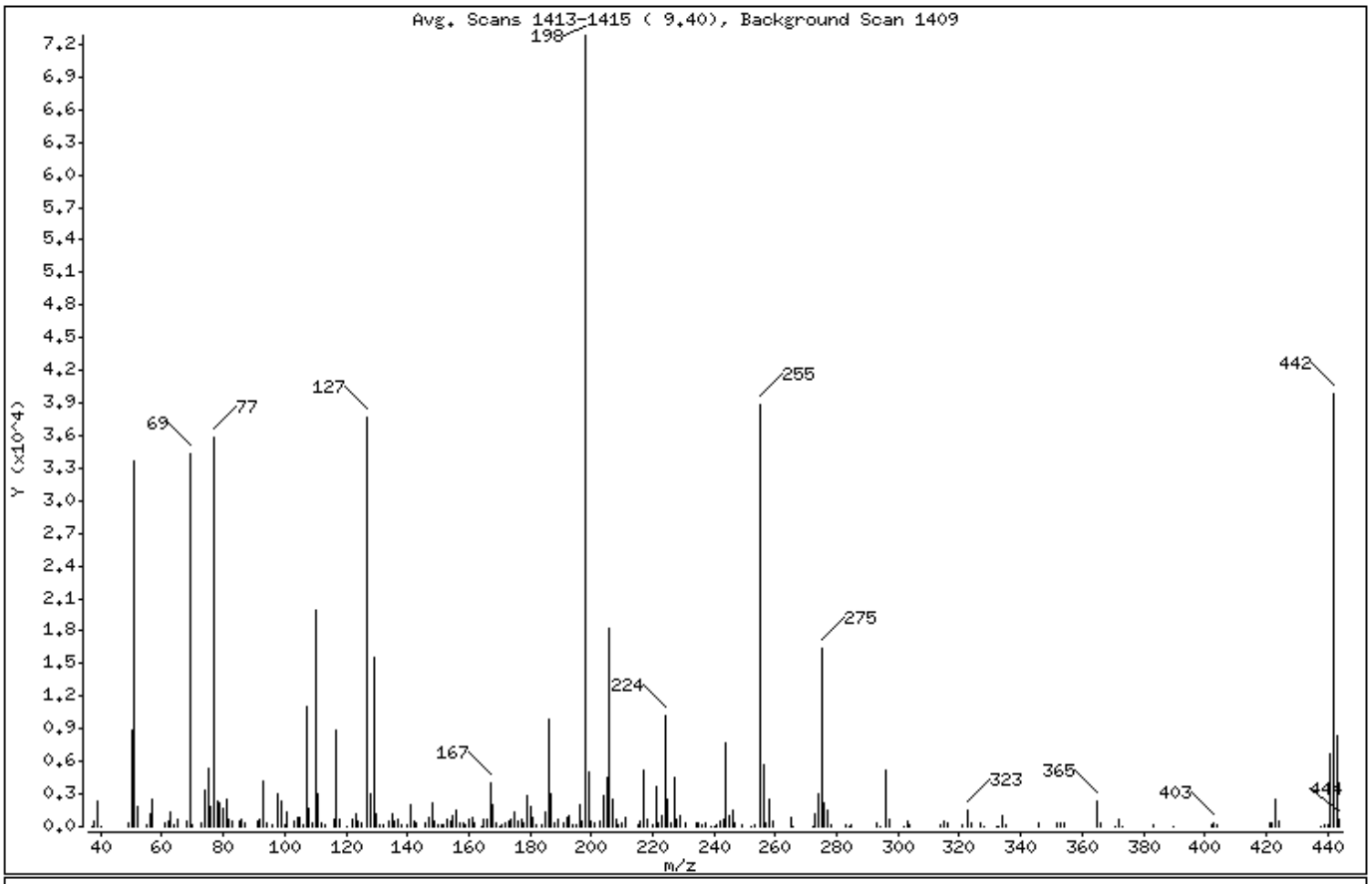
Sample Info: deg0308na

Operator: jb

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.25
68	Less than 2.00% of mass 69	0.72 (1.53)
69	Mass 69 relative abundance	47.19
70	Less than 2.00% of mass 69	0.17 (0.37)
127	40.00 - 60.00% of mass 198	51.83
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.94
275	10.00 - 30.00% of mass 198	22.50
365	Greater than 1.00% of mass 198	3.33
441	Present, but less than mass 443	9.22
442	40.00 - 99.99% of mass 198	54.79
443	17.00 - 23.00% of mass 442	11.41 (20.83)

Date : 09-MAR-2016 05:34

Client ID: Instrument: SV103.i

Sample Info: deg0308na

Operator: jb

Column phase: Column diameter: 2.00

Data File: dftna.D
Spectrum: Avg. Scans 1413-1415 (9.40), Background Scan 1409
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	57	123.00	1089	188.00	317	265.00	853
38.00	450	124.00	577	189.00	611	266.00	55
39.00	2422	125.00	404	191.00	307	272.00	75
40.00	75	127.00	37752	192.00	857	273.00	1112
49.00	312	128.00	2989	193.00	939	274.00	3085
50.00	8915	129.00	15587	194.00	186	275.00	16384
51.00	33688	130.00	1250	195.00	131	276.00	2241
52.00	1857	131.00	145	196.00	2012	277.00	1548
55.00	205	132.00	138	197.00	529	278.00	237
56.00	1164	134.00	480	198.00	72832	283.00	134
57.00	2591	135.00	1180	199.00	5056	284.00	50
61.00	368	136.00	457	200.00	452	285.00	186
62.00	561	137.00	641	201.00	390	293.00	278
63.00	1392	138.00	142	203.00	561	294.00	75
64.00	168	140.00	181	204.00	2868	296.00	5129
65.00	719	141.00	1962	205.00	4504	297.00	745
68.00	527	142.00	514	206.00	18176	302.00	58
69.00	34368	143.00	408	207.00	2503	303.00	581
70.00	127	146.00	337	208.00	719	304.00	155
73.00	295	147.00	879	209.00	207	314.00	177
74.00	3313	148.00	2176	210.00	380	315.00	567
75.00	5415	149.00	474	211.00	754	316.00	276
76.00	1882	150.00	128	215.00	160	321.00	134
77.00	35848	151.00	232	216.00	544	323.00	1466
78.00	2410	152.00	119	217.00	5175	324.00	261
79.00	2227	153.00	724	218.00	642	327.00	282
80.00	1736	154.00	464	220.00	110	328.00	65
81.00	2529	155.00	1055	221.00	3604	332.00	52
82.00	679	156.00	1526	222.00	379	333.00	64
83.00	584	157.00	276	223.00	1088	334.00	957
85.00	447	158.00	279	224.00	10211	335.00	195
86.00	692	159.00	240	225.00	2515	346.00	285
87.00	318	160.00	591	226.00	280	352.00	376
91.00	540	161.00	795	227.00	4543	353.00	258
92.00	588	162.00	278	228.00	706	354.00	417

Date : 09-MAR-2016 05:34

Client ID: Instrument: SV103.i

Sample Info: deg0308na

Operator: jb

Column phase: Column diameter: 2.00

Data File: dftna.D
Spectrum: Avg. Scans 1413-1415 (9.40), Background Scan 1409
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
93.00	4109	164.00	72	229.00	966	365.00	2424
94.00	364	165.00	683	231.00	342	366.00	256
96.00	144	166.00	694	234.00	293	371.00	54
98.00	3094	167.00	4031	235.00	265	372.00	709
99.00	2390	168.00	1929	236.00	155	373.00	62
100.00	238	169.00	377	237.00	351	383.00	176
101.00	1281	170.00	56	239.00	68	390.00	76
103.00	441	171.00	168	240.00	52	402.00	216
104.00	875	172.00	314	241.00	230	403.00	389
105.00	832	173.00	419	242.00	561	404.00	148
106.00	239	174.00	711	243.00	707	421.00	309
107.00	11052	175.00	1394	244.00	7703	422.00	320
108.00	1730	176.00	428	245.00	987	423.00	2470
109.00	316	177.00	728	246.00	1471	424.00	448
110.00	19992	178.00	256	247.00	312	438.00	63
111.00	3065	179.00	2823	249.00	207	439.00	230
112.00	357	180.00	1841	252.00	57	440.00	98
113.00	123	181.00	859	253.00	159	441.00	6717
116.00	692	182.00	121	255.00	38816	442.00	39904
117.00	8910	184.00	222	256.00	5688	443.00	8311
118.00	608	185.00	1379	257.00	374	444.00	704
120.00	56	186.00	9842	258.00	2496		
122.00	714	187.00	2933	259.00	425		

Alpha Analytical Labs

Manual Integration

Sample Info : deg0308na

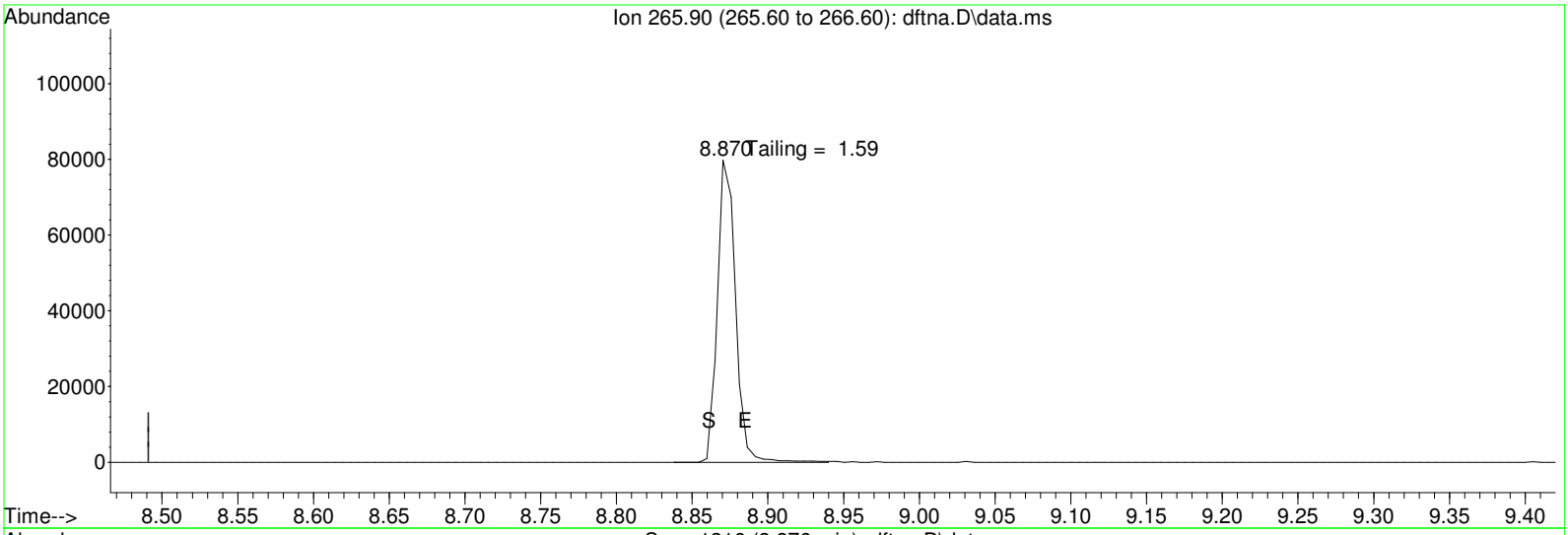
Instrument ID : SV103.i
Method : dftpp.m
File : dftna.D
Injection Date : 09-MAR-2016 05:34
Quantitation : ESTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: DFTPP

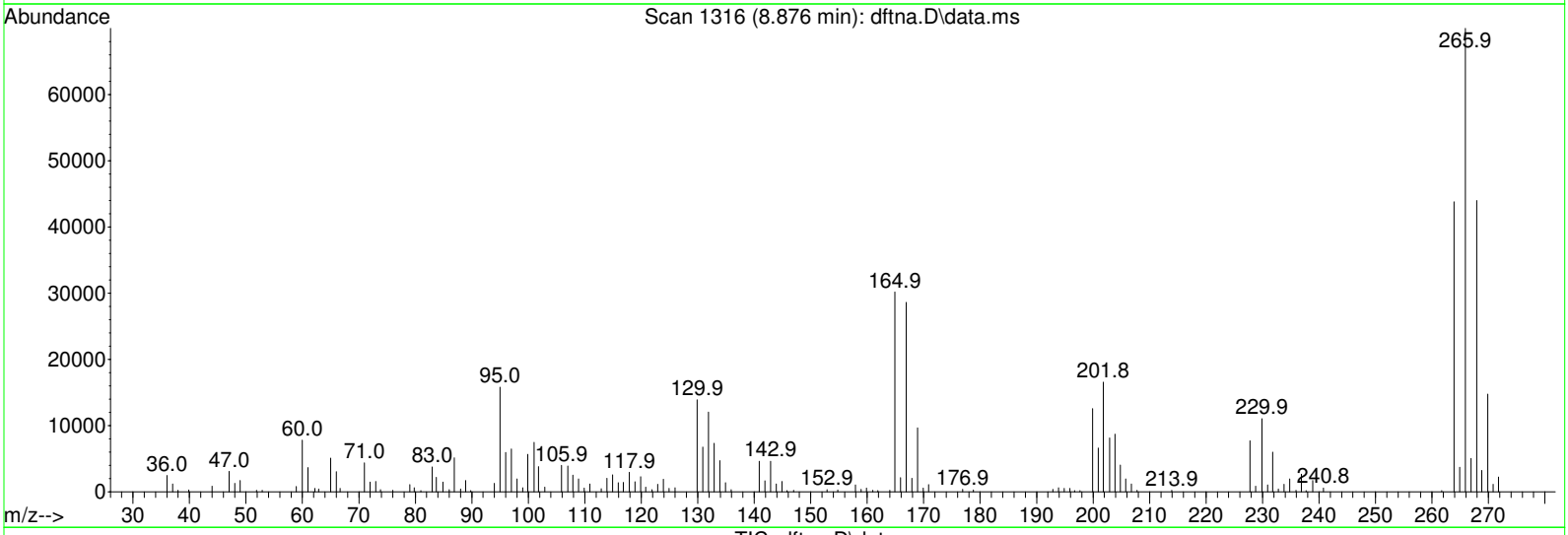
There are no manual integrations in this file.

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160308ical.b\
Data File : dftna.D
Acq On : 9 Mar 2016 5:34 am
Operator : hl
Sample : deg0308na
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 09 09:06:58 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Wed Mar 09 07:22:55 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftna.D\data.ms

(1) pentachlorophenol (T)

8.991min 0.00 d

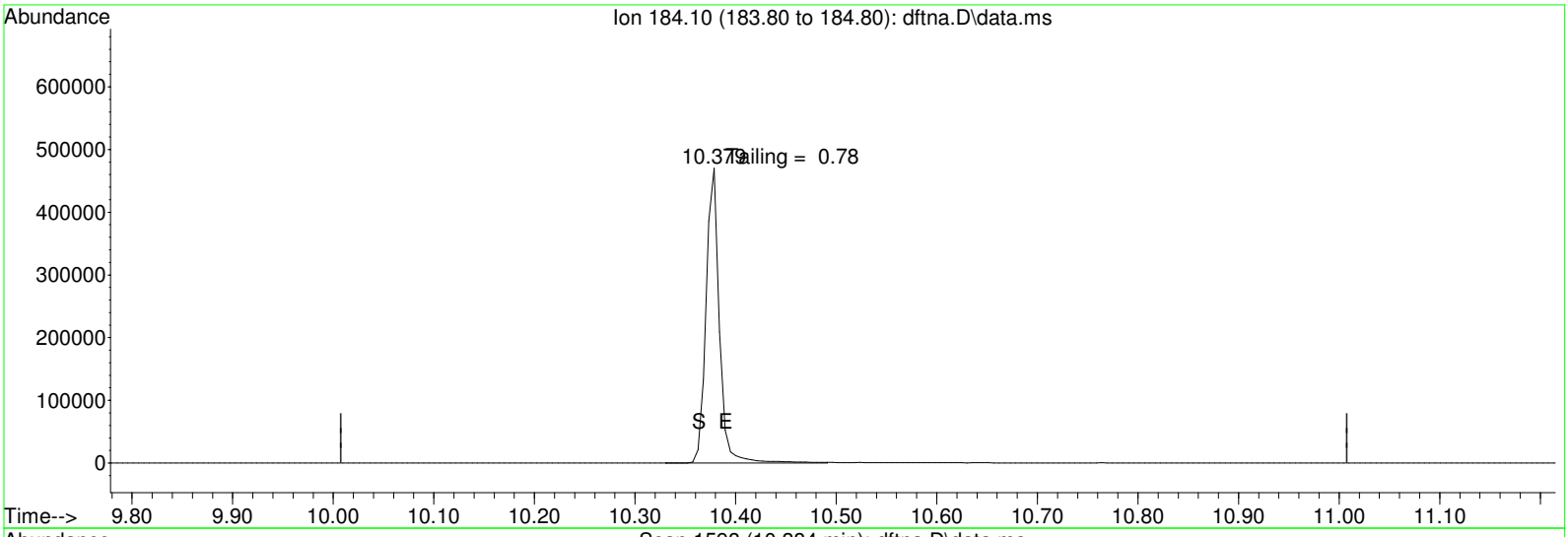
response 0

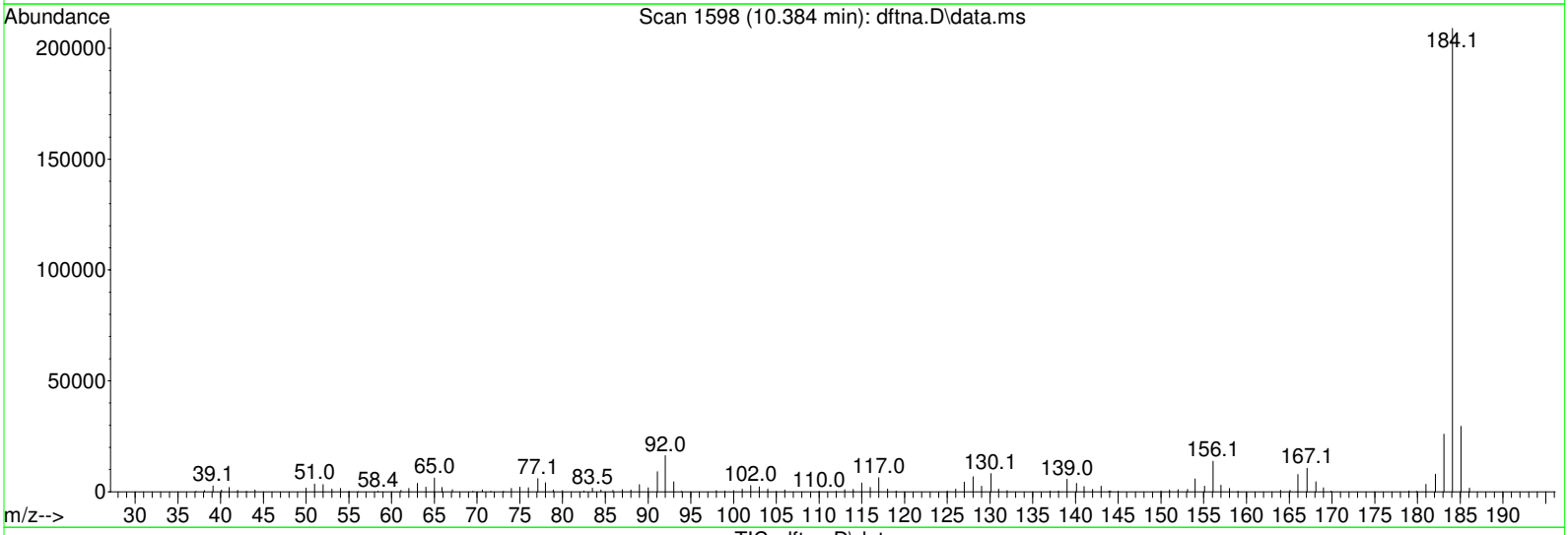
Ion	Exp%	Act%
265.90	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160308ical.b\
Data File : dftna.D
Acq On : 9 Mar 2016 5:34 am
Operator : hl
Sample : deg0308na
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 09 09:06:58 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Wed Mar 09 07:22:55 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftna.D\data.ms

(3) benzidine (T)

10.508min 0.00 d

response 0

Ion	Exp%	Act%
184.10	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL1.D
Lab Smp Id:
Inj Date : 09-MAR-2016 06:00
Operator : hl Inst ID: SV103.i
Smp Info : ADP 1 LOT#5816
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 23 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	107052	40.0000		
94 Benzidine	184	10.373	10.373	(1.147)	594	1.00000	3.70(M)	M2
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	436725	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	229964	40.0000		
82 Atrazine	200	8.811	8.811	(0.975)	1509	1.00000	0.820	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	416243	40.0000		
91 parathion	109	9.827	9.827	(2.106)	795	1.00000	3.36	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	384799	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	375148	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	107052	-14.16
34 Naphthalene-d8	523308	261654	1046616	436725	-16.55
61 Acenaphthene-d10	282544	141272	565088	229964	-18.61
85 Phenanthrene-d10	487821	243911	975642	416243	-14.67
102 Chrysene-d12	460303	230152	920606	384799	-16.40
110 Perylene-d12	441116	220558	882232	375148	-14.95

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

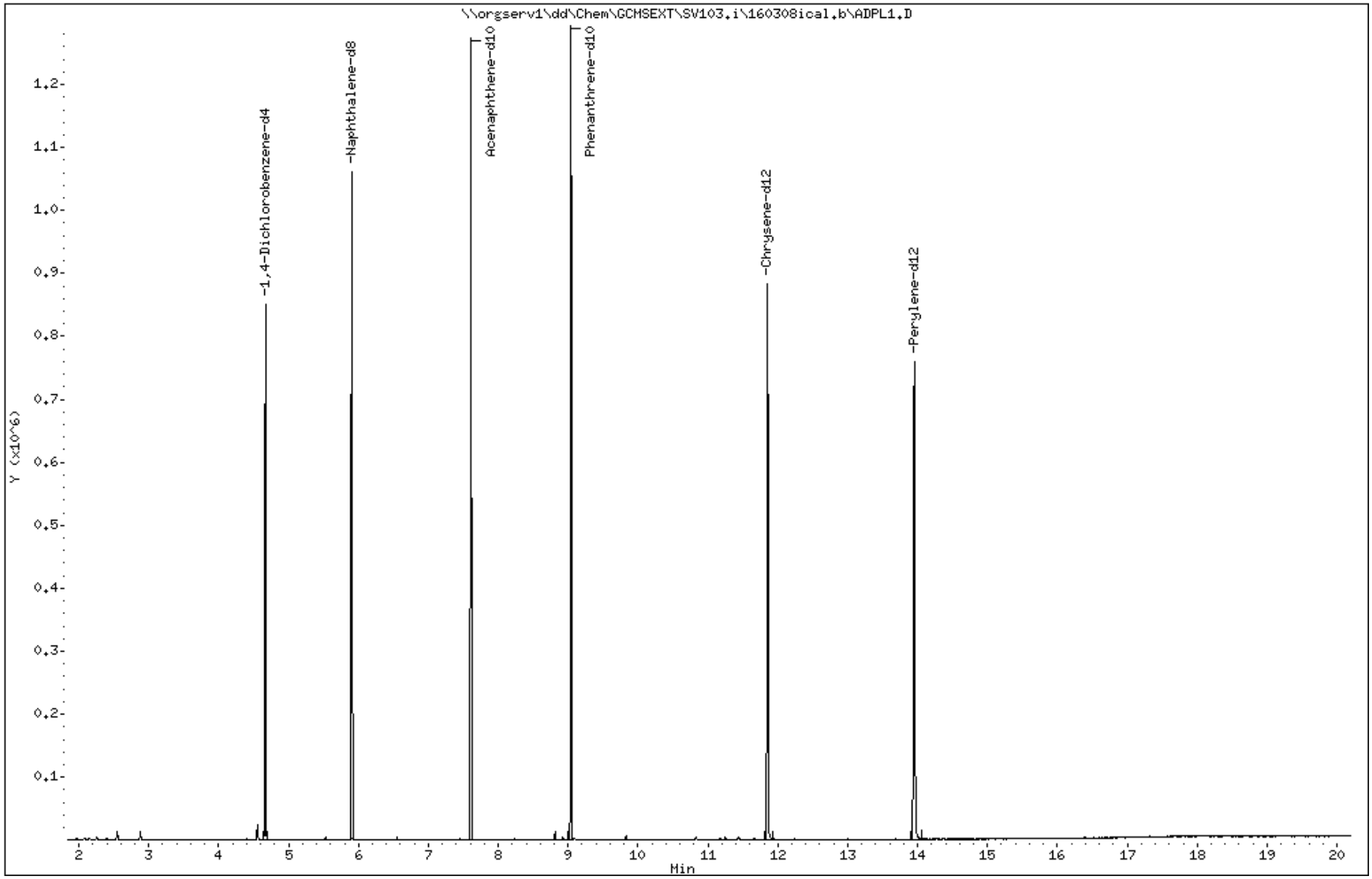
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL1.D
Date : 09-MAR-2016 06:00
Client ID:
Sample Info: ADP 1 LOT#5816

Column phase: RTx-5

Instrument: SV103.i

Operator: hl
Column diameter: 0.32



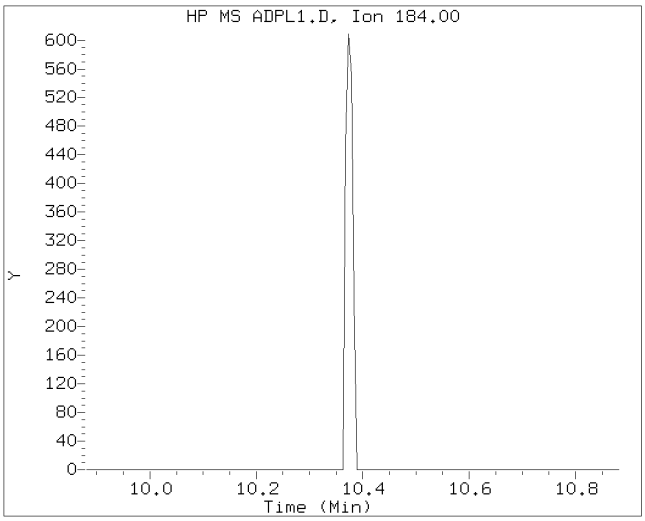
Alpha Analytical Labs

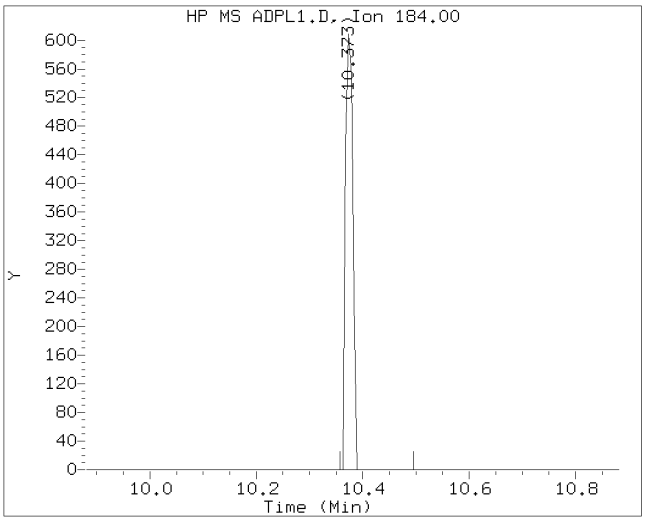
Manual Integration

Sample Info : ADP 1 LOT#5816

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL1.D
Injection Date : 09-MAR-2016 06:00
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 94: Benzidine





Original Peak Response = 0 Manual Peak Response = 594 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL2.D
Lab Smp Id:
Inj Date : 09-MAR-2016 06:25
Operator : hl Inst ID: SV103.i
Smp Info : ADP 2 LOT#5817
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:04 Cal File: BENZL1.D
Als bottle: 24 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	103912	40.0000		
94 Benzidine	184	10.373	10.373	(1.147)	1087	2.00000	3.72(M)	M2
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	421073	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	219978	40.0000		
82 Atrazine	200	8.816	8.816	(0.975)	3088	2.00000	1.80	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	388325	40.0000		
91 parathion	109	9.827	9.827	(2.106)	1453	2.00000	3.83	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	359947	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	342707	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	103912	-16.68
34 Naphthalene-d8	523308	261654	1046616	421073	-19.54
61 Acenaphthene-d10	282544	141272	565088	219978	-22.14
85 Phenanthrene-d10	487821	243911	975642	388325	-20.40
102 Chrysene-d12	460303	230152	920606	359947	-21.80
110 Perylene-d12	441116	220558	882232	342707	-22.31

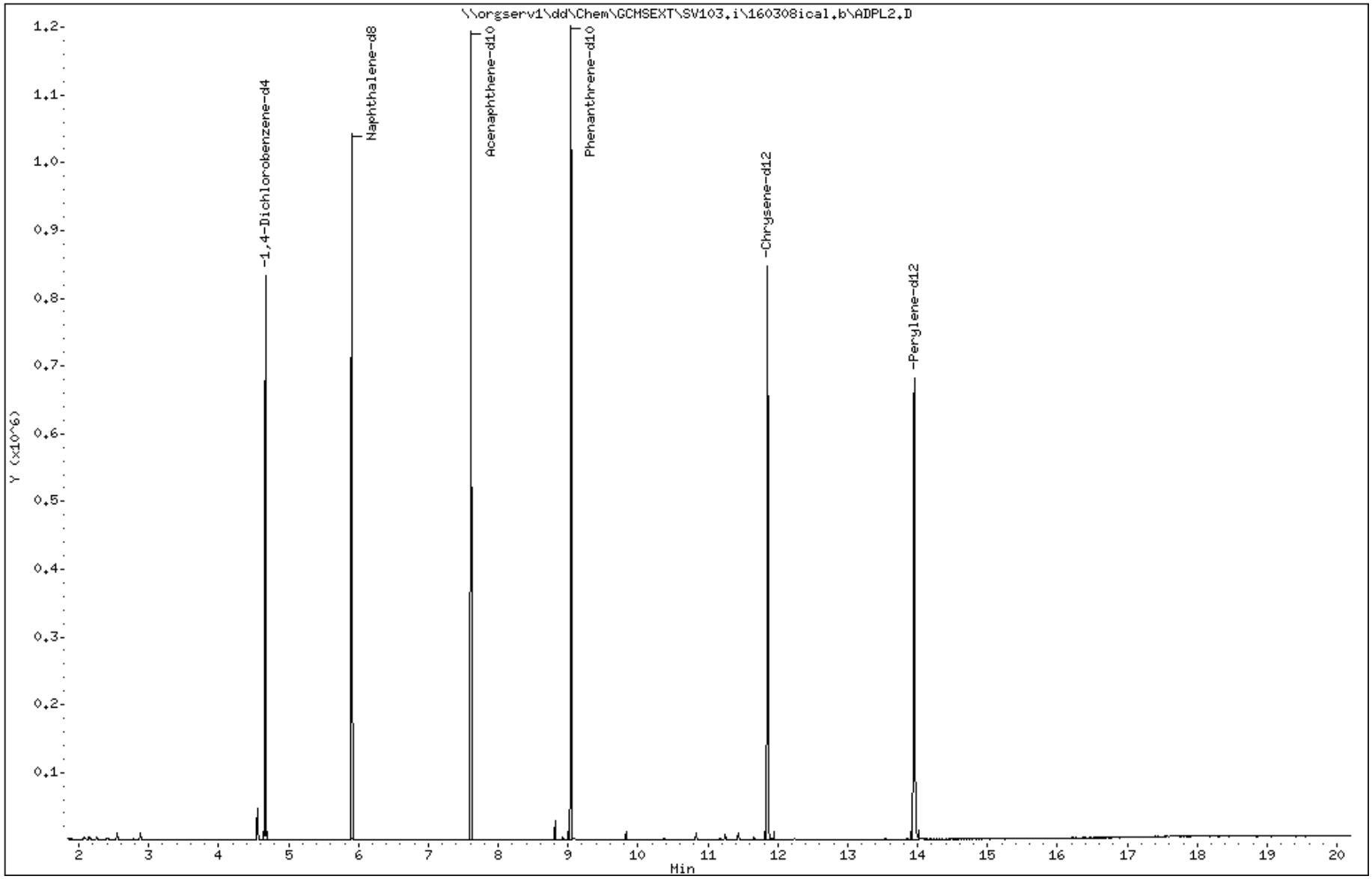
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL2.D
Date : 09-MAR-2016 06:25
Client ID:
Sample Info: ADP 2 LOT#5817

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



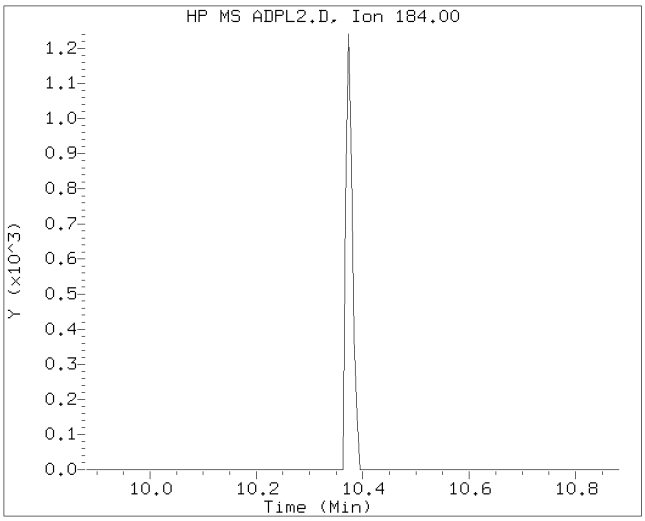
Alpha Analytical Labs

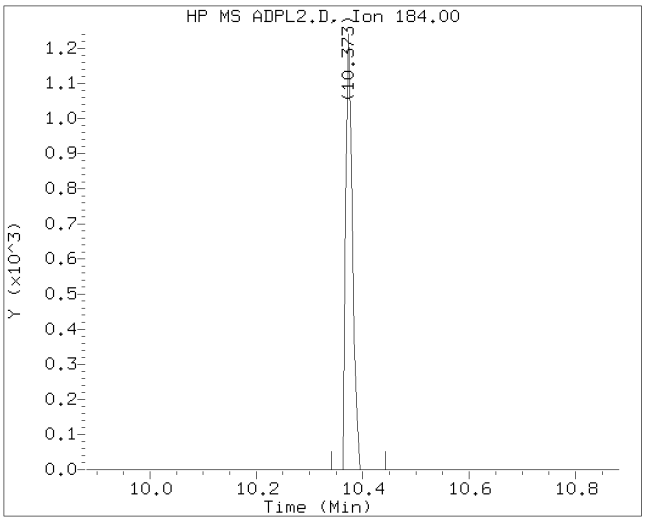
Manual Integration

Sample Info : ADP 2 LOT#5817

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL2.D
Injection Date : 09-MAR-2016 06:25
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 94: Benzidine





Original Peak Response = 0 Manual Peak Response = 1087 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL3.D
Lab Smp Id:
Inj Date : 09-MAR-2016 06:50
Operator : hl Inst ID: SV103.i
Smp Info : ADP 3 LOT#5818
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:30 Cal File: BENZL2.D
Als bottle: 25 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	97732	40.0000		
94 Benzidine	184	10.373	10.373	(1.147)	1879	3.00000	3.77	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	399630	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	207669	40.0000		
82 Atrazine	200	8.811	8.811	(0.975)	4377	3.00000	2.68	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	369674	40.0000		
91 parathion	109	9.827	9.827	(2.106)	2250	3.00000	4.48	
* 102 Chrysene-d12	240	11.849	11.849	(1.000)	345451	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	332231	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	97732	-21.64
34 Naphthalene-d8	523308	261654	1046616	399630	-23.63
61 Acenaphthene-d10	282544	141272	565088	207669	-26.50
85 Phenanthrene-d10	487821	243911	975642	369674	-24.22
102 Chrysene-d12	460303	230152	920606	345451	-24.95
110 Perylene-d12	441116	220558	882232	332231	-24.68

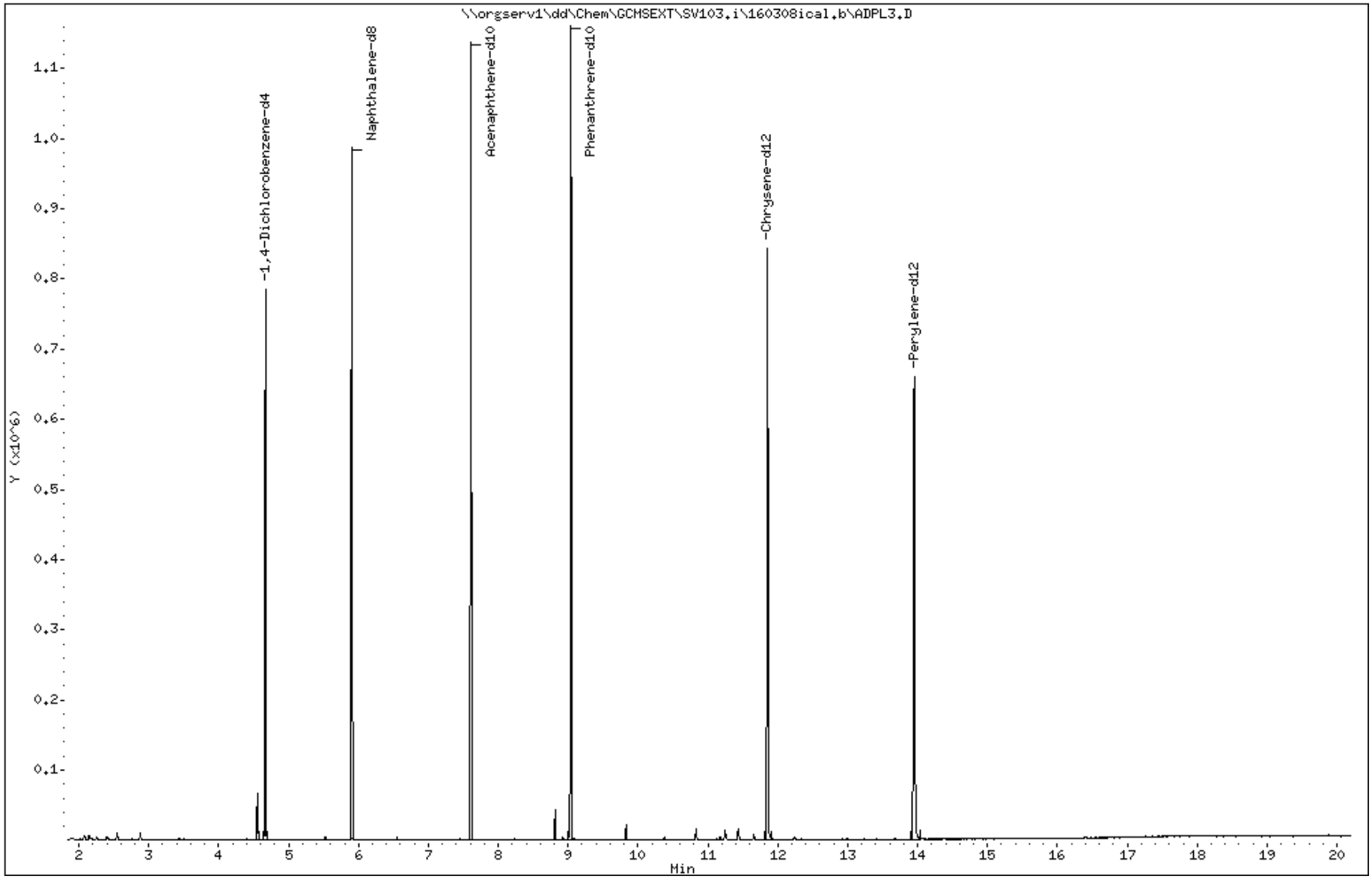
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.04
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL3.D
Date : 09-MAR-2016 06:50
Client ID:
Sample Info: ADP 3 LOT#5818

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 3 LOT#5818

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL3.D
Injection Date : 09-MAR-2016 06:50
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL4.D
Lab Smp Id:
Inj Date : 09-MAR-2016 07:16
Operator : hl Inst ID: SV103.i
Smp Info : ADP 5 LOT#5819
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:55 Cal File: BENZL3.D
Als bottle: 26 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	107520	40.0000		
94 Benzidine	184	10.373	10.373	(1.147)	5066	5.00000	3.91	
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	442979	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	231274	40.0000		
82 Atrazine	200	8.811	8.811	(0.975)	8301	5.00000	4.48	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	418712	40.0000		
91 parathion	109	9.827	9.827	(2.106)	4289	5.00000	5.69	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	379605	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	361002	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	107520	-13.79
34 Naphthalene-d8	523308	261654	1046616	442979	-15.35
61 Acenaphthene-d10	282544	141272	565088	231274	-18.15
85 Phenanthrene-d10	487821	243911	975642	418712	-14.17
102 Chrysene-d12	460303	230152	920606	379605	-17.53
110 Perylene-d12	441116	220558	882232	361002	-18.16

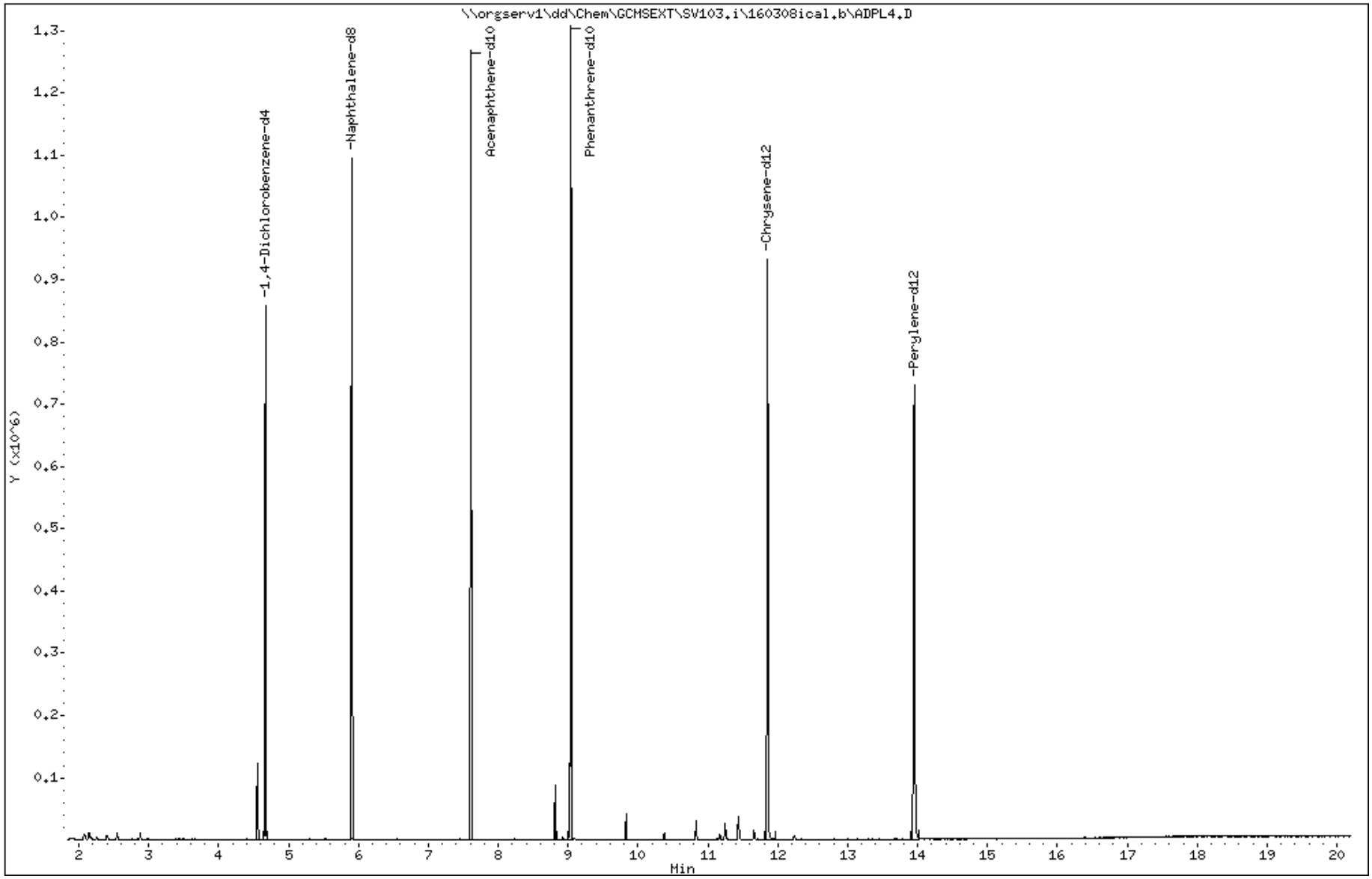
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL4.D
Date : 09-MAR-2016 07:16
Client ID:
Sample Info: ADP 5 LOT#5819

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 5 LOT#5819

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL4.D
Injection Date : 09-MAR-2016 07:16
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL5.D
Lab Smp Id:
Inj Date : 09-MAR-2016 07:41
Operator : hl Inst ID: SV103.i
Smp Info : ADP 10 LOT#5820
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:21 Cal File: BENZL4.D
Als bottle: 27 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	103643	40.0000		
94 Benzidine	184	10.373	10.373	(1.147)	41569	10.0000	6.73	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	422726	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	217317	40.0000		
82 Atrazine	200	8.816	8.816	(0.975)	16759	10.0000	9.92	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	382250	40.0000		
91 parathion	109	9.827	9.827	(2.106)	8116	10.0000	8.44	
* 102 Chrysene-d12	240	11.849	11.849	(1.000)	349795	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	334714	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	103643	-16.90
34 Naphthalene-d8	523308	261654	1046616	422726	-19.22
61 Acenaphthene-d10	282544	141272	565088	217317	-23.09
85 Phenanthrene-d10	487821	243911	975642	382250	-21.64
102 Chrysene-d12	460303	230152	920606	349795	-24.01
110 Perylene-d12	441116	220558	882232	334714	-24.12

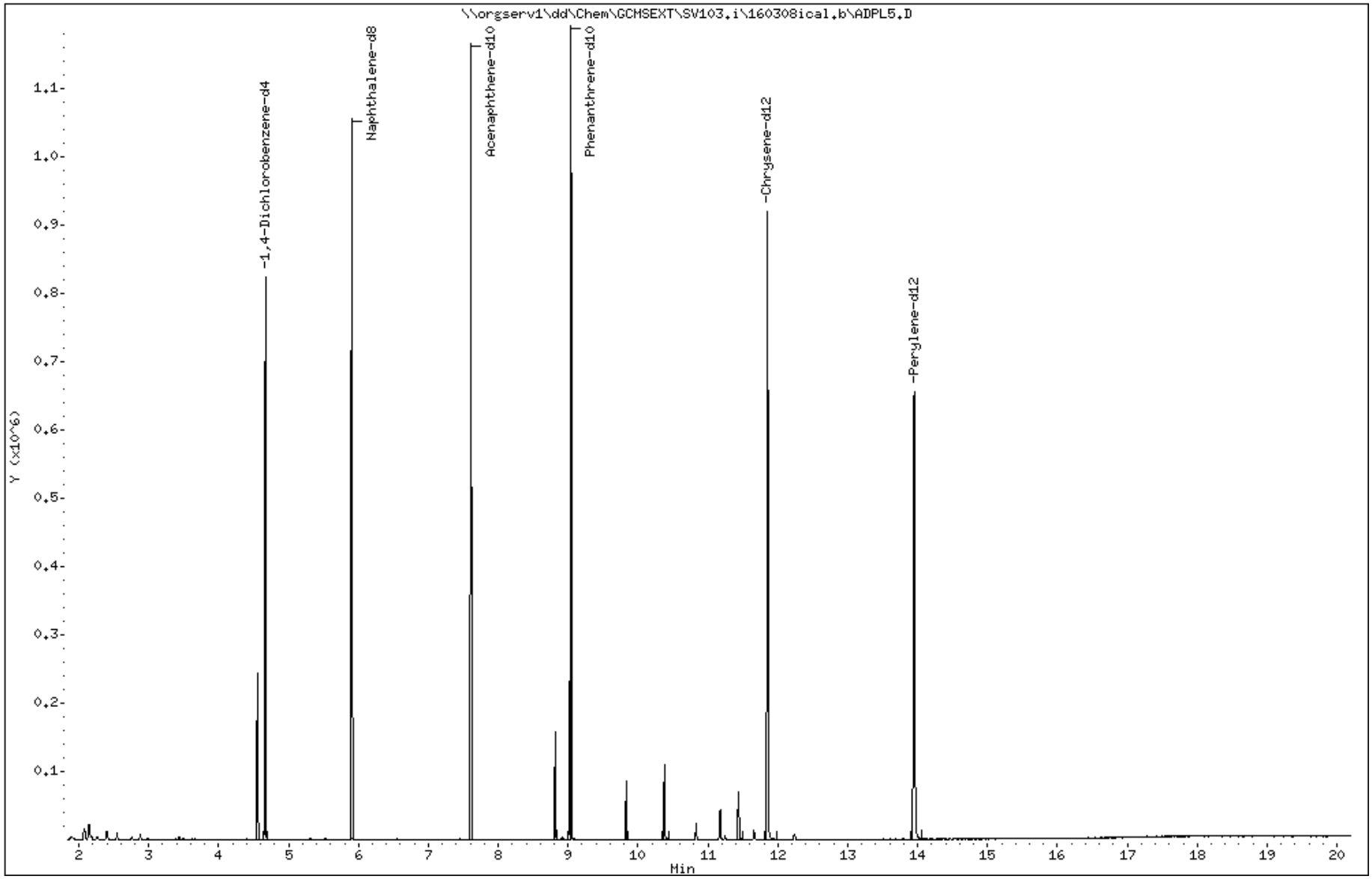
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL5.D
Date : 09-MAR-2016 07:41
Client ID:
Sample Info: ADP 10 LOT#5820

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 10 LOT#5820

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL5.D
Injection Date : 09-MAR-2016 07:41
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL6.D
Lab Smp Id:
Inj Date : 09-MAR-2016 08:07
Operator : hl Inst ID: SV103.i
Smp Info : ADP 20 LOT#5821
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:47 Cal File: BENZL5.D
Als bottle: 28 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	133522	40.0000		
94 Benzidine	184	10.373	10.373	(1.147)	156894	20.0000	17.5	
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	543611	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	282445	40.0000		
82 Atrazine	200	8.816	8.816	(0.975)	46392	20.0000	20.9	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	501855	40.0000		
91 parathion	109	9.833	9.833	(2.107)	25924	20.0000	16.7	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	443835	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	417848	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 03:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	133522	7.06
34 Naphthalene-d8	523308	261654	1046616	543611	3.88
61 Acenaphthene-d10	282544	141272	565088	282445	-0.04
85 Phenanthrene-d10	487821	243911	975642	501855	2.88
102 Chrysene-d12	460303	230152	920606	443835	-3.58
110 Perylene-d12	441116	220558	882232	417848	-5.27

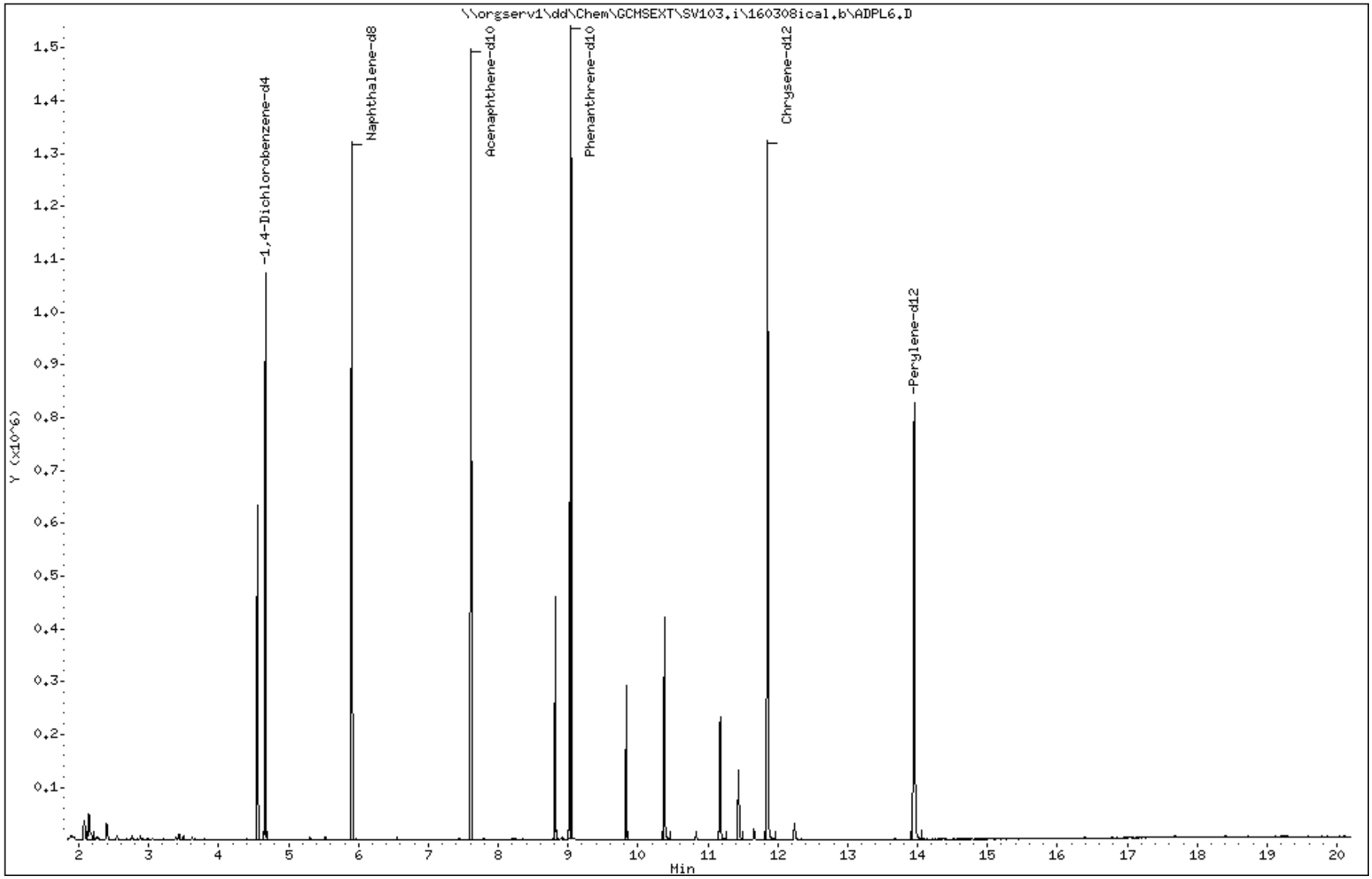
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.07
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL6.D
Date : 09-MAR-2016 08:07
Client ID:
Sample Info: ADP 20 LOT#5821

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 20 LOT#5821

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL6.D
Injection Date : 09-MAR-2016 08:07
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL7.D
Lab Smp Id:
Inj Date : 09-MAR-2016 08:33
Operator : hl Inst ID: SV103.i
Smp Info : ADP 50 LOT#5822
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:12 Cal File: BENZL6.D
Als bottle: 29 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	132502	40.0000		
94 Benzidine	184	10.378	10.378	(1.148)	332880	50.0000	49.0	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	538944	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	281538	40.0000		
82 Atrazine	200	8.816	8.816	(0.975)	121850	50.0000	53.2	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	518342	40.0000		
91 parathion	109	9.833	9.833	(2.107)	79979	50.0000	45.2	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	479734	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	449234	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	132502	8.47
34 Naphthalene-d8	488231	244116	976462	538944	10.39
61 Acenaphthene-d10	268127	134064	536254	281538	5.00
85 Phenanthrene-d10	492137	246069	984274	518342	5.32
102 Chrysene-d12	439124	219562	878248	479734	9.25
110 Perylene-d12	442017	221009	884034	449234	1.63

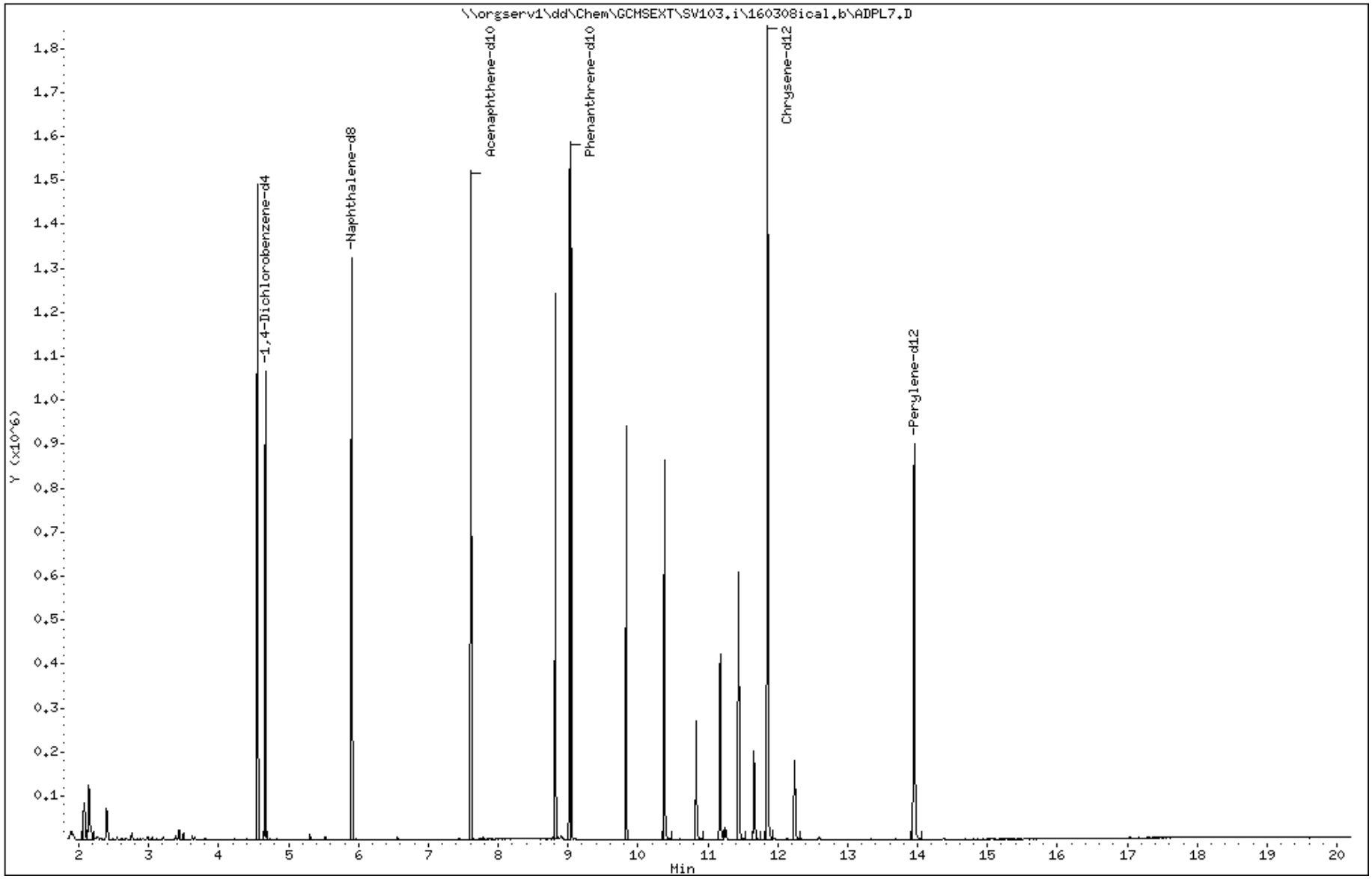
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL7.D
Date : 09-MAR-2016 08:33
Client ID:
Sample Info: ADP 50 LOT#5822

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 50 LOT#5822

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL7.D
Injection Date : 09-MAR-2016 08:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL8.D
Lab Smp Id:
Inj Date : 09-MAR-2016 08:58
Operator : hl Inst ID: SV103.i
Smp Info : ADP 100 LOT#5823
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:38 Cal File: BENZL7.D
Als bottle: 30 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	103977	40.0000		
94 Benzidine	184	10.378	10.378	(1.148)	451948	100.000	107	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	425344	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	231158	40.0000		
82 Atrazine	200	8.822	8.822	(0.976)	222841	100.000	114	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	440893	40.0000		
91 parathion	109	9.833	9.833	(2.107)	157036	100.000	105	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	451310	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	432224	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	103977	-14.88
34 Naphthalene-d8	488231	244116	976462	425344	-12.88
61 Acenaphthene-d10	268127	134064	536254	231158	-13.79
85 Phenanthrene-d10	492137	246069	984274	440893	-10.41
102 Chrysene-d12	439124	219562	878248	451310	2.78
110 Perylene-d12	442017	221009	884034	432224	-2.22

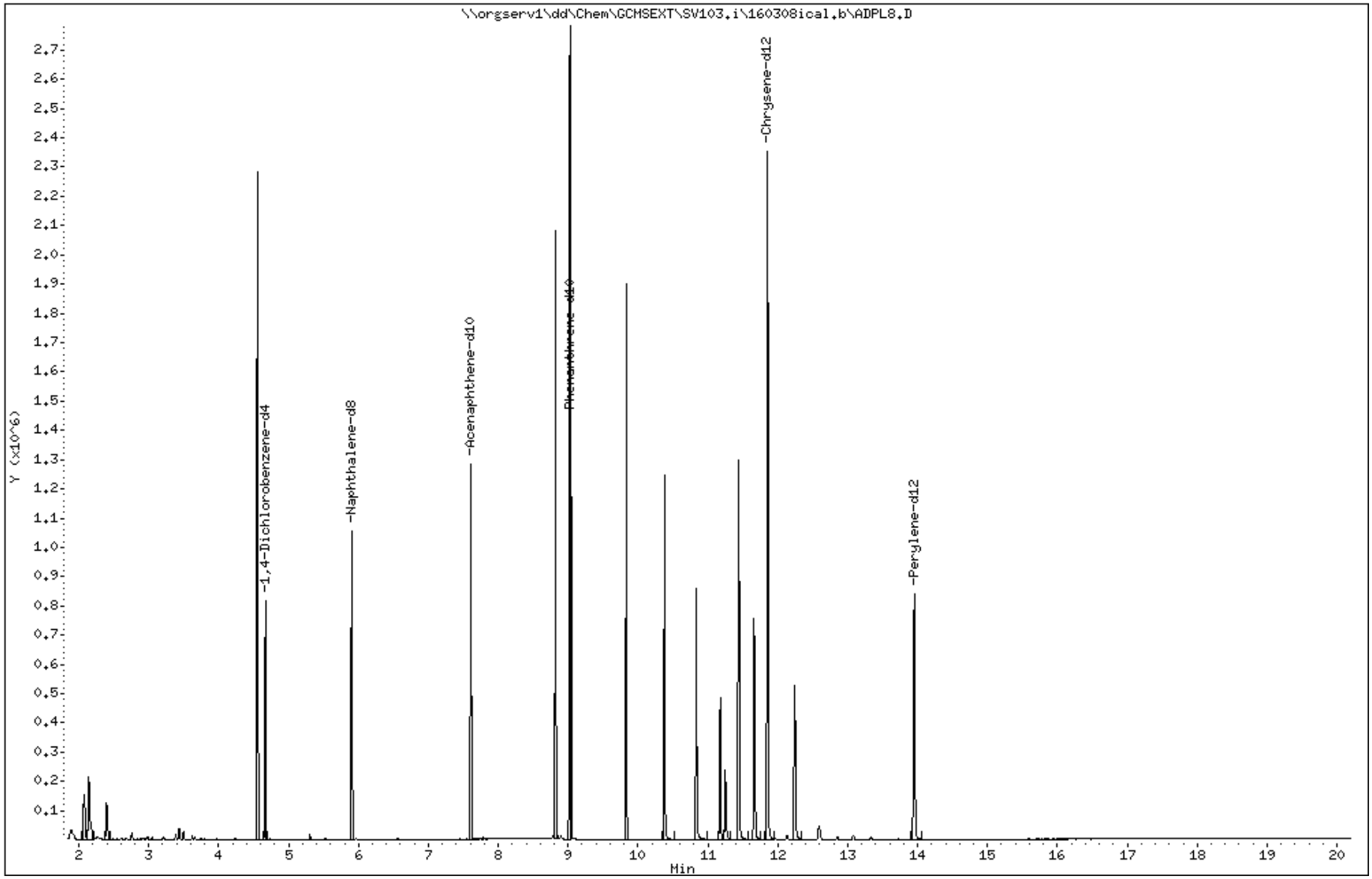
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL8.D
Date : 09-MAR-2016 08:58
Client ID:
Sample Info: ADP 100 LOT#5823

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 100 LOT#5823

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL8.D
Injection Date : 09-MAR-2016 08:58
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL9.D
Lab Smp Id:
Inj Date : 09-MAR-2016 09:24
Operator : hl Inst ID: SV103.i
Smp Info : ADP 150 LOT#5824
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:03 Cal File: BENZL8.D
Als bottle: 31 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	126057	40.0000		
94 Benzidine	184	10.378	10.378	(1.148)	619473	150.000	145	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	509049	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	266891	40.0000		
82 Atrazine	200	8.827	8.827	(0.976)	375360	150.000	167	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	509354	40.0000		
91 parathion	109	9.833	9.833	(2.107)	280107	150.000	148	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	484215	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	439077	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADPL9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	126057	3.20
34 Naphthalene-d8	488231	244116	976462	509049	4.26
61 Acenaphthene-d10	268127	134064	536254	266891	-0.46
85 Phenanthrene-d10	492137	246069	984274	509354	3.50
102 Chrysene-d12	439124	219562	878248	484215	10.27
110 Perylene-d12	442017	221009	884034	439077	-0.67

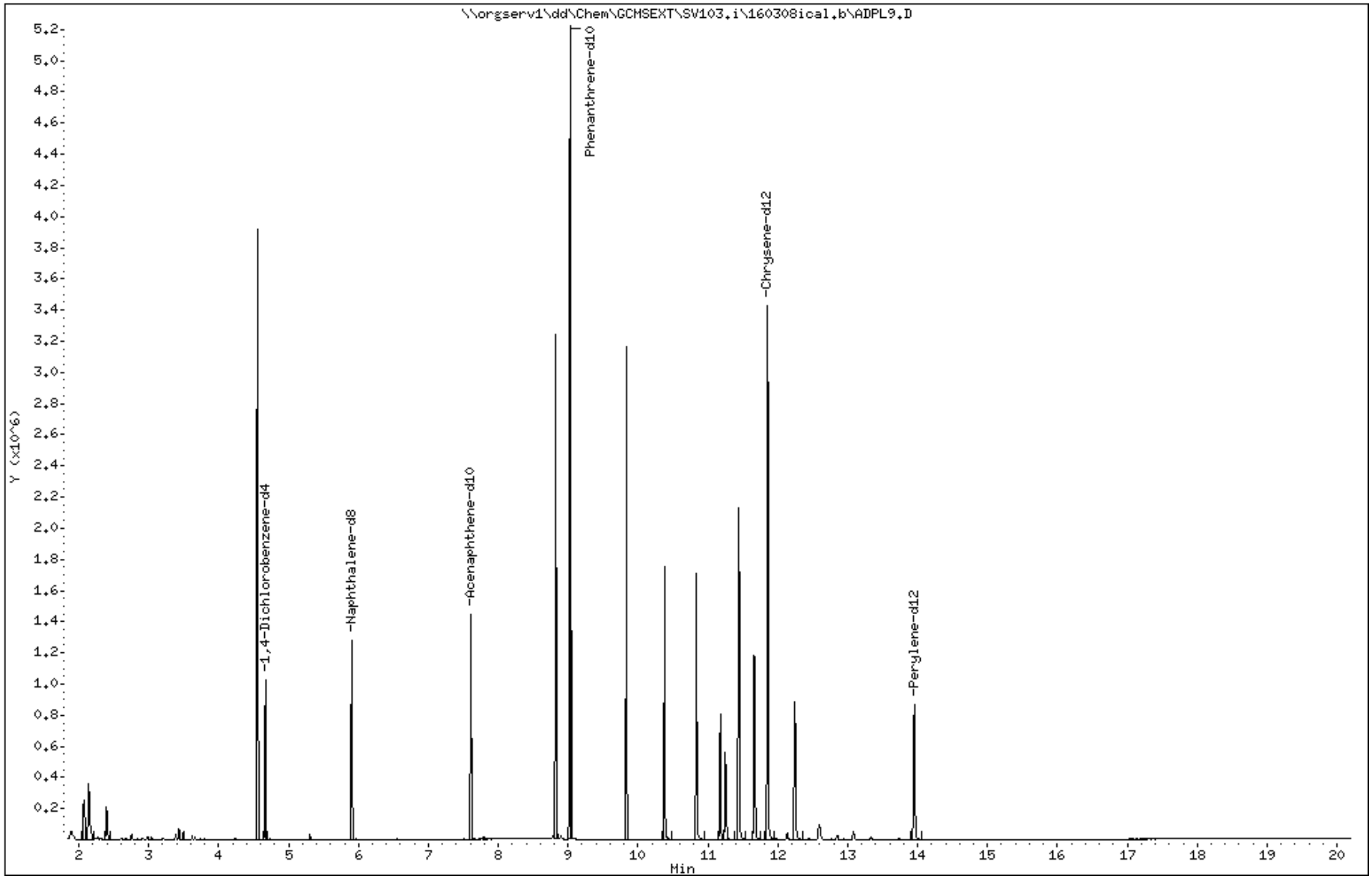
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL9.D
Date : 09-MAR-2016 09:24
Client ID:
Sample Info: ADP 150 LOT#5824

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 150 LOT#5824

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL9.D
Injection Date : 09-MAR-2016 09:24
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL10.D
Lab Smp Id:
Inj Date : 09-MAR-2016 09:49
Operator : hl Inst ID: SV103.i
Smp Info : ADP 200 LOT#5815
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 22:59 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:29 Cal File: BENZL9.D
Als bottle: 32 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	133413	40.0000		
94 Benzidine	184	10.378	10.378	(1.148)	844461	200.000	227	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	534240	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	280742	40.0000		
82 Atrazine	200	8.827	8.827	(0.976)	544473	200.000	227	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	542924	40.0000		
91 parathion	109	9.838	9.838	(2.108)	416913	200.000	200	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	529895	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	485385	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: ADPL10.D Calibration Time: 08:33
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	133413	9.22
34 Naphthalene-d8	488231	244116	976462	534240	9.42
61 Acenaphthene-d10	268127	134064	536254	280742	4.70
85 Phenanthrene-d10	492137	246069	984274	542924	10.32
102 Chrysene-d12	439124	219562	878248	529895	20.67
110 Perylene-d12	442017	221009	884034	485385	9.81

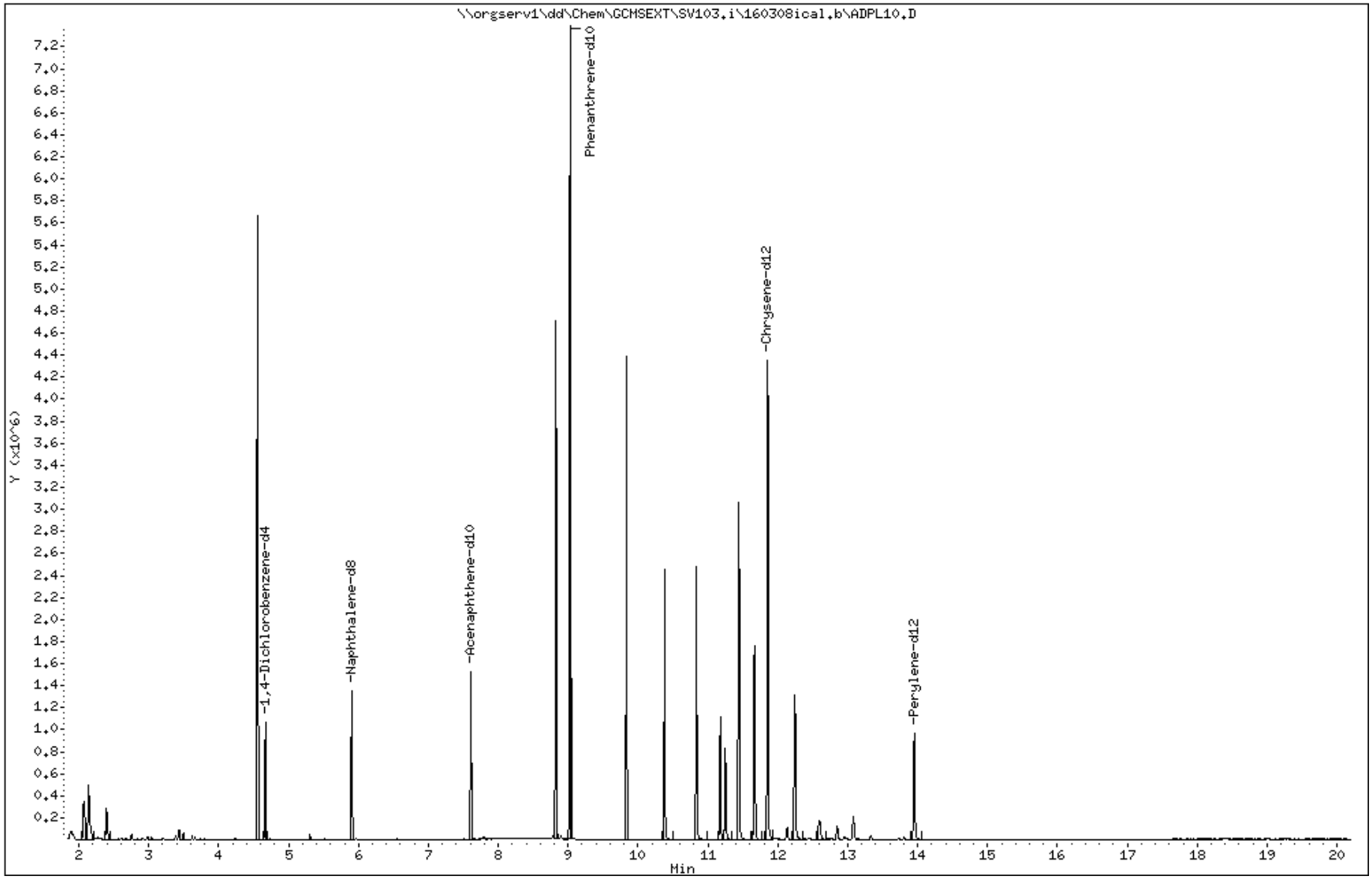
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPL10.D
Date : 09-MAR-2016 09:49
Client ID:
Sample Info: ADP 200 LOT#5815

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP 200 LOT#5815

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPL10.D
Injection Date : 09-MAR-2016 09:49
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 10:15
Lab File ID: ADPICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Benzidine	50.00000	43.80166	0.47835	0.050	-12.39668	20.00000	Quadratic
82 Atrazine	0.17681	0.19129	0.19129	0.050	8.18936	20.00000	Averaged
91 parathion	50.00000	51.35964	0.55505	0.050	2.71928	20.00000	Quadratic

Average %D / Drift Results.
Calculated Average %D/Drift = 7.76844
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPICV.D
Lab Smp Id:
Inj Date : 09-MAR-2016 10:15
Operator : hl Inst ID: SV103.i
Smp Info : ADP ICV LOT# 5614
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:04 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	111515	40.0000		
94 Benzidine	184	10.378	10.378	(1.148)	282303	50.0000	43.8	
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	475121	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	257993	40.0000		
82 Atrazine	200	8.816	8.816	(0.975)	112892	50.0000	54.1	
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	472131	40.0000		
91 parathion	109	9.833	9.833	(2.107)	77370	50.0000	51.4	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	425098	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	405887	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: ADPICV.D Calibration Time: 20:21
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	109318	54659	218636	111515	2.01
34 Naphthalene-d8	442950	221475	885900	475121	7.26
61 Acenaphthene-d10	231441	115721	462882	257993	11.47
85 Phenanthrene-d10	414182	207091	828364	472131	13.99
102 Chrysene-d12	405936	202968	811872	425098	4.72
110 Perylene-d12	369329	184665	738658	405887	9.90

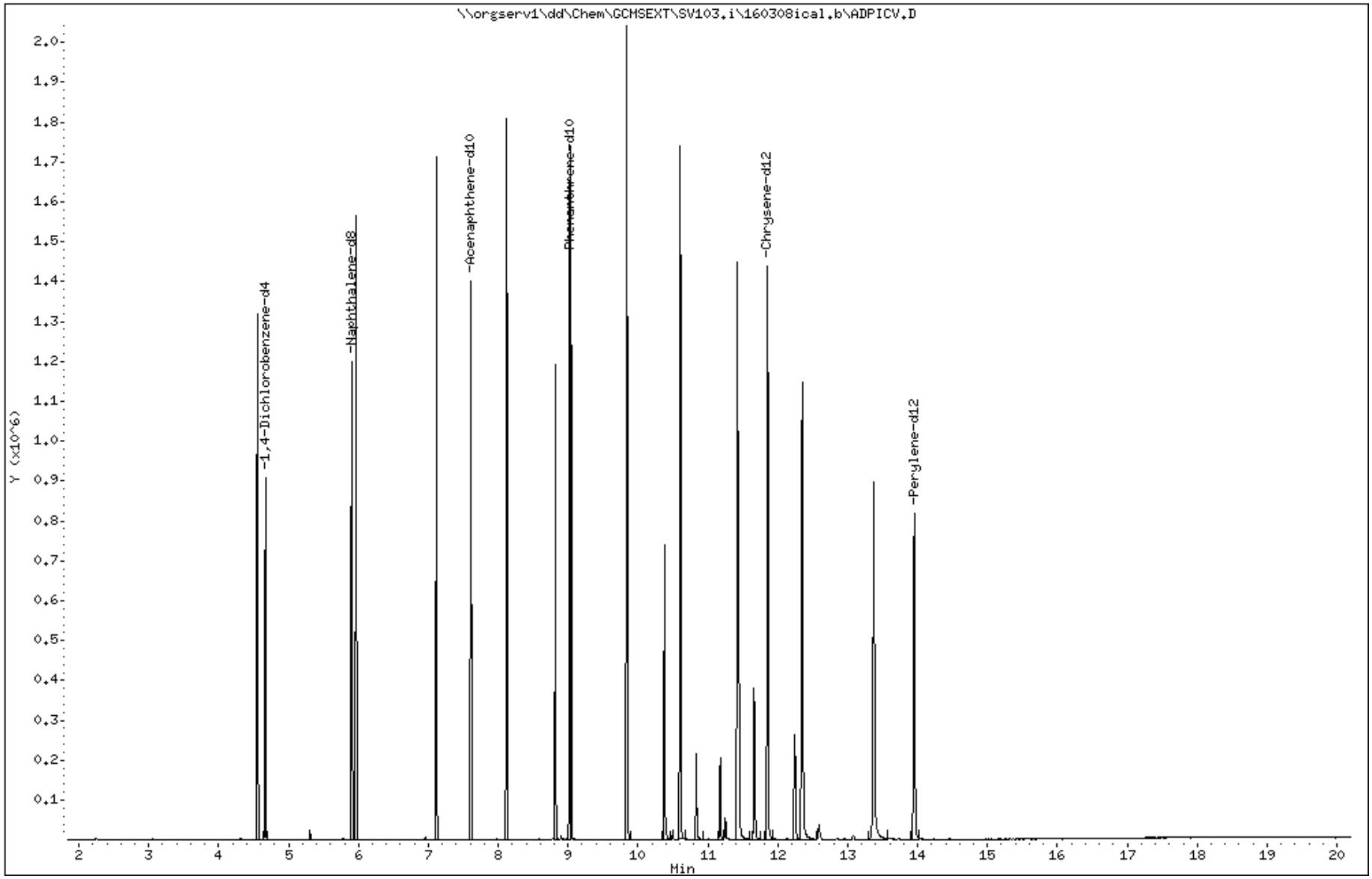
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.90	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\ADPICV.D
Date : 09-MAR-2016 10:15
Client ID:
Sample Info: ADP ICV LOT# 5614

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ADP ICV LOT# 5614

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ADPICV.D
Injection Date : 09-MAR-2016 10:15
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol1.D
Lab Smp Id:
Inj Date : 09-MAR-2016 10:41
Operator : hl Inst ID: SV103.i
Smp Info : MTolL1 lot#5667
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:00 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 34 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	107865	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	438321	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	225466	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	388170	40.0000		
20 m-Toluidine	106	5.147	5.147	(1.103)	4837	1.00000	0.945	
* 102 Chrysene-d12	240	11.849	11.849	(1.000)	357562	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	344004	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	107865	-11.70
34 Naphthalene-d8	488231	244116	976462	438321	-10.22
61 Acenaphthene-d10	268127	134064	536254	225466	-15.91
85 Phenanthrene-d10	492137	246069	984274	388170	-21.13
102 Chrysene-d12	439124	219562	878248	357562	-18.57
110 Perylene-d12	442017	221009	884034	344004	-22.17

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

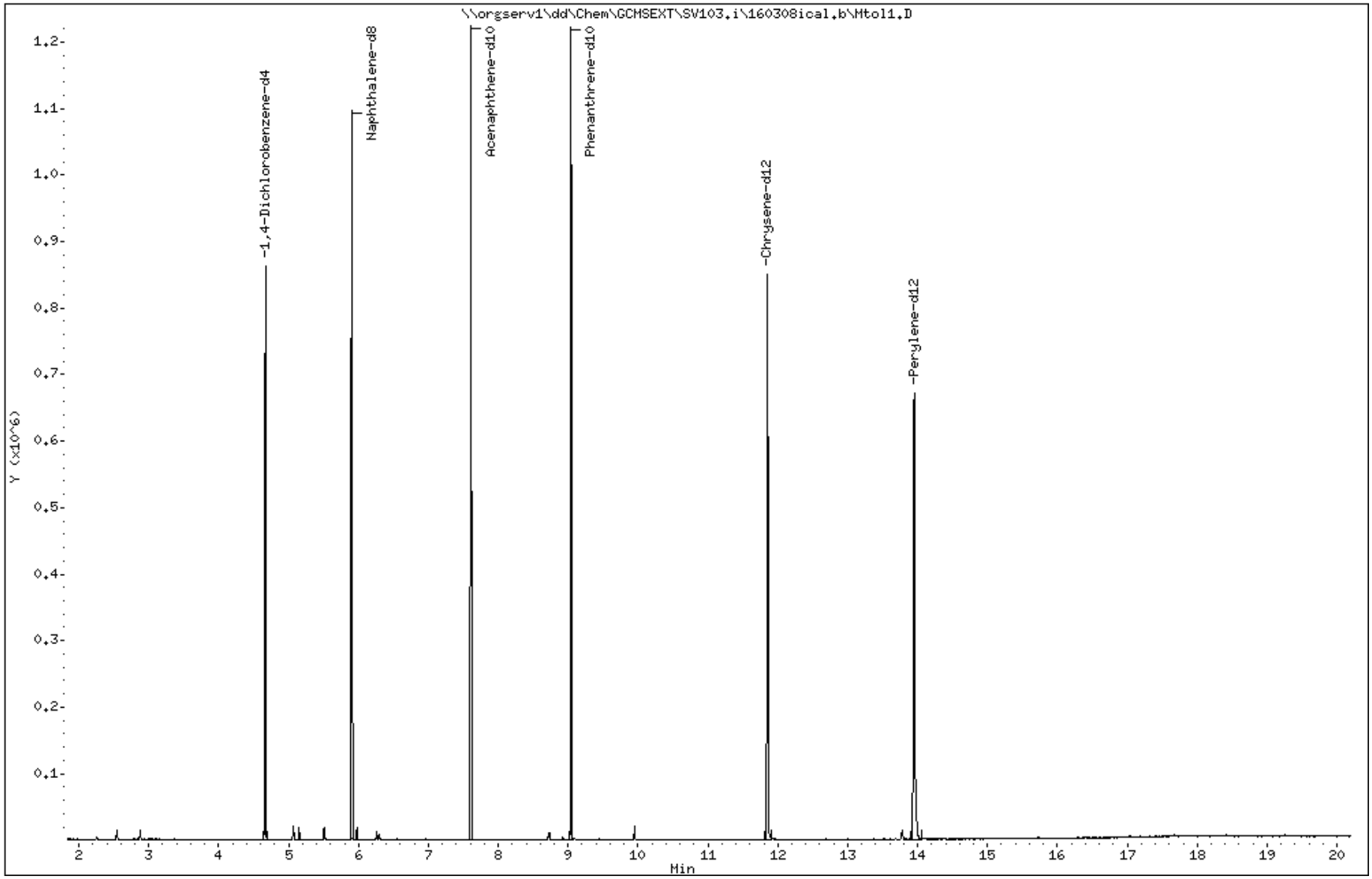
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol1.D
Date : 09-MAR-2016 10:41
Client ID:
Sample Info: MTolL1 lot#5667

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL1 lot#5667

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol1.D
Injection Date : 09-MAR-2016 10:41
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol2.D
Lab Smp Id:
Inj Date : 09-MAR-2016 11:06
Operator : hl Inst ID: SV103.i
Smp Info : MTolL2 lot#5668
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:00 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:04 Cal File: BENZL1.D
Als bottle: 35 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	92347	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	376008	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	192674	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	339880	40.0000		
20 m-Toluidine	106	5.147	5.147	(1.103)	8480	2.00000	1.94	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	315279	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	315391	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	92347	-24.40
34 Naphthalene-d8	488231	244116	976462	376008	-22.99
61 Acenaphthene-d10	268127	134064	536254	192674	-28.14
85 Phenanthrene-d10	492137	246069	984274	339880	-30.94
102 Chrysene-d12	439124	219562	878248	315279	-28.20
110 Perylene-d12	442017	221009	884034	315391	-28.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

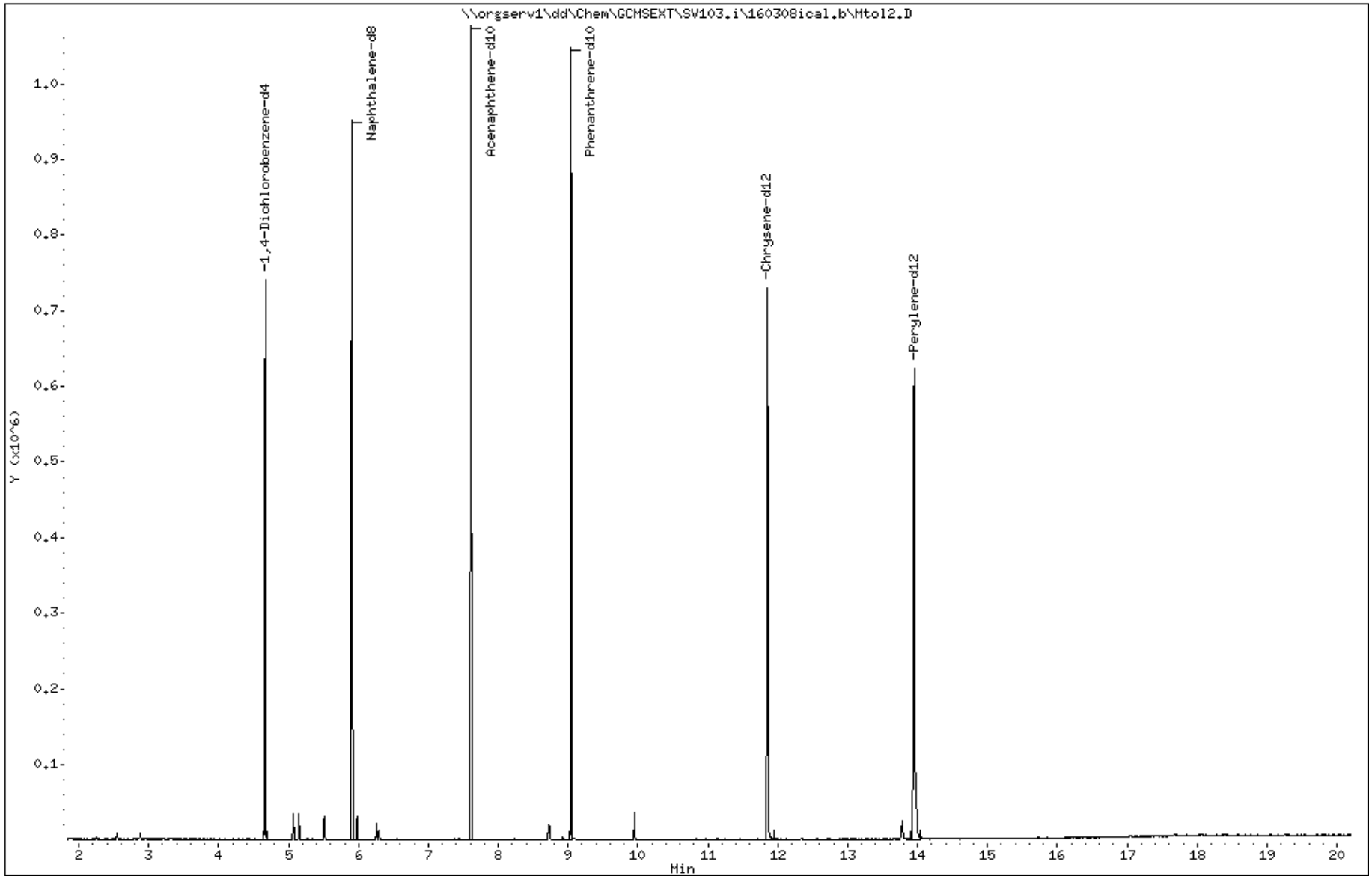
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol2.D
Date : 09-MAR-2016 11:06
Client ID:
Sample Info: MTolL2 lot#5668

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL2 lot#5668

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol2.D
Injection Date : 09-MAR-2016 11:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol3.D
Lab Smp Id:
Inj Date : 09-MAR-2016 11:31
Operator : hl Inst ID: SV103.i
Smp Info : MTolL3 lot#5669
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:00 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:30 Cal File: BENZL2.D
Als bottle: 36 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	117093	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	463757	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	225352	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	393641	40.0000		
20 m-Toluidine	106	5.152	5.152	(1.104)	14974	3.00000	2.70	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	350831	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	351171	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	117093	-4.14
34 Naphthalene-d8	488231	244116	976462	463757	-5.01
61 Acenaphthene-d10	268127	134064	536254	225352	-15.95
85 Phenanthrene-d10	492137	246069	984274	393641	-20.01
102 Chrysene-d12	439124	219562	878248	350831	-20.11
110 Perylene-d12	442017	221009	884034	351171	-20.55

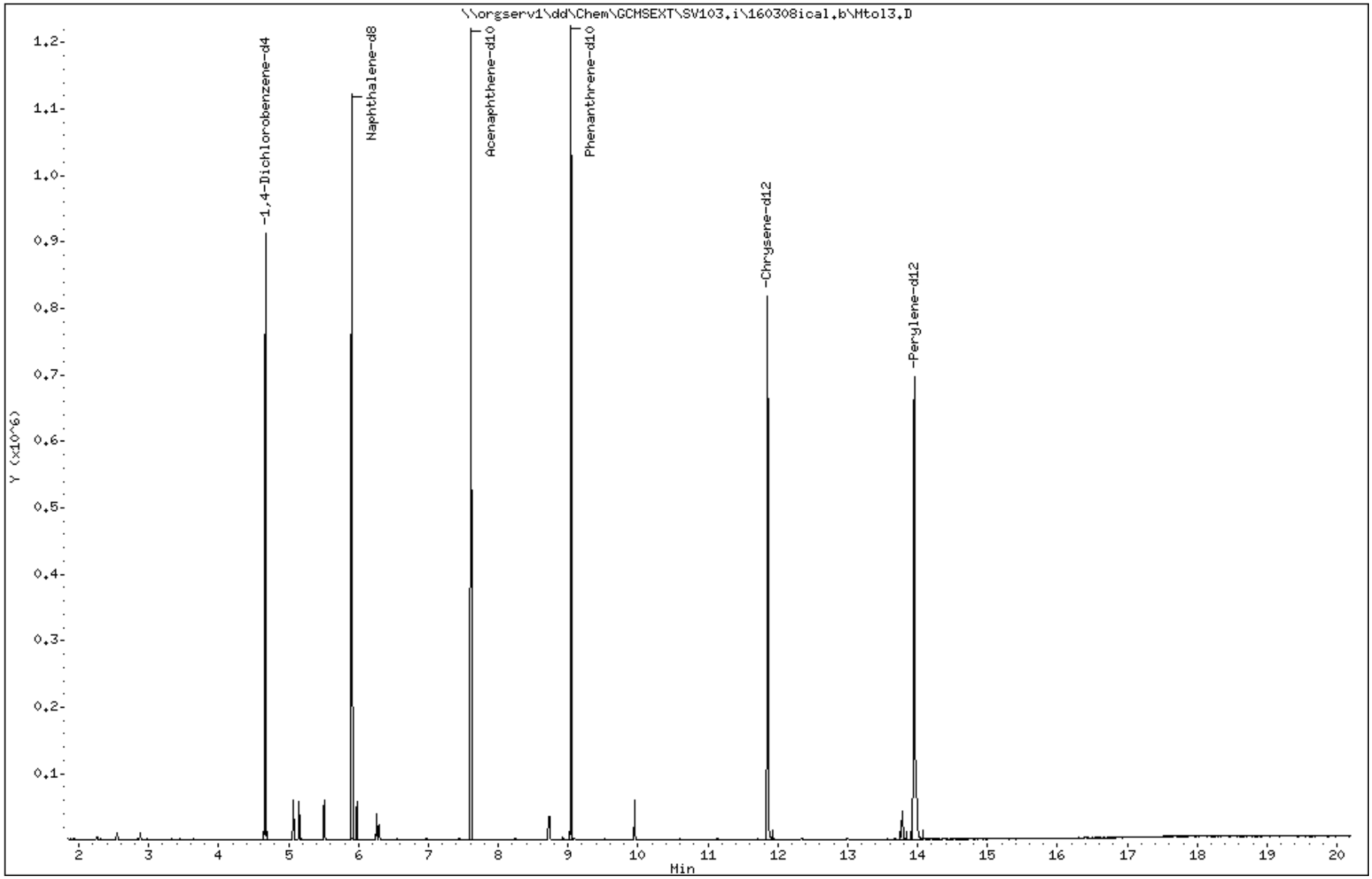
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol3.D
Date : 09-MAR-2016 11:31
Client ID:
Sample Info: MTolL3 lot#5669

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL3 lot#5669

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol3.D
Injection Date : 09-MAR-2016 11:31
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol4.D
Lab Smp Id:
Inj Date : 09-MAR-2016 11:57
Operator : hl Inst ID: SV103.i
Smp Info : MTolL5 lot#5670
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:00 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:55 Cal File: BENZL3.D
Als bottle: 37 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	105560	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	420353	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	219095	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	394230	40.0000		
20 m-Toluidine	106	5.147	5.147	(1.103)	22636	5.00000	4.52	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	371736	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	369166	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	105560	-13.58
34 Naphthalene-d8	488231	244116	976462	420353	-13.90
61 Acenaphthene-d10	268127	134064	536254	219095	-18.29
85 Phenanthrene-d10	492137	246069	984274	394230	-19.89
102 Chrysene-d12	439124	219562	878248	371736	-15.35
110 Perylene-d12	442017	221009	884034	369166	-16.48

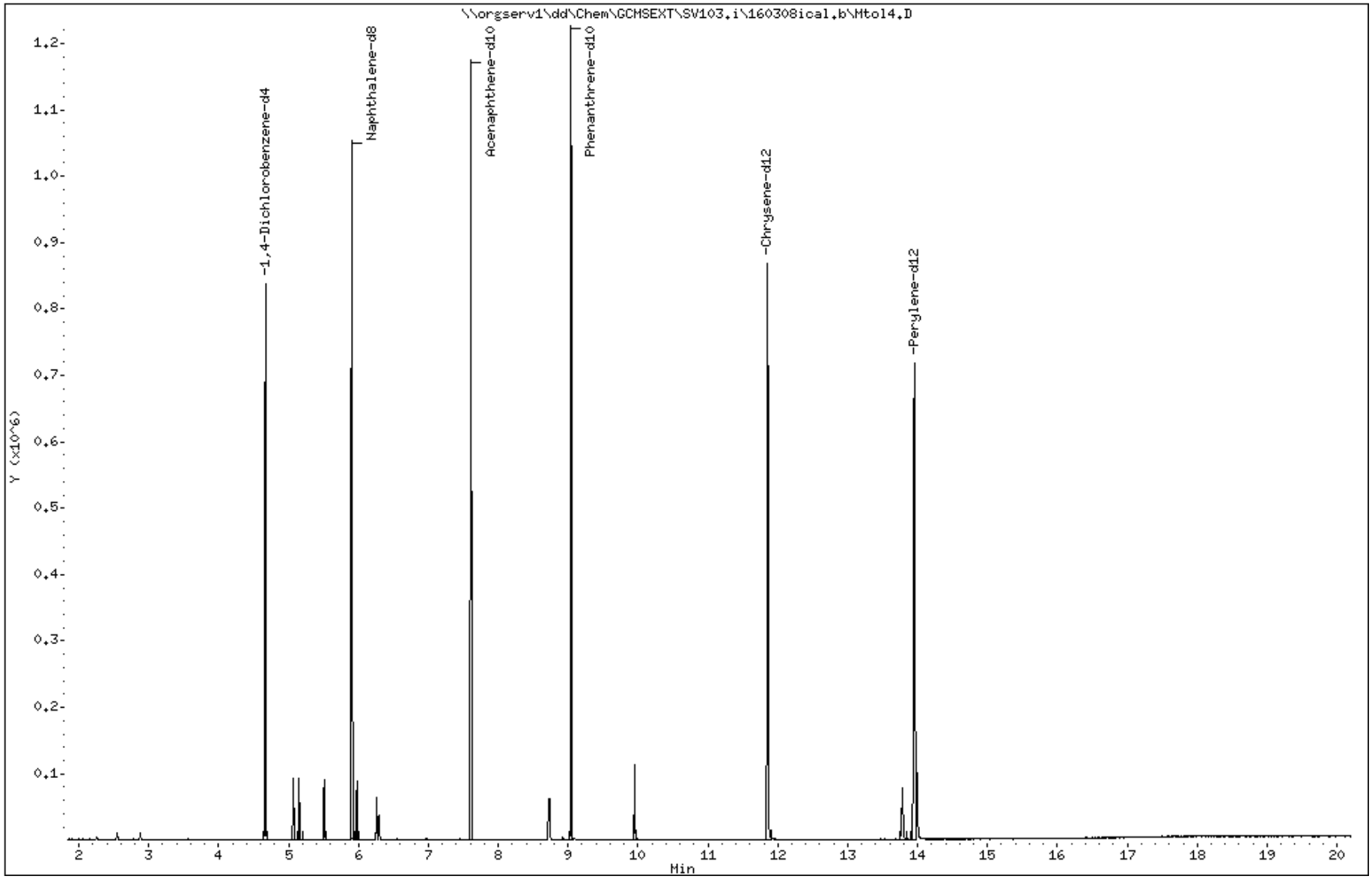
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol4.D
Date : 09-MAR-2016 11:57
Client ID:
Sample Info: MTolL5 lot#5670

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL5 lot#5670

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol4.D
Injection Date : 09-MAR-2016 11:57
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol5.D
Lab Smp Id:
Inj Date : 09-MAR-2016 12:23
Operator : hl Inst ID: SV103.i
Smp Info : MTolL10 lot#5671
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:01 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:21 Cal File: BENZL4.D
Als bottle: 38 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	129500	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	516973	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	263466	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	470996	40.0000		
20 m-Toluidine	106	5.147	5.147	(1.103)	57934	10.0000	9.43	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	437907	40.0000		
* 110 Perylene-d12	264	13.956	13.956	(1.000)	439505	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	129500	6.01
34 Naphthalene-d8	488231	244116	976462	516973	5.89
61 Acenaphthene-d10	268127	134064	536254	263466	-1.74
85 Phenanthrene-d10	492137	246069	984274	470996	-4.30
102 Chrysene-d12	439124	219562	878248	437907	-0.28
110 Perylene-d12	442017	221009	884034	439505	-0.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.96	0.04

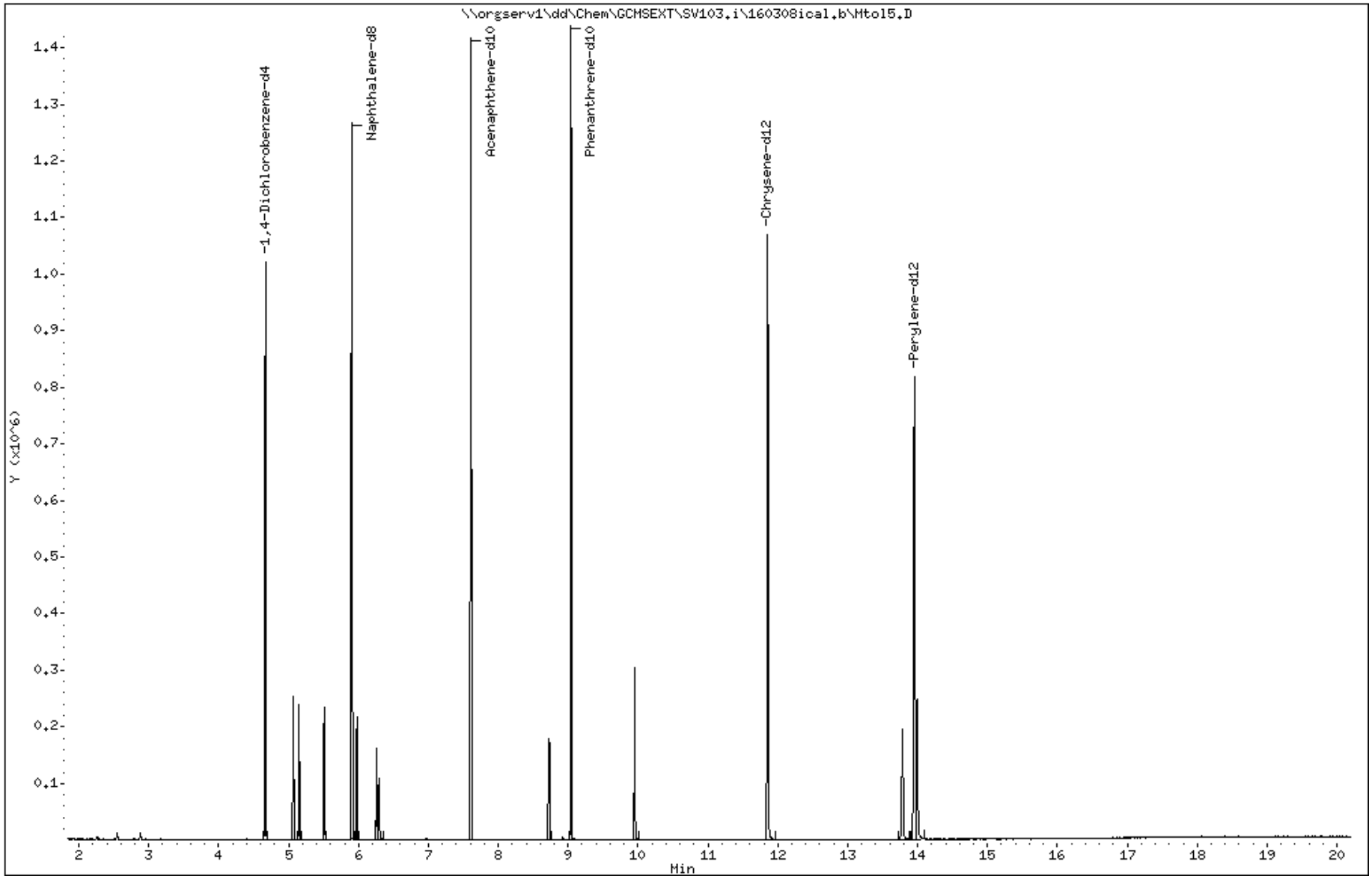
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol5.D
Date : 09-MAR-2016 12:23
Client ID:
Sample Info: MTolL10 lot#5671

Column phase: RTx-5

Instrument: SV103.i

Operator: hl
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL10 lot#5671

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol5.D
Injection Date : 09-MAR-2016 12:23
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol6.D
Lab Smp Id:
Inj Date : 09-MAR-2016 12:48
Operator : hl Inst ID: SV103.i
Smp Info : MTolL20 lot#5672
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:01 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:47 Cal File: BENZL5.D
Als bottle: 39 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	108219	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	443972	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	230462	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	401183	40.0000		
20 m-Toluidine	106	5.147	5.147	(1.103)	105019	20.0000	20.4	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	354116	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	352235	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 08:33
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	122154	61077	244308	108219	-11.41
34 Naphthalene-d8	488231	244116	976462	443972	-9.07
61 Acenaphthene-d10	268127	134064	536254	230462	-14.05
85 Phenanthrene-d10	492137	246069	984274	401183	-18.48
102 Chrysene-d12	439124	219562	878248	354116	-19.36
110 Perylene-d12	442017	221009	884034	352235	-20.31

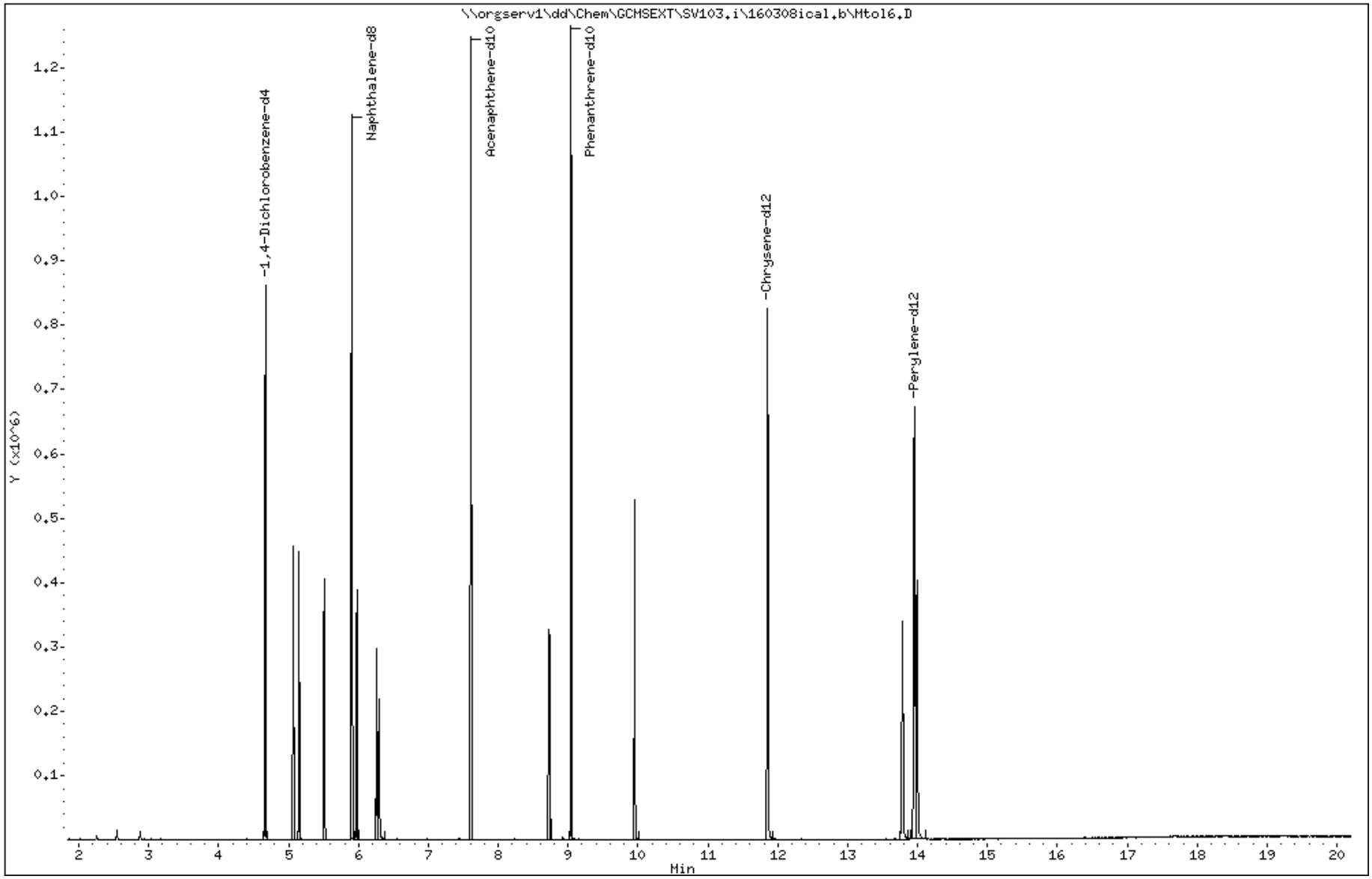
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.05
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol6.D
Date : 09-MAR-2016 12:48
Client ID:
Sample Info: MTolL20 lot#5672

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL20 lot#5672

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol6.D
Injection Date : 09-MAR-2016 12:48
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol7.D
Lab Smp Id:
Inj Date : 09-MAR-2016 13:14
Operator : hl Inst ID: SV103.i
Smp Info : MTolL50 lot#5673
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:01 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:12 Cal File: BENZL6.D
Als bottle: 40 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	108088	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	438622	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	229794	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	414473	40.0000		
20 m-Toluidine	106	5.153	5.153	(1.104)	266385	50.0000	52.0(M)	M2
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	376530	40.0000		
* 110 Perylene-d12	264	13.956	13.956	(1.000)	373937	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 13:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	108088	-18.43
34 Naphthalene-d8	538944	269472	1077888	438622	-18.61
61 Acenaphthene-d10	281538	140769	563076	229794	-18.38
85 Phenanthrene-d10	518342	259171	1036684	414473	-20.04
102 Chrysene-d12	479734	239867	959468	376530	-21.51
110 Perylene-d12	449234	224617	898468	373937	-16.76

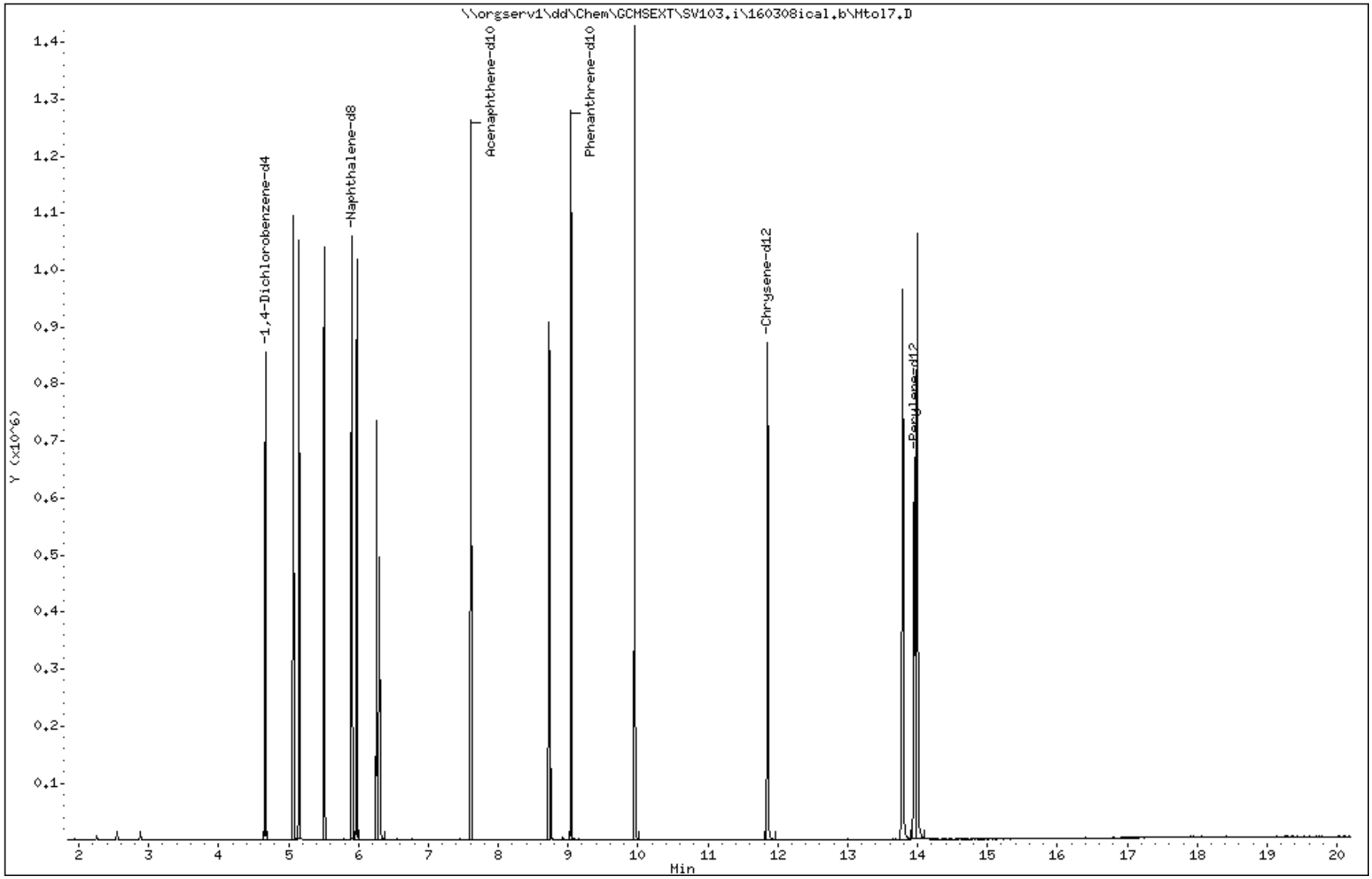
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol7.D
Date : 09-MAR-2016 13:14
Client ID:
Sample Info: MTolL50 lot#5673

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



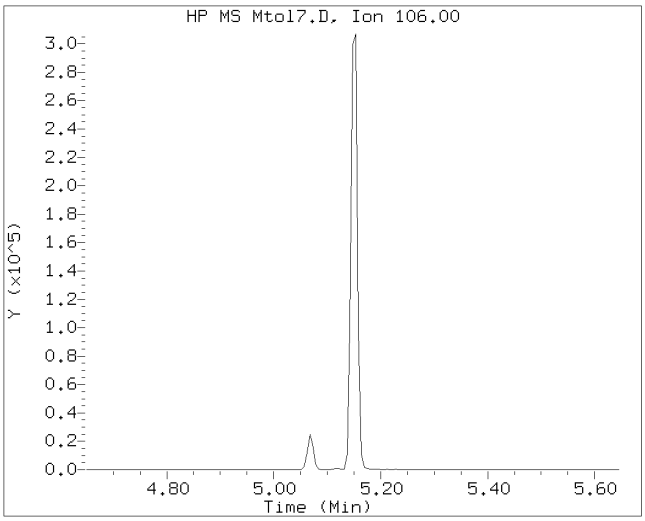
Alpha Analytical Labs

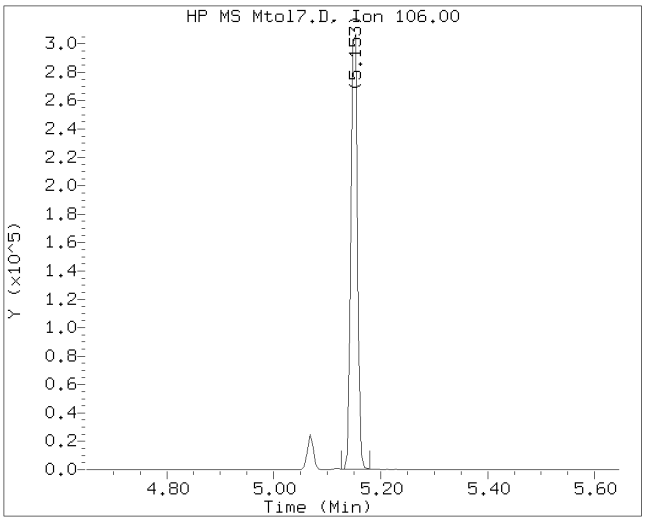
Manual Integration

Sample Info : MTolL50 lot#5673

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol7.D
Injection Date : 09-MAR-2016 13:14
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

Compound # 20: m-Toluidine





Original Peak Response = 0 Manual Peak Response = 266385 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol8.D
Lab Smp Id:
Inj Date : 09-MAR-2016 13:39
Operator : hl Inst ID: SV103.i
Smp Info : MTolL100 lot#5674
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:01 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:38 Cal File: BENZL7.D
Als bottle: 41 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	111737	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	455998	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	240290	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	432339	40.0000		
20 m-Toluidine	106	5.153	5.153	(1.104)	577192	100.000	109	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	384704	40.0000		
* 110 Perylene-d12	264	13.956	13.956	(1.000)	390987	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 13:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	111737	-15.67
34 Naphthalene-d8	538944	269472	1077888	455998	-15.39
61 Acenaphthene-d10	281538	140769	563076	240290	-14.65
85 Phenanthrene-d10	518342	259171	1036684	432339	-16.59
102 Chrysene-d12	479734	239867	959468	384704	-19.81
110 Perylene-d12	449234	224617	898468	390987	-12.97

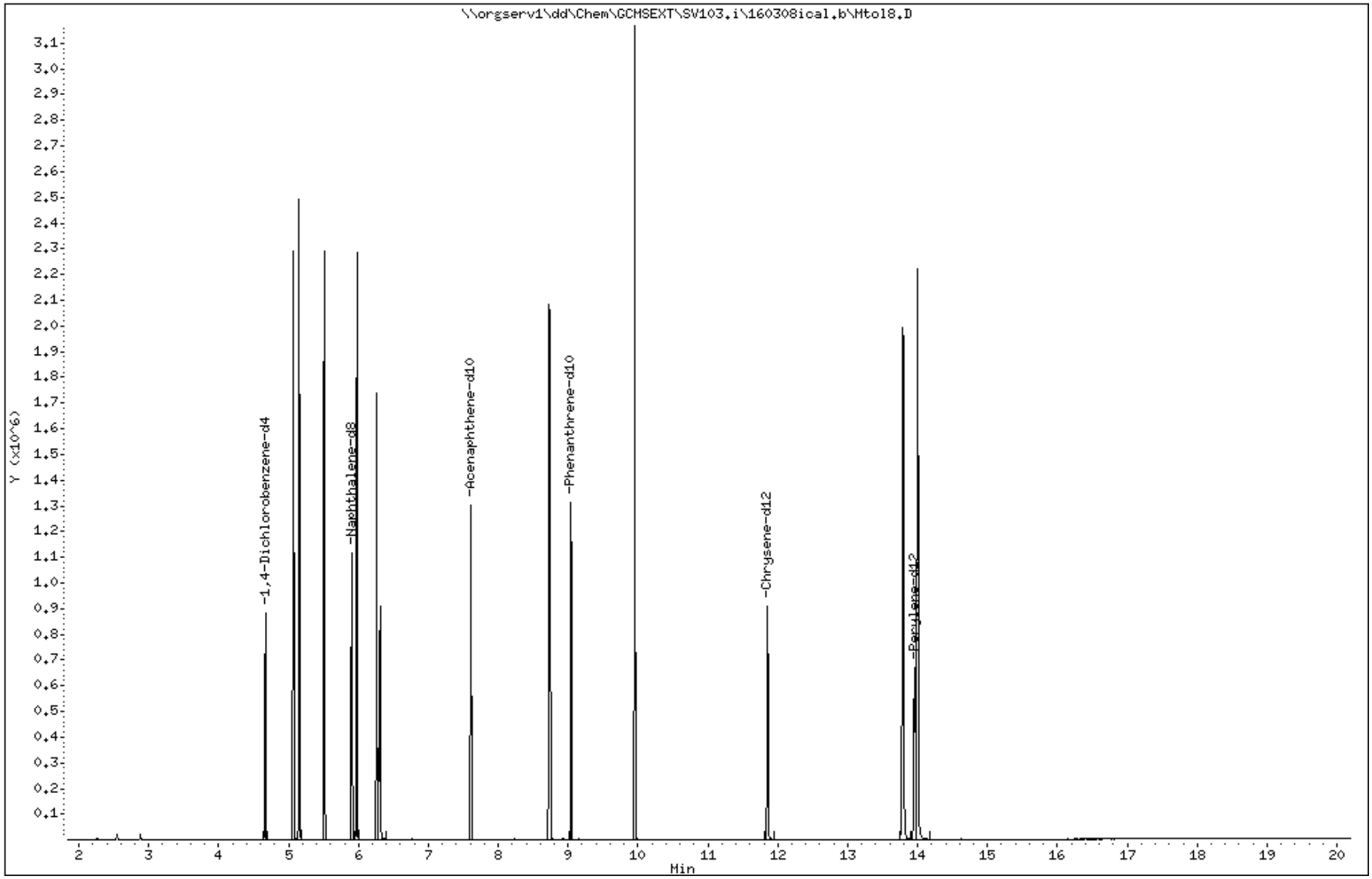
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol8.D
Date : 09-MAR-2016 13:39
Client ID:
Sample Info: MTolL100 lot#5674

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL100 lot#5674

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol8.D
Injection Date : 09-MAR-2016 13:39
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol9.D
Lab Smp Id:
Inj Date : 09-MAR-2016 14:05
Operator : hl Inst ID: SV103.i
Smp Info : MTolL150 lot5675
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:01 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:03 Cal File: BENZL8.D
Als bottle: 42 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	101721	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	418787	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	219446	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	399457	40.0000		
20 m-Toluidine	106	5.153	5.153	(1.104)	783503	150.000	162	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	349950	40.0000		
* 110 Perylene-d12	264	13.956	13.956	(1.000)	360070	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: Mtol9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Calibration Date: 09-MAR-2016
Calibration Time: 13:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	101721	-23.23
34 Naphthalene-d8	538944	269472	1077888	418787	-22.29
61 Acenaphthene-d10	281538	140769	563076	219446	-22.05
85 Phenanthrene-d10	518342	259171	1036684	399457	-22.94
102 Chrysene-d12	479734	239867	959468	349950	-27.05
110 Perylene-d12	449234	224617	898468	360070	-19.85

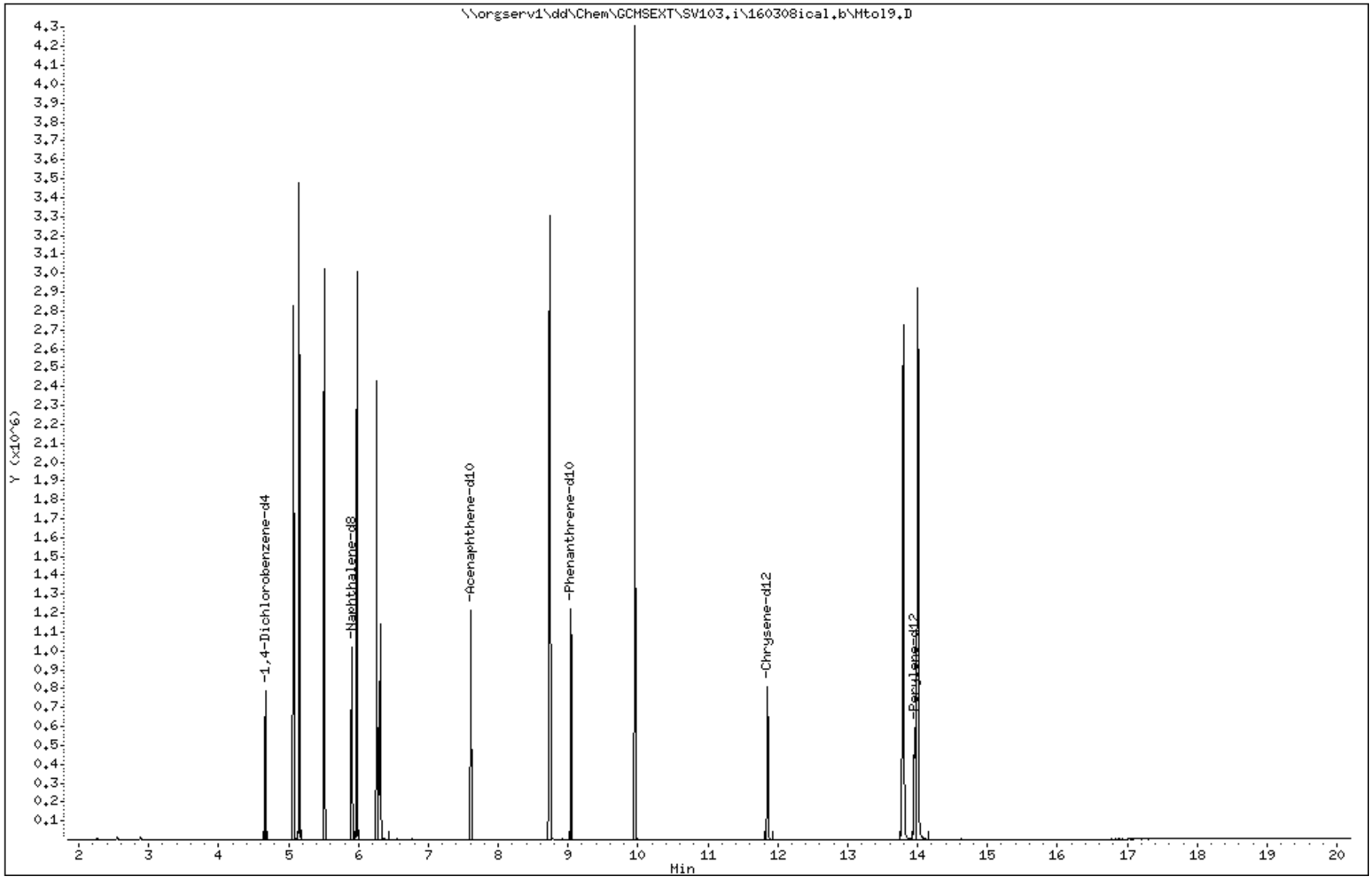
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol9.D
Date : 09-MAR-2016 14:05
Client ID:
Sample Info: MTolL150 lot5675

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL150 lot5675

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol9.D
Injection Date : 09-MAR-2016 14:05
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol10.D
Lab Smp Id:
Inj Date : 09-MAR-2016 14:30
Operator : hl Inst ID: SV103.i
Smp Info : MTolL200 lot5666
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:01 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:29 Cal File: BENZL9.D
Als bottle: 43 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	136298	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	562410	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	293124	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	533449	40.0000		
20 m-Toluidine	106	5.153	5.153	(1.104)	1432365	200.000	222	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	459500	40.0000		
* 110 Perylene-d12	264	13.962	13.962	(1.000)	471789	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: Mtol10.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

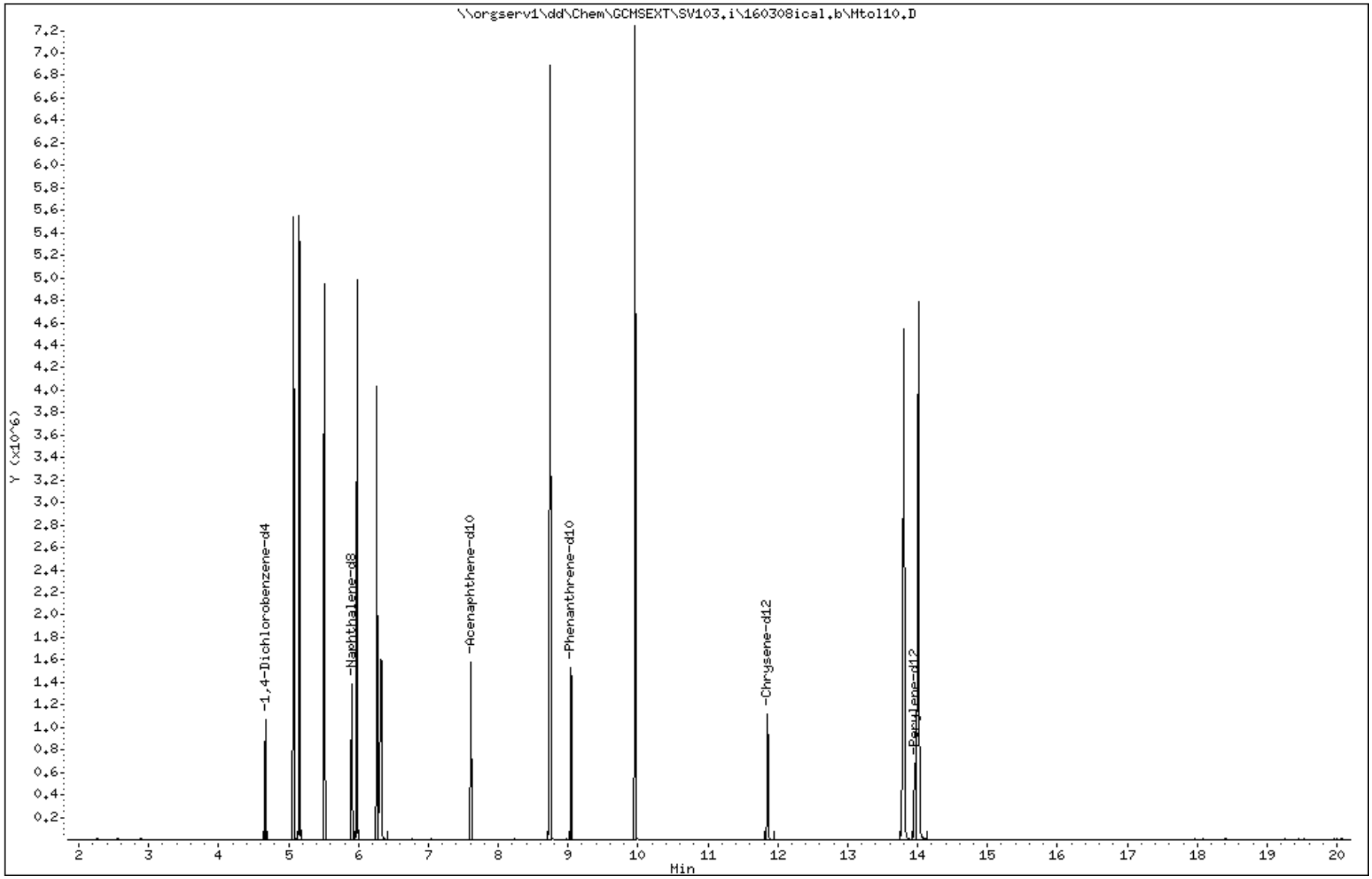
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	136298	2.86
34 Naphthalene-d8	538944	269472	1077888	562410	4.35
61 Acenaphthene-d10	281538	140769	563076	293124	4.12
85 Phenanthrene-d10	518342	259171	1036684	533449	2.91
102 Chrysene-d12	479734	239867	959468	459500	-4.22
110 Perylene-d12	449234	224617	898468	471789	5.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	0.08

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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\Mtol10.D
Date : 09-MAR-2016 14:30
Client ID:
Sample Info: MTolL200 lot5666

Instrument: SV103.i
Operator: hl
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : MTolL200 lot5666

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : Mtol10.D
Injection Date : 09-MAR-2016 14:30
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 14:56
Lab File ID: MTOICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
20 m-Toluidine	1.89749	1.91095	1.91095	0.050	0.70948	20.00000	Averaged

Average %D / Drift Results.
Calculated Average %D/Drift = 0.70948
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\MTOICV.D
Lab Smp Id:
Inj Date : 09-MAR-2016 14:56
Operator : hl Inst ID: SV103.i
Smp Info : MtolICV lot#5687
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:03 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: mtoludine.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	114769	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	466617	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	245120	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	455322	40.0000		
20 m-Toluidine	106	5.147	5.147	(1.103)	274147	50.0000	50.4	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	404928	40.0000		
* 110 Perylene-d12	264	13.956	13.956	(1.000)	402187	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: MTOICV.D Calibration Time: 10:15
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	109318	54659	218636	114769	4.99
34 Naphthalene-d8	442950	221475	885900	466617	5.34
61 Acenaphthene-d10	231441	115721	462882	245120	5.91
85 Phenanthrene-d10	414182	207091	828364	455322	9.93
102 Chrysene-d12	405936	202968	811872	404928	-0.25
110 Perylene-d12	369329	184665	738658	402187	8.90

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.90	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.96	0.04

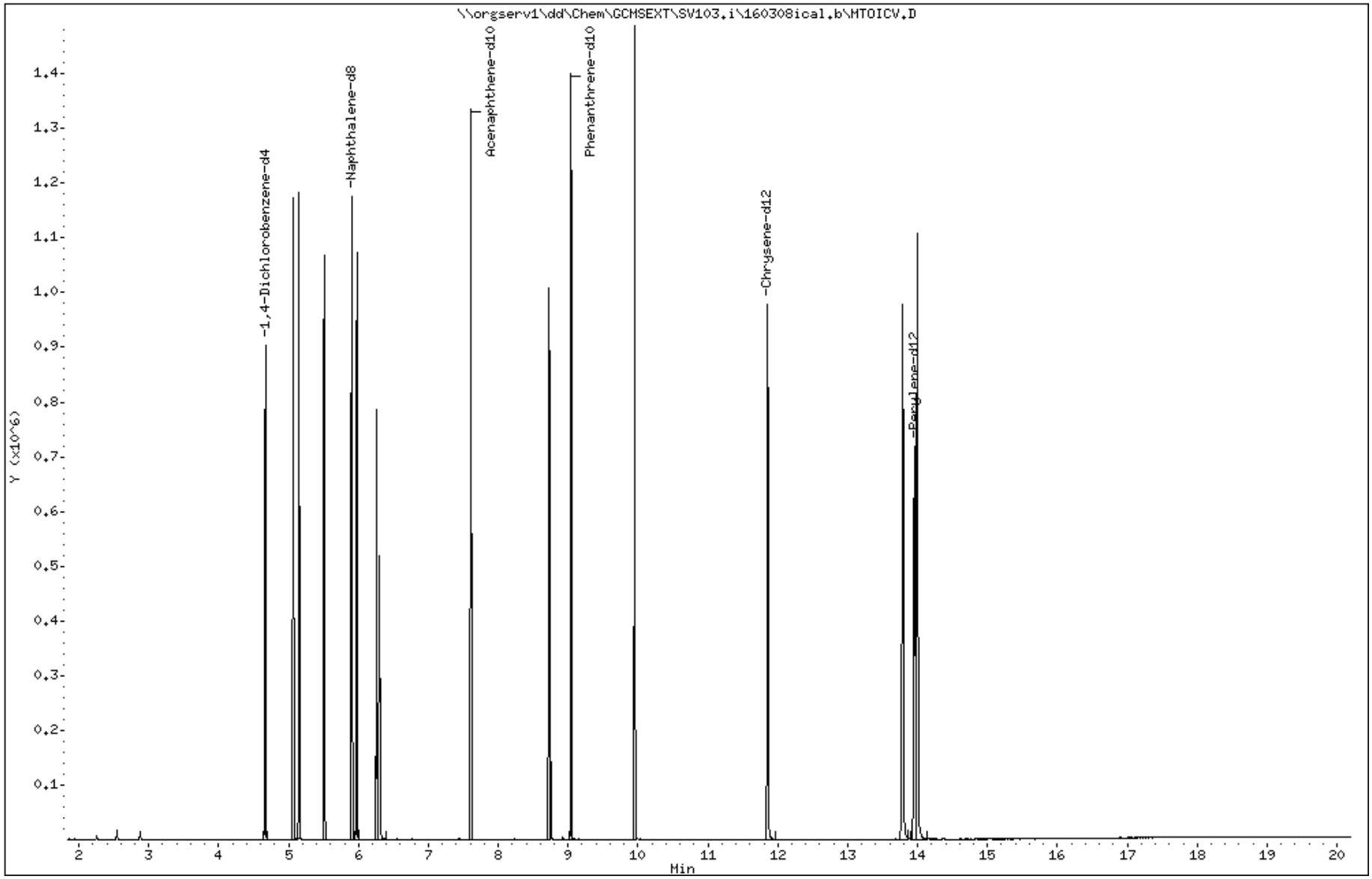
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\MTOICV.D
Date : 09-MAR-2016 14:56
Client ID:
Sample Info: MtolICV lot#5687

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : MtolICV lot#5687

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : MTOICV.D
Injection Date : 09-MAR-2016 14:56
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\degnb.D
Lab Smp Id:
Inj Date : 09-MAR-2016 15:38
Operator : hl Inst ID: SV103.i
Smp Info : deg0308nb
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\DDT.m
Meth Date : 08-Mar-2016 11:57 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: degradation
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

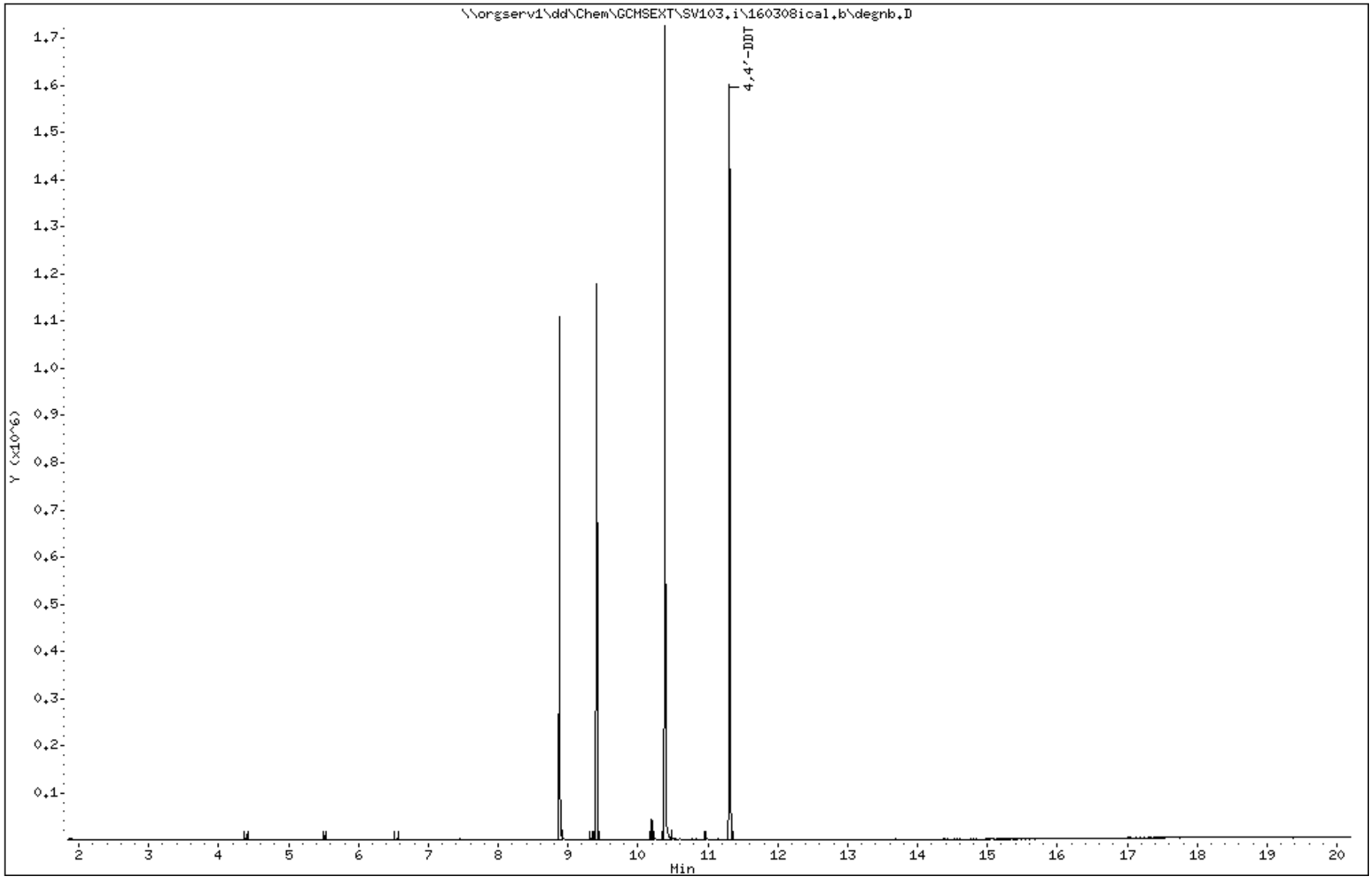
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	Compound Not Detected.						
6 4,4'-DDT	235	11.309	11.410	-0.101	295196			

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\degnb.D
Date : 09-MAR-2016 15:38
Client ID:
Sample Info: deg0308nb

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : deg0308nb

Instrument ID : SV103.i
Method : DDT.m
File : degnb.D
Injection Date : 09-MAR-2016 15:38
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: degradation

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftnb.D
Lab Smp Id:
Inj Date : 09-MAR-2016 15:38
Operator : hl Inst ID: SV103.i
Smp Info : deg0308nb
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftpp.m
Meth Date : 05-Mar-2016 10:30 hlac Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUALXP-76934

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.405	9.507	-0.102	198	102352			0.00- 100.00	100.00
9.405	9.507	-0.102	51	47728			30.00- 60.00	46.63
9.405	9.507	-0.102	68	755			0.00- 2.00	1.54
9.405	9.507	-0.102	69	48904			0.00- 0.00	47.78
9.405	9.507	-0.102	70	239			0.00- 2.00	0.49
9.405	9.507	-0.102	127	55408			40.00- 60.00	54.13
9.405	9.507	-0.102	197	756			0.00- 1.00	0.74
9.405	9.507	-0.102	199	7145			5.00- 9.00	6.98
9.405	9.507	-0.102	275	23192			10.00- 30.00	22.66
9.405	9.507	-0.102	365	3318			1.00- 0.00	3.24
9.405	9.507	-0.102	441	8920			0.01- 99.99	82.21
9.405	9.507	-0.102	442	57488			40.00- 99.99	56.17
9.405	9.507	-0.102	443	10850			17.00- 23.00	18.87

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftnb.D

Date : 09-MAR-2016 15:38

Client ID:

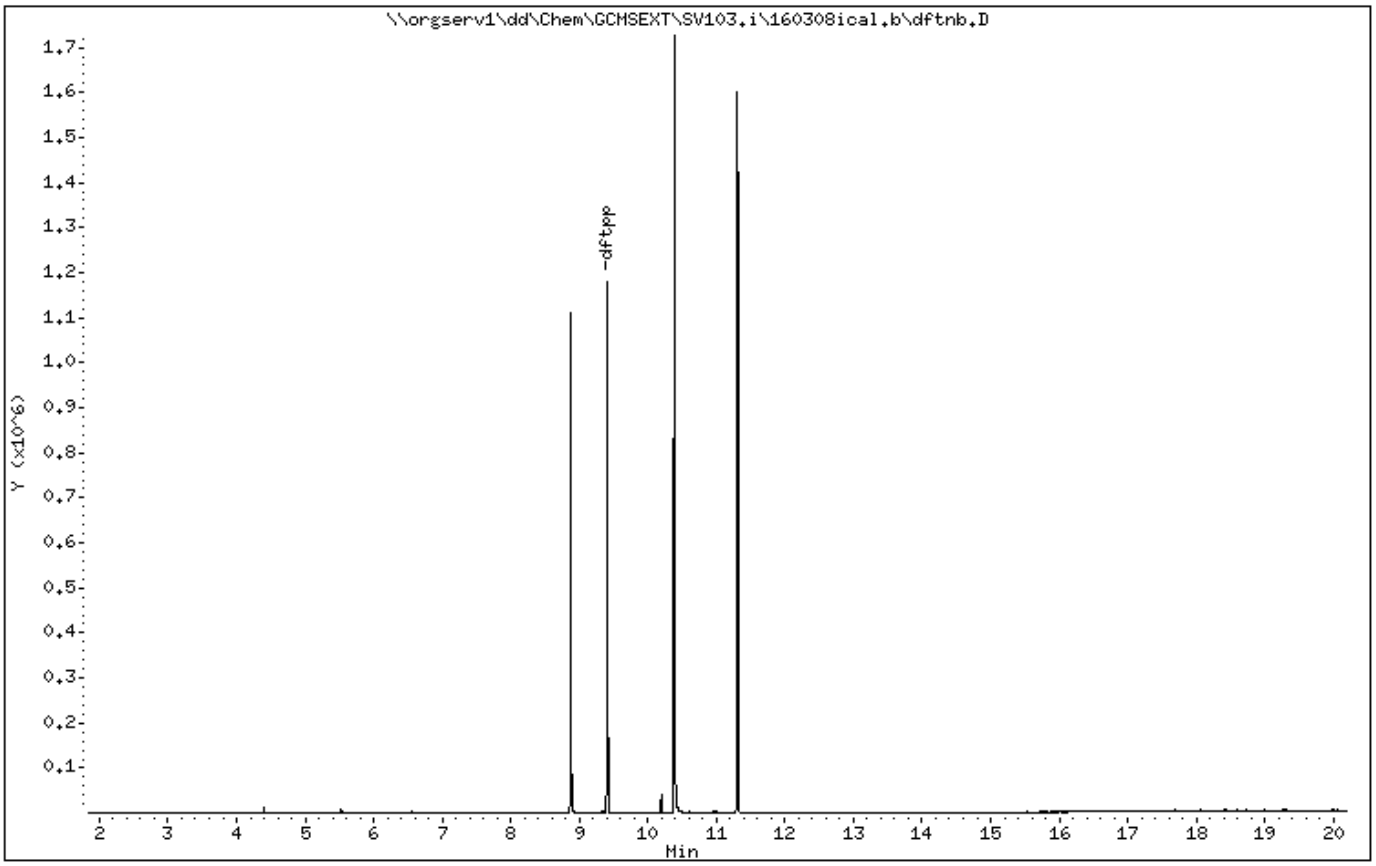
Instrument: SV103.i

Sample Info: deg0308nb

Operator: hl

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\dftnb.D

Date : 09-MAR-2016 15:38

Client ID:

Instrument: SV103.i

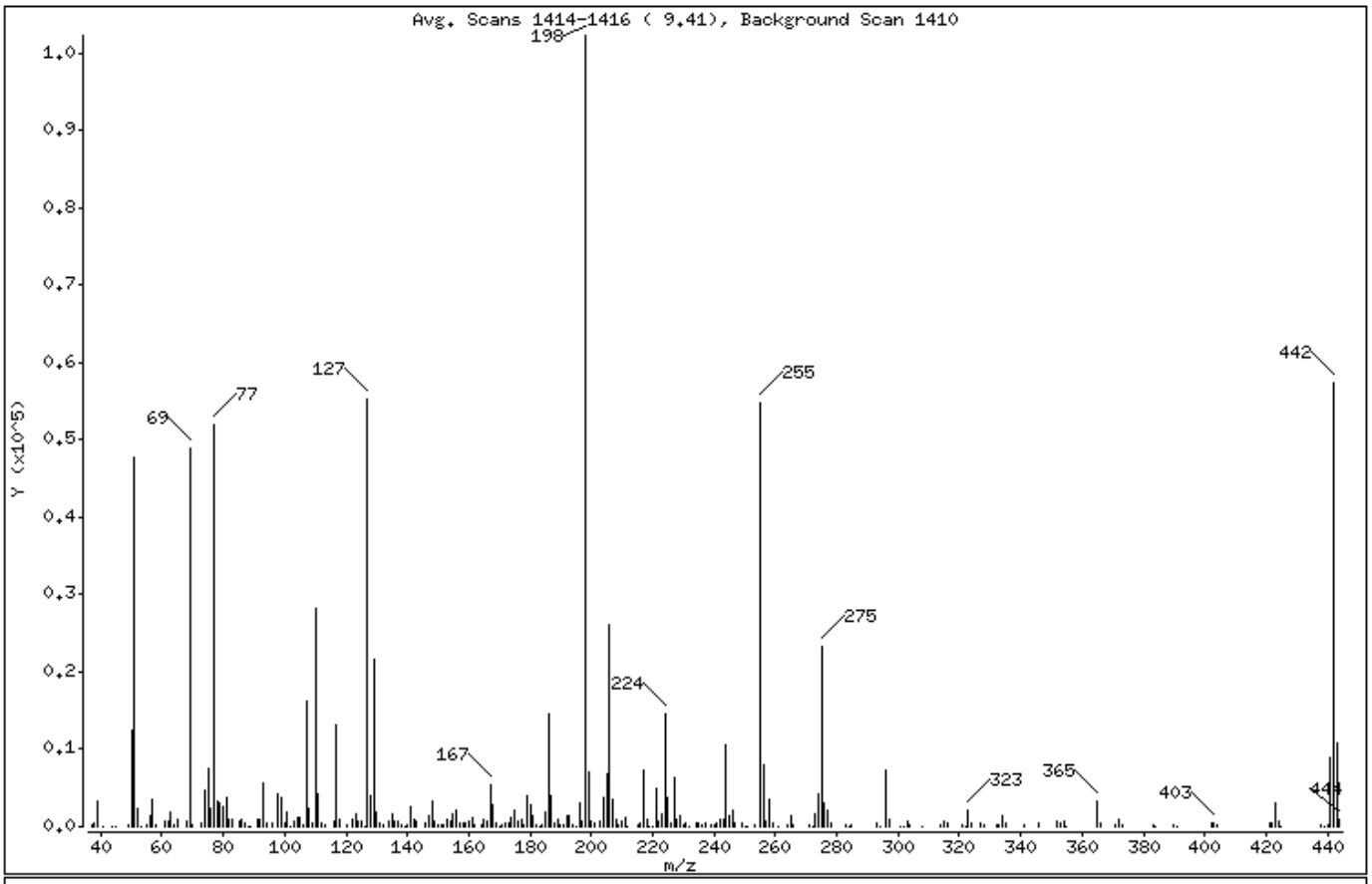
Sample Info: deg0308nb

Operator: hl

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.63
68	Less than 2.00% of mass 69	0.74 (1.54)
69	Mass 69 relative abundance	47.78
70	Less than 2.00% of mass 69	0.23 (0.49)
127	40.00 - 60.00% of mass 198	54.13
197	Less than 1.00% of mass 198	0.74
199	5.00 - 9.00% of mass 198	6.98
275	10.00 - 30.00% of mass 198	22.66
365	Greater than 1.00% of mass 198	3.24
441	Present, but less than mass 443	8.72
442	40.00 - 99.99% of mass 198	56.17
443	17.00 - 23.00% of mass 442	10.60 (18.87)

Date : 09-MAR-2016 15:38

Client ID: Instrument: SV103.i

Sample Info: deg0308nb

Operator: hl

Column phase: Column diameter: 2.00

Data File: dftnb.D
Spectrum: Avg. Scans 1414-1416 (9.41), Background Scan 1410
Location of Maximum: 198.00
Number of points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	133	123.00	1647	192.00	1310	272.00	96
38.00	586	124.00	649	193.00	1324	273.00	1744
39.00	3285	125.00	710	194.00	294	274.00	4244
41.00	102	126.00	93	195.00	101	275.00	23192
44.00	17	127.00	55408	196.00	3034	276.00	3025
45.00	55	128.00	4066	197.00	756	277.00	2178
49.00	323	129.00	21648	198.00	102352	278.00	371
50.00	12419	130.00	1818	199.00	7145	283.00	206
51.00	47728	131.00	367	200.00	602	284.00	53
52.00	2455	132.00	159	201.00	582	285.00	320
53.00	68	134.00	625	203.00	740	293.00	469
55.00	172	135.00	1746	204.00	3755	294.00	52
56.00	1441	136.00	716	205.00	6847	296.00	7279
57.00	3417	137.00	779	206.00	26072	297.00	983
58.00	145	138.00	129	207.00	3475	301.00	52
61.00	608	139.00	70	208.00	915	302.00	71
62.00	653	140.00	260	209.00	326	303.00	761
63.00	1875	141.00	2676	210.00	615	304.00	121
64.00	258	142.00	935	211.00	1130	308.00	55
65.00	851	143.00	670	212.00	96	314.00	275
68.00	755	146.00	453	215.00	302	315.00	796
69.00	48904	147.00	1347	216.00	561	316.00	363
70.00	239	148.00	3241	217.00	7389	321.00	198
73.00	358	149.00	609	218.00	834	322.00	58
74.00	4775	150.00	176	219.00	51	323.00	2119
75.00	7462	151.00	346	220.00	64	324.00	482
76.00	2407	152.00	199	221.00	5053	327.00	467
77.00	51904	153.00	825	222.00	651	328.00	258
78.00	3329	154.00	605	223.00	1751	332.00	118
79.00	3038	155.00	1591	224.00	14605	333.00	254
80.00	2504	156.00	2208	225.00	3738	334.00	1419
81.00	3681	157.00	442	226.00	435	335.00	382
82.00	907	158.00	479	227.00	6264	341.00	211
83.00	859	159.00	388	228.00	918	346.00	519
85.00	613	160.00	796	229.00	1351	352.00	636

Date : 09-MAR-2016 15:38

Client ID: Instrument: SV103.i

Sample Info: deg0308nb

Operator: hl

Column phase: Column diameter: 2.00

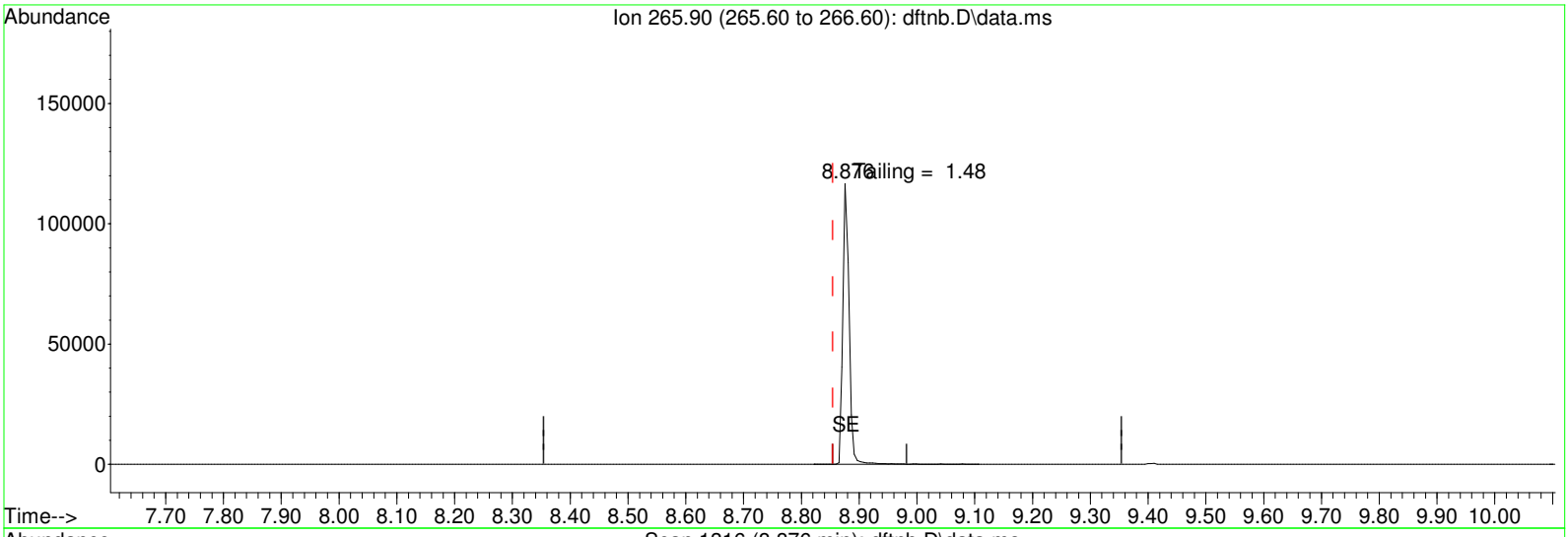
Data File: dftnb.D
Spectrum: Avg. Scans 1414-1416 (9.41), Background Scan 1410
Location of Maximum: 198.00
Number of points: 257

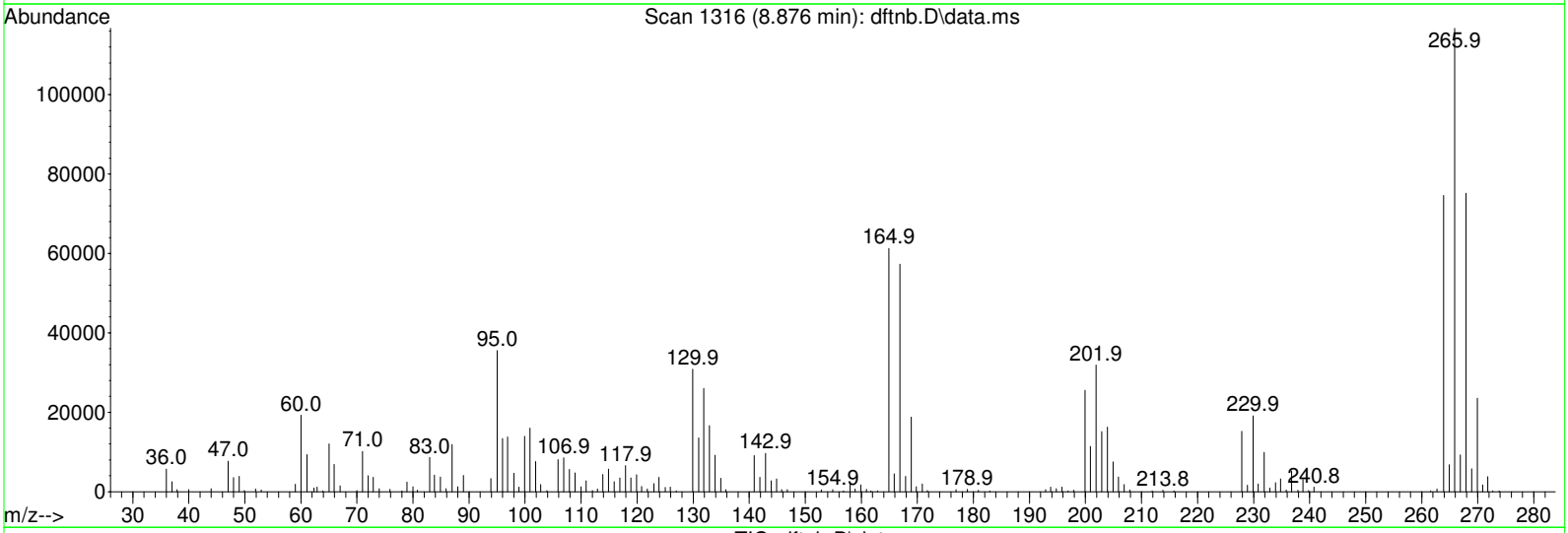
m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	879	161.00	1125	230.00	141	353.00	467
87.00	491	162.00	310	231.00	566	354.00	667
88.00	69	164.00	130	232.00	63	355.00	50
89.00	54	165.00	999	234.00	413	365.00	3318
91.00	845	166.00	720	235.00	523	366.00	389
92.00	850	167.00	5316	236.00	336	371.00	206
93.00	5731	168.00	2890	237.00	517	372.00	915
94.00	459	169.00	533	239.00	217	373.00	276
96.00	363	170.00	85	240.00	168	383.00	303
98.00	4231	171.00	153	241.00	394	384.00	69
99.00	3657	172.00	516	242.00	896	390.00	158
100.00	436	173.00	561	243.00	1010	391.00	51
101.00	1913	174.00	1125	244.00	10607	402.00	389
102.00	63	175.00	2025	245.00	1436	403.00	534
103.00	684	176.00	615	246.00	2211	404.00	185
104.00	1209	177.00	950	247.00	533	421.00	439
105.00	1075	178.00	350	249.00	401	422.00	428
106.00	339	179.00	3984	250.00	52	423.00	3062
107.00	16137	180.00	2773	251.00	59	424.00	671
108.00	2376	181.00	1361	253.00	257	425.00	50
109.00	433	182.00	208	255.00	54928	438.00	174
110.00	28224	183.00	51	256.00	7937	439.00	51
111.00	4176	184.00	308	257.00	678	440.00	146
112.00	494	185.00	1952	258.00	3569	441.00	8920
113.00	144	186.00	14487	259.00	555	442.00	57488
116.00	773	187.00	4083	261.00	53	443.00	10850
117.00	13065	188.00	452	264.00	174	444.00	988
118.00	915	189.00	841	265.00	1525		
120.00	126	190.00	143	266.00	334		
122.00	949	191.00	350	271.00	123		

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160308ical.b\
Data File : dftnb.D
Acq On : 9 Mar 2016 3:38 pm
Operator : hl
Sample : deg0308nb
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 10 10:35:46 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Thu Mar 10 08:17:51 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftnb.D\data.ms

(1) pentachlorophenol (T)

8.876min (+0.021) 41.93

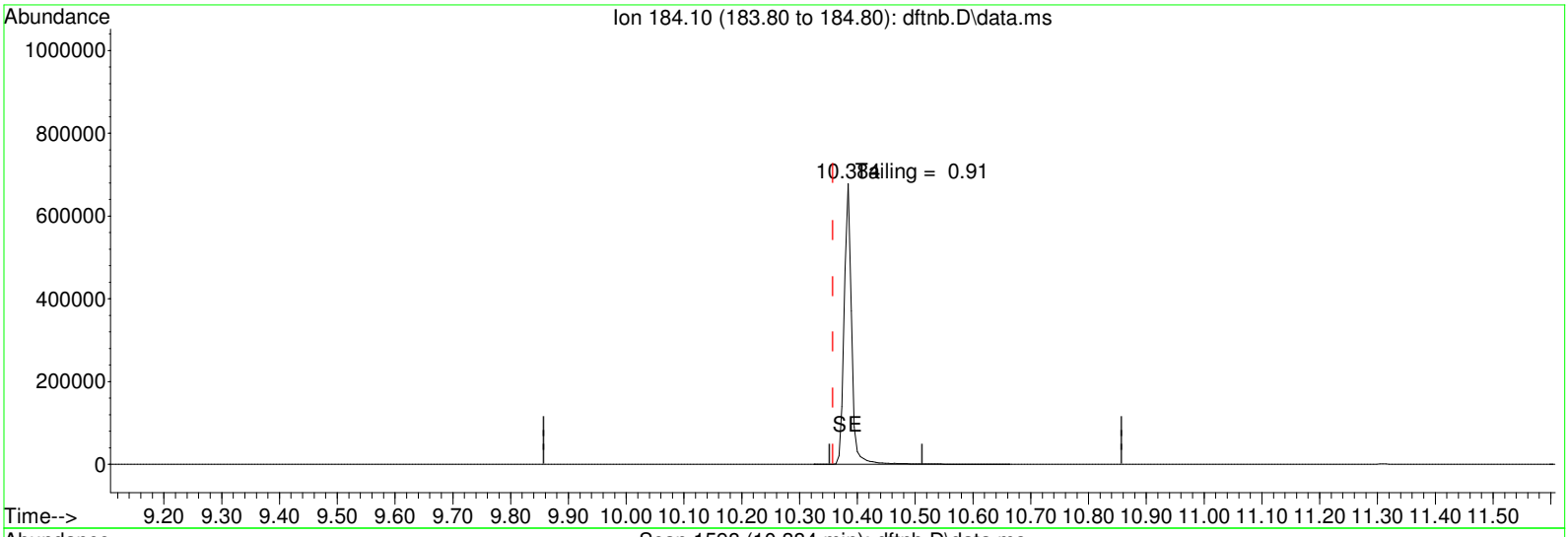
response 88066

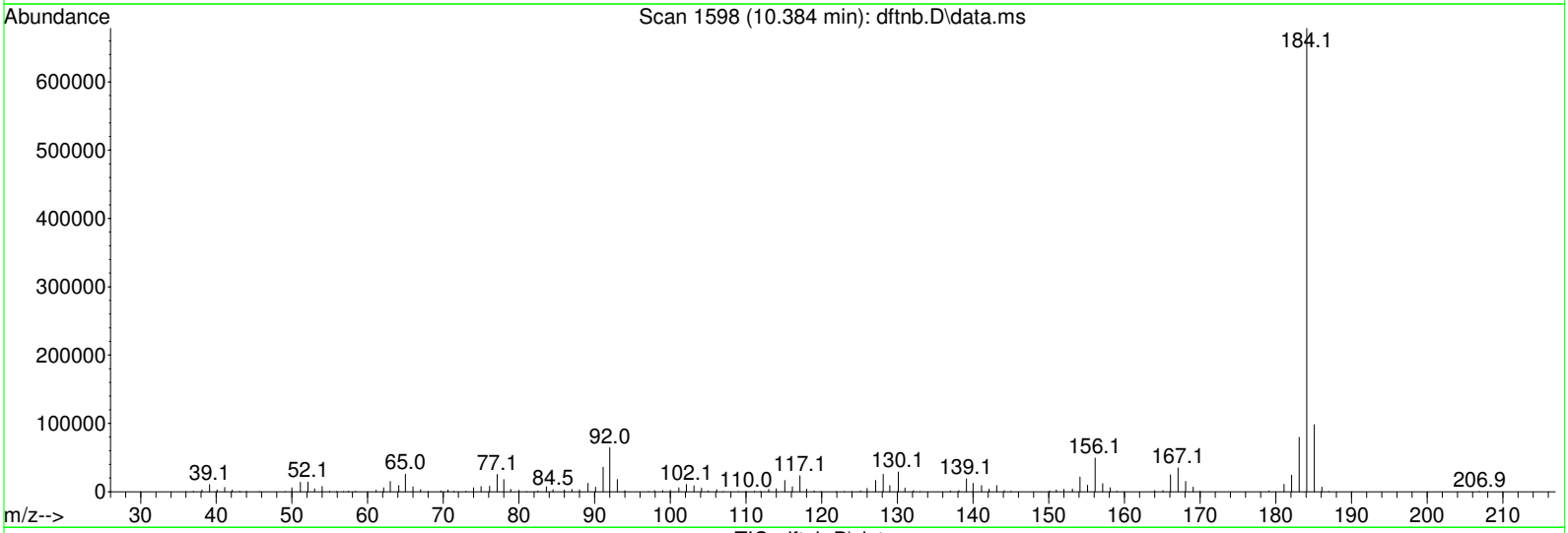
Ion	Exp%	Act%
265.90	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160308ical.b\
Data File : dftnb.D
Acq On : 9 Mar 2016 3:38 pm
Operator : hl
Sample : deg0308nb
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 10 10:35:46 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Thu Mar 10 08:17:51 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftnb.D\data.ms

(3) benzidine (T)

10.384min (+0.027) 59.65

response 607267

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL1.D
Lab Smp Id:
Inj Date : 09-MAR-2016 16:04
Operator : hl Inst ID: SV103.i
Smp Info : BENZL1 lot#5677
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 45 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	105865	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	422534	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	218759	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	387380	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	3977	1.00000	2.56	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	360332	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	348041	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL1.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	105865	-20.10
34 Naphthalene-d8	538944	269472	1077888	422534	-21.60
61 Acenaphthene-d10	281538	140769	563076	218759	-22.30
85 Phenanthrene-d10	518342	259171	1036684	387380	-25.27
102 Chrysene-d12	479734	239867	959468	360332	-24.89
110 Perylene-d12	449234	224617	898468	348041	-22.53

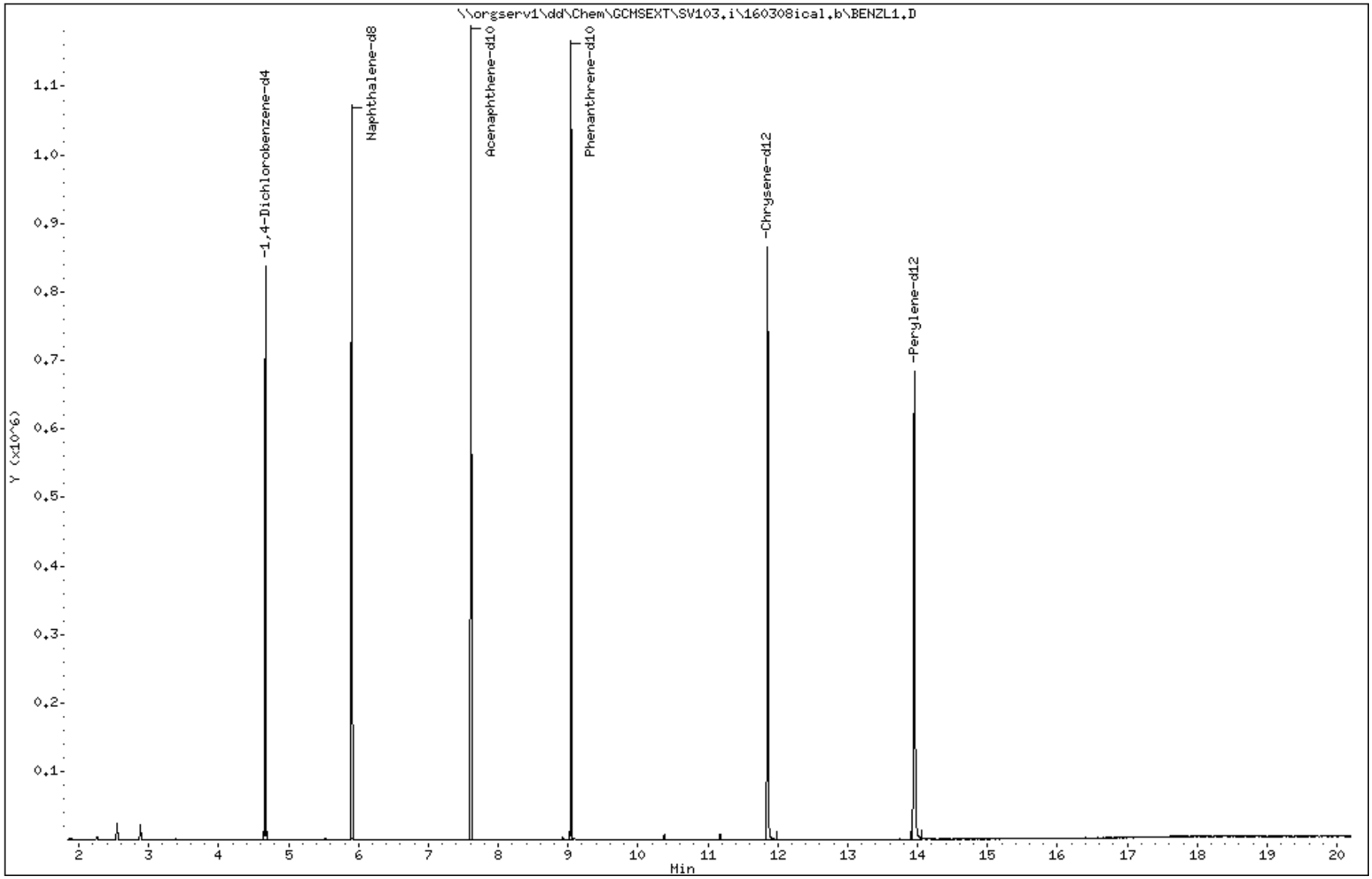
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.90	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL1.D
Date : 09-MAR-2016 16:04
Client ID:
Sample Info: BENZL1 lot#5677

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL1 lot#5677

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL1.D
Injection Date : 09-MAR-2016 16:04
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL2.D
Lab Smp Id:
Inj Date : 09-MAR-2016 16:30
Operator : hl Inst ID: SV103.i
Smp Info : BENZL2 lot#5678
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:04 Cal File: BENZL1.D
Als bottle: 46 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	105867	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	422366	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	209489	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	371562	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	7713	2.00000	3.08	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	344124	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	326819	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL2.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	105867	-20.10
34 Naphthalene-d8	538944	269472	1077888	422366	-21.63
61 Acenaphthene-d10	281538	140769	563076	209489	-25.59
85 Phenanthrene-d10	518342	259171	1036684	371562	-28.32
102 Chrysene-d12	479734	239867	959468	344124	-28.27
110 Perylene-d12	449234	224617	898468	326819	-27.25

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

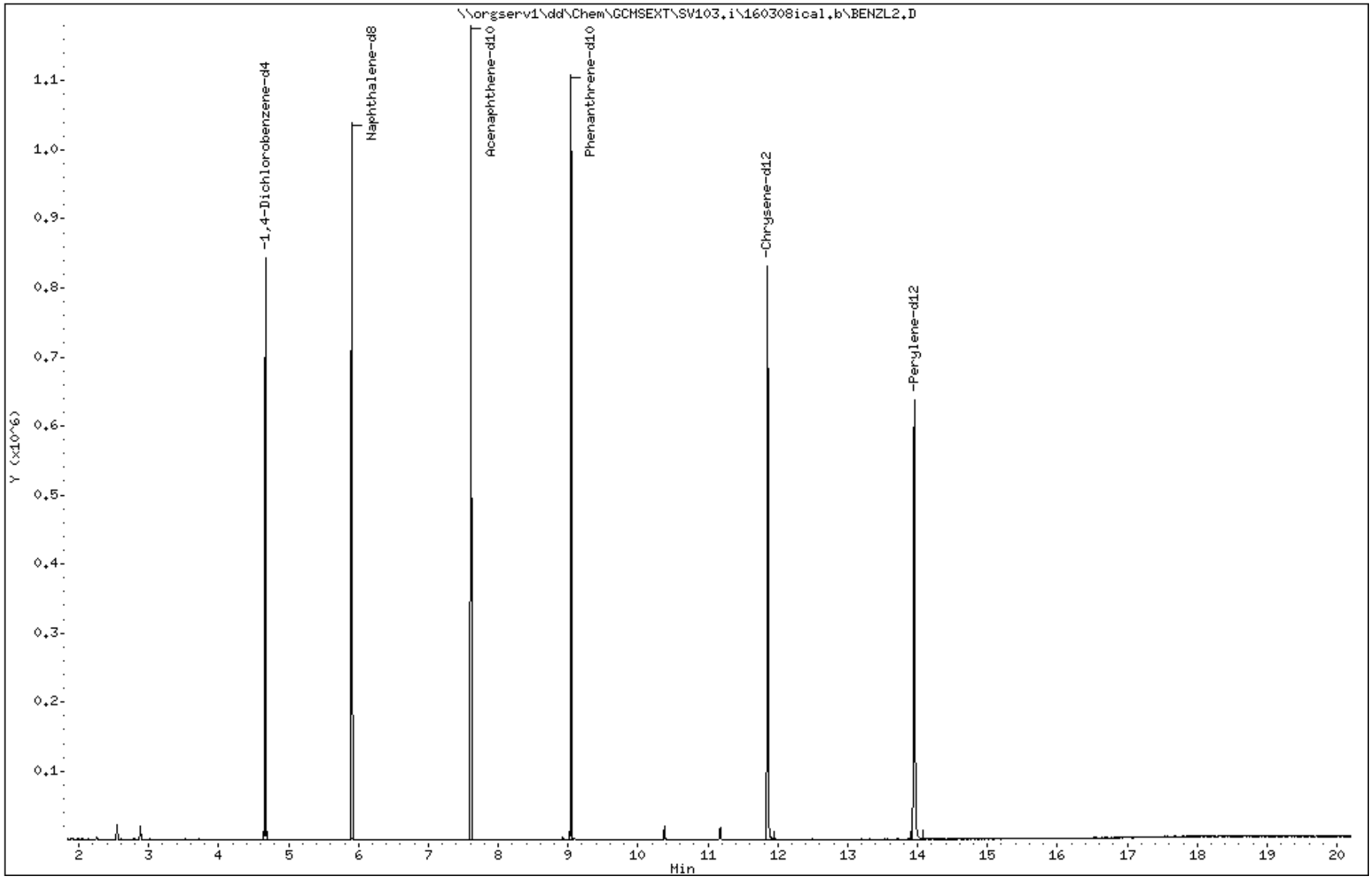
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL2.D
Date : 09-MAR-2016 16:30
Client ID:
Sample Info: BENZL2 lot#5678

Column phase: RTx-5

Instrument: SV103.i

Operator: hl
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL2 lot#5678

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL2.D
Injection Date : 09-MAR-2016 16:30
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL3.D
Lab Smp Id:
Inj Date : 09-MAR-2016 16:55
Operator : hl Inst ID: SV103.i
Smp Info : BENZL3 lot#5679
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:30 Cal File: BENZL2.D
Als bottle: 47 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	131258	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	528243	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	264807	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	467473	40.0000		
97 3,3'-Dimethylbenzidine	212	11.170	11.170	(0.942)	16930	3.00000	3.82	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	435846	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	421693	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL3.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	131258	-0.94
34 Naphthalene-d8	538944	269472	1077888	528243	-1.99
61 Acenaphthene-d10	281538	140769	563076	264807	-5.94
85 Phenanthrene-d10	518342	259171	1036684	467473	-9.81
102 Chrysene-d12	479734	239867	959468	435846	-9.15
110 Perylene-d12	449234	224617	898468	421693	-6.13

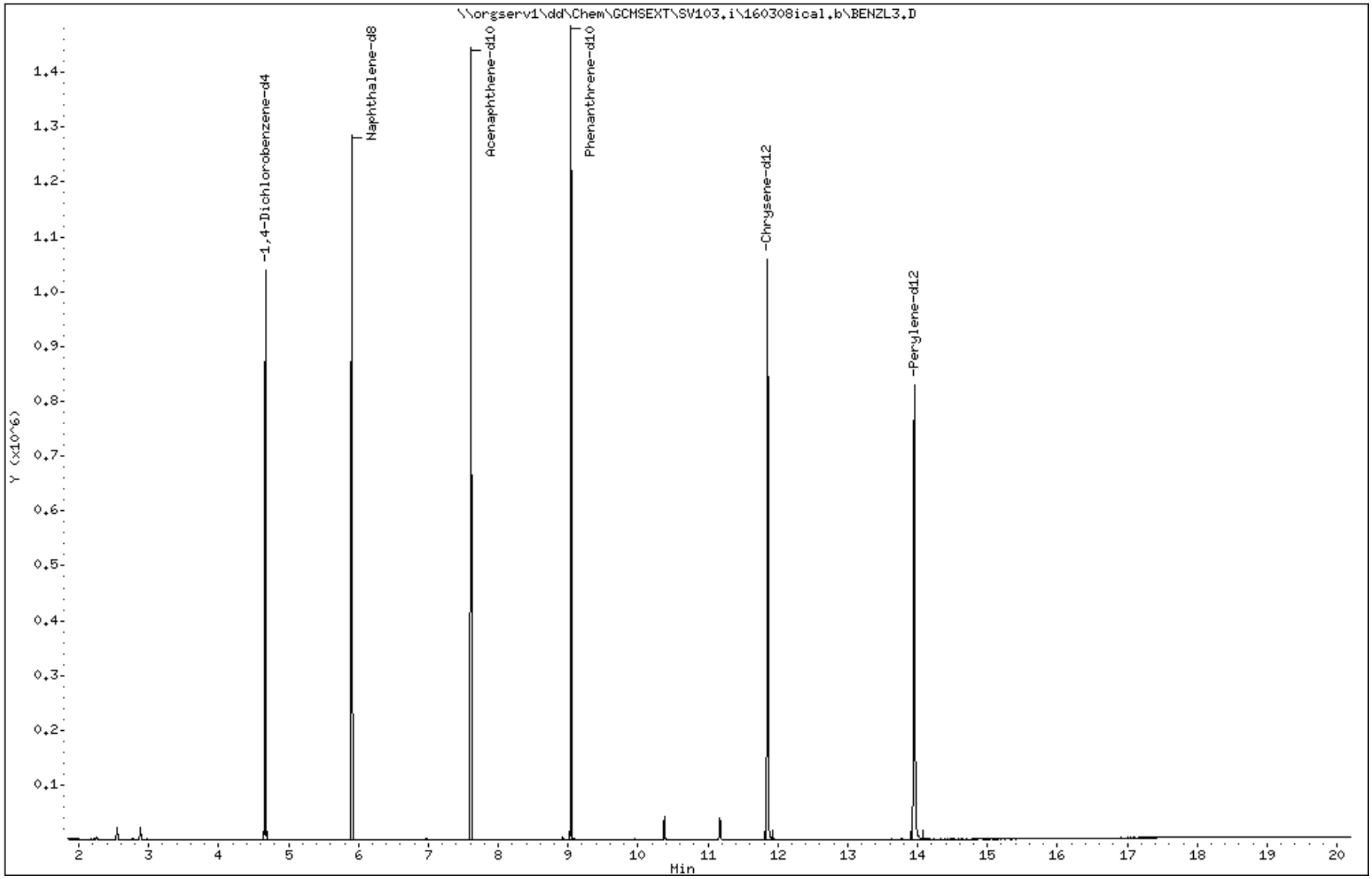
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL3.D
Date : 09-MAR-2016 16:55
Client ID:
Sample Info: BENZL3 lot#5679

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL3 lot#5679

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL3.D
Injection Date : 09-MAR-2016 16:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL4.D
Lab Smp Id:
Inj Date : 09-MAR-2016 17:21
Operator : hl Inst ID: SV103.i
Smp Info : BENZL5 lot#5680
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 16:55 Cal File: BENZL3.D
Als bottle: 48 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	103379	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	415543	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	220961	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	393551	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	25724	5.00000	5.26	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	362844	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	337098	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL4.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	103379	-21.98
34 Naphthalene-d8	538944	269472	1077888	415543	-22.90
61 Acenaphthene-d10	281538	140769	563076	220961	-21.52
85 Phenanthrene-d10	518342	259171	1036684	393551	-24.08
102 Chrysene-d12	479734	239867	959468	362844	-24.37
110 Perylene-d12	449234	224617	898468	337098	-24.96

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.90	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-0.00

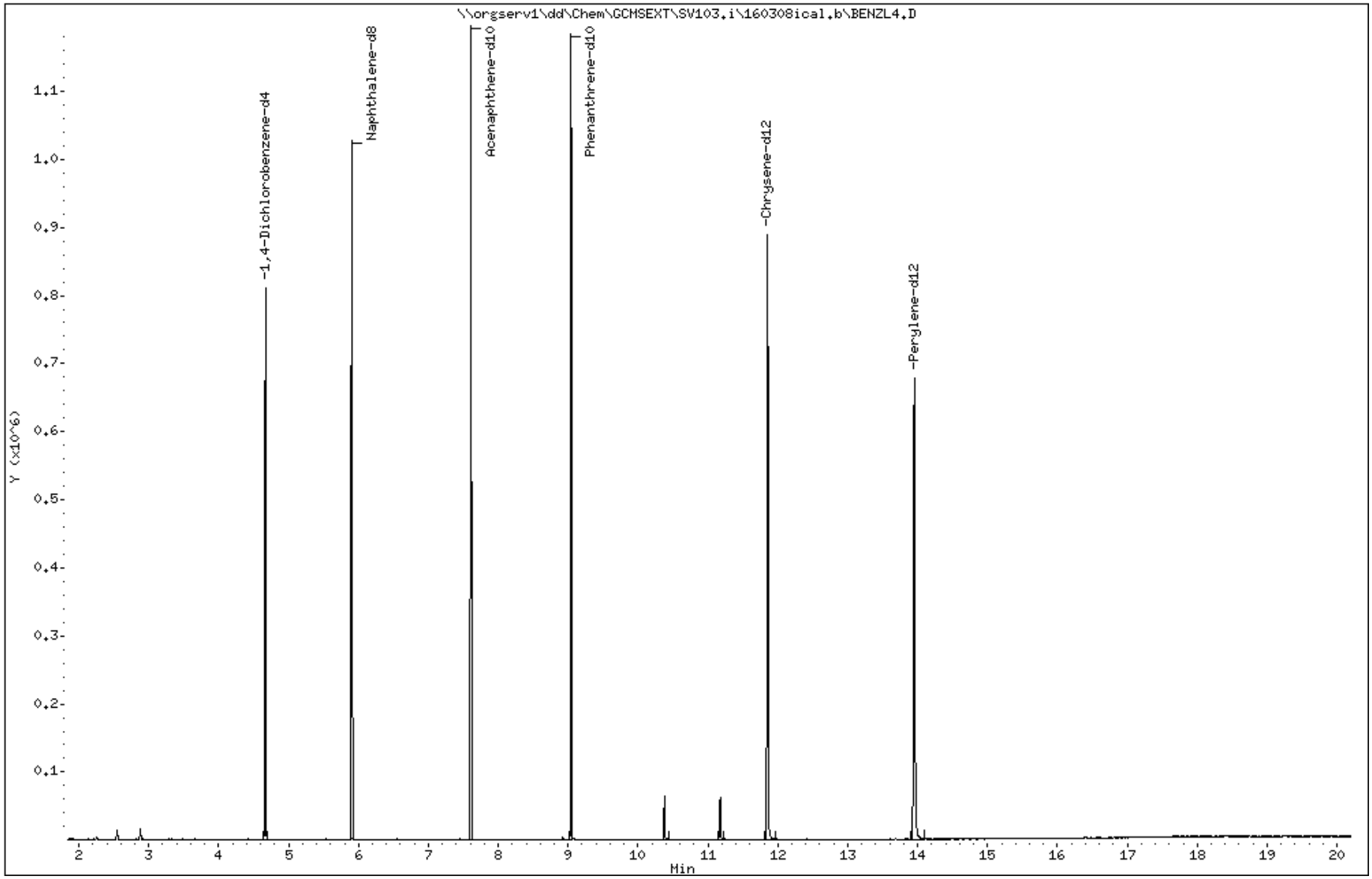
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL4.D
Date : 09-MAR-2016 17:21
Client ID:
Sample Info: BENZL5 lot#5680

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL5 lot#5680

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL4.D
Injection Date : 09-MAR-2016 17:21
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL5.D
Lab Smp Id:
Inj Date : 09-MAR-2016 17:47
Operator : hl Inst ID: SV103.i
Smp Info : BENZL10 lot#5681
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:21 Cal File: BENZL4.D
Als bottle: 49 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	106789	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	439159	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	224720	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	402088	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	59012	10.0000	9.16	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	374933	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	352696	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL5.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	106789	-19.41
34 Naphthalene-d8	538944	269472	1077888	439159	-18.51
61 Acenaphthene-d10	281538	140769	563076	224720	-20.18
85 Phenanthrene-d10	518342	259171	1036684	402088	-22.43
102 Chrysene-d12	479734	239867	959468	374933	-21.85
110 Perylene-d12	449234	224617	898468	352696	-21.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.91	0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	0.00

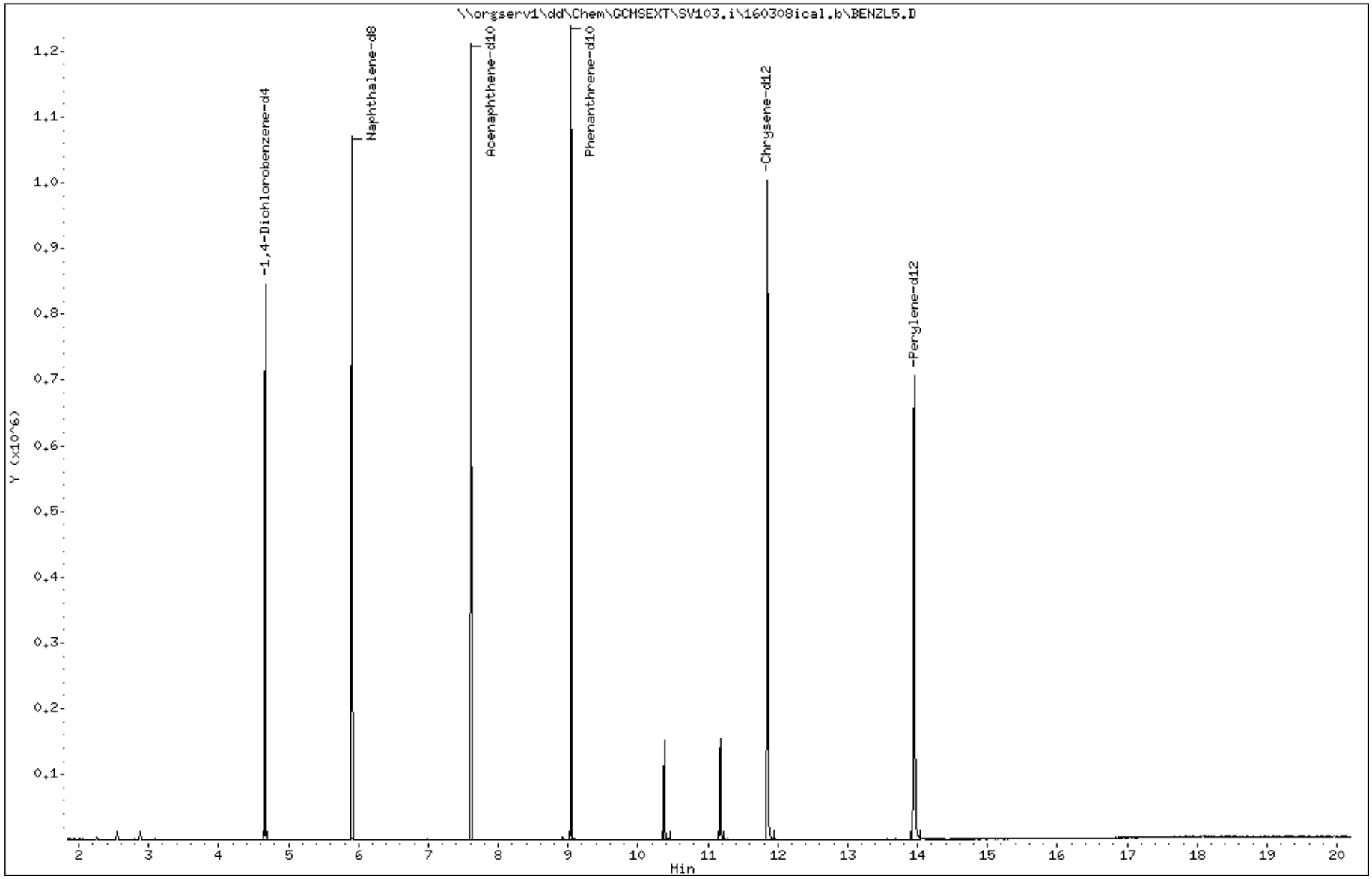
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL5.D
Date : 09-MAR-2016 17:47
Client ID:
Sample Info: BENZL10 lot#5681

Instrument: SV103.i

Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL10 lot#5681

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL5.D
Injection Date : 09-MAR-2016 17:47
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL6.D
Lab Smp Id:
Inj Date : 09-MAR-2016 18:12
Operator : hl Inst ID: SV103.i
Smp Info : BENZL20 lot#5682
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 17:47 Cal File: BENZL5.D
Als bottle: 50 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	104242	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	422623	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	220250	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	389603	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	135855	20.0000	18.4	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	373429	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	358362	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL6.D Calibration Time: 13:14
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	132502	66251	265004	104242	-21.33
34 Naphthalene-d8	538944	269472	1077888	422623	-21.58
61 Acenaphthene-d10	281538	140769	563076	220250	-21.77
85 Phenanthrene-d10	518342	259171	1036684	389603	-24.84
102 Chrysene-d12	479734	239867	959468	373429	-22.16
110 Perylene-d12	449234	224617	898468	358362	-20.23

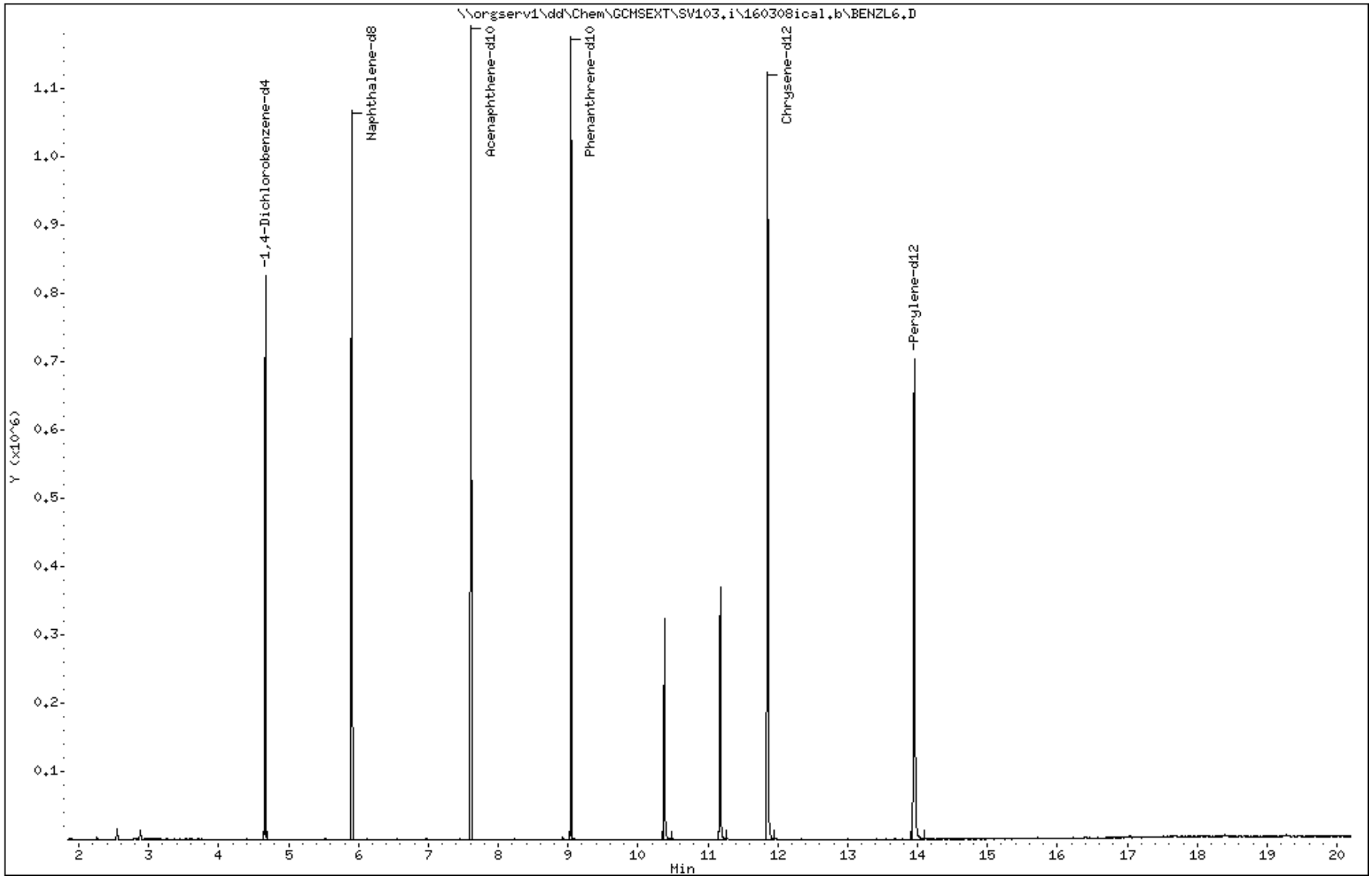
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.90	0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL6.D
Date : 09-MAR-2016 18:12
Client ID:
Sample Info: BENZL20 lot#5682

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL20 lot#5682

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL6.D
Injection Date : 09-MAR-2016 18:12
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL7.D
Lab Smp Id:
Inj Date : 09-MAR-2016 18:38
Operator : hl Inst ID: SV103.i
Smp Info : BENZL50 lot#5683
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:12 Cal File: BENZL6.D
Als bottle: 51 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	109318	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	442950	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	231441	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	414182	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	409342	50.0000	47.2	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	405936	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	369329	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL7.D Calibration Time: 18:38
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	108088	54044	216176	109318	1.14
34 Naphthalene-d8	438622	219311	877244	442950	0.99
61 Acenaphthene-d10	229794	114897	459588	231441	0.72
85 Phenanthrene-d10	414473	207237	828946	414182	-0.07
102 Chrysene-d12	376530	188265	753060	405936	7.81
110 Perylene-d12	373937	186969	747874	369329	-1.23

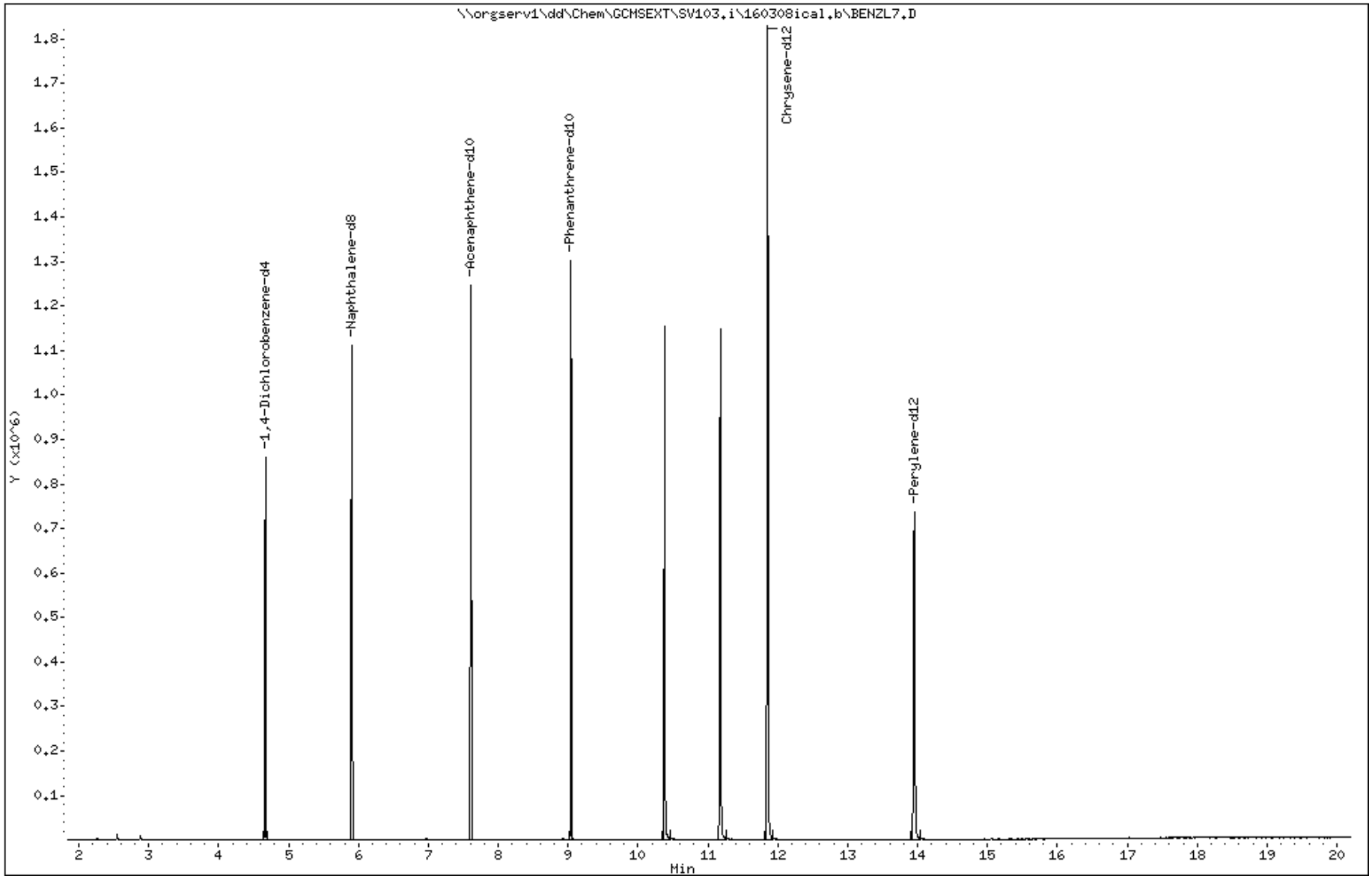
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.96	13.46	14.46	13.95	-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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL7.D
Date : 09-MAR-2016 18:38
Client ID:
Sample Info: BENZL50 lot#5683

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL50 lot#5683

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL7.D
Injection Date : 09-MAR-2016 18:38
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL8.D
Lab Smp Id:
Inj Date : 09-MAR-2016 19:03
Operator : hl Inst ID: SV103.i
Smp Info : BENZL100 lot#5684
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 18:38 Cal File: BENZL7.D
Als bottle: 52 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	129759	40.0000		
* 34 Naphthalene-d8	136	5.907	5.907	(1.000)	510359	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	252676	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	436550	40.0000		
97 3,3'-Dimethylbenzidine	212	11.180	11.180	(0.943)	938703	100.000	99.7	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	425693	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	386924	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL8.D Calibration Time: 18:38
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	108088	54044	216176	129759	20.05
34 Naphthalene-d8	438622	219311	877244	510359	16.36
61 Acenaphthene-d10	229794	114897	459588	252676	9.96
85 Phenanthrene-d10	414473	207237	828946	436550	5.33
102 Chrysene-d12	376530	188265	753060	425693	13.06
110 Perylene-d12	373937	186969	747874	386924	3.47

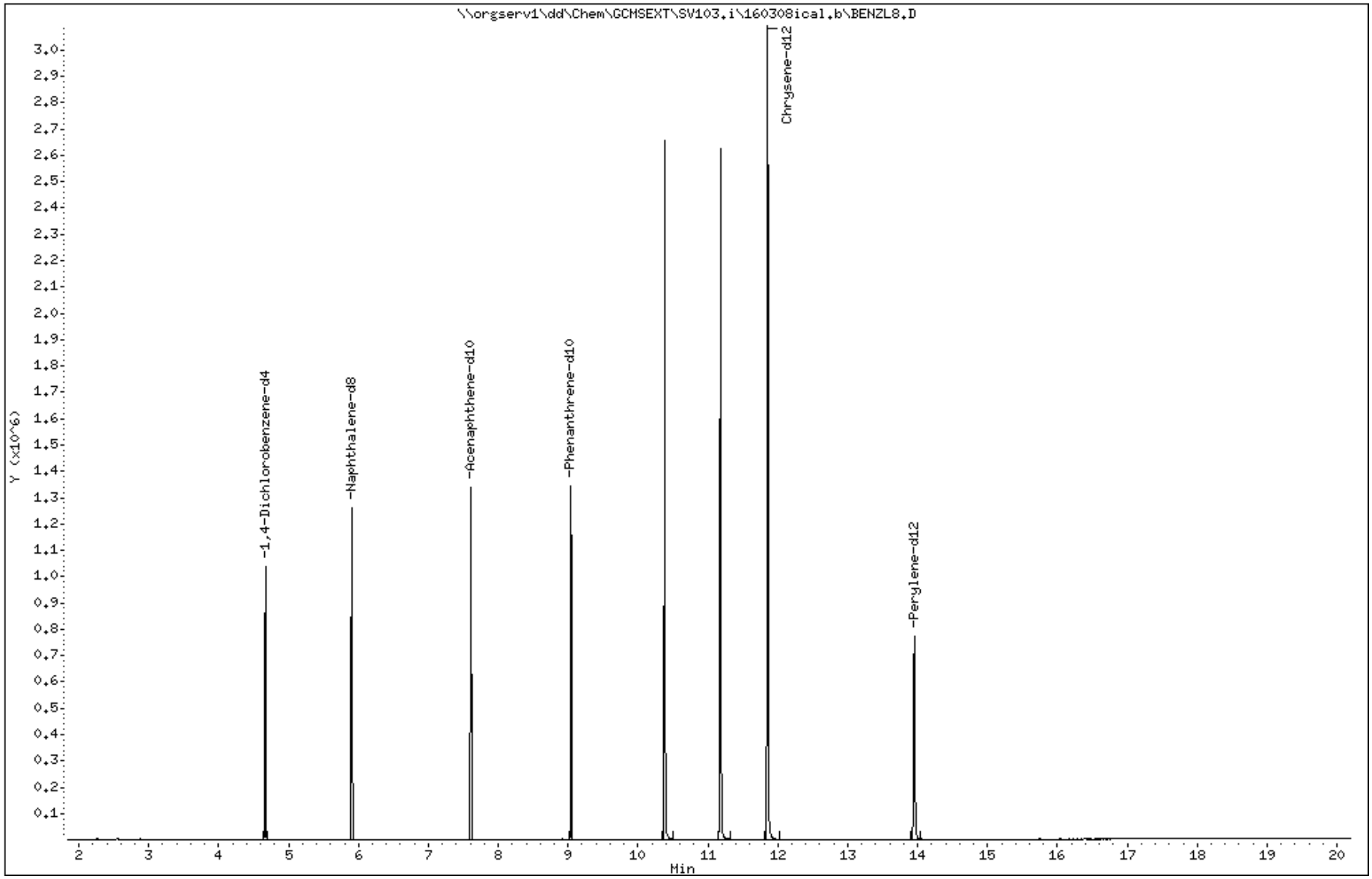
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.96	13.46	14.46	13.95	-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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL8.D
Date : 09-MAR-2016 19:03
Client ID:
Sample Info: BENZL100 lot#5684

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL100 lot#5684

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL8.D
Injection Date : 09-MAR-2016 19:03
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL9.D
Lab Smp Id:
Inj Date : 09-MAR-2016 19:29
Operator : hl Inst ID: SV103.i
Smp Info : BENZL150 lot#5685
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:03 Cal File: BENZL8.D
Als bottle: 53 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	103413	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	413269	40.0000		
* 61 Acenaphthene-d10	164	7.607	7.607	(1.000)	218235	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	387604	40.0000		
97 3,3'-Dimethylbenzidine	212	11.180	11.180	(0.943)	1357460	150.000	154	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	391850	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	348991	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL9.D Calibration Time: 18:38
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	108088	54044	216176	103413	-4.33
34 Naphthalene-d8	438622	219311	877244	413269	-5.78
61 Acenaphthene-d10	229794	114897	459588	218235	-5.03
85 Phenanthrene-d10	414473	207237	828946	387604	-6.48
102 Chrysene-d12	376530	188265	753060	391850	4.07
110 Perylene-d12	373937	186969	747874	348991	-6.67

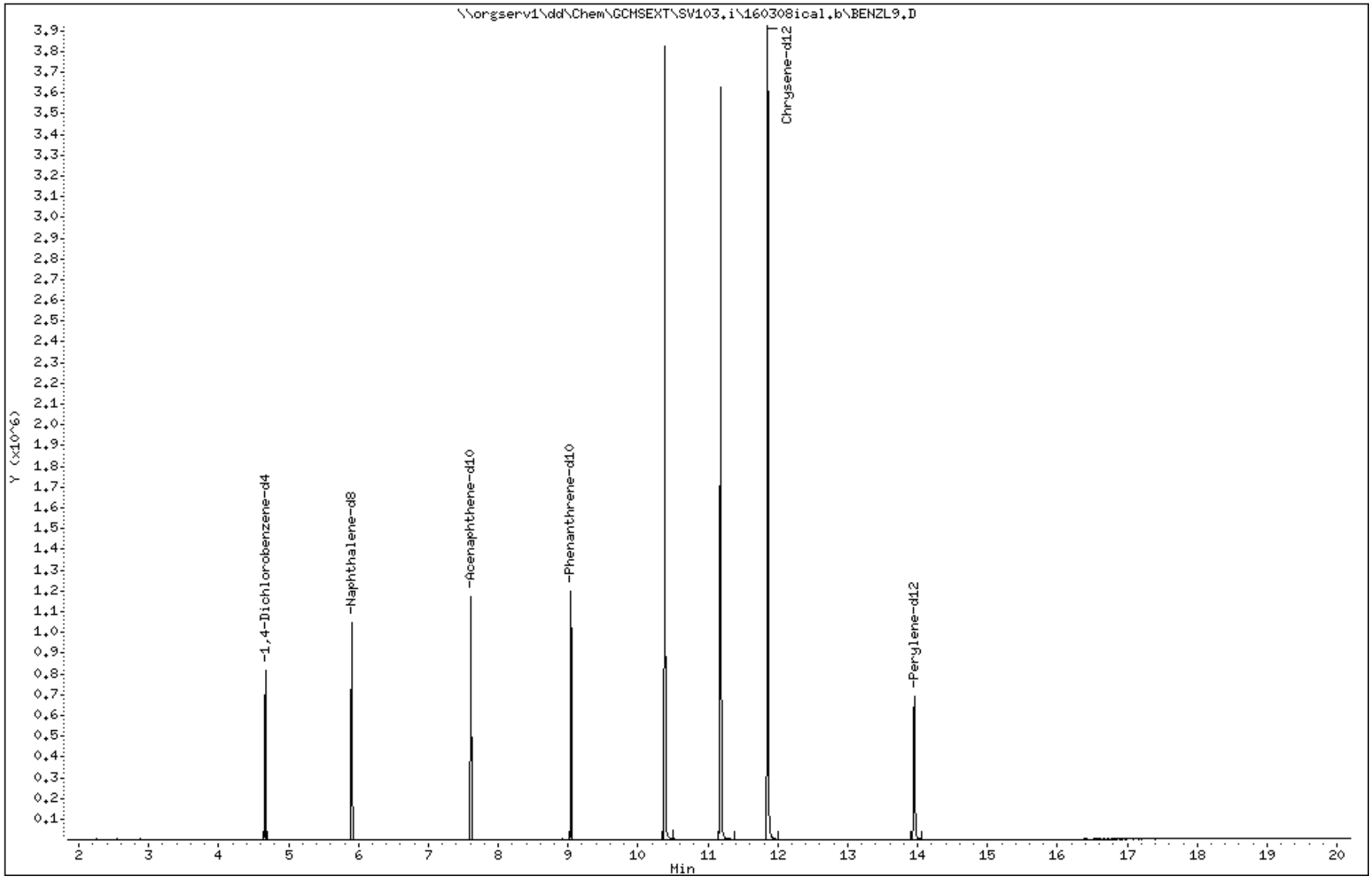
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.96	13.46	14.46	13.95	-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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL9.D
Date : 09-MAR-2016 19:29
Client ID:
Sample Info: BENZL150 lot#5685

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL150 lot#5685

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL9.D
Injection Date : 09-MAR-2016 19:29
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL10.D
Lab Smp Id:
Inj Date : 09-MAR-2016 19:55
Operator : hl Inst ID: SV103.i
Smp Info : BENZL200 lot#5676
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:02 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:29 Cal File: BENZL9.D
Als bottle: 54 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	122766	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	480235	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	246199	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	433368	40.0000		
97 3,3'-Dimethylbenzidine	212	11.186	11.186	(0.944)	2104826	200.000	198	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	466392	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	408452	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZL10.D Calibration Time: 18:38
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	108088	54044	216176	122766	13.58
34 Naphthalene-d8	438622	219311	877244	480235	9.49
61 Acenaphthene-d10	229794	114897	459588	246199	7.14
85 Phenanthrene-d10	414473	207237	828946	433368	4.56
102 Chrysene-d12	376530	188265	753060	466392	23.87
110 Perylene-d12	373937	186969	747874	408452	9.23

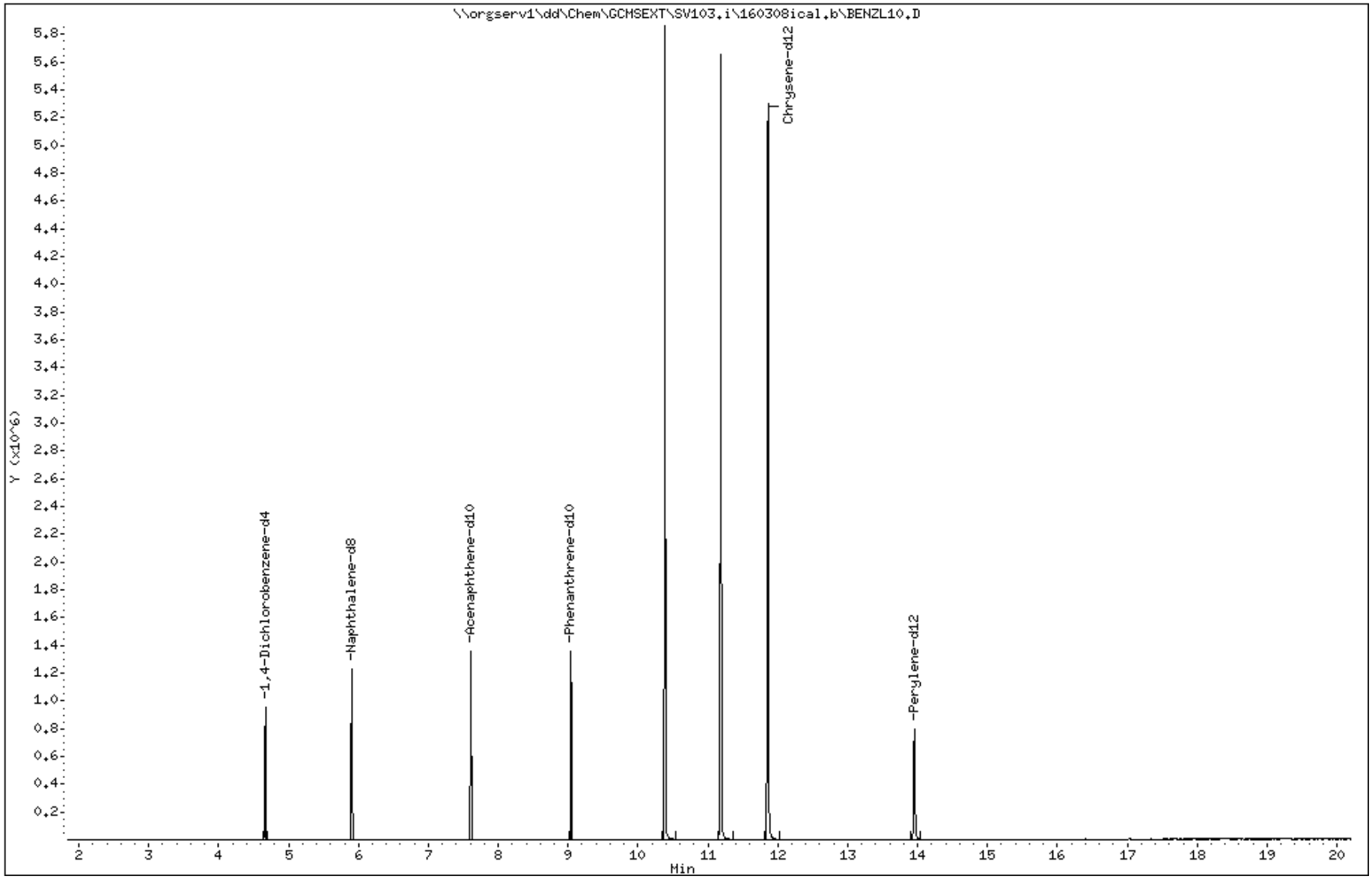
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.91	5.41	6.41	5.90	-0.09
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.96	13.46	14.46	13.95	-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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZL10.D
Date : 09-MAR-2016 19:55
Client ID:
Sample Info: BENZL200 lot#5676

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZL200 lot#5676

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZL10.D
Injection Date : 09-MAR-2016 19:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 09-MAR-2016 20:21
Lab File ID: BENZICV.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
97 3,3'-Dimethylbenzidine	50.00000	48.79222	0.83574	0.050	-2.41557	20.00000	Quadratic

Average %D / Drift Results.
Calculated Average %D/Drift = 2.41557
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZICV.D
Lab Smp Id:
Inj Date : 09-MAR-2016 20:21
Operator : hl Inst ID: SV103.i
Smp Info : BENZICV lot#5686
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Meth Date : 09-Mar-2016 23:03 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 33dim.sub
Target Version: 4.12
Processing Host: VIRTUALXP-76934

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.666	4.666	(1.000)	115266	40.0000		
* 34 Naphthalene-d8	136	5.901	5.901	(1.000)	469753	40.0000		
* 61 Acenaphthene-d10	164	7.608	7.608	(1.000)	244738	40.0000		
* 85 Phenanthrene-d10	188	9.041	9.041	(1.000)	421729	40.0000		
97 3,3'-Dimethylbenzidine	212	11.175	11.175	(0.943)	425222	50.0000	48.8	
* 102 Chrysene-d12	240	11.854	11.854	(1.000)	407040	40.0000		
* 110 Perylene-d12	264	13.951	13.951	(1.000)	369006	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i Calibration Date: 09-MAR-2016
Lab File ID: BENZICV.D Calibration Time: 14:56
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: hl
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\HP2ABNv2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	109318	54659	218636	115266	5.44
34 Naphthalene-d8	442950	221475	885900	469753	6.05
61 Acenaphthene-d10	231441	115721	462882	244738	5.75
85 Phenanthrene-d10	414182	207091	828364	421729	1.82
102 Chrysene-d12	405936	202968	811872	407040	0.27
110 Perylene-d12	369329	184665	738658	369006	-0.09

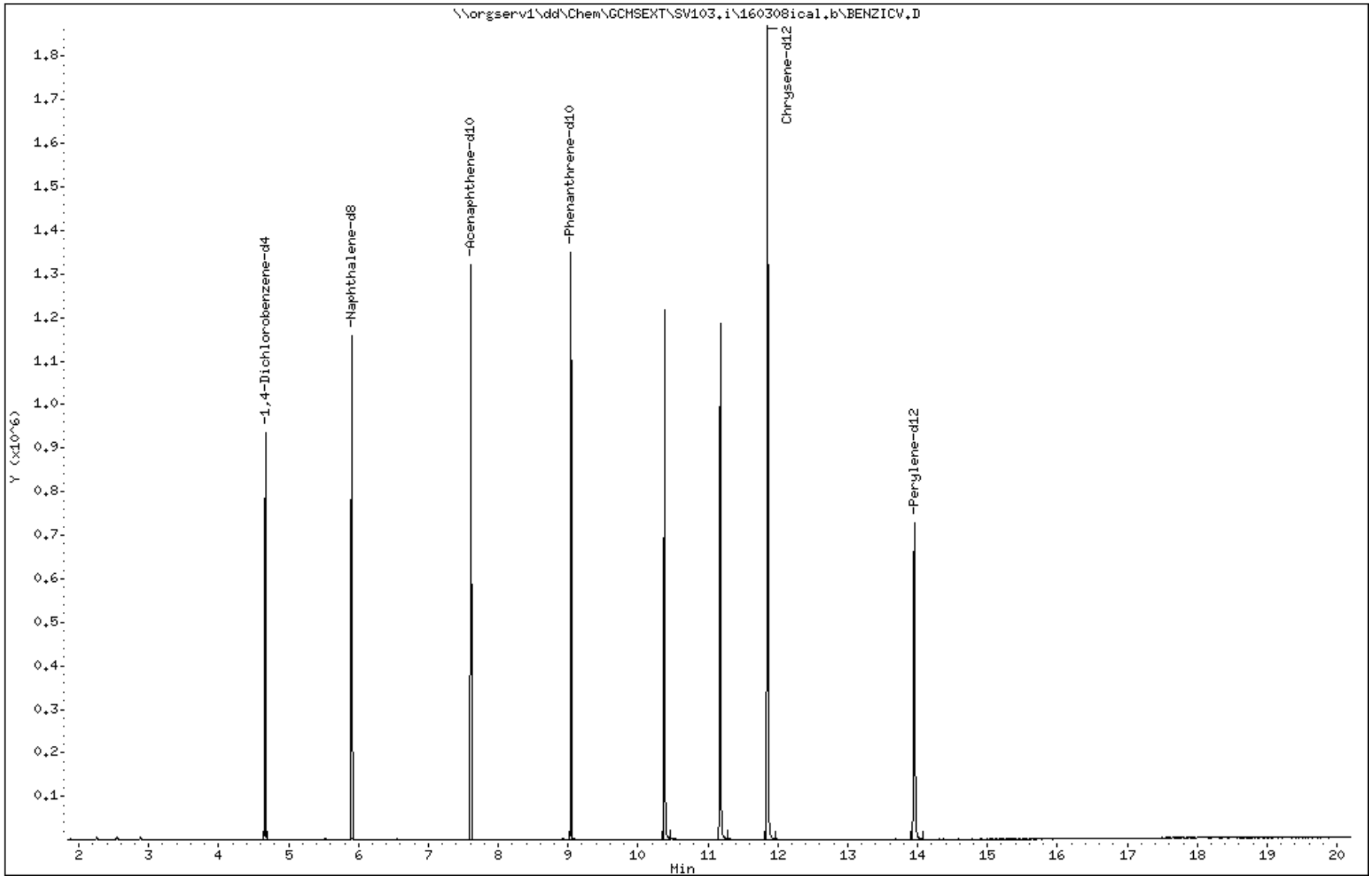
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.67	4.17	5.17	4.67	-0.00
34 Naphthalene-d8	5.90	5.40	6.40	5.90	-0.00
61 Acenaphthene-d10	7.61	7.11	8.11	7.61	-0.00
85 Phenanthrene-d10	9.04	8.54	9.54	9.04	-0.00
102 Chrysene-d12	11.85	11.35	12.35	11.85	-0.00
110 Perylene-d12	13.95	13.45	14.45	13.95	-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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160308ical.b\BENZICV.D
Date : 09-MAR-2016 20:21
Client ID:
Sample Info: BENZICV lot#5686

Instrument: SV103.i
Operator: hl
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : BENZICV lot#5686

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : BENZICV.D
Injection Date : 09-MAR-2016 20:21
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Calibration File Names:
Level 1: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL1.D
Level 2: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL2.D
Level 3: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL3.D
Level 4: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL4.D
Level 5: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL5.D
Level 6: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL6.D
Level 7: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL7.D
Level 8: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL8.D
Level 9: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL9.D
Level 10: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL10.D

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
1 n-Nitrosodimethylamine	0.87532	0.89794	0.82265	0.87872	0.90244	0.97249					
	1.11352	0.99540	1.01913	1.02745			AVRG		0.95051		9.40549
2 Pyridine	+++++	+++++	+++++	1.24589	1.53640	1.67342					
	2.01683	1.71793	1.73927	1.75414			AVRG		1.66913		14.09703
4 Benzaldehyde	1.05859	0.98148	1.02693	1.05438	1.13322	1.15235					
	1.10053	0.97257	0.94504	0.89577			AVRG		1.03209		8.09787

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
5 Aniline	+++++	12836	29356	50490	111668	306592					
	958098	1538820	2178255	2610742			QUAD	0.04794	0.30694	0.01084	0.99780
7 Phenol	1.79234	1.72108	1.80641	1.92143	1.96254	2.06455					
	2.47237	2.10520	2.06828	1.99354			AVRG		1.99077		10.69768
8 Bis(2-chloroethyl)ether	1.34059	1.17984	1.27873	1.36121	1.36601	1.44633					
	1.73065	1.49297	1.46637	1.44101			AVRG		1.41037		10.42321
9 2-Chlorophenol	1.32633	1.31513	1.34949	1.40186	1.40327	1.44121					
	1.67775	1.47572	1.46889	1.45240			AVRG		1.43121		7.27337
10 1,3-Dichlorobenzene	1.78795	1.57535	1.54929	1.56888	1.53037	1.57155					
	1.80122	1.54276	1.49121	1.47047			AVRG		1.58891		7.15364
12 1,4-Dichlorobenzene	1.84537	1.58044	1.60857	1.62315	1.56938	1.60522					
	1.83415	1.55939	1.50074	1.49028			AVRG		1.62167		7.57577
14 Benzyl alcohol	1.07504	1.06141	1.13771	1.18791	1.22816	1.32131					
	1.60166	1.36316	1.33345	1.30430			AVRG		1.26141		12.76331

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
13 1,2-Dichlorobenzene	1.65041	1.59721	1.50758	1.56481	1.51830	1.51573					
	1.71565	1.44578	1.36012	1.32746			AVRG		1.52031		7.95297
15 2-Methylphenol	1.22299	1.23840	1.22795	1.24346	1.26244	1.32804					
	1.59663	1.36671	1.34870	1.32148			AVRG		1.31568		8.52116
16 Bis(2-chloroisopropyl)ether	2.53195	2.25951	2.21289	2.26338	2.20355	2.20277					
	2.55977	2.22519	2.13565	2.06273			AVRG		2.26574		7.02134
17 Acetophenone	1.77063	1.89918	1.90640	1.96964	2.06983	2.11977					
	2.23081	2.24335	2.28042	2.22273			AVRG		2.07128		8.54018
18 n-Nitrosodi-n-propylamine	1.20562	1.08450	1.12831	1.11466	1.15052	1.17720					
	1.40763	1.21883	1.22186	1.20871			AVRG		1.19178		7.51045
19 3-Methylphenol/4-Methylphenol	1.23214	1.19881	1.27341	1.32667	1.36031	1.41035					
	1.68497	1.44536	1.45448	1.43523			AVRG		1.38217		10.11854
21 m-Toluidine	1.43696	1.24761	1.37997	1.60078	1.79798	1.85572					
	1.67389	1.46745	1.44485	1.36886			AVRG		1.52741		12.94029

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
20 Hexachloroethane	0.73065	0.65818	0.62380	0.65069	0.62917	0.64404					
	0.74617	0.64291	0.63065	0.62306			AVRG		0.65793		6.70167
23 Nitrobenzene	0.32840	0.34404	0.34799	0.37630	0.39213	0.41423					
	0.49220	0.43470	0.42678	0.41834			AVRG		0.39751		12.57429
24 Isophorone	3.25711	3.05386	2.95140	3.05544	3.08781	3.10204					
	3.71246	3.14660	3.14826	3.13161			AVRG		3.16466		6.57641
25 2-Chloroaniline	1.73559	1.63517	1.61361	1.69585	1.75159	1.80711					
	1.82832	1.72750	1.72992	1.62711			AVRG		1.71518		4.26720
26 2-Nitrophenol	+++++	+++++	+++++	0.55511	0.62044	0.66976					
	0.83608	0.75236	0.75540	0.76564			AVRG		0.70783		13.70305
27 2,4-Dimethylphenol	1.40497	1.39608	1.34255	1.35398	1.36604	1.40668					
	1.74909	1.50224	1.51684	1.50393			AVRG		1.45424		8.39091
28 Bis(2-chloroethoxy)methane	1.92493	1.70414	1.71634	1.79958	1.83212	1.84885					
	2.21619	1.89240	1.86807	1.84696			AVRG		1.86496		7.61693

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
30 Benzoic acid	+++++	+++++	+++++	+++++	44936	102153					
	381108	738792	1167905	1482584			WLINR	0.12605	0.32132		0.99871
29 2,4-Dichlorophenol	0.26259	0.25177	0.25046	0.26053	0.27783	0.28097					
	0.33148	0.28989	0.28221	0.27833			AVRG		0.27661		8.51927
31 1,2,4-Trichlorobenzene	0.35831	0.32247	0.30848	0.31589	0.31955	0.31698					
	0.36210	0.31356	0.30252	0.30124			AVRG		0.32211		6.59336
33 Naphthalene	1.13680	1.02703	0.98189	1.00124	1.00470	1.00038					
	1.14117	0.97227	0.92171	0.89730			AVRG		1.00845		7.85382
34 a-Terpineol	0.31070	0.28779	0.28976	0.29795	0.30102	0.29702					
	0.30729	0.29819	0.30374	0.30036			AVRG		0.29938		2.35972
35 3-Chloroaniline	+++++	0.16089	0.17103	0.17275	0.17494	0.17755					
	0.17342	0.14903	0.12887	0.11767			AVRG		0.15846		13.85493
36 4-Chloroaniline	+++++	+++++	+++++	0.12230	0.12967	0.15556					
	0.19225	0.16169	0.15282	0.15131			AVRG		0.15223		14.95023

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
37 2,6-Dichlorophenol	1.17156	1.05816	1.05991	1.12235	1.18273	1.16368					
	1.20705	1.19051	1.23300	1.20500			AVRG		1.15939		5.22023
38 Hexachlorobutadiene	0.19399	0.18604	0.17103	0.17859	0.17926	0.17536					
	0.20030	0.17495	0.17202	0.17193			AVRG		0.18035		5.55056
39 1-chloro-2-nitrobenzene	0.60410	0.53863	0.52882	0.55578	0.57953	0.60429					
	0.66194	0.69489	0.77163	0.79508			AVRG		0.63347		14.91996
40 Caprolactam	0.13650	0.15202	0.15107	0.15770	0.17590	0.17874					
	0.18950	0.19314	0.19939	0.19837			AVRG		0.17323		12.97490
41 p-Chloro-m-cresol	0.26650	0.26322	0.25323	0.27106	0.30029	0.30335					
	0.37171	0.32372	0.31947	0.31856			AVRG		0.29911		12.17362
42 2-Methylnaphthalene	0.69159	0.65713	0.62378	0.62760	0.65484	0.66399					
	0.76807	0.65247	0.62676	0.61118			AVRG		0.65774		6.90856
43 1-Methylnaphthalene	0.27872	0.24305	0.22646	0.23550	0.24095	0.23470					
	0.27366	0.23481	0.22667	0.22197			AVRG		0.24165		8.01510

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
45 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	0.11501	0.12975					
	0.18286	0.17490	0.18685	0.19005			AVRG		0.16324		19.84118
44 1,2,4,5-Tetrachlorobenzene	0.62315	0.58212	0.57271	0.57297	0.58268	0.58985					
	0.60304	0.59280	0.58564	0.58591			AVRG		0.58909		2.53580
46 2,4,6-Trichlorophenol	0.18622	0.17458	0.18196	0.19089	0.20428	0.20549					
	0.24770	0.21581	0.21303	0.21578			AVRG		0.20357		10.49630
47 2,4,5-Trichlorophenol	0.18478	0.18821	0.18855	0.20386	0.21863	0.21113					
	0.25872	0.22874	0.22561	0.22866			AVRG		0.21369		10.88025
49 Biphenyl	1.46141	1.44720	1.43766	1.45678	1.50569	1.51957					
	1.55916	1.50479	1.45018	1.41391			AVRG		1.47563		3.02433
50 2-Chloronaphthalene	0.66817	0.62676	0.60453	0.63209	0.63865	0.64390					
	0.74116	0.62773	0.60188	0.59461			AVRG		0.63795		6.64244
51 2-Nitroaniline	+++++	+++++	+++++	0.14910	0.16776	0.18925					
	0.24382	0.21945	0.22016	0.22380			AVRG		0.20190		16.90755

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
52 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	0.12711	0.15151					
	0.20413	0.19327	0.19426	0.20069			AVRG		0.17850		17.69015
53 Dimethyl phthalate	1.44404	1.36667	1.32977	1.33987	1.37502	1.41681					
	1.57656	1.34152	1.26365	1.23659			AVRG		1.36905		7.00665
54 1,3-Dinitrobenzene	+++++	+++++	+++++	0.13690	0.16163	0.18472					
	0.23233	0.20598	0.19744	0.20063			AVRG		0.18852		16.56755
55 2,6-Dinitrotoluene	+++++	0.11702	0.11973	0.13649	0.15401	0.15649					
	0.18718	0.16583	0.16577	0.16724			AVRG		0.15220		15.37344
56 Acenaphthylene	1.05423	1.02425	0.97608	1.01390	1.03693	1.04926					
	1.17718	0.99517	0.94870	0.93139			AVRG		1.02071		6.73631
57 1,2-Dinitrobenzene	+++++	0.10898	0.10083	0.10729	0.12147	0.13668					
	0.15589	0.13505	0.13175	0.13465			AVRG		0.12584		14.02125
58 3-Nitroaniline	+++++	+++++	+++++	0.24673	0.28137	0.34246					
	0.41593	0.37212	0.36229	0.37139			AVRG		0.34175		17.06225

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 100.0000 Level 8	3.0000 Level 3 / 150.0000 Level 9	5.0000 Level 4 / 200.0000 Level 10	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Acenaphthene	1.21362	1.12423	1.08886	1.09275	1.10088	1.10665					
	1.26974	1.06954	1.00696	0.99201			AVRG		1.10652		7.58223
61 2,4-Dinitrophenol	+++++	+++++	+++++	4875	14006	33294					
	131478	252085	408092	531301			WLINR	0.10795	0.20630		0.99679
62 4-Nitrophenol	+++++	+++++	+++++	0.20825	0.25264	0.27767					
	0.34847	0.32140	0.33132	0.34770			AVRG		0.29821		17.95514
63 Dibenzofuran	1.77246	1.66063	1.65513	1.68885	1.69390	1.73356					
	1.90596	1.60222	1.51542	1.49420			AVRG		1.67223		7.20911
64 2,4-Dinitrotoluene	+++++	0.25481	0.27423	0.31591	0.35048	0.39098					
	0.46247	0.40453	0.39457	0.40211			AVRG		0.36112		18.79551
65 2,3,5,6-Tetrachlorophenol	0.26118	0.26921	0.27514	0.29939	0.31901	0.33371					
	0.39111	0.34929	0.34868	0.35780			AVRG		0.32045		13.49465
66 2,3,4,6-Tetrachlorophenol	0.29554	0.27371	0.28658	0.29781	0.31216	0.32341					
	0.37925	0.33328	0.33674	0.34329			AVRG		0.31818		9.88367

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
67 Diethyl phthalate	1.47064	1.38863	1.35440	1.38492	1.42901	1.45089					
	1.64913	1.43275	1.37396	1.38099			AVRG		1.43153		5.94083
68 Fluorene	1.38669	1.30347	1.25485	1.30226	1.33362	1.36449					
	1.54008	1.30497	1.23086	1.21315			AVRG		1.32344		7.09484
69 4-Chlorophenyl phenyl ether	0.64521	0.62520	0.58558	0.60453	0.62190	0.62563					
	0.71159	0.61394	0.59347	0.59649			AVRG		0.62236		5.80556
70 4-Nitroaniline	+++++	+++++	+++++	0.20905	0.26801	0.31571					
	0.38888	0.35036	0.34642	0.36605			AVRG		0.32064		19.52351
71 4,6-Dinitro-o-cresol	+++++	+++++	+++++	8744	22227	51789					
	177053	329569	506493	655839			WLINR	0.07279	0.25740		0.99823
72 NDPA/DPA	0.99763	1.02550	1.03467	1.06209	1.12212	1.16128					
	1.30727	1.12216	1.06767	1.06460			AVRG		1.09650		8.13477
73 Azobenzene	1.46986	1.40787	1.40039	1.46252	1.51958	1.57335					
	1.81750	1.56700	1.47954	1.47718			AVRG		1.51748		7.90990

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
75 4-Bromophenyl phenyl ether	0.32418	0.32309	0.31437	0.33405	0.34720	0.35332					
	0.41761	0.37015	0.36566	0.38283			AVRG		0.35325		9.01563
76 Hexachlorobenzene	0.43849	0.40976	0.39250	0.39114	0.39815	0.40545					
	0.45991	0.41516	0.42179	0.43207			AVRG		0.41644		5.28731
77 Dimethoate	+++++	+++++	+++++	0.39680	0.48179	0.53047					
	0.60993	0.67026	0.67598	0.66673			AVRG		0.57599		18.92884
78 Dichloran	+++++	+++++	+++++	6359	15273	34939					
	101673	220260	335378	425086			WLINR	0.07705	0.18841		0.99870
79 Atrazine	0.14591	0.16062	0.16310	0.16603	0.18785	0.19165					
	0.21607	0.20906	0.22595	0.21752			AVRG		0.18838		14.99303
80 Pentachlorophenol	+++++	+++++	5810	10748	27128	52786					
	169942	324081	549858	728998			WLINR	0.05035	0.14304		0.99632
81 Pentachloronitrobenzene	0.13122	0.11925	0.12523	0.13418	0.15394	0.16005					
	0.17724	0.18145	0.18257	0.18282			AVRG		0.15480		16.56550

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
83 Phenanthrene	1.20151	1.11426	1.08157	1.09558	1.08624	1.08898					
	1.22929	1.03826	0.97335	0.94726			AVRG		1.08563		8.06599
84 Anthracene	1.02241	1.01722	0.99708	1.02913	1.05282	1.06042					
	1.23943	1.05540	0.98940	0.96262			AVRG		1.04259		7.28079
85 Carbazole	0.93590	0.93496	0.88264	0.94551	1.00056	1.02114					
	1.19129	1.01733	0.96597	0.93641			AVRG		0.98317		8.63002
86 Di-n-butylphthalate	1.01444	1.01679	1.01771	1.08218	1.18394	1.22948					
	1.44567	1.24728	1.15344	1.11490			AVRG		1.15058		11.72553
87 Parathion	+++++	+++++	+++++	6524	17258	41333					
	141253	316638	491538	684627			QUAD	0.14998	6.51893	-0.58980	0.99842
88 Diphenamid	0.43510	0.40753	0.40596	0.42496	0.46713	0.46855					
	0.51348	0.51764	0.50954	0.50086			AVRG		0.46508		9.53388
89 Fluoranthene	1.11154	1.04677	1.06216	1.12228	1.14554	1.17079					
	1.32472	1.14787	1.08437	1.06764			AVRG		1.12837		7.11526

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
90 Benzidine	+++++	+++++	+++++	+++++	0.53414	0.65533						
	0.67624	0.67480	0.69590	0.62262			AVRG		0.64317		9.15415	
91 Pyrene	1.21361	1.13533	1.15672	1.20358	1.20858	1.25088						
	1.37321	1.17687	1.11206	1.08906			AVRG		1.19199		6.78384	
93 3,3'-Dimethylbenzidine	+++++	+++++	2103	4963	58445	202459						
	325475	578456	507190	588524			QUAD	0.14592	-0.11651	0.48702	0.88319	<-
94 Butyl benzyl phthalate	+++++	+++++	0.38082	0.43104	0.47165	0.52994						
	0.65154	0.57605	0.54617	0.54231			AVRG		0.51619		16.57357	
95 Bis (2-ethylhexyl) adipate	6542	13911	24262	43834	107228	230855						
	705339	+++++	+++++	+++++			QUAD	0.01853	2.22242	-0.66618	0.99987	
97 Benzo(a)anthracene	1.27932	1.17957	1.16312	1.17565	1.21391	1.23259						
	1.44253	1.25853	1.21370	1.19341			AVRG		1.23523		6.60909	
98 3,3'-Dichlorobenzidine	+++++	10210	19291	36901	85668	197325						
	600418	1087026	1653641	2077839			WLINR	0.03122	0.48155		0.99790	

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
99 Chrysene	1.31590	1.24855	1.20131	1.20316	1.20236	1.18150					
	1.34367	1.16731	1.14580	1.13191			AVRG		1.21415		5.72163
100 Bis(2-ethylhexyl)phthalate	+++++	+++++	0.59508	0.65344	0.77690	0.83142					
	1.00587	0.88411	0.84755	0.83036			AVRG		0.80309		16.13658
101 Di-n-octylphthalate	+++++	+++++	+++++	0.95937	1.18956	1.34270					
	1.74215	1.52818	1.45570	1.42593			AVRG		1.37766		18.15882
102 Benzo(b)fluoranthene	1.00682	1.00140	1.01407	1.09652	1.12896	1.24300					
	1.47036	1.26603	1.23860	1.27295			AVRG		1.17387		12.90002
103 Benzo(k)fluoranthene	1.11692	1.13952	1.14268	1.17655	1.24350	1.26176					
	1.47969	1.29109	1.26918	1.19602			AVRG		1.23169		8.61711
104 Benzo(e)pyrene	+++++	+++++	1.01054	1.01314	1.06991	1.07560					
	1.16683	1.15739	1.17224	1.15293			AVRG		1.10232		6.20834
105 Benzo(a)pyrene	+++++	0.95629	0.96143	1.01644	1.08315	1.14553					
	1.39254	1.23466	1.21572	1.19760			AVRG		1.13371		12.69068

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
107 Perylene	1.20843	1.09639	1.12578	1.12190	1.13153	1.10965					
	1.16173	1.14568	1.14680	1.13904			AVRG		1.13869		2.72136
108 Indeno(1,2,3-cd)pyrene	+++++	0.91381	0.92457	0.93416	0.99625	1.07523					
	1.31754	1.21366	1.23408	1.29707			AVRG		1.10071		15.11296
109 Dibenzo(a,h)anthracene	0.90211	0.90760	0.92392	1.00403	1.04298	1.10624					
	1.36433	1.22160	1.20724	1.20275			AVRG		1.08828		14.52942
110 Benzo(ghi)perylene	+++++	1.02909	0.99407	1.03579	1.07896	1.13428					
	1.36551	1.20989	1.19991	1.20577			AVRG		1.13925		10.37951
$ 3 2-Fluorophenol	1.26049	1.14069	1.14549	1.23439	1.27009	1.32737					
	1.61323	1.43985	1.44055	1.42724			AVRG		1.32994		11.24849
$ 6 Phenol-d6	1.50556	1.54919	1.53238	1.65212	1.69190	1.80741					
	2.12623	1.80971	1.77757	1.75305			AVRG		1.72051		10.62704
$ 22 Nitrobenzene-d5	1.42198	1.31575	1.38465	1.45245	1.52132	1.58397					
	1.95079	1.69177	1.71698	1.70527			AVRG		1.57449		12.28687

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Compound	1.0000 Level 1	2.0000 Level 2	3.0000 Level 3	5.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
$ 48 2-Fluorobiphenyl	0.74925	0.72773	0.68394	0.69471	0.69971	0.70755					
	0.81192	0.68740	0.66390	0.65500			AVRG		0.70811		6.47026
$ 74 2,4,6-Tribromophenol	0.07880	0.08069	0.08725	0.09038	0.09597	0.09942					
	0.12056	0.11115	0.11563	0.11998			AVRG		0.09998		15.93471
$ 92 4-Terphenyl-d14	0.64288	0.65577	0.64235	0.68093	0.69674	0.73163					
	0.83060	0.73460	0.72884	0.71905			AVRG		0.70634		8.03157

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2016 11:36
End Cal Date : 13-MAR-2016 01:09
Quant Method : ISTD
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Cal Date : 15-Mar-2016 11:04 SV112.i

Average %RSD Results.	
Calculated Average %RSD =	10.29839
Maximun Average %RSD =	20.00000
* Passed Average %RSD Test.	

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

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\deg.D
Lab Smp Id:
Inj Date : 12-MAR-2016 11:02
Operator : as Inst ID: SV112.i
Smp Info : degdft0312
Misc Info : sv112
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\DDT.m
Meth Date : 07-Mar-2016 09:40 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP-DEG
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	Compound Not Detected.						
6 4,4'-DDT	235	11.287	11.440	-0.153	385763			

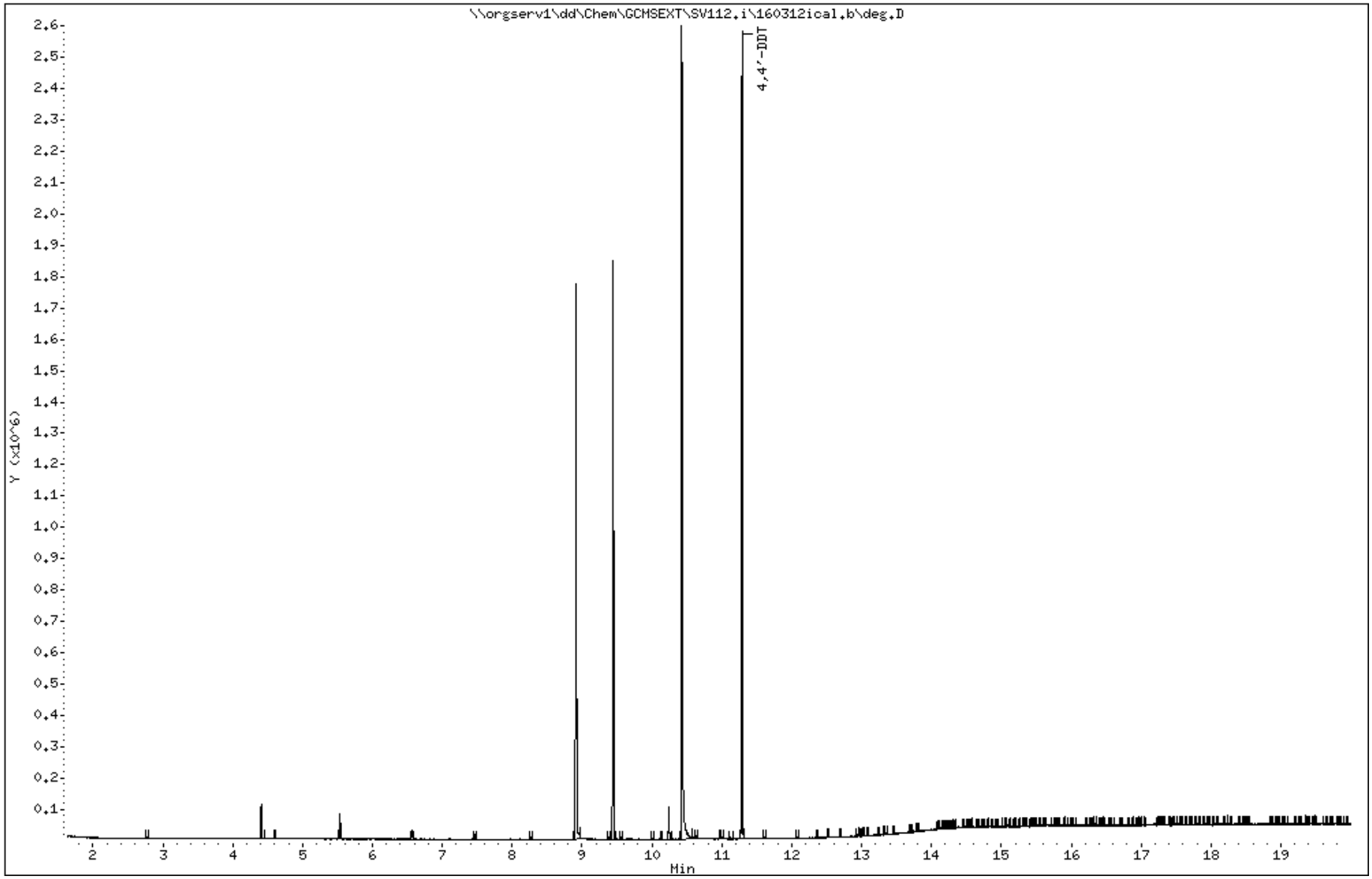
DDT Degradation Percent = 0.000

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\deg.D
Date : 12-MAR-2016 11:02
Client ID:
Sample Info: degdft0312

Instrument: SV112.i

Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info	: degdft0312 sv112		
Instrument ID	: SV112.i		
Method	: DDT.m		
File	: deg.D		
Injection Date	: 12-MAR-2016 11:02		
Quantitation	: ESTD	Integrator : Falcon	
Dilution Factor	: 1.00	Sample Type: DFTPP-DEG	

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dft.D
Lab Smp Id:
Inj Date : 12-MAR-2016 11:02
Operator : as Inst ID: SV112.i
Smp Info : degdft0312
Misc Info : sv112
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dftpp.m
Meth Date : 06-Mar-2016 19:12 asus Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUALXP-52160

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.444	9.600	-0.156	198	181760			0.00- 100.00	100.00
9.444	9.600	-0.156	51	82856			30.00- 60.00	45.59
9.444	9.600	-0.156	68	1514			0.00- 2.00	1.71
9.444	9.600	-0.156	69	88360			0.00- 0.00	48.61
9.444	9.600	-0.156	70	534			0.00- 2.00	0.60
9.444	9.600	-0.156	127	97408			40.00- 60.00	53.59
9.444	9.600	-0.156	197	0	0.0	0.0	0.00- 1.00	0.00
9.444	9.600	-0.156	199	12706			5.00- 9.00	6.99
9.444	9.600	-0.156	275	42848			10.00- 30.00	23.57
9.444	9.600	-0.156	365	5681			1.00- 0.00	3.13
9.444	9.600	-0.156	441	21368			0.01- 99.99	85.58
9.444	9.600	-0.156	442	132288			40.00- 99.99	72.78
9.444	9.600	-0.156	443	24968			17.00- 23.00	18.87

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dft.D

Date : 12-MAR-2016 11:02

Client ID:

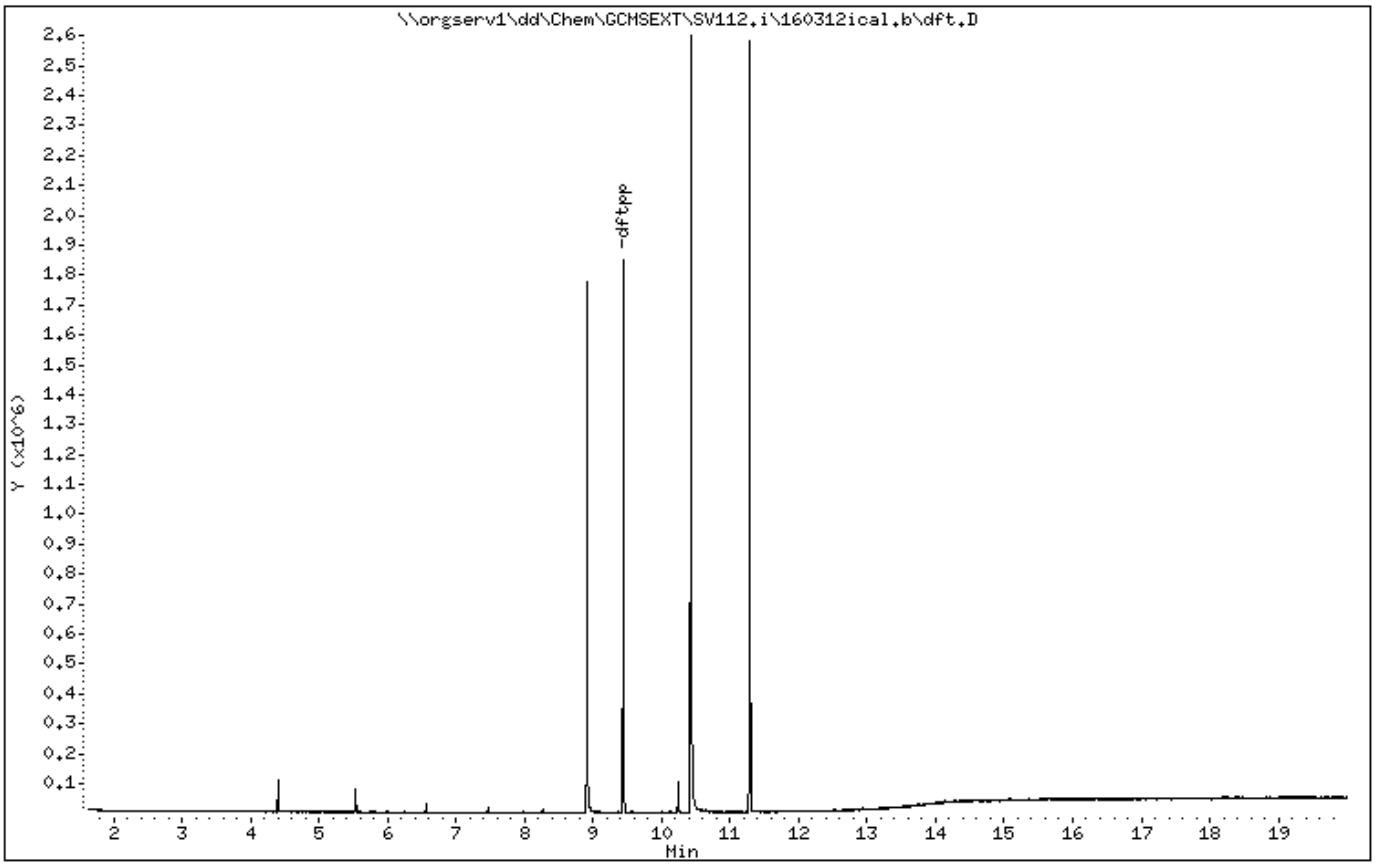
Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dft.D

Date : 12-MAR-2016 11:02

Client ID:

Instrument: SV112.i

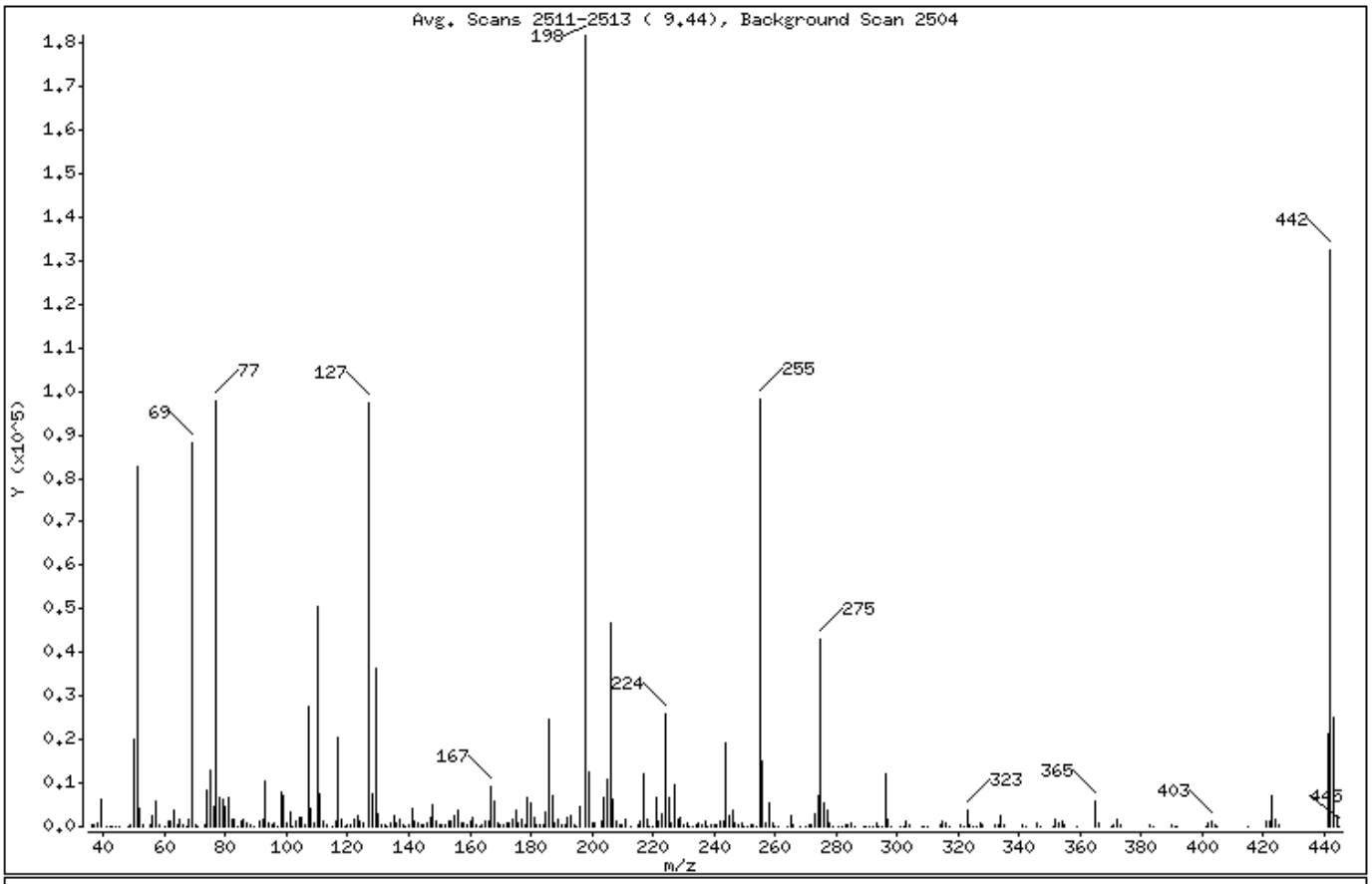
Sample Info: degdft0312

Operator: as

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.59
68	Less than 2.00% of mass 69	0.83 (1.71)
69	Mass 69 relative abundance	48.61
70	Less than 2.00% of mass 69	0.29 (0.60)
127	40.00 - 60.00% of mass 198	53.59
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 30.00% of mass 198	23.57
365	Greater than 1.00% of mass 198	3.13
441	Present, but less than mass 443	11.76
442	40.00 - 99.99% of mass 198	72.78
443	17.00 - 23.00% of mass 442	13.74 (18.87)

Date : 12-MAR-2016 11:02

Client ID: Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase: Column diameter: 2.00

Data File: dft.D
Spectrum: Avg. Scans 2511-2513 (9.44), Background Scan 2504
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	260	120.00	311	198.00	181760	282.00	40
37.00	405	121.00	214	199.00	12706	283.00	432
38.00	833	122.00	1617	200.00	951	284.00	226
39.00	6428	123.00	2569	201.00	942	285.00	646
41.00	149	124.00	1088	203.00	1236	286.00	33
42.00	40	125.00	950	204.00	6568	289.00	37
43.00	85	127.00	97408	205.00	10939	290.00	39
44.00	156	128.00	7360	206.00	46600	291.00	92
45.00	178	129.00	36224	207.00	6137	292.00	138
48.00	36	130.00	2785	208.00	1441	293.00	959
49.00	589	131.00	540	209.00	471	294.00	188
50.00	20232	132.00	306	210.00	466	295.00	103
51.00	82856	133.00	113	211.00	1722	296.00	12171
52.00	4112	134.00	965	213.00	153	297.00	1665
53.00	278	135.00	2692	215.00	521	298.00	42
55.00	501	136.00	924	216.00	1298	301.00	127
56.00	2508	137.00	1772	217.00	12249	302.00	128
57.00	5812	138.00	332	218.00	1690	303.00	1394
58.00	338	139.00	119	219.00	135	304.00	323
60.00	38	140.00	383	220.00	36	308.00	173
61.00	1110	141.00	4327	221.00	6644	309.00	105
62.00	1059	142.00	1367	222.00	1083	310.00	90
63.00	3561	143.00	988	223.00	2796	314.00	419
64.00	550	144.00	227	224.00	25824	315.00	1282
65.00	1765	145.00	259	225.00	6671	316.00	691
66.00	226	146.00	784	226.00	687	317.00	103
67.00	120	147.00	2279	227.00	9636	321.00	384
68.00	1514	148.00	4868	228.00	1579	322.00	205
69.00	88360	149.00	1165	229.00	2252	323.00	3918
70.00	534	150.00	288	230.00	344	324.00	541
71.00	43	151.00	502	231.00	887	325.00	103
73.00	428	152.00	316	232.00	36	326.00	108
74.00	8175	153.00	1379	233.00	164	327.00	819
75.00	13048	154.00	1122	234.00	623	328.00	315
76.00	4511	155.00	2592	235.00	723	332.00	268

Date : 12-MAR-2016 11:02

Client ID: Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase: Column diameter: 2.00

Data File: dft.D
Spectrum: Avg. Scans 2511-2513 (9.44), Background Scan 2504
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	97784	156.00	3733	236.00	591	333.00	391
78.00	6745	157.00	663	237.00	1087	334.00	2487
79.00	6193	158.00	683	238.00	115	335.00	546
80.00	4752	159.00	574	239.00	409	341.00	371
81.00	6748	160.00	1184	240.00	317	342.00	141
82.00	1602	161.00	2075	241.00	488	346.00	772
83.00	1690	162.00	561	242.00	1183	347.00	160
84.00	45	163.00	143	243.00	1452	351.00	93
85.00	1309	164.00	273	244.00	19192	352.00	1497
86.00	1790	165.00	1379	245.00	2535	353.00	851
87.00	764	166.00	1321	246.00	3742	354.00	1072
88.00	459	167.00	8988	247.00	753	355.00	243
89.00	104	168.00	5888	248.00	233	359.00	146
91.00	1382	169.00	839	249.00	704	365.00	5681
92.00	1558	170.00	223	250.00	95	366.00	1016
93.00	10374	171.00	396	251.00	157	370.00	79
94.00	770	172.00	773	252.00	216	371.00	317
95.00	211	173.00	1041	253.00	413	372.00	1824
96.00	627	174.00	1737	254.00	202	373.00	505
97.00	152	175.00	3733	255.00	98160	383.00	572
98.00	7736	176.00	887	256.00	15054	384.00	203
99.00	7019	177.00	1561	257.00	1023	390.00	222
100.00	627	178.00	496	258.00	5303	391.00	165
101.00	3386	179.00	6612	259.00	762	392.00	150
102.00	110	180.00	5242	260.00	70	401.00	80
103.00	1087	181.00	2207	261.00	154	402.00	972
104.00	2056	182.00	351	264.00	119	403.00	1309
105.00	2150	183.00	255	265.00	2339	404.00	355
106.00	599	184.00	476	266.00	284	405.00	40
107.00	27672	185.00	3161	268.00	38	415.00	39
108.00	4225	186.00	24768	270.00	56	421.00	1273
109.00	664	187.00	6965	271.00	224	422.00	1138
110.00	50608	188.00	842	272.00	242	423.00	7055
111.00	7592	189.00	1491	273.00	3120	424.00	1812
112.00	1167	190.00	245	274.00	7177	425.00	223

Date : 12-MAR-2016 11:02

Client ID: Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase: Column diameter: 2.00

Data File: dft.D
Spectrum: Avg. Scans 2511-2513 (9.44), Background Scan 2504
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	337	191.00	552	275.00	42848	441.00	21368
115.00	88	192.00	2246	276.00	5489	442.00	132288
116.00	1297	193.00	2352	277.00	3801	443.00	24968
117.00	20672	194.00	578	278.00	758	444.00	2508
118.00	1568	195.00	106	279.00	168	445.00	127
119.00	172	196.00	4794	281.00	40		

Alpha Analytical Labs

Manual Integration

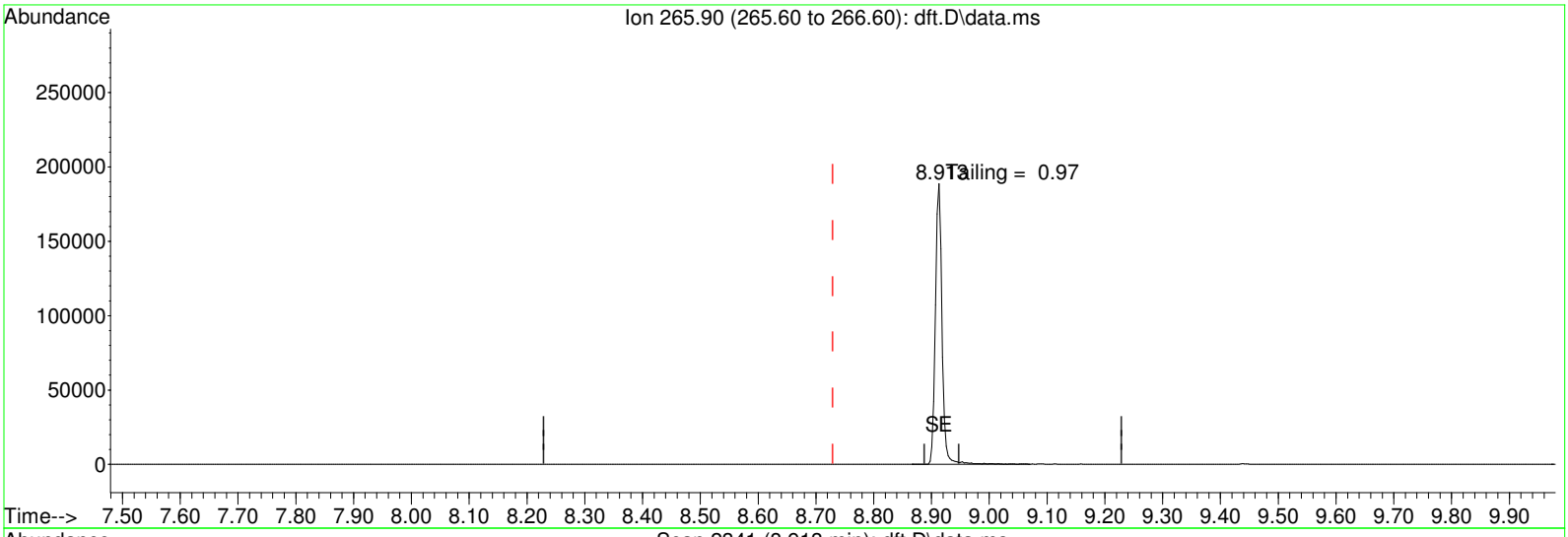
Sample Info	: degdft0312 sv112		
Instrument ID	: SV112.i		
Method	: dftpp.m		
File	: dft.D		
Injection Date	: 12-MAR-2016 11:02		
Quantitation	: ESTD	Integrator :	HP RTE
Dilution Factor	: 1.00	Sample Type:	DFTPP

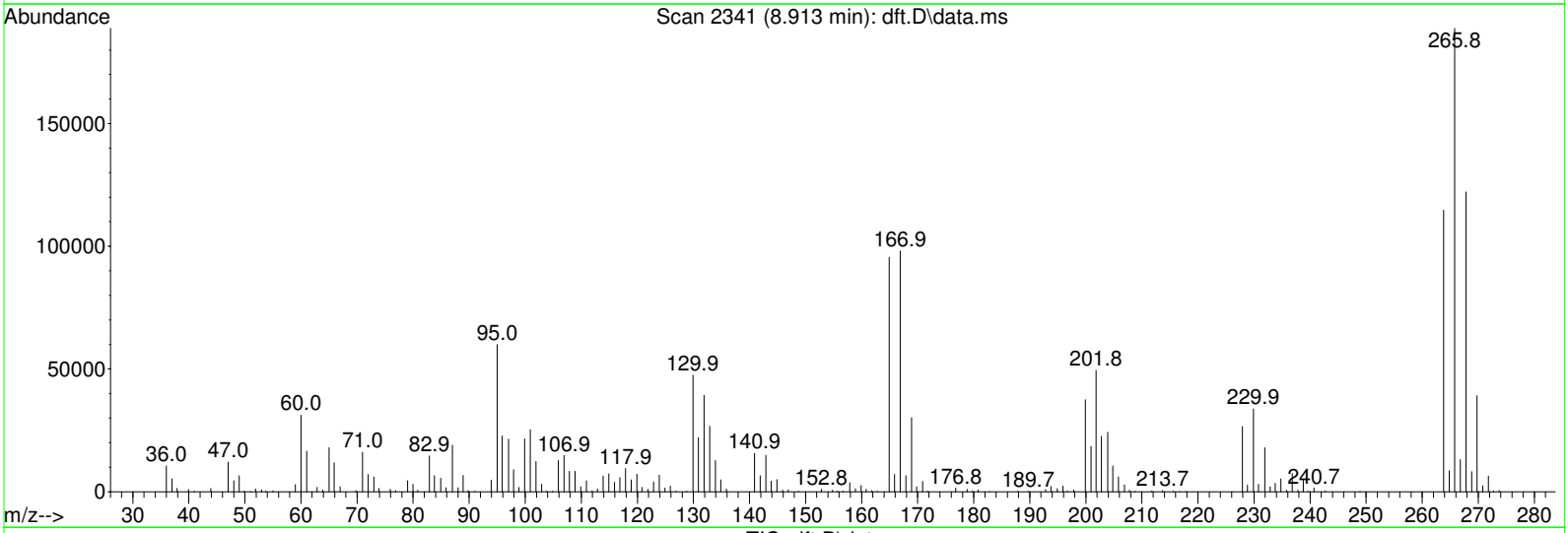
There are no manual integrations in this file.

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV112.i\160312ical.b\
Data File : dft.D
Acq On : 12 Mar 2016 11:02 am
Operator : ps
Sample : degdft0312
Misc : sv112
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 15 10:19:02 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 08:27:21 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dft.D\data.ms

(1) pentachlorophenol (T)

8.913min (+0.184) 71.10

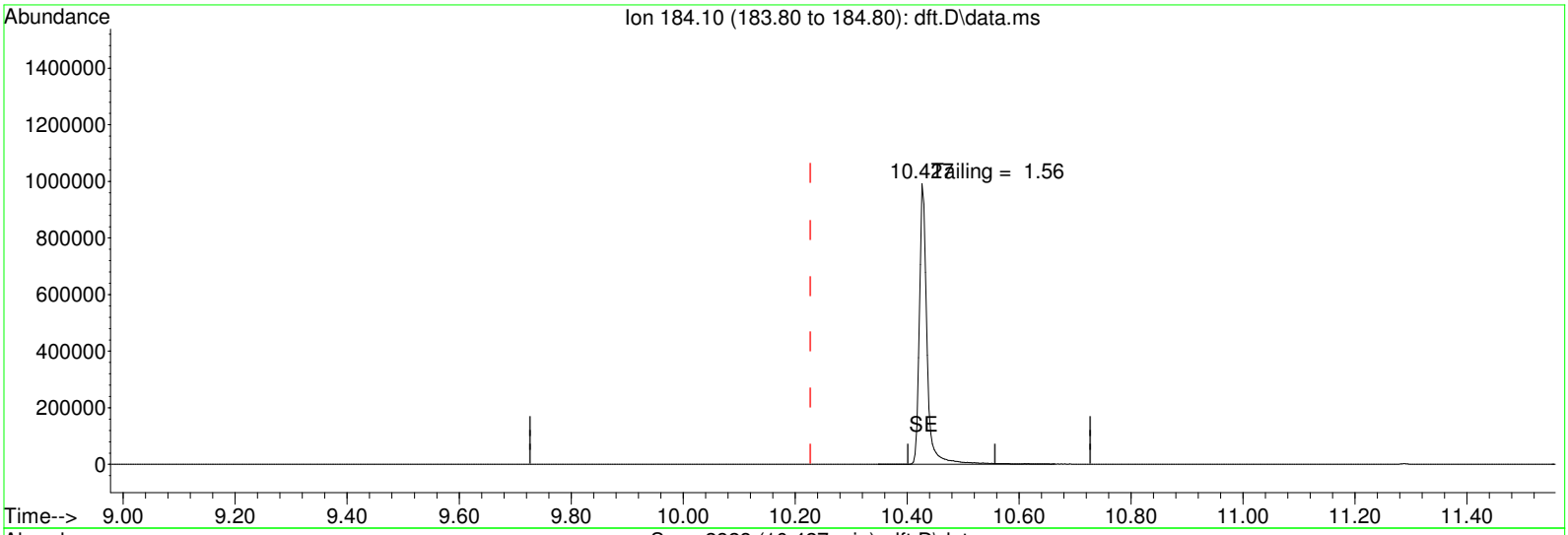
response 149326

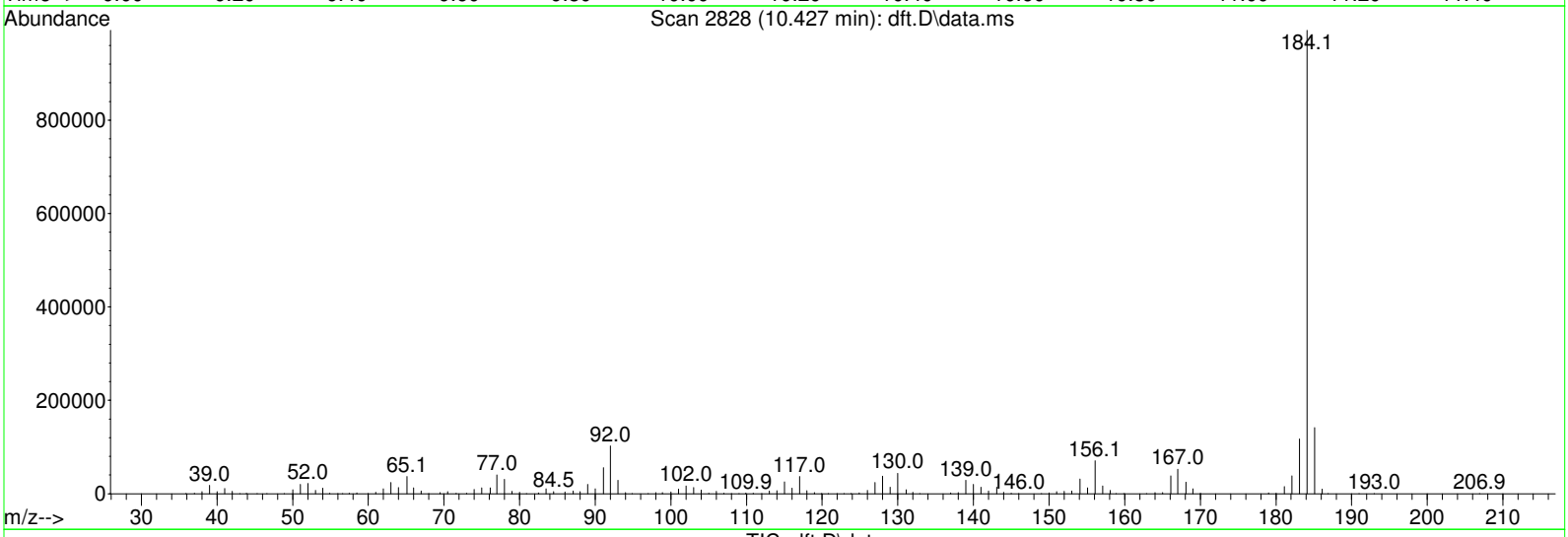
Ion	Exp%	Act%
265.90	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV112.i\160312ical.b\
Data File : dft.D
Acq On : 12 Mar 2016 11:02 am
Operator : ps
Sample : degdft0312
Misc : sv112
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 15 10:19:02 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 08:27:21 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dft.D\data.ms

(3) benzidine (T)

10.427min (+0.200) 92.31

response 939721

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL1.D
Lab Smp Id:
Inj Date : 12-MAR-2016 11:36
Operator : as Inst ID: SV112.i
Smp Info : ABN 1 LOT# 5806
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:53 Cal File: ADPL7.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.997	1.997	(0.428)	4786	1.00000	0.921(M)	M1
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol	112	3.386	3.386	(0.725)	6892	1.00000	0.948	
	5 Aniline	93	4.353	4.353	(0.932)	6957	1.00000	2.31	
$	6 Phenol-d6	99	4.350	4.350	(0.931)	8232	1.00000	0.875	
	7 Phenol	94	4.362	4.362	(0.934)	9800	1.00000	0.900	
	8 Bis(2-chloroethyl)ether	93	4.437	4.437	(0.950)	7330	1.00000	0.950	
	9 2-Chlorophenol	128	4.461	4.461	(0.955)	7252	1.00000	0.927	
	10 1,3-Dichlorobenzene	146	4.614	4.614	(0.988)	9776	1.00000	1.12	
*	11 1,4-Dichlorobenzene-d4	152	4.670	4.670	(1.000)	218709	40.0000		
	12 1,4-Dichlorobenzene	146	4.685	4.685	(1.003)	10090	1.00000	1.14	
	14 Benzyl alcohol	79	4.828	4.828	(1.034)	5878	1.00000	0.852	
	13 1,2-Dichlorobenzene	146	4.834	4.834	(1.035)	9024	1.00000	1.08	
	15 2-Methylphenol	108	4.956	4.956	(1.061)	6687	1.00000	0.930	
	16 Bis(2-chloroisopropyl)ether	45	4.974	4.974	(1.065)	13844	1.00000	1.12(M)	M2
	18 n-Nitrosodi-n-propylamine	70	5.096	5.096	(1.091)	6592	1.00000	1.01	
	19 3-Methylphenol/4-Methylphenol	108	5.111	5.111	(1.095)	6737	1.00000	0.891	
	20 Hexachloroethane	117	5.164	5.164	(1.106)	3995	1.00000	1.11	
$	22 Nitrobenzene-d5	82	5.217	5.217	(1.117)	7775	1.00000	0.903	
	23 Nitrobenzene	77	5.239	5.239	(0.885)	7740	1.00000	0.826	
	24 Isophorone	82	5.481	5.481	(1.174)	17809	1.00000	1.03	
	26 2-Nitrophenol	139	5.556	5.556	(1.190)	2643	1.00000	0.683	
	27 2,4-Dimethylphenol	107	5.630	5.630	(1.206)	7682	1.00000	0.966	
	28 Bis(2-chloroethoxy)methane	93	5.717	5.717	(1.224)	10525	1.00000	1.03	
	30 Benzoic acid	105	Compound Not Detected.						
	29 2,4-Dichlorophenol	162	5.792	5.792	(0.979)	6189	1.00000	0.949	
	31 1,2,4-Trichlorobenzene	180	5.873	5.873	(0.993)	8445	1.00000	1.11	
*	32 Naphthalene-d8	136	5.916	5.916	(1.000)	942750	40.0000		
	33 Naphthalene	128	5.935	5.935	(1.003)	26793	1.00000	1.13	
	36 4-Chloroaniline	65	5.916	5.916	(1.000)	2702	1.00000	0.753	
	38 Hexachlorobutadiene	225	6.084	6.084	(1.028)	4572	1.00000	1.08	
	41 p-Chloro-m-cresol	107	6.510	6.510	(1.100)	6281	1.00000	0.891	
	42 2-Methylnaphthalene	142	6.622	6.622	(1.119)	16300	1.00000	1.05	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.715	6.715	(1.135)	6569	1.00000	1.15	
	45	Hexachlorocyclopentadiene	237	6.793	6.793	(1.148)	2228	1.00000	0.579(M)	M2
	46	2,4,6-Trichlorophenol	196	6.911	6.911	(1.168)	4389	1.00000	0.915	
	47	2,4,5-Trichlorophenol	196	6.942	6.942	(1.173)	4355	1.00000	0.865(M)	M4
$	48	2-Fluorobiphenyl	172	6.995	6.995	(1.182)	17659	1.00000	1.06	
	50	2-Chloronaphthalene	162	7.091	7.091	(1.199)	15748	1.00000	1.05	
	51	2-Nitroaniline	138	7.203	7.203	(1.217)	2252	1.00000	0.473(M)	M2
	52	1,4-Dinitrobenzene	168	Compound Not Detected.						
	53	Dimethyl phthalate	163	7.405	7.405	(0.970)	18406	1.00000	1.05	
	54	1,3-Dinitrobenzene	168	Compound Not Detected.						
	55	2,6-Dinitrotoluene	165	7.448	7.448	(1.259)	2483	1.00000	0.692	
	56	Acenaphthylene	152	7.492	7.492	(1.266)	24847	1.00000	1.03	
	57	1,2-Dinitrobenzene	168	Compound Not Detected.						
	58	3-Nitroaniline	138	Compound Not Detected.						
*	59	Acenaphthene-d10	164	7.632	7.632	(1.000)	509846	40.0000		
	60	Acenaphthene	154	7.663	7.663	(1.004)	15469	1.00000	1.10	
	61	2,4-Dinitrophenol	184	Compound Not Detected.						
	62	4-Nitrophenol	65	Compound Not Detected.						
	63	Dibenzofuran	168	7.837	7.837	(1.027)	22592	1.00000	1.06	
	64	2,4-Dinitrotoluene	165	7.840	7.840	(1.027)	3044	1.00000	0.661	
	65	2,3,5,6-Tetrachlorophenol	232	7.924	7.924	(1.038)	3329	1.00000	0.815	
	66	2,3,4,6-Tetrachlorophenol	232	7.967	7.967	(1.044)	3767	1.00000	0.929	
	67	Diethyl phthalate	149	8.098	8.098	(1.061)	18745	1.00000	1.03	
	68	Fluorene	166	8.170	8.170	(1.070)	17675	1.00000	1.05	
	69	4-Chlorophenyl phenyl ether	204	8.188	8.188	(1.073)	8224	1.00000	1.04	
	70	4-Nitroaniline	138	Compound Not Detected.						
	71	4,6-Dinitro-o-cresol	198	Compound Not Detected.						
	72	NDPA/DPA	169	8.306	8.306	(1.088)	12716	1.00000	0.910	
	73	Azobenzene	77	8.340	8.340	(1.093)	18735	1.00000	0.969	
$	74	2,4,6-Tribromophenol	330	8.403	8.403	(0.926)	1869	1.00000	0.788	
	75	4-Bromophenyl phenyl ether	248	8.664	8.664	(1.135)	4132	1.00000	0.918	
	76	Hexachlorobenzene	284	8.710	8.710	(1.141)	5589	1.00000	1.05	
	80	Pentachlorophenol	266	Compound Not Detected.						
*	82	Phenanthrene-d10	188	9.077	9.077	(1.000)	948736	40.0000		
	83	Phenanthrene	178	9.099	9.099	(1.002)	28498	1.00000	1.11	
	84	Anthracene	178	9.149	9.149	(1.008)	24250	1.00000	0.981	
	85	Carbazole	167	9.323	9.323	(1.027)	22198	1.00000	0.952	
	86	Di-n-butylphthalate	149	9.714	9.714	(1.070)	24061	1.00000	0.882	
	89	Fluoranthene	202	10.264	10.264	(1.131)	26364	1.00000	0.985	
	91	Pyrene	202	10.482	10.482	(1.155)	28785	1.00000	1.02	
$	92	4-Terphenyl-d14	244	10.678	10.678	(1.176)	15248	1.00000	0.910	
	94	Butyl benzyl phthalate	149	11.209	11.209	(1.235)	8222	1.00000	0.672	
	95	Bis (2-ethylhexyl) adipate	129	11.327	11.327	(1.248)	6542	1.00000	1.35	
	97	Benzo(a)anthracene	228	11.731	11.731	(0.999)	27414	1.00000	1.04	
	98	3,3'-Dichlorobenzidine	252	11.735	11.735	(0.999)	4179	1.00000	1.65	
*	96	Chrysene-d12	240	11.741	11.741	(1.000)	857145	40.0000		
	99	Chrysene	228	11.766	11.766	(1.002)	28198	1.00000	1.08(M)	M4
	100	Bis(2-ethylhexyl)phthalate	149	11.853	11.853	(1.010)	11043	1.00000	0.642	
	101	Di-n-octylphthalate	149	12.540	12.540	(1.068)	13339	1.00000	0.452	
	102	Benzo(b)fluoranthene	252	12.847	12.847	(0.972)	21260	1.00000	0.858	
	103	Benzo(k)fluoranthene	252	12.875	12.875	(0.974)	23585	1.00000	0.907	
	105	Benzo(a)pyrene	252	13.164	13.164	(0.996)	18932	1.00000	0.791	
*	106	Perylene-d12	264	13.223	13.223	(1.000)	844641	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.218	14.218	(1.075)	17755	1.00000	0.764(M)	M4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.240	14.240	(1.077)	19049	1.00000	0.829	
110 Benzo(ghi)perylene	276	14.473	14.473	(1.094)	21501	1.00000	0.894	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 13-MAR-2016
Calibration Time: 01:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	218709	-4.24
32 Naphthalene-d8	951723	475862	1903446	942750	-0.94
59 Acenaphthene-d10	513405	256703	1026810	509846	-0.69
82 Phenanthrene-d10	989616	494808	1979232	948736	-4.13
96 Chrysene-d12	880229	440115	1760458	857145	-2.62
106 Perylene-d12	892749	446375	1785498	844641	-5.39

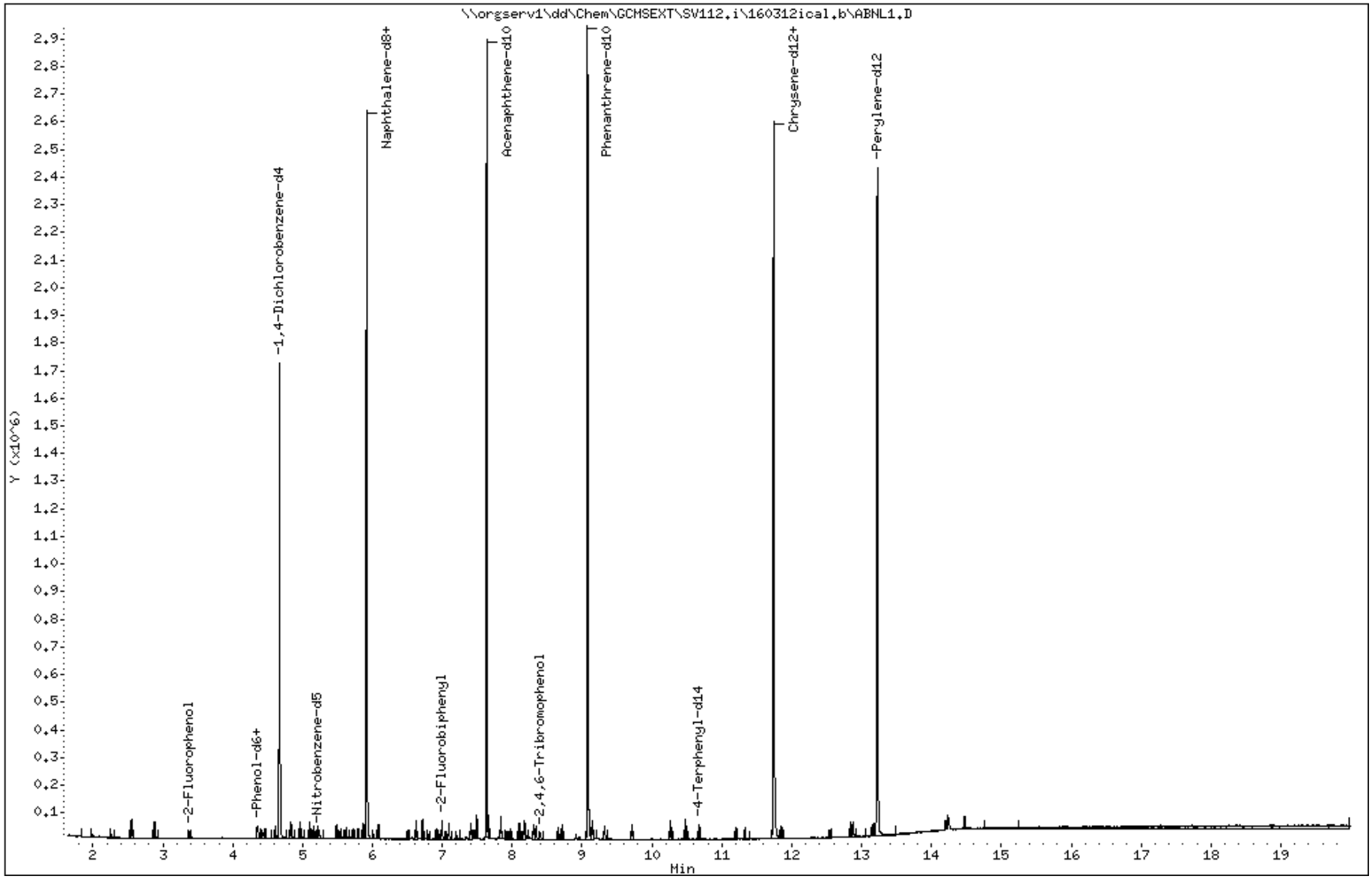
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.67	0.13
32 Naphthalene-d8	5.91	5.41	6.41	5.92	0.10
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.08
82 Phenanthrene-d10	9.07	8.57	9.57	9.08	0.07
96 Chrysene-d12	11.73	11.23	12.23	11.74	0.10
106 Perylene-d12	13.21	12.71	13.71	13.22	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL1.D
Date : 12-MAR-2016 11:36
Client ID:
Sample Info: ABN 1 LOT# 5806

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



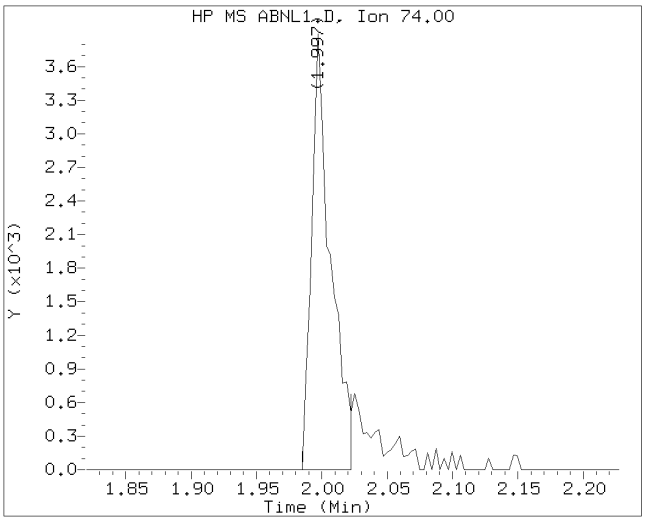
Alpha Analytical Labs

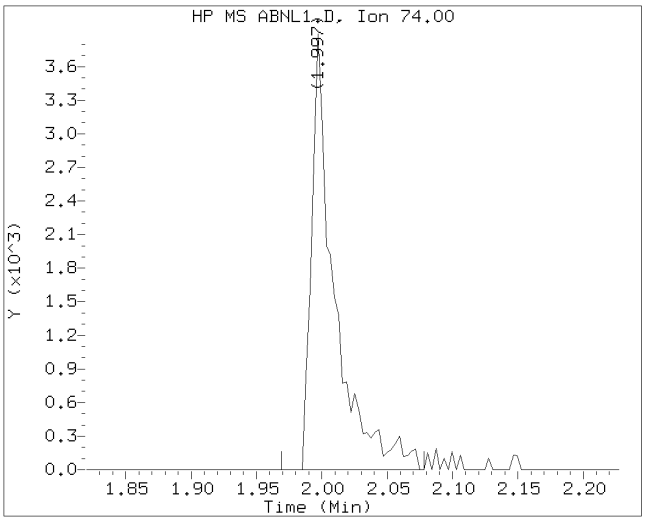
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL1.D
Injection Date : 12-MAR-2016 11:36
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 1: n-Nitrosodimethylamine

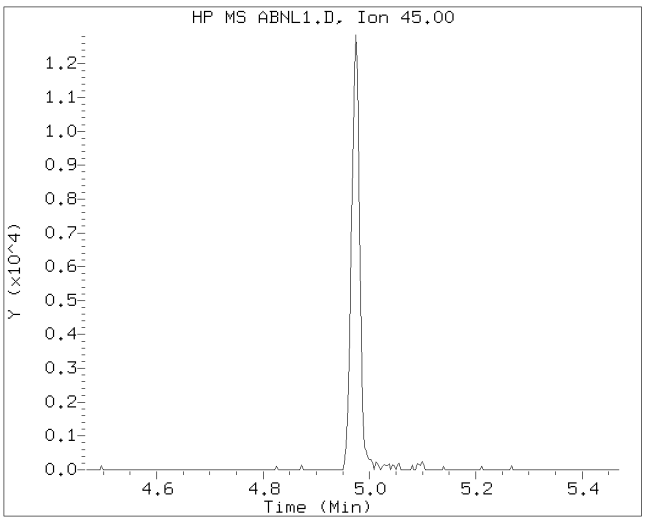


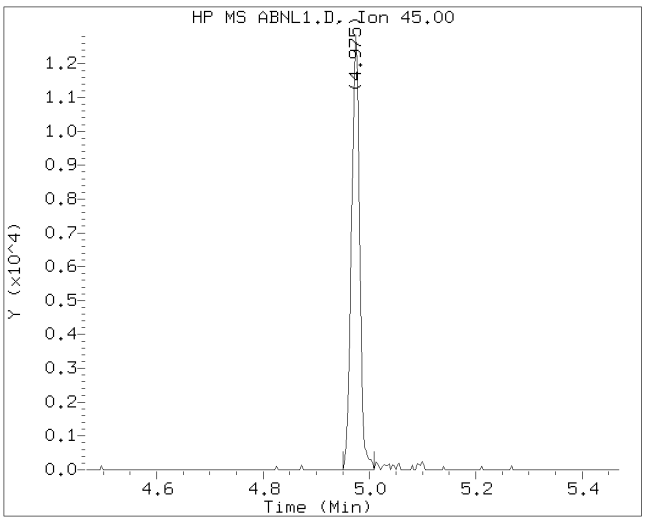


Original Peak Response = 3959 Manual Peak Response = 4786 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Compound # 16: Bis(2-chloroisopropyl)ether





Original Peak Response = 0 Manual Peak Response = 13844 M2

M2 = Peak not found by automatic integration algorithm.

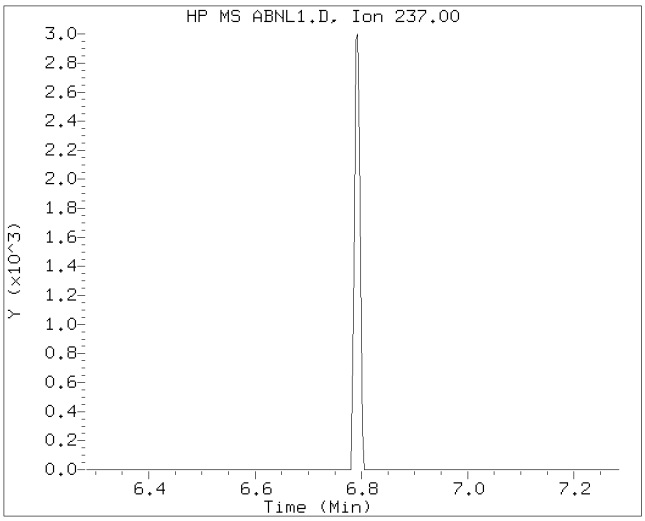
Alpha Analytical Labs

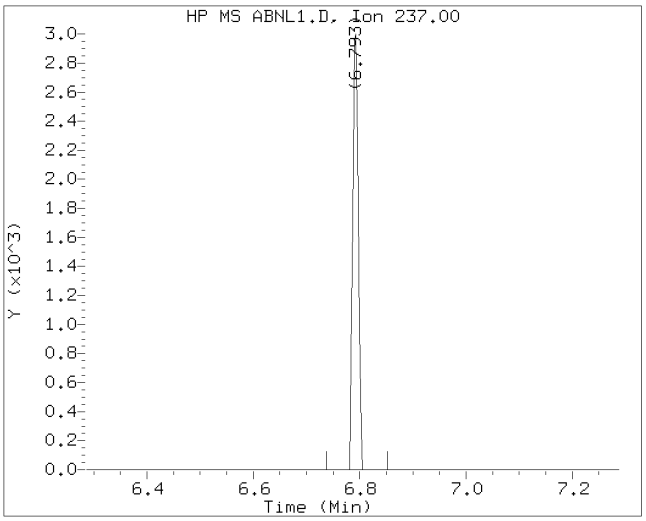
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL1.D
Injection Date : 12-MAR-2016 11:36
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 45: Hexachlorocyclopentadiene

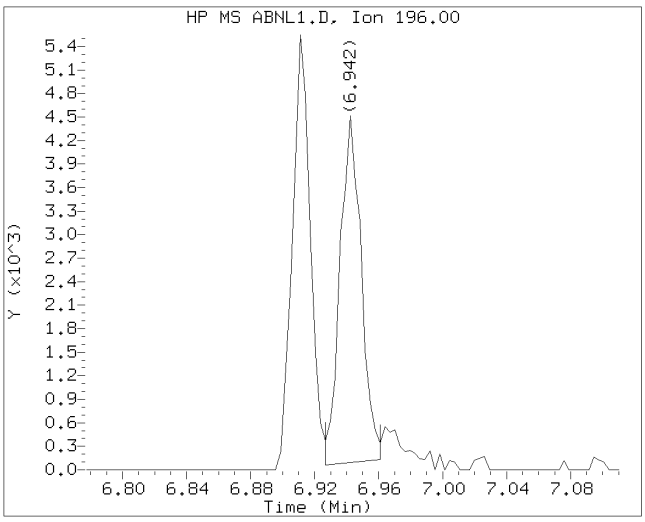


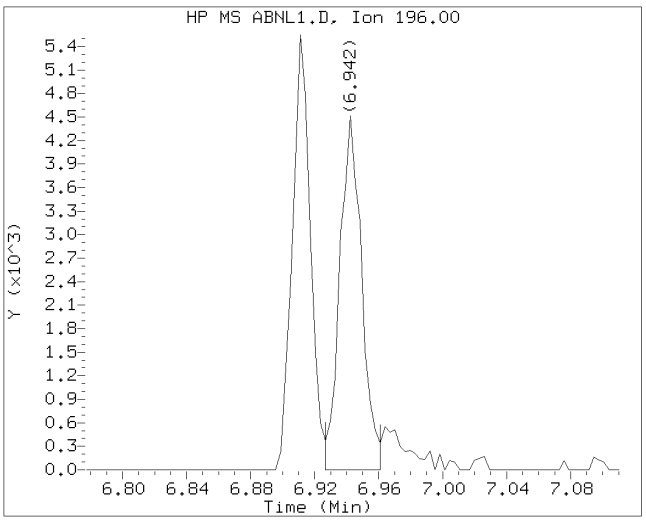


Original Peak Response = 0 Manual Peak Response = 2228 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 47: 2,4,5-Trichlorophenol





Original Peak Response = 4138 Manual Peak Response = 4355 M4

M4 = Poor automated baseline construction.

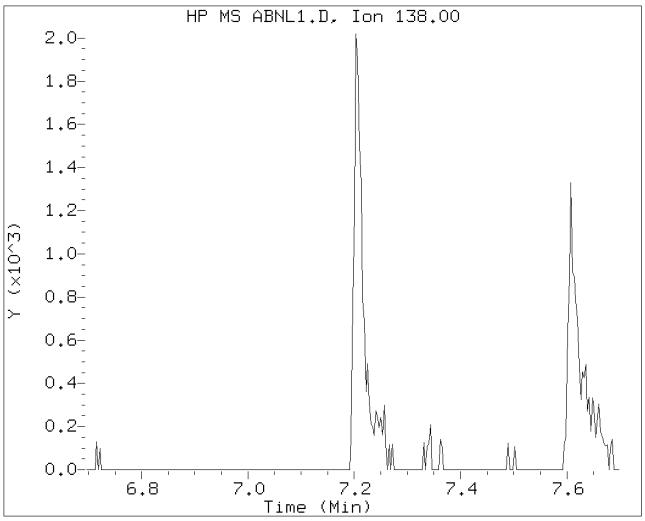
Alpha Analytical Labs

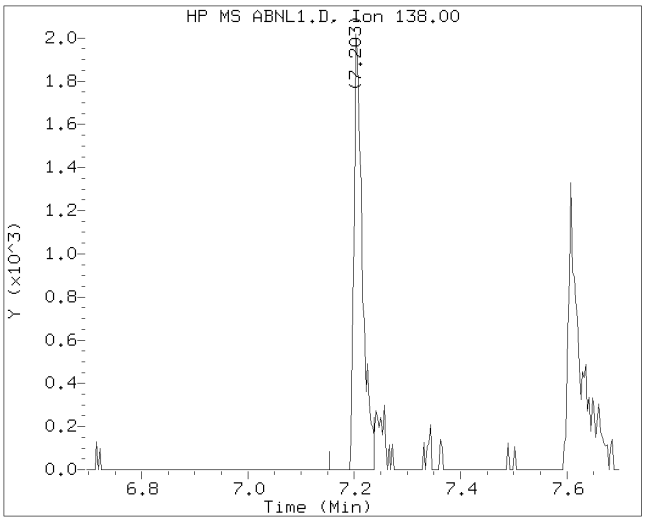
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL1.D
Injection Date : 12-MAR-2016 11:36
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 51: 2-Nitroaniline

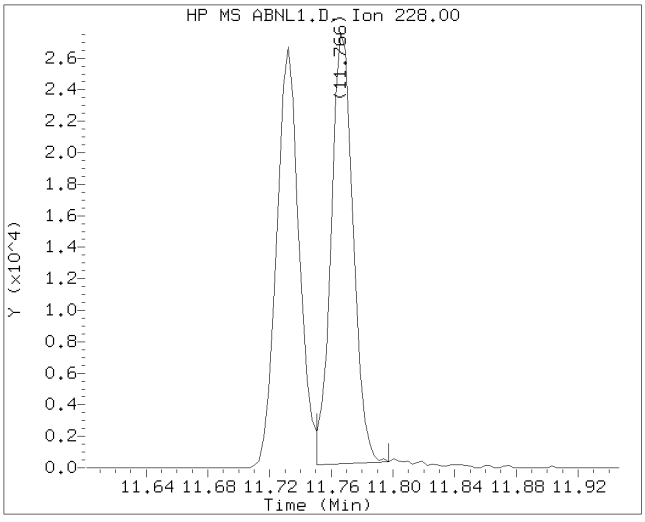


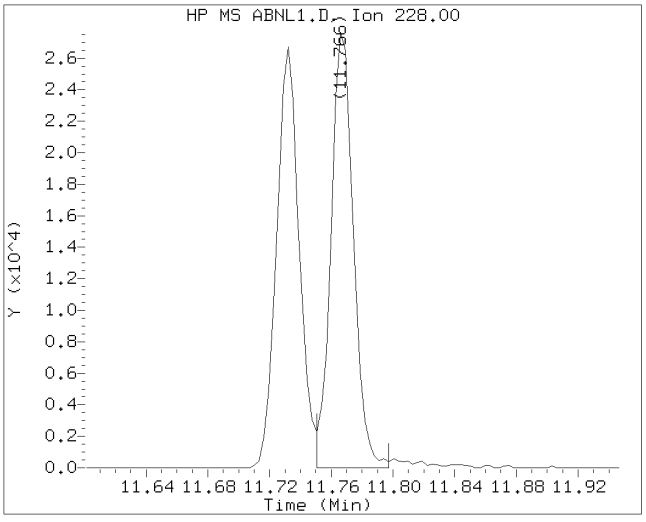


Original Peak Response = 0 Manual Peak Response = 2252 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 99: Chrysene





Original Peak Response = 27343 Manual Peak Response = 28198 M4

M4 = Poor automated baseline construction.

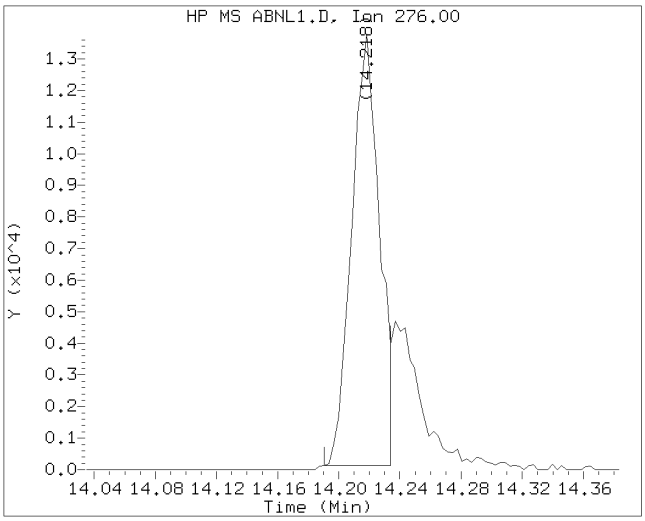
Alpha Analytical Labs

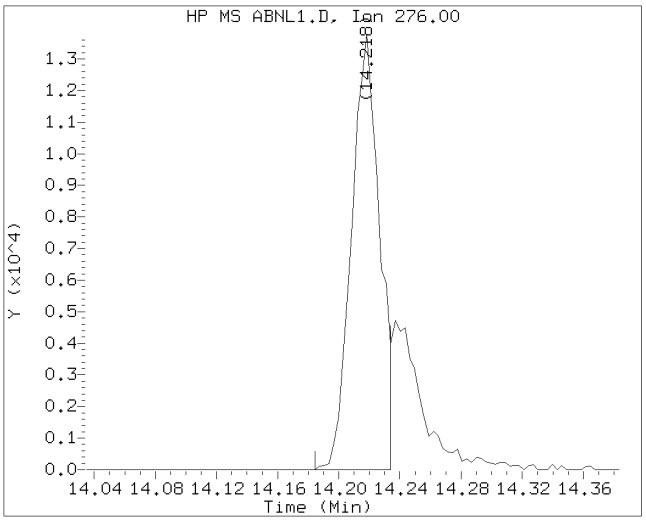
Manual Integration

Sample Info : ABN 1 LOT# 5806

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL1.D
Injection Date : 12-MAR-2016 11:36
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 17369 Manual Peak Response = 17755 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL2.D
Lab Smp Id:
Inj Date : 12-MAR-2016 12:01
Operator : as Inst ID: SV112.i
Smp Info : ABN 2 LOT# 5807
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 21:18 Cal File: ADPL1.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.991	1.991	(0.427)	10228	2.00000	1.89(M)	M4
	2 Pyridine	79	2.065	2.065	(0.443)	9979	2.00000	1.05(M)	M4
$	3 2-Fluorophenol	112	3.380	3.380	(0.725)	12993	2.00000	1.72	
	5 Aniline	93	4.350	4.350	(0.933)	12836	2.00000	2.61	
$	6 Phenol-d6	99	4.343	4.343	(0.931)	17646	2.00000	1.80	
	7 Phenol	94	4.356	4.356	(0.934)	19604	2.00000	1.73	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	13439	2.00000	1.67	
	9 2-Chlorophenol	128	4.458	4.458	(0.956)	14980	2.00000	1.84	
	10 1,3-Dichlorobenzene	146	4.608	4.608	(0.988)	17944	2.00000	1.98	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	227810	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	18002	2.00000	1.95	
	14 Benzyl alcohol	79	4.822	4.822	(1.034)	12090	2.00000	1.68(M)	M2
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	18193	2.00000	2.10	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	14106	2.00000	1.88	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	25737	2.00000	1.99	
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	12353	2.00000	1.82	
	19 3-Methylphenol/4-Methylphenol	108	5.108	5.108	(1.095)	13655	2.00000	1.73	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	7497	2.00000	2.00	
$	22 Nitrobenzene-d5	82	5.214	5.214	(1.118)	14987	2.00000	1.67	
	23 Nitrobenzene	77	5.232	5.232	(0.885)	16461	2.00000	1.73	
	24 Isophorone	82	5.475	5.475	(1.174)	34785	2.00000	1.93	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	5544	2.00000	1.38	
	27 2,4-Dimethylphenol	107	5.624	5.624	(1.206)	15902	2.00000	1.92	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	19411	2.00000	1.83	
	30 Benzoic acid	105	Compound Not Detected.						
	29 2,4-Dichlorophenol	162	5.789	5.789	(0.979)	12046	2.00000	1.82	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	15429	2.00000	2.00	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	956915	40.0000		
	33 Naphthalene	128	5.929	5.929	(1.003)	49139	2.00000	2.04	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	3784	2.00000	1.04	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.029)	8901	2.00000	2.06	
	41 p-Chloro-m-cresol	107	6.504	6.504	(1.100)	12594	2.00000	1.76	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	31441	2.00000	2.00	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	11629	2.00000	2.01	
	45	Hexachlorocyclopentadiene	237	6.786	6.786	(1.148)	4619	2.00000	1.18	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	8353	2.00000	1.72	
	47	2,4,5-Trichlorophenol	196	6.936	6.936	(1.174)	9005	2.00000	1.76(M)	M4
$	48	2-Fluorobiphenyl	172	6.988	6.988	(1.182)	34819	2.00000	2.06	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	29988	2.00000	1.96	
	51	2-Nitroaniline	138	7.200	7.200	(1.218)	5625	2.00000	1.16	
	52	1,4-Dinitrobenzene	168	7.333	7.333	(0.961)	1923	2.00000	0.836	
	53	Dimethyl phthalate	163	7.399	7.399	(0.970)	35227	2.00000	2.00	
	54	1,3-Dinitrobenzene	168	7.408	7.408	(0.971)	3089	2.00000	1.27	
	55	2,6-Dinitrotoluene	165	7.442	7.442	(1.259)	5599	2.00000	1.54	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	49006	2.00000	2.01	
	57	1,2-Dinitrobenzene	168	7.483	7.483	(0.981)	2809	2.00000	1.73	
	58	3-Nitroaniline	138	7.601	7.601	(0.996)	3817	2.00000	0.867	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	515516	40.0000		
	60	Acenaphthene	154	7.660	7.660	(1.004)	28978	2.00000	2.03	
	61	2,4-Dinitrophenol	184	Compound Not Detected.						
	62	4-Nitrophenol	65	Compound Not Detected.						
	63	Dibenzofuran	168	7.831	7.831	(1.026)	42804	2.00000	1.99	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	6568	2.00000	1.41	
	65	2,3,5,6-Tetrachlorophenol	232	7.921	7.921	(1.038)	6939	2.00000	1.68	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	7055	2.00000	1.72	
	67	Diethyl phthalate	149	8.095	8.095	(1.061)	35793	2.00000	1.94	
	68	Fluorene	166	8.163	8.163	(1.070)	33598	2.00000	1.97	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	16115	2.00000	2.01	
	70	4-Nitroaniline	138	8.194	8.194	(1.074)	3999	2.00000	0.968(M)	M4
	71	4,6-Dinitro-o-cresol	198	8.229	8.229	(1.079)	2626	2.00000	3.70	
	72	NDPA/DPA	169	8.300	8.300	(1.088)	26433	2.00000	1.87	
	73	Azobenzene	77	8.334	8.334	(1.092)	36289	2.00000	1.86	
$	74	2,4,6-Tribromophenol	330	8.396	8.396	(0.926)	3902	2.00000	1.61	
	75	4-Bromophenyl phenyl ether	248	8.654	8.654	(1.134)	8328	2.00000	1.83	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	10562	2.00000	1.97	
	80	Pentachlorophenol	266	Compound Not Detected.						
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	967204	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	53886	2.00000	2.05	
	84	Anthracene	178	9.142	9.142	(1.008)	49193	2.00000	1.95	
	85	Carbazole	167	9.313	9.313	(1.027)	45215	2.00000	1.90	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	49172	2.00000	1.77	
	89	Fluoranthene	202	10.258	10.258	(1.131)	50622	2.00000	1.86	
	91	Pyrene	202	10.473	10.473	(1.155)	54905	2.00000	1.90	
$	92	4-Terphenyl-d14	244	10.669	10.669	(1.176)	31713	2.00000	1.86	
	94	Butyl benzyl phthalate	149	11.197	11.197	(1.234)	17381	2.00000	1.39	
	95	Bis (2-ethylhexyl) adipate	129	11.321	11.321	(1.248)	13911	2.00000	2.01	
	97	Benzo(a)anthracene	228	11.722	11.722	(0.999)	51351	2.00000	1.91	
	98	3,3'-Dichlorobenzidine	252	11.725	11.725	(0.999)	10210	2.00000	2.22	
*	96	Chrysene-d12	240	11.732	11.732	(1.000)	870672	40.0000		
	99	Chrysene	228	11.756	11.756	(1.002)	54354	2.00000	2.06	
	100	Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.010)	24185	2.00000	1.38	
	101	Di-n-octylphthalate	149	12.533	12.533	(1.068)	32363	2.00000	1.08	
	102	Benzo(b)fluoranthene	252	12.838	12.838	(0.972)	43753	2.00000	1.71	
	103	Benzo(k)fluoranthene	252	12.866	12.866	(0.974)	49788	2.00000	1.85	
	105	Benzo(a)pyrene	252	13.155	13.155	(0.996)	41782	2.00000	1.69	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	873839	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.206	14.206	(1.075)	39926	2.00000	1.66(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.234	14.234	(1.077)	39655	2.00000	1.67	
110 Benzo(ghi)perylene	276	14.464	14.464	(1.095)	44963	2.00000	1.81	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 13-MAR-2016
Calibration Time: 01:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	227810	-0.26
32 Naphthalene-d8	951723	475862	1903446	956915	0.55
59 Acenaphthene-d10	513405	256703	1026810	515516	0.41
82 Phenanthrene-d10	989616	494808	1979232	967204	-2.26
96 Chrysene-d12	880229	440115	1760458	870672	-1.09
106 Perylene-d12	892749	446375	1785498	873839	-2.12

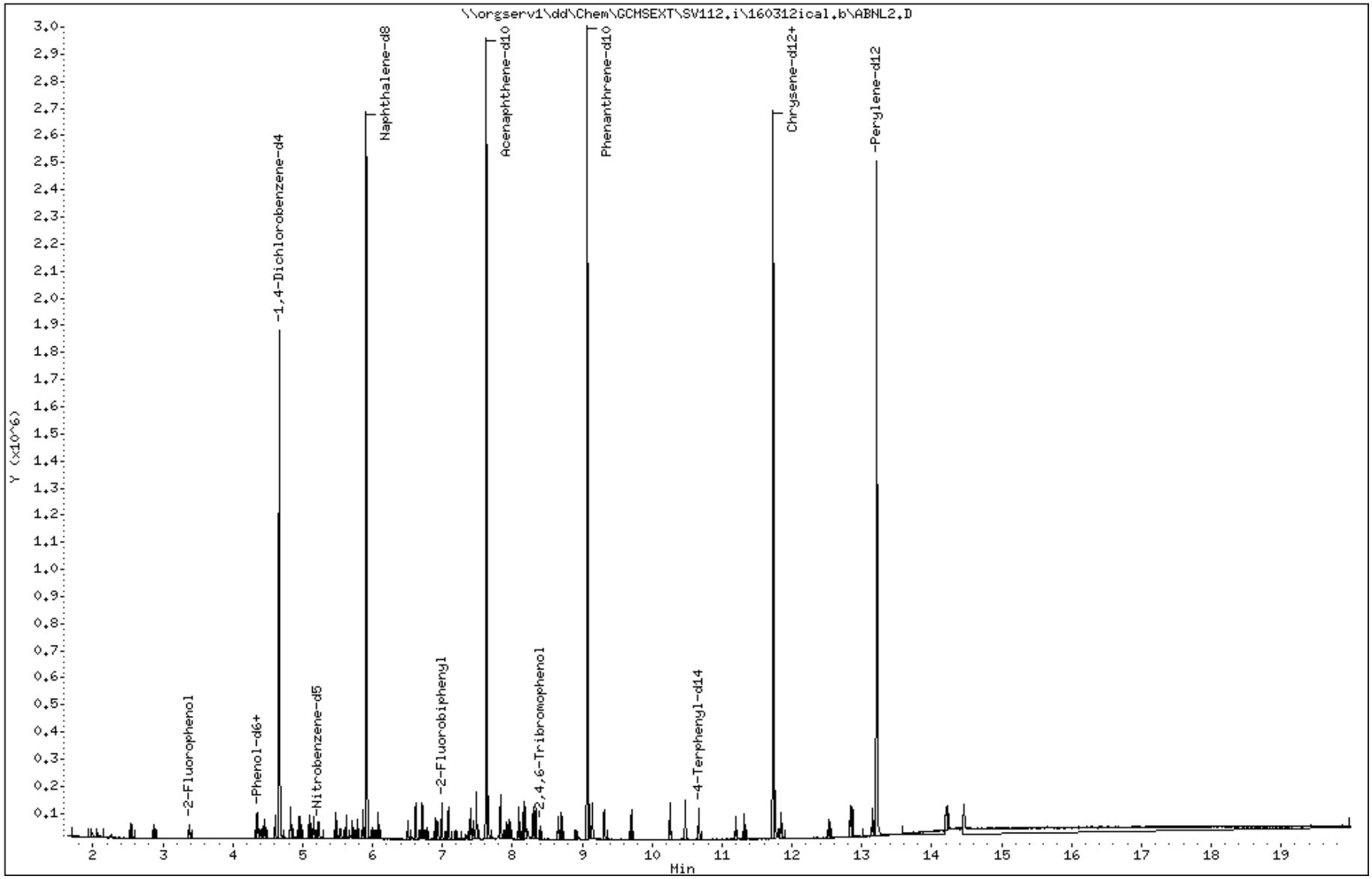
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.02
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL2.D
Date : 12-MAR-2016 12:01
Client ID:
Sample Info: ABN 2 LOT# 5807

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



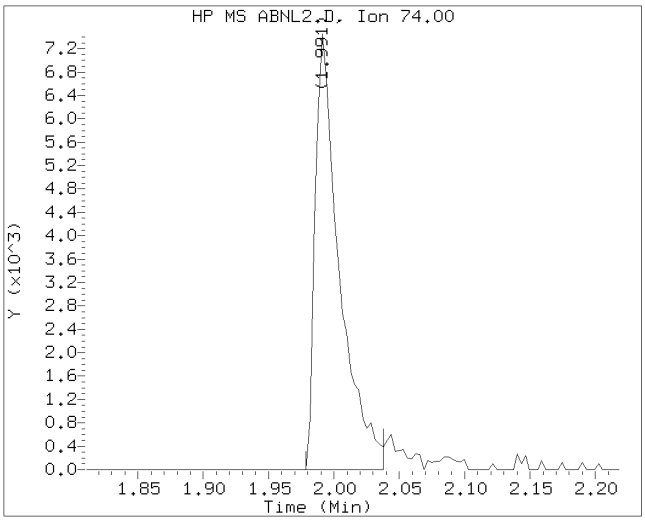
Alpha Analytical Labs

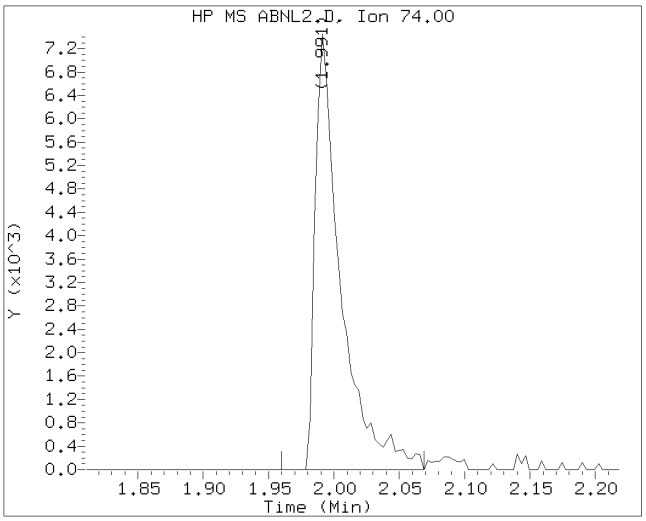
Manual Integration

Sample Info : ABN 2 LOT# 5807

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL2.D
Injection Date : 12-MAR-2016 12:01
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 1: n-Nitrosodimethylamine

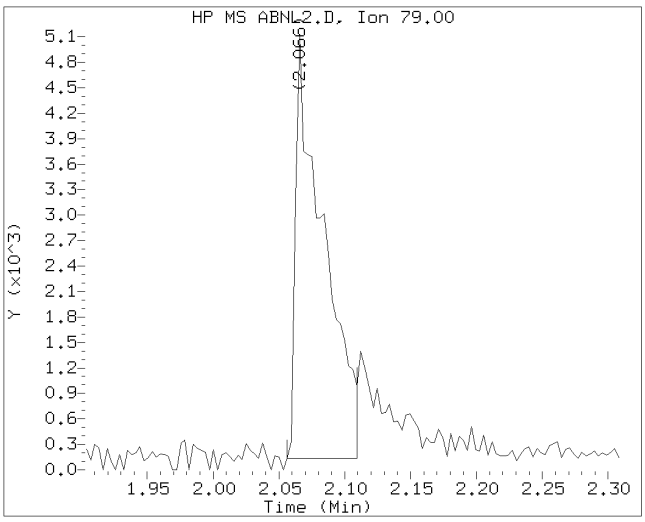


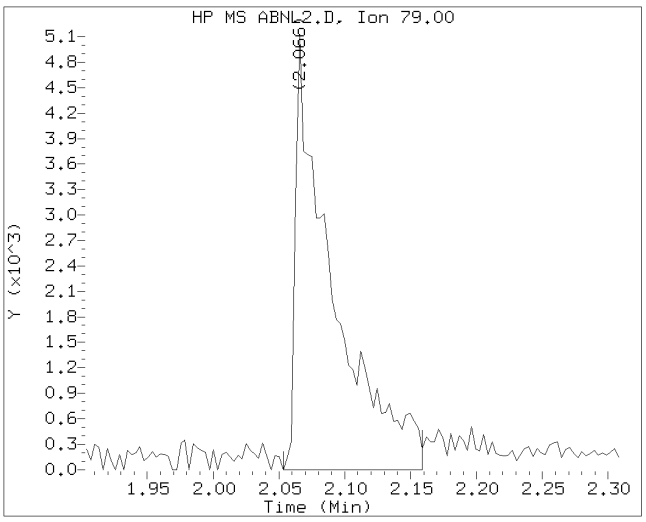


Original Peak Response = 9663 Manual Peak Response = 10228 M4

M4 = Poor automated baseline construction.

Compound # 2: Pyridine





Original Peak Response = 7349 Manual Peak Response = 9979 M4

M4 = Poor automated baseline construction.

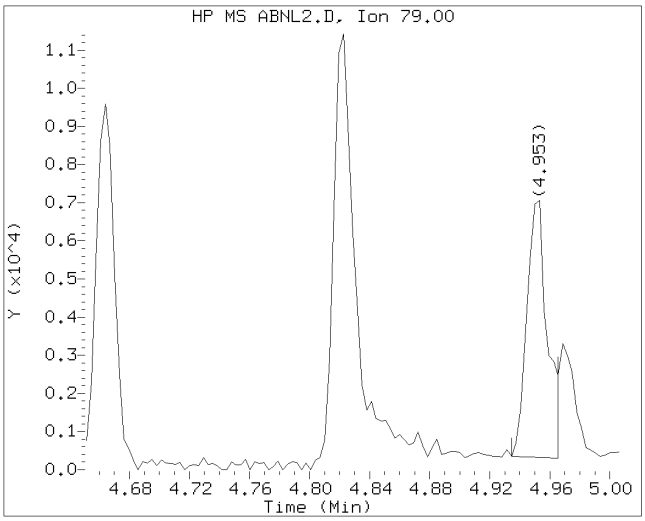
Alpha Analytical Labs

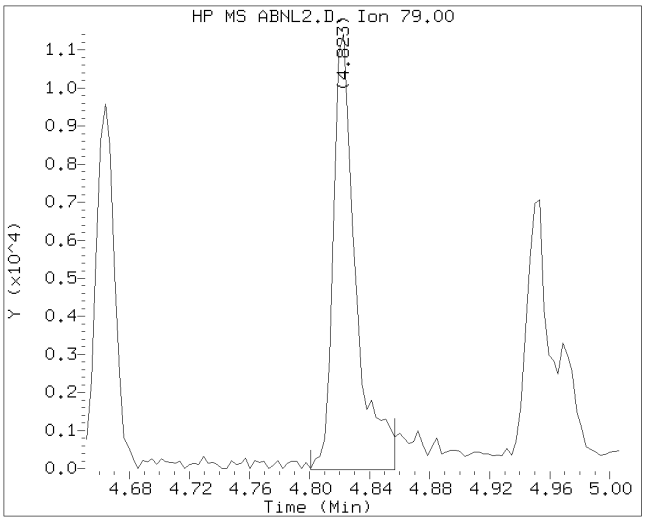
Manual Integration

Sample Info : ABN 2 LOT# 5807

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL2.D
Injection Date : 12-MAR-2016 12:01
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 14: Benzyl alcohol

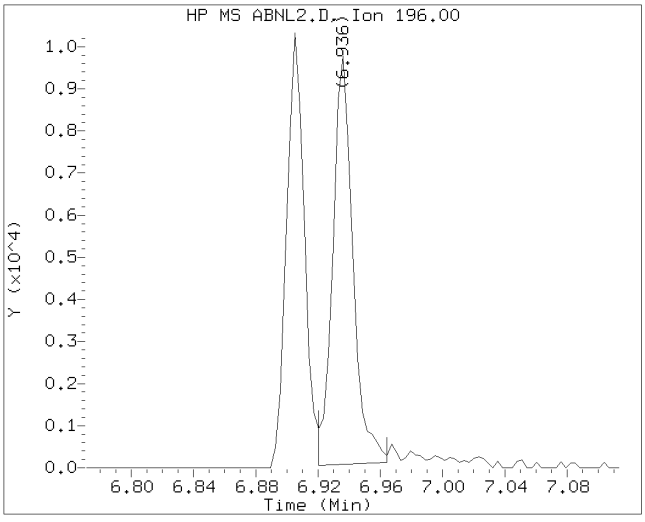


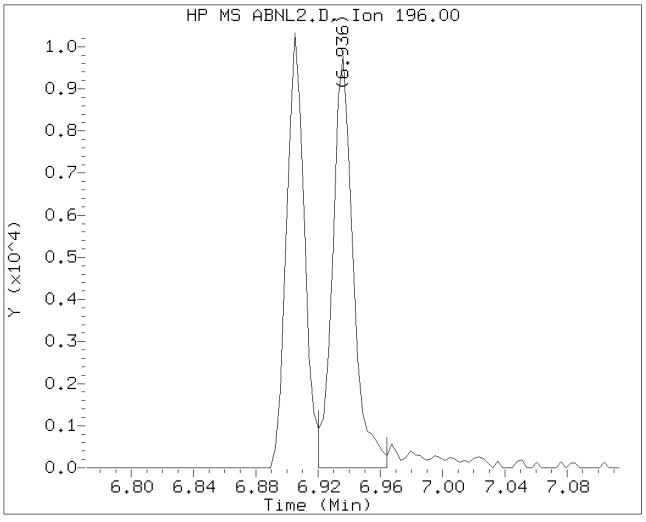


Original Peak Response = 6480 Manual Peak Response = 12090 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 47: 2,4,5-Trichlorophenol





Original Peak Response = 8749 Manual Peak Response = 9005 M4

M4 = Poor automated baseline construction.

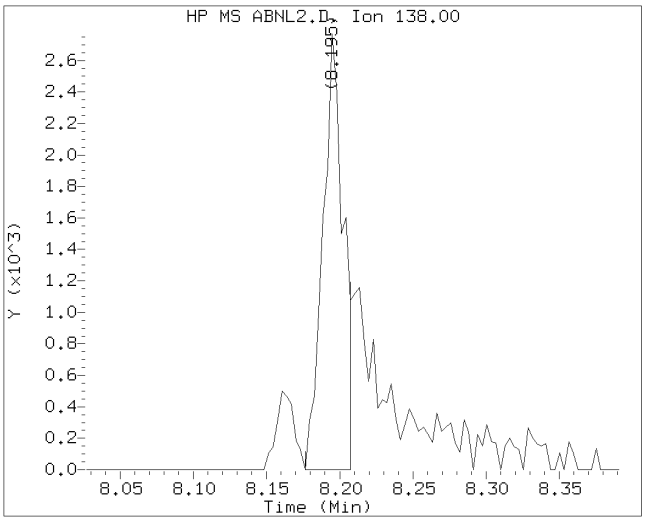
Alpha Analytical Labs

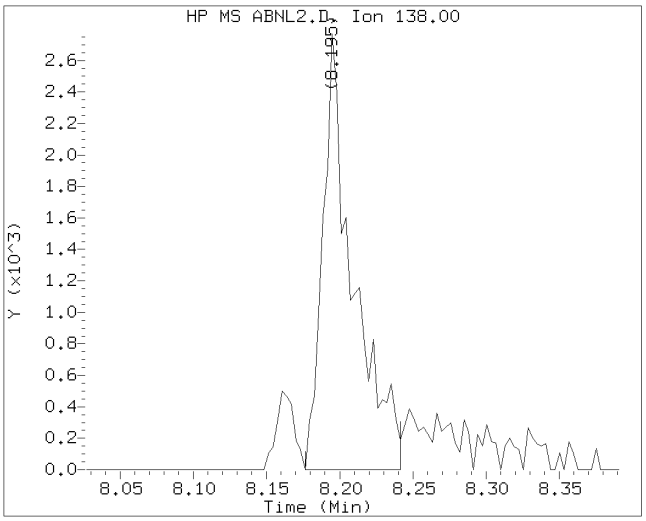
Manual Integration

Sample Info : ABN 2 LOT# 5807

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL2.D
Injection Date : 12-MAR-2016 12:01
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 70: 4-Nitroaniline

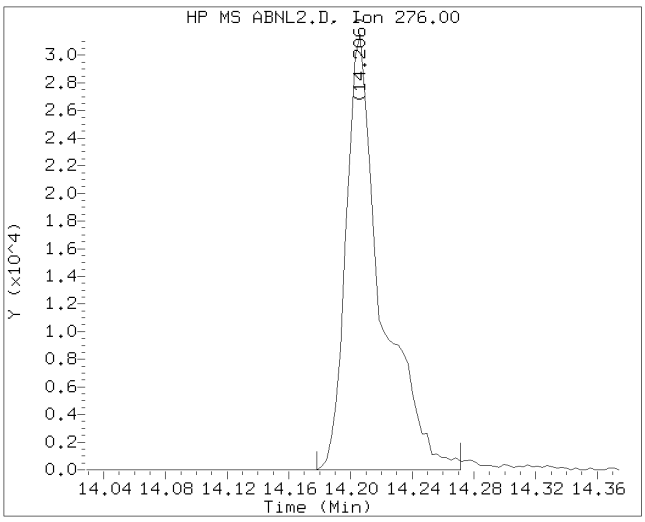


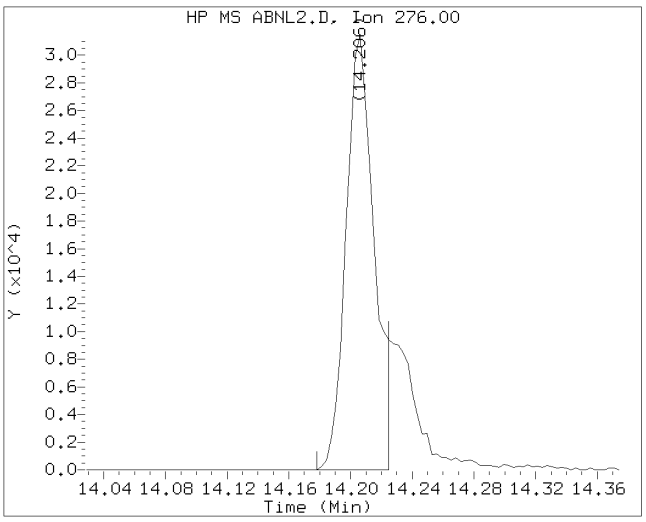


Original Peak Response = 2732 Manual Peak Response = 3999 M4

M4 = Poor automated baseline construction.

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 50249 Manual Peak Response = 39926 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL3.D
Lab Smp Id:
Inj Date : 12-MAR-2016 12:26
Operator : as Inst ID: SV112.i
Smp Info : ABN 3 LOT# 5808
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 21:44 Cal File: ADPL2.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.984	1.984	(0.426)	14695	3.00000	2.60(M)	M4
	2 Pyridine	79	2.047	2.047	(0.439)	19122	3.00000	1.92(M)	M4
$	3 2-Fluorophenol	112	3.380	3.380	(0.725)	20462	3.00000	2.58	
	5 Aniline	93	4.347	4.347	(0.932)	29356	3.00000	3.44	
$	6 Phenol-d6	99	4.343	4.343	(0.931)	27373	3.00000	2.67	
	7 Phenol	94	4.356	4.356	(0.934)	32268	3.00000	2.72	
	8 Bis(2-chloroethyl)ether	93	4.427	4.427	(0.949)	22842	3.00000	2.72	
	9 2-Chlorophenol	128	4.455	4.455	(0.955)	24106	3.00000	2.83	
	10 1,3-Dichlorobenzene	146	4.608	4.608	(0.988)	27675	3.00000	2.92	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	238174	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	28734	3.00000	2.98	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	20323	3.00000	2.70	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	26930	3.00000	2.97	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	21935	3.00000	2.80	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	39529	3.00000	2.93(M)	M2
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	20155	3.00000	2.84	
	19 3-Methylphenol/4-Methylphenol	108	5.105	5.105	(1.095)	22747	3.00000	2.76	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	11143	3.00000	2.84	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	24734	3.00000	2.64	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	26459	3.00000	2.63	
	24 Isophorone	82	5.475	5.475	(1.174)	52721	3.00000	2.80	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	9168	3.00000	2.18	
	27 2,4-Dimethylphenol	107	5.621	5.621	(1.205)	23982	3.00000	2.77	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	30659	3.00000	2.76	
	30 Benzoic acid	105	5.680	5.680	(0.961)	7339	3.00000	5.94	
	29 2,4-Dichlorophenol	162	5.786	5.786	(0.979)	19044	3.00000	2.72	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	23455	3.00000	2.87	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	1013796	40.0000		
	33 Naphthalene	128	5.929	5.929	(1.003)	74658	3.00000	2.92	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	7759	3.00000	2.01	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.029)	13004	3.00000	2.84	
	41 p-Chloro-m-cresol	107	6.504	6.504	(1.100)	19254	3.00000	2.54	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	47429	3.00000	2.84	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	17219	3.00000	2.81	
	45	Hexachlorocyclopentadiene	237	6.783	6.783	(1.148)	7290	3.00000	1.76	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	13835	3.00000	2.68	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	14336	3.00000	2.65(M)	M4
$	48	2-Fluorobiphenyl	172	6.988	6.988	(1.182)	52003	3.00000	2.90	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	45965	3.00000	2.84	
	51	2-Nitroaniline	138	7.200	7.200	(1.218)	9409	3.00000	1.84	
	52	1,4-Dinitrobenzene	168	7.333	7.333	(0.962)	3309	3.00000	1.37	
	53	Dimethyl phthalate	163	7.399	7.399	(0.970)	53835	3.00000	2.91	
	54	1,3-Dinitrobenzene	168	7.405	7.405	(0.971)	4443	3.00000	1.75	
	55	2,6-Dinitrotoluene	165	7.442	7.442	(1.259)	9104	3.00000	2.36	
	56	Acenaphthylene	152	7.483	7.483	(1.266)	74216	3.00000	2.87	
	57	1,2-Dinitrobenzene	168	7.483	7.483	(0.981)	4082	3.00000	2.40(M)	M4
	58	3-Nitroaniline	138	7.601	7.601	(0.997)	7747	3.00000	1.68	
*	59	Acenaphthene-d10	164	7.626	7.626	(1.000)	539792	40.0000		
	60	Acenaphthene	154	7.657	7.657	(1.004)	44082	3.00000	2.95	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	2238	3.00000	5.12(M)	M4
	62	4-Nitrophenol	65	7.797	7.797	(1.022)	5809	3.00000	1.44(M)	M2
	63	Dibenzofuran	168	7.828	7.828	(1.026)	67007	3.00000	2.97	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	11102	3.00000	2.28	
	65	2,3,5,6-Tetrachlorophenol	232	7.921	7.921	(1.039)	11139	3.00000	2.58	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	11602	3.00000	2.70(M)	M4
	67	Diethyl phthalate	149	8.095	8.095	(1.062)	54832	3.00000	2.84	
	68	Fluorene	166	8.163	8.163	(1.071)	50802	3.00000	2.84	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	23707	3.00000	2.82	
	70	4-Nitroaniline	138	8.191	8.191	(1.074)	7496	3.00000	1.73	
	71	4,6-Dinitro-o-cresol	198	8.226	8.226	(1.079)	4379	3.00000	4.17	
	72	NDPA/DPA	169	8.297	8.297	(1.088)	41888	3.00000	2.83	
	73	Azobenzene	77	8.334	8.334	(1.093)	56694	3.00000	2.77	
$	74	2,4,6-Tribromophenol	330	8.396	8.396	(0.926)	6570	3.00000	2.62	
	75	4-Bromophenyl phenyl ether	248	8.654	8.654	(1.135)	12727	3.00000	2.67	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	15890	3.00000	2.83	
	80	Pentachlorophenol	266	8.900	8.900	(0.981)	5810	3.00000	3.63	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	1003975	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	81440	3.00000	2.99	
	84	Anthracene	178	9.142	9.142	(1.008)	75078	3.00000	2.87	
	85	Carbazole	167	9.313	9.313	(1.027)	66461	3.00000	2.69	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	76632	3.00000	2.65	
	89	Fluoranthene	202	10.258	10.258	(1.131)	79979	3.00000	2.82	
	91	Pyrene	202	10.473	10.473	(1.155)	87099	3.00000	2.91	
$	92	4-Terphenyl-d14	244	10.669	10.669	(1.176)	48368	3.00000	2.73	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	28675	3.00000	2.21	
	95	Bis (2-ethylhexyl) adipate	129	11.321	11.321	(1.248)	24262	3.00000	2.87	
	97	Benzo(a)anthracene	228	11.722	11.722	(0.999)	79225	3.00000	2.82	
	98	3,3'-Dichlorobenzidine	252	11.725	11.725	(0.999)	19291	3.00000	3.01	
*	96	Chrysene-d12	240	11.732	11.732	(1.000)	908188	40.0000		
	99	Chrysene	228	11.760	11.760	(1.002)	81826	3.00000	2.97	
	100	Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.010)	40533	3.00000	2.22	
	101	Di-n-octylphthalate	149	12.530	12.530	(1.068)	55867	3.00000	1.79	
	102	Benzo(b)fluoranthene	252	12.838	12.838	(0.972)	68723	3.00000	2.59	
	103	Benzo(k)fluoranthene	252	12.866	12.866	(0.974)	77439	3.00000	2.78	
	105	Benzo(a)pyrene	252	13.155	13.155	(0.996)	65156	3.00000	2.54	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	903595	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.206	14.206	(1.075)	62658	3.00000	2.52	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.230	14.230	(1.077)	62614	3.00000	2.55	
110 Benzo(ghi)perylene	276	14.460	14.460	(1.094)	67368	3.00000	2.62	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 13-MAR-2016
Calibration Time: 01:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

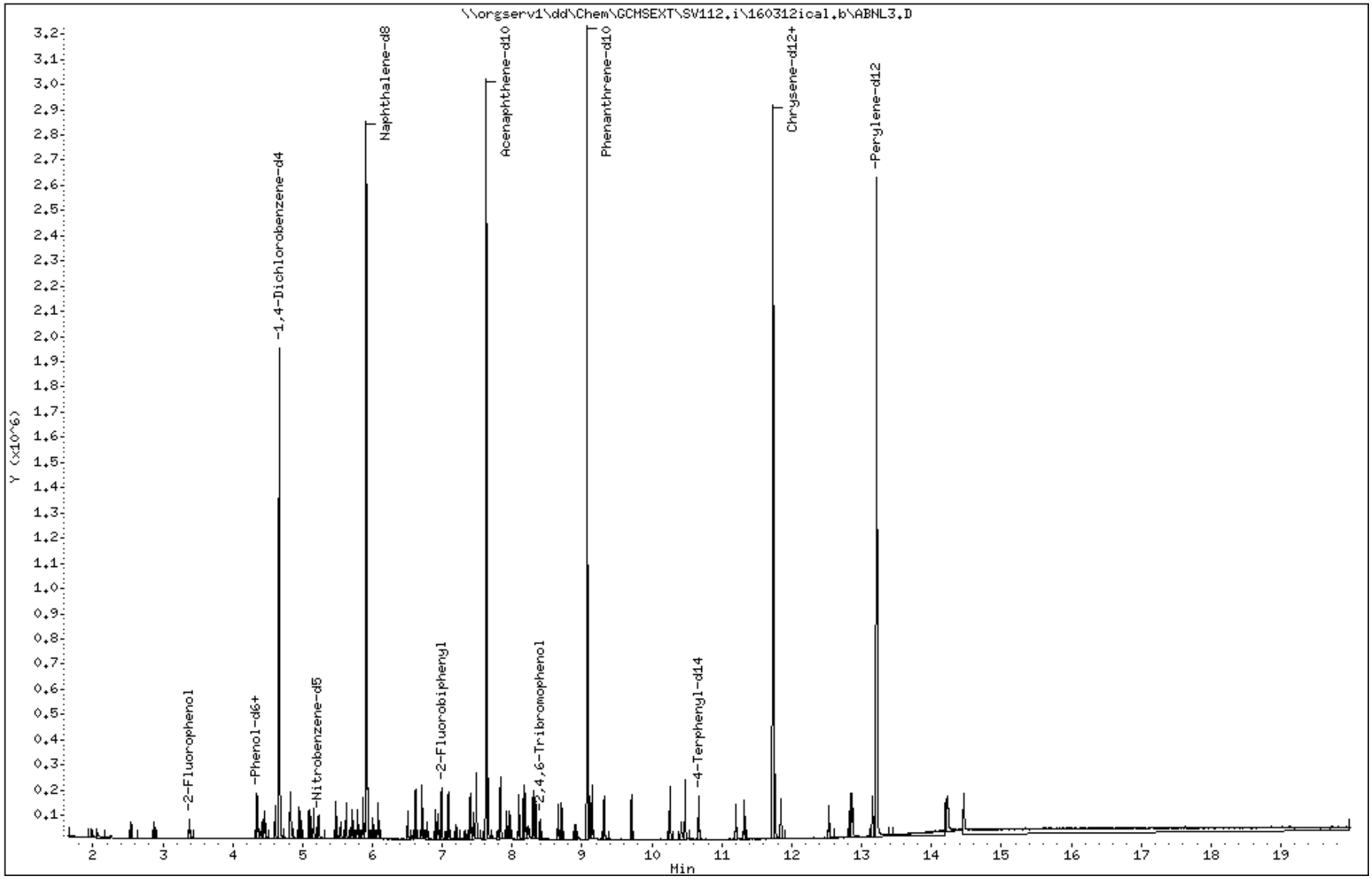
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	238174	4.28
32 Naphthalene-d8	951723	475862	1903446	1013796	6.52
59 Acenaphthene-d10	513405	256703	1026810	539792	5.14
82 Phenanthrene-d10	989616	494808	1979232	1003975	1.45
96 Chrysene-d12	880229	440115	1760458	908188	3.18
106 Perylene-d12	892749	446375	1785498	903595	1.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.02
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL3.D
Date : 12-MAR-2016 12:26
Client ID:
Sample Info: ABN 3 LOT# 5808

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



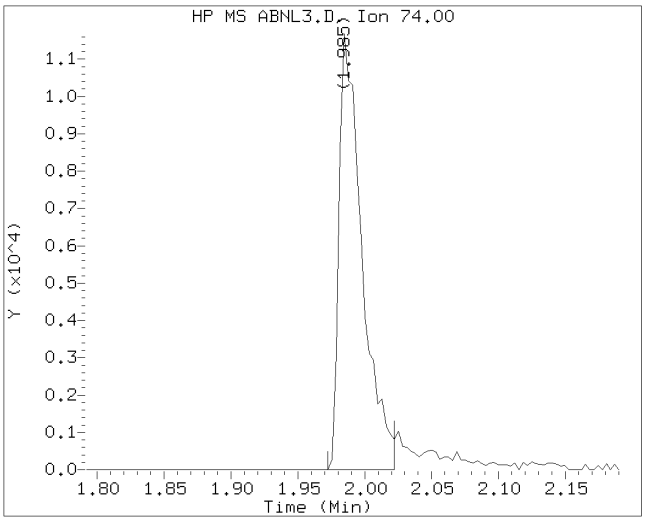
Alpha Analytical Labs

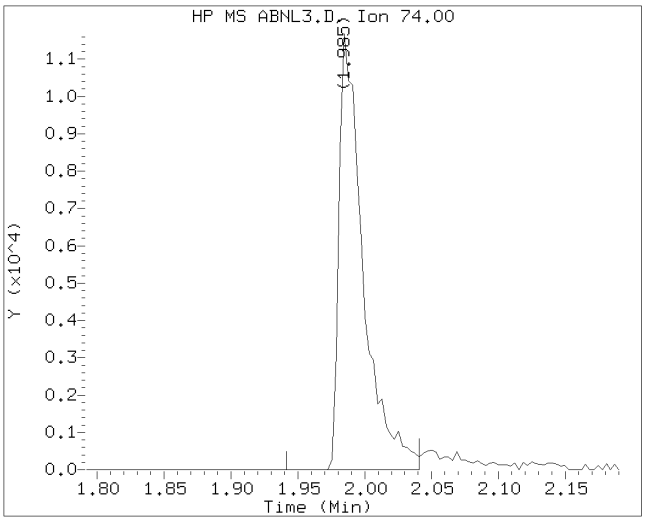
Manual Integration

Sample Info : ABN 3 LOT# 5808

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL3.D
Injection Date : 12-MAR-2016 12:26
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 1: n-Nitrosodimethylamine

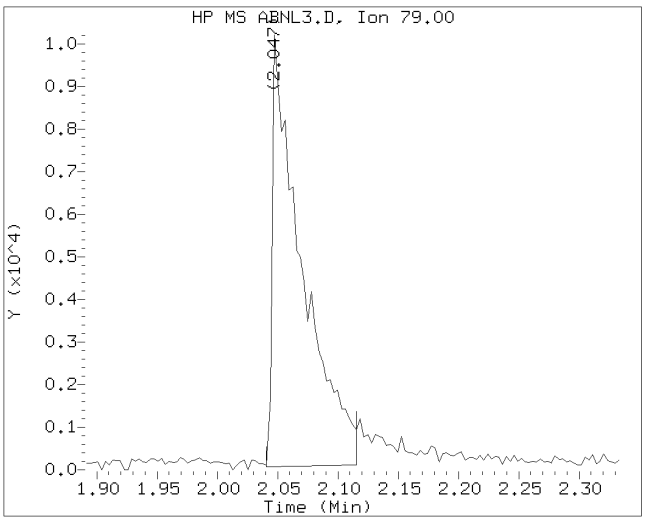


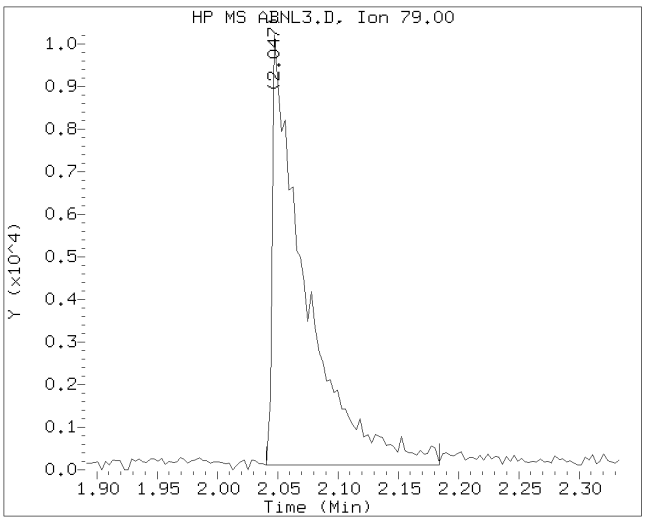


Original Peak Response = 14041 Manual Peak Response = 14695 M4

M4 = Poor automated baseline construction.

Compound # 2: Pyridine





Original Peak Response = 17316 Manual Peak Response = 19122 M4

M4 = Poor automated baseline construction.

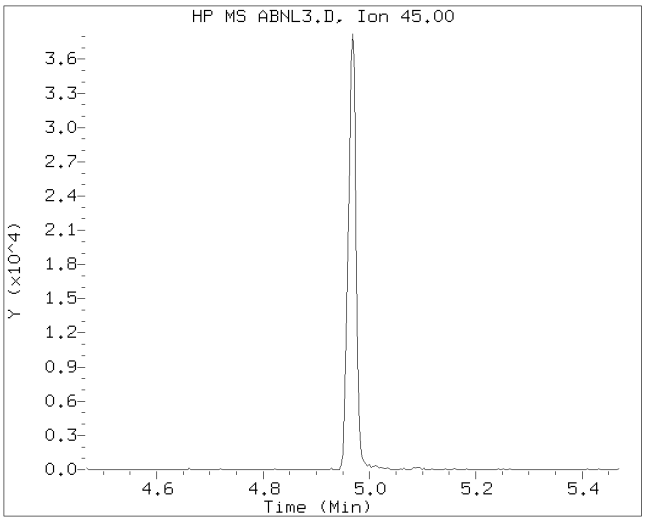
Alpha Analytical Labs

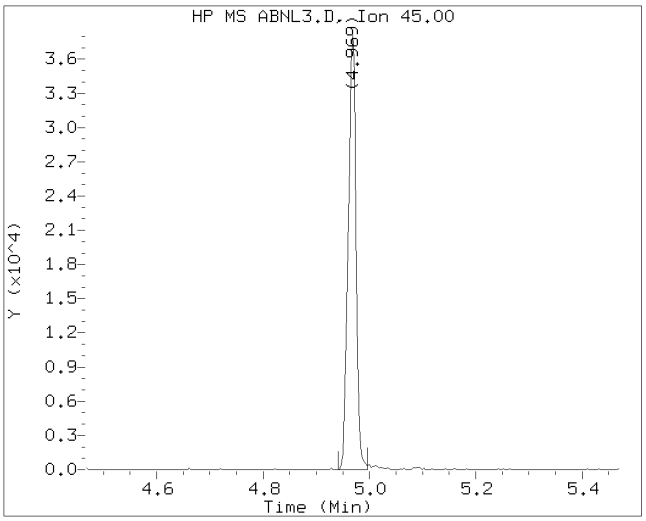
Manual Integration

Sample Info : ABN 3 LOT# 5808

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL3.D
Injection Date : 12-MAR-2016 12:26
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 16: Bis(2-chloroisopropyl)ether

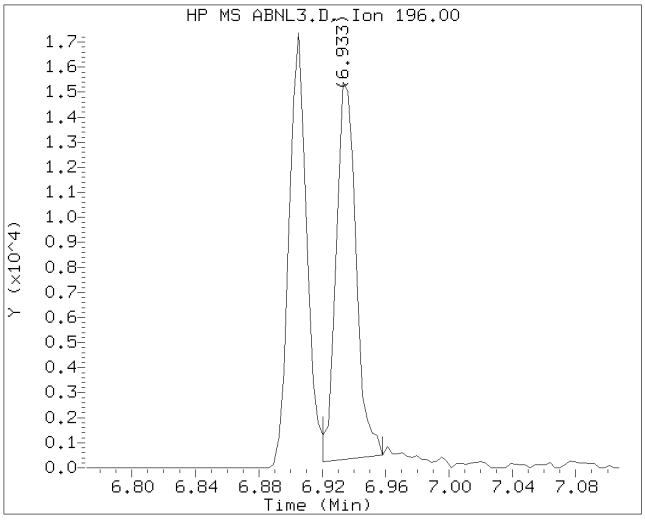


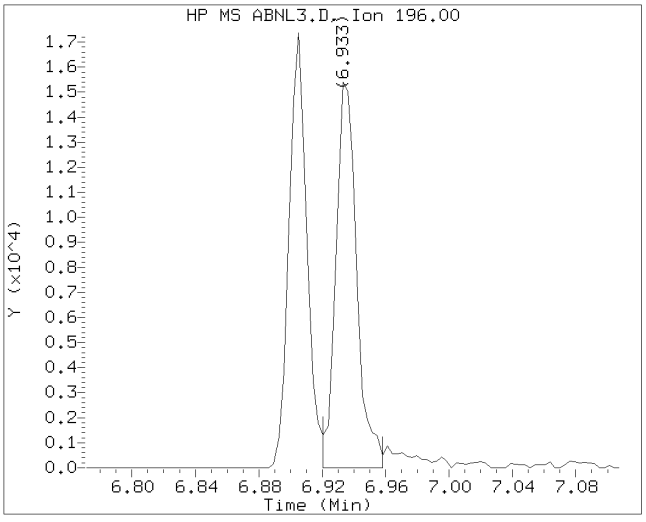


Original Peak Response = 0 Manual Peak Response = 39529 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 47: 2,4,5-Trichlorophenol





Original Peak Response = 13408 Manual Peak Response = 14336 M4

M4 = Poor automated baseline construction.

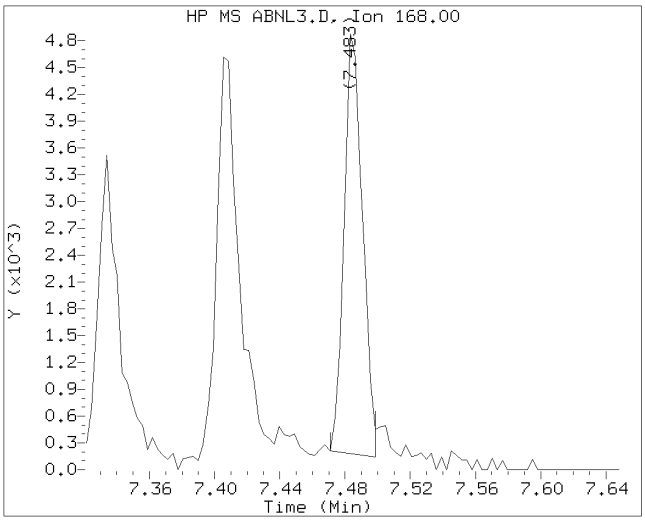
Alpha Analytical Labs

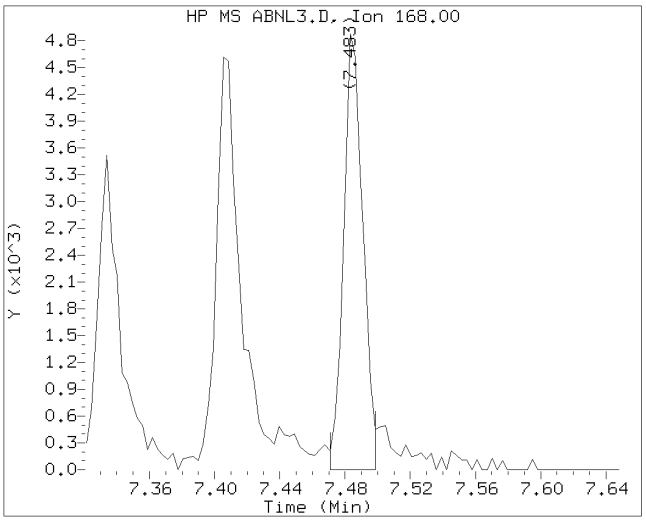
Manual Integration

Sample Info : ABN 3 LOT# 5808

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL3.D
Injection Date : 12-MAR-2016 12:26
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 57: 1,2-Dinitrobenzene

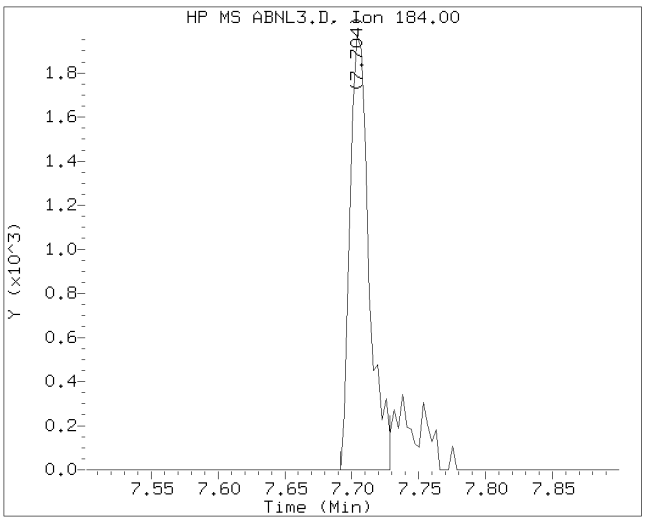


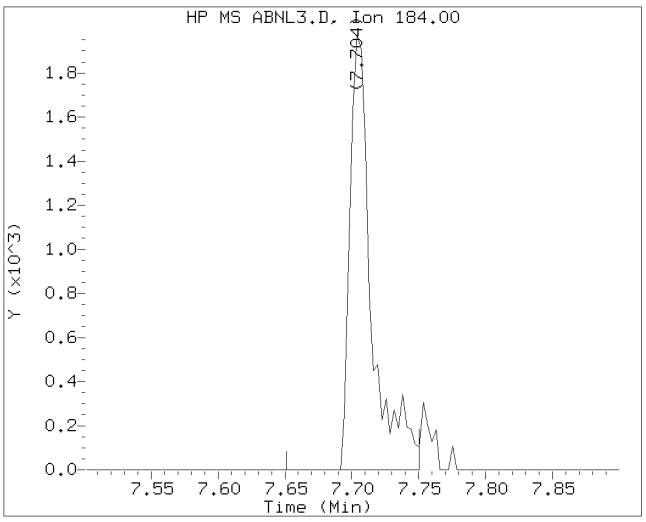


Original Peak Response = 3748 Manual Peak Response = 4082 M4

M4 = Poor automated baseline construction.

Compound # 61: 2,4-Dinitrophenol





Original Peak Response = 1976 Manual Peak Response = 2238 M4

M4 = Poor automated baseline construction.

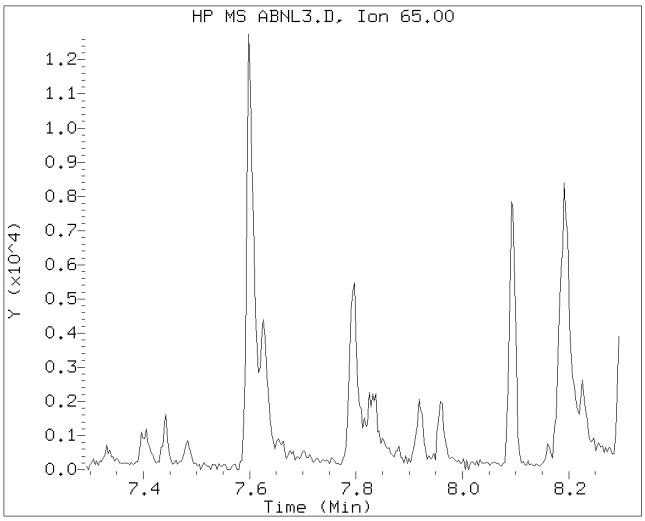
Alpha Analytical Labs

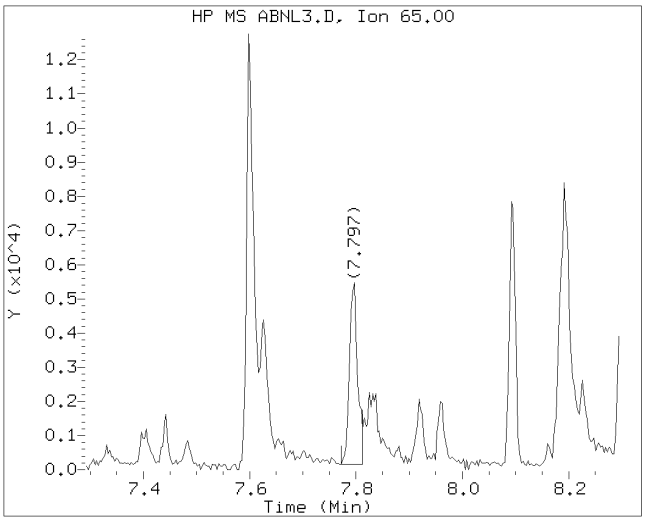
Manual Integration

Sample Info : ABN 3 LOT# 5808

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL3.D
Injection Date : 12-MAR-2016 12:26
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 62: 4-Nitrophenol

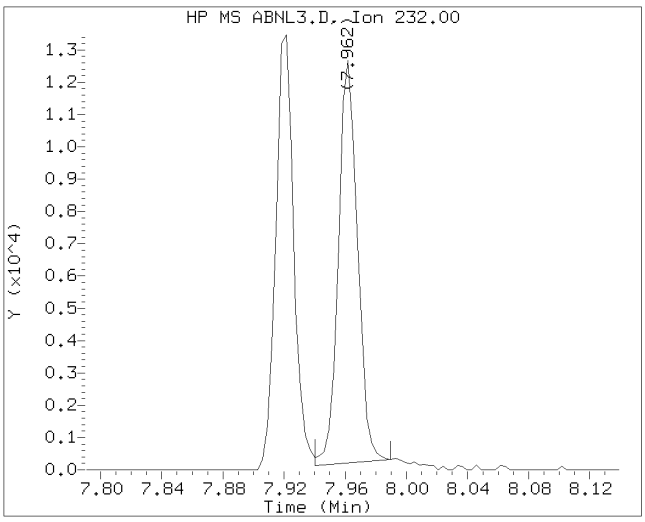


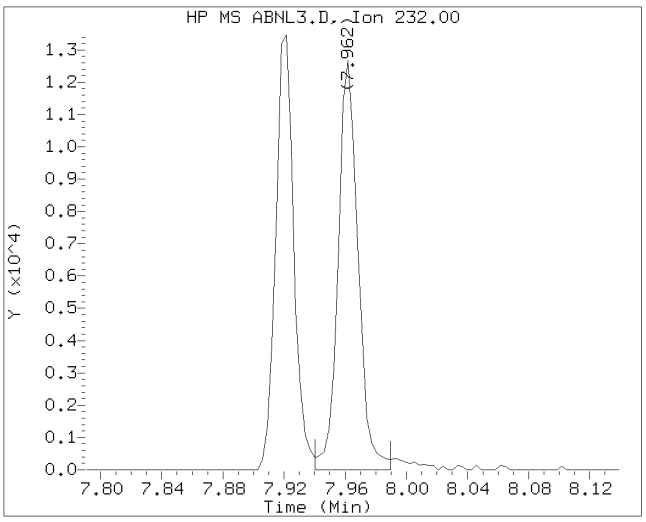


Original Peak Response = 0 Manual Peak Response = 5809 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 66: 2,3,4,6-Tetrachlorophenol





Original Peak Response = 10875 Manual Peak Response = 11602 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL4.D
Lab Smp Id:
Inj Date : 12-MAR-2016 12:51
Operator : as Inst ID: SV112.i
Smp Info : ABN 5 LOT# 5809
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 22:10 Cal File: ADPL3.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.984	1.984	(0.426)	25291	5.00000	4.62	
	2 Pyridine	79	2.037	2.037	(0.437)	35859	5.00000	3.73	
$	3 2-Fluorophenol	112	3.380	3.380	(0.725)	35528	5.00000	4.64	
	5 Aniline	93	4.347	4.347	(0.932)	50490	5.00000	4.63	
$	6 Phenol-d6	99	4.343	4.343	(0.931)	47551	5.00000	4.80	
	7 Phenol	94	4.353	4.353	(0.933)	55302	5.00000	4.82	
	8 Bis(2-chloroethyl)ether	93	4.427	4.427	(0.949)	39178	5.00000	4.82	
	9 2-Chlorophenol	128	4.455	4.455	(0.955)	40348	5.00000	4.90	
	10 1,3-Dichlorobenzene	146	4.605	4.605	(0.987)	45155	5.00000	4.94	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	230254	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	46717	5.00000	5.00	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	34190	5.00000	4.71	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	45038	5.00000	5.15	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	35789	5.00000	4.72	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	65144	5.00000	4.99	
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	32082	5.00000	4.68	
	19 3-Methylphenol/4-Methylphenol	108	5.105	5.105	(1.095)	38184	5.00000	4.80	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	18728	5.00000	4.94	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	41804	5.00000	4.61	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	45444	5.00000	4.73	
	24 Isophorone	82	5.472	5.472	(1.173)	87941	5.00000	4.83	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	15977	5.00000	3.92	
	27 2,4-Dimethylphenol	107	5.621	5.621	(1.205)	38970	5.00000	4.66	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	51795	5.00000	4.82	
	30 Benzoic acid	105	5.683	5.683	(0.962)	15876	5.00000	7.09	
	29 2,4-Dichlorophenol	162	5.789	5.789	(0.979)	31463	5.00000	4.71	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	38149	5.00000	4.90	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	966119	40.0000		
	33 Naphthalene	128	5.929	5.929	(1.003)	120915	5.00000	4.96	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	14770	5.00000	4.02	
	38 Hexachlorobutadiene	225	6.078	6.078	(1.028)	21567	5.00000	4.95	
	41 p-Chloro-m-cresol	107	6.501	6.501	(1.100)	32734	5.00000	4.53	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	75792	5.00000	4.77	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	28440	5.00000	4.87	
	45	Hexachlorocyclopentadiene	237	6.783	6.783	(1.148)	11983	5.00000	3.04	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	23053	5.00000	4.69	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	24619	5.00000	4.77	
$	48	2-Fluorobiphenyl	172	6.988	6.988	(1.182)	83897	5.00000	4.90	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	76334	5.00000	4.95	
	51	2-Nitroaniline	138	7.197	7.197	(1.218)	18006	5.00000	3.69	
	52	1,4-Dinitrobenzene	168	7.334	7.334	(0.961)	6609	5.00000	2.84	
	53	Dimethyl phthalate	163	7.399	7.399	(0.970)	87243	5.00000	4.89	
	54	1,3-Dinitrobenzene	168	7.408	7.408	(0.971)	8914	5.00000	3.63(M)	M4
	55	2,6-Dinitrotoluene	165	7.442	7.442	(1.259)	16483	5.00000	4.48	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	122444	5.00000	4.97	
	57	1,2-Dinitrobenzene	168	7.486	7.486	(0.981)	6986	5.00000	4.26	
	58	3-Nitroaniline	138	7.601	7.601	(0.996)	16065	5.00000	3.61	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	520903	40.0000		
	60	Acenaphthene	154	7.657	7.657	(1.004)	71152	5.00000	4.94	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	4875	5.00000	6.13(M)	M4
	62	4-Nitrophenol	65	7.790	7.790	(1.021)	13560	5.00000	3.49	
	63	Dibenzofuran	168	7.831	7.831	(1.026)	109966	5.00000	5.05	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	20570	5.00000	4.37	
	65	2,3,5,6-Tetrachlorophenol	232	7.918	7.918	(1.038)	19494	5.00000	4.67	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	19391	5.00000	4.68	
	67	Diethyl phthalate	149	8.095	8.095	(1.061)	90176	5.00000	4.84	
	68	Fluorene	166	8.163	8.163	(1.070)	84794	5.00000	4.92	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	39363	5.00000	4.86	
	70	4-Nitroaniline	138	8.191	8.191	(1.074)	13612	5.00000	3.26(M)	M4
	71	4,6-Dinitro-o-cresol	198	8.226	8.226	(1.078)	8744	5.00000	5.52	
	72	NDPA/DPA	169	8.300	8.300	(1.088)	69156	5.00000	4.84	
	73	Azobenzene	77	8.334	8.334	(1.092)	95229	5.00000	4.82	
$	74	2,4,6-Tribromophenol	330	8.396	8.396	(0.926)	10837	5.00000	4.52	
	75	4-Bromophenyl phenyl ether	248	8.658	8.658	(1.135)	21751	5.00000	4.73	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	25468	5.00000	4.70	
	80	Pentachlorophenol	266	8.903	8.903	(0.981)	10748	5.00000	5.15	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	959260	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	131368	5.00000	5.04	
	84	Anthracene	178	9.142	9.142	(1.008)	123400	5.00000	4.94	
	85	Carbazole	167	9.313	9.313	(1.027)	113374	5.00000	4.81	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	129762	5.00000	4.70	
	89	Fluoranthene	202	10.255	10.255	(1.131)	134570	5.00000	4.97	
	91	Pyrene	202	10.473	10.473	(1.155)	144318	5.00000	5.05	
$	92	4-Terphenyl-d14	244	10.665	10.665	(1.176)	81649	5.00000	4.82	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	51685	5.00000	4.18	
	95	Bis (2-ethylhexyl) adipate	129	11.318	11.318	(1.248)	43834	5.00000	4.75	
	97	Benzo(a)anthracene	228	11.719	11.719	(0.999)	132058	5.00000	4.76	
	98	3,3'-Dichlorobenzidine	252	11.722	11.722	(0.999)	36901	5.00000	4.66	
*	96	Chrysene-d12	240	11.732	11.732	(1.000)	898622	40.0000		
	99	Chrysene	228	11.756	11.756	(1.002)	135148	5.00000	4.95	
	100	Bis(2-ethylhexyl)phthalate	149	11.843	11.843	(1.010)	73400	5.00000	4.07	
	101	Di-n-octylphthalate	149	12.530	12.530	(1.068)	107764	5.00000	3.48	
	102	Benzo(b)fluoranthene	252	12.835	12.835	(0.971)	121163	5.00000	4.67	
	103	Benzo(k)fluoranthene	252	12.863	12.863	(0.973)	130006	5.00000	4.78	
	105	Benzo(a)pyrene	252	13.155	13.155	(0.996)	112314	5.00000	4.48	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	883981	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.203	14.203	(1.075)	103222	5.00000	4.24(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.230	14.230	(1.077)	110943	5.00000	4.61	
110 Benzo(ghi)perylene	276	14.460	14.460	(1.094)	114452	5.00000	4.54	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 13-MAR-2016
Calibration Time: 01:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

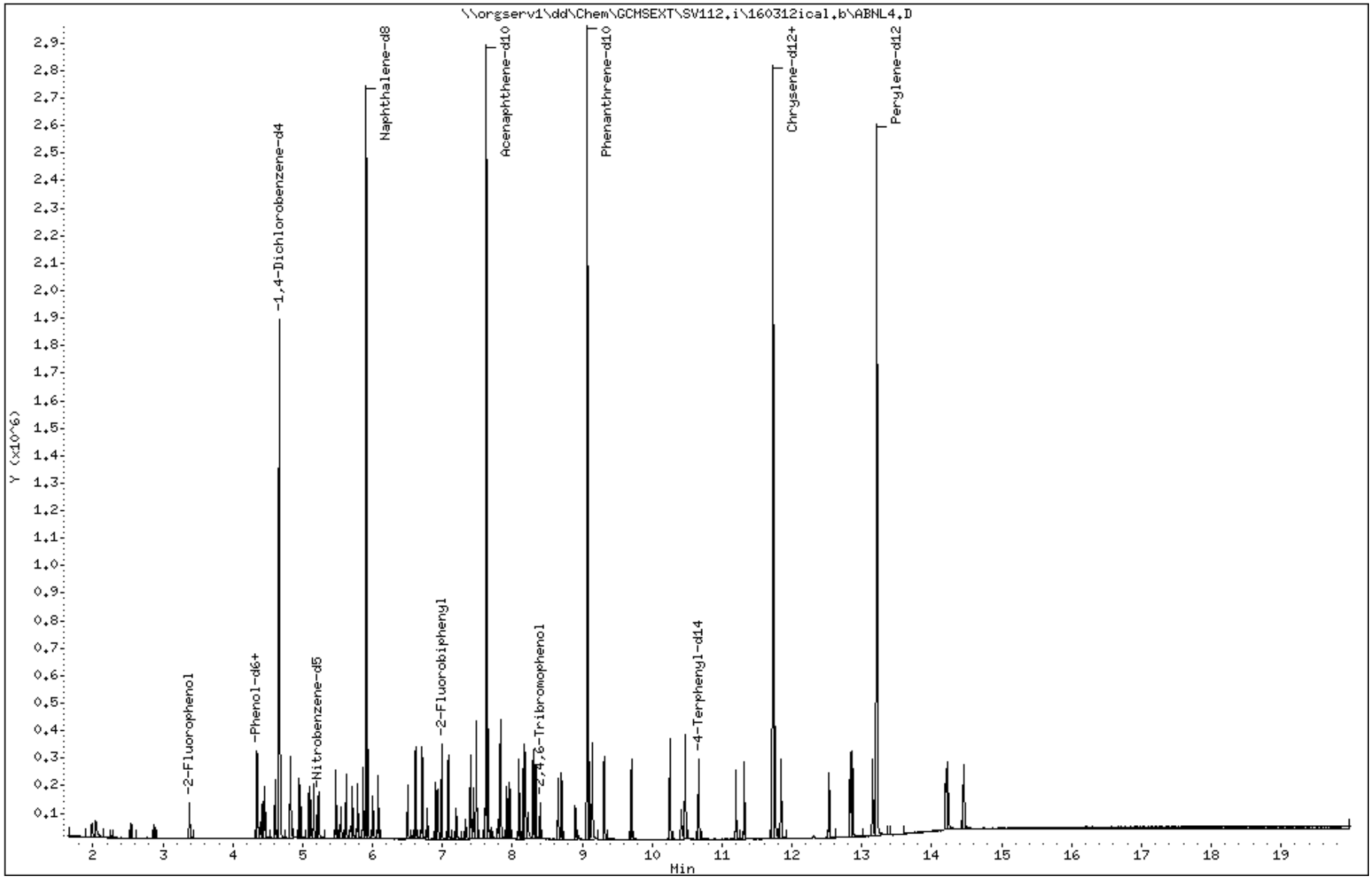
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	230254	0.81
32 Naphthalene-d8	951723	475862	1903446	966119	1.51
59 Acenaphthene-d10	513405	256703	1026810	520903	1.46
82 Phenanthrene-d10	989616	494808	1979232	959260	-3.07
96 Chrysene-d12	880229	440115	1760458	898622	2.09
106 Perylene-d12	892749	446375	1785498	883981	-0.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.02
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL4.D
Date : 12-MAR-2016 12:51
Client ID:
Sample Info: ABN 5 LOT# 5809

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



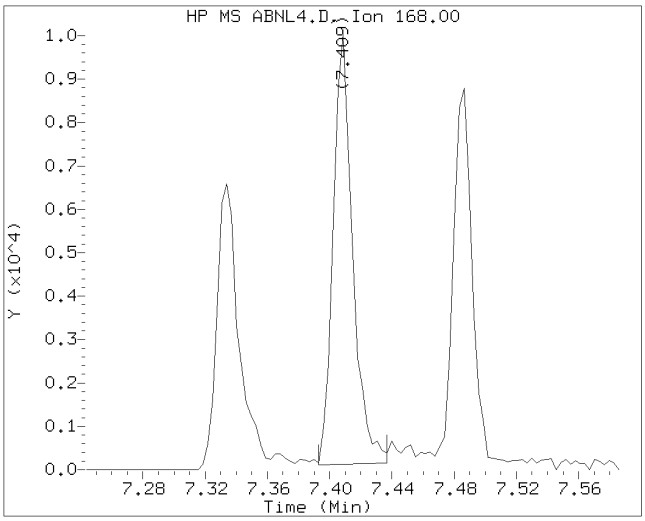
Alpha Analytical Labs

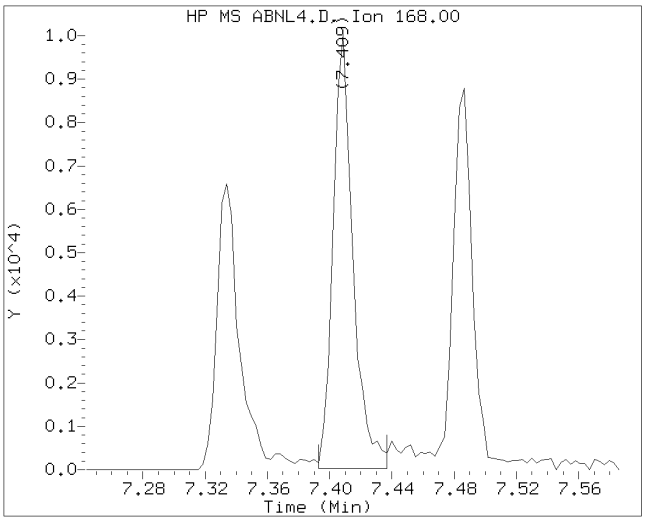
Manual Integration

Sample Info : ABN 5 LOT# 5809

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL4.D
Injection Date : 12-MAR-2016 12:51
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

Compound # 54: 1,3-Dinitrobenzene

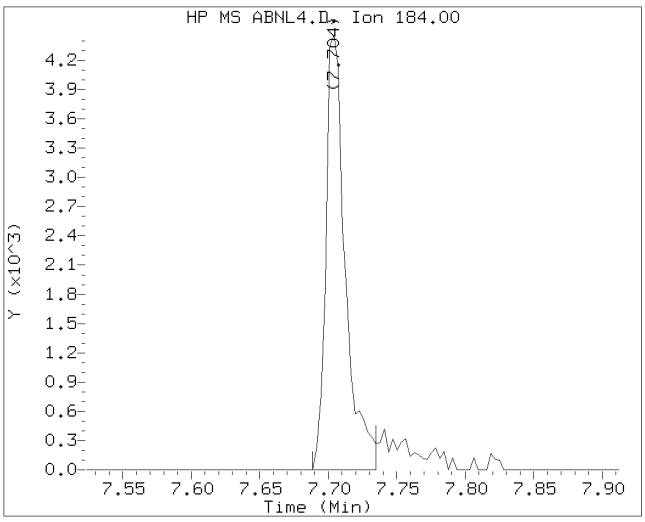


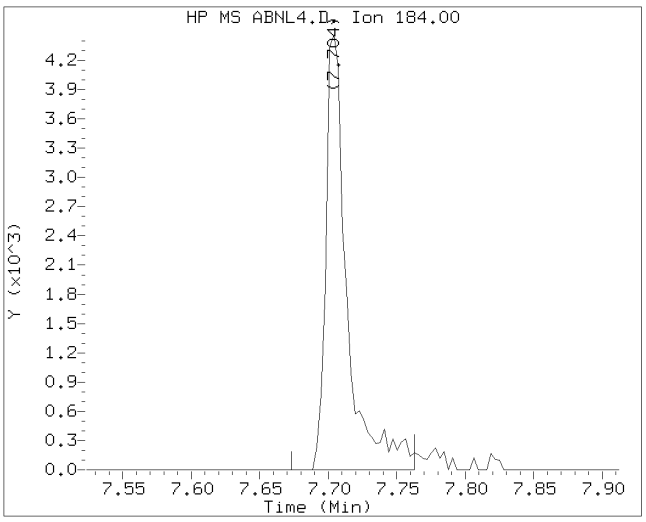


Original Peak Response = 8619 Manual Peak Response = 8914 M4

M4 = Poor automated baseline construction.

Compound # 61: 2,4-Dinitrophenol





Original Peak Response = 4444 Manual Peak Response = 4875 M4

M4 = Poor automated baseline construction.

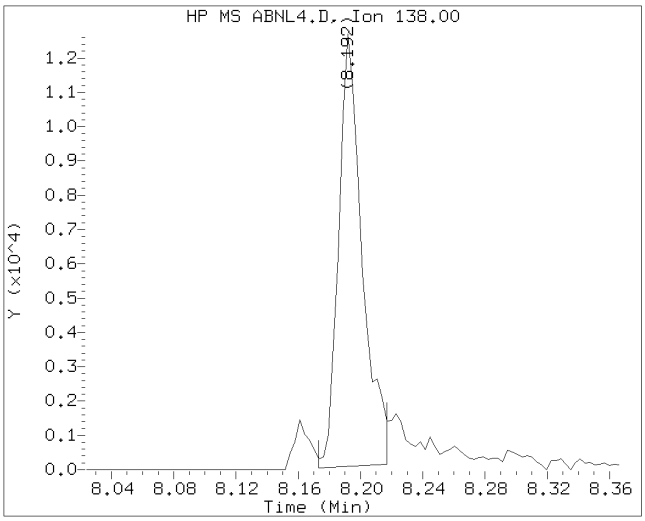
Alpha Analytical Labs

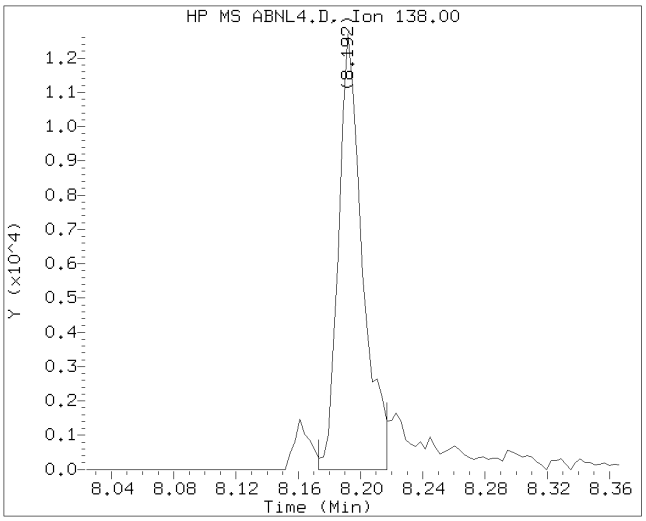
Manual Integration

Sample Info : ABN 5 LOT# 5809

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL4.D
Injection Date : 12-MAR-2016 12:51
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

Compound # 70: 4-Nitroaniline

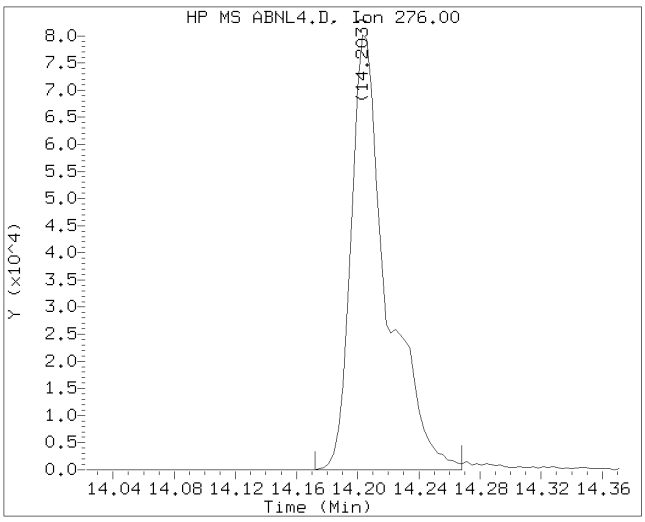


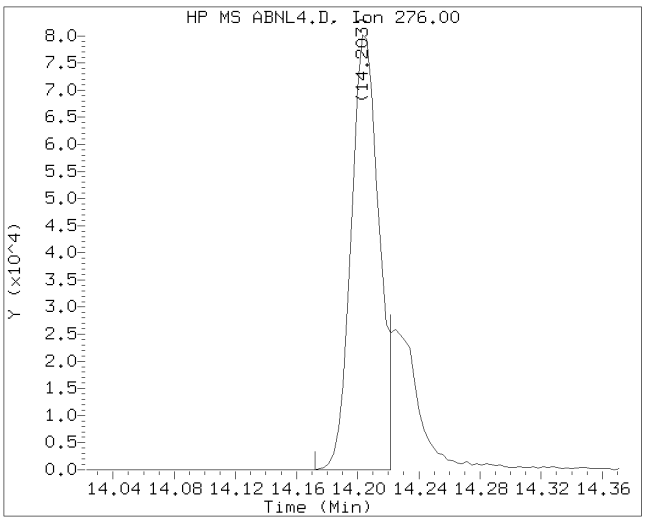


Original Peak Response = 13292 Manual Peak Response = 13612 M4

M4 = Poor automated baseline construction.

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 131714 Manual Peak Response = 103222 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL5.D
Lab Smp Id:
Inj Date : 12-MAR-2016 13:17
Operator : as Inst ID: SV112.i
Smp Info : ABN 10 LOT# 5810
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 22:36 Cal File: ADPL4.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.978	1.978	(0.424)	54025	10.0000	9.49	
	2 Pyridine	79	2.022	2.022	(0.434)	91978	10.0000	9.20	
$	3 2-Fluorophenol	112	3.380	3.380	(0.725)	76035	10.0000	9.55	
	5 Aniline	93	4.343	4.343	(0.931)	111668	10.0000	7.74	
$	6 Phenol-d6	99	4.340	4.340	(0.931)	101287	10.0000	9.83	
	7 Phenol	94	4.353	4.353	(0.933)	117489	10.0000	9.86	
	8 Bis(2-chloroethyl)ether	93	4.424	4.424	(0.949)	81777	10.0000	9.68	
	9 2-Chlorophenol	128	4.455	4.455	(0.955)	84008	10.0000	9.80	
	10 1,3-Dichlorobenzene	146	4.605	4.605	(0.987)	91617	10.0000	9.63	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	239463	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	93952	10.0000	9.68	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	73525	10.0000	9.74	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	90894	10.0000	9.99	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	75577	10.0000	9.60	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	131917	10.0000	9.72	
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	68877	10.0000	9.65	
	19 3-Methylphenol/4-Methylphenol	108	5.105	5.105	(1.095)	81436	10.0000	9.84	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	37666	10.0000	9.56	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	91075	10.0000	9.66	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	96985	10.0000	9.86	
	24 Isophorone	82	5.472	5.472	(1.173)	184854	10.0000	9.76	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	37143	10.0000	8.76	
	27 2,4-Dimethylphenol	107	5.621	5.621	(1.205)	81779	10.0000	9.39	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	109681	10.0000	9.82	
	30 Benzoic acid	105	5.692	5.692	(0.963)	44936	10.0000	10.7	
	29 2,4-Dichlorophenol	162	5.786	5.786	(0.979)	68716	10.0000	10.0	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	79034	10.0000	9.92	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	989313	40.0000		
	33 Naphthalene	128	5.929	5.929	(1.003)	248491	10.0000	9.96	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	32071	10.0000	8.52	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.029)	44336	10.0000	9.94	
	41 p-Chloro-m-cresol	107	6.501	6.501	(1.100)	74269	10.0000	10.0	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	161960	10.0000	9.96	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	59594	10.0000	9.97	
	45	Hexachlorocyclopentadiene	237	6.786	6.786	(1.148)	28446	10.0000	7.04	
	46	2,4,6-Trichlorophenol	196	6.901	6.901	(1.168)	50523	10.0000	10.0	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	54073	10.0000	10.2	
$	48	2-Fluorobiphenyl	172	6.989	6.989	(1.182)	173058	10.0000	9.88	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	157955	10.0000	10.0	
	51	2-Nitroaniline	138	7.197	7.197	(1.218)	41491	10.0000	8.31	
	52	1,4-Dinitrobenzene	168	7.334	7.334	(0.961)	17245	10.0000	7.12	
	53	Dimethyl phthalate	163	7.399	7.399	(0.970)	186548	10.0000	10.0	
	54	1,3-Dinitrobenzene	168	7.405	7.405	(0.971)	21928	10.0000	8.57	
	55	2,6-Dinitrotoluene	165	7.442	7.442	(1.259)	38090	10.0000	10.1	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	256461	10.0000	10.2	
	57	1,2-Dinitrobenzene	168	7.486	7.486	(0.981)	16480	10.0000	9.65	
	58	3-Nitroaniline	138	7.601	7.601	(0.996)	38173	10.0000	8.23	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	542678	40.0000		
	60	Acenaphthene	154	7.657	7.657	(1.004)	149356	10.0000	9.95	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	14006	10.0000	9.32(M)	M4
	62	4-Nitrophenol	65	7.790	7.790	(1.021)	34275	10.0000	8.47	
	63	Dibenzofuran	168	7.828	7.828	(1.026)	229811	10.0000	10.1	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	47550	10.0000	9.70	
	65	2,3,5,6-Tetrachlorophenol	232	7.918	7.918	(1.038)	43280	10.0000	9.96	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	42351	10.0000	9.81	
	67	Diethyl phthalate	149	8.095	8.095	(1.061)	193873	10.0000	9.98	
	68	Fluorene	166	8.163	8.163	(1.070)	180931	10.0000	10.1	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	84373	10.0000	9.99	
	70	4-Nitroaniline	138	8.191	8.191	(1.074)	36361	10.0000	8.36	
	71	4,6-Dinitro-o-cresol	198	8.226	8.226	(1.078)	22227	10.0000	9.28	
	72	NDPA/DPA	169	8.297	8.297	(1.088)	152238	10.0000	10.2	
	73	Azobenzene	77	8.334	8.334	(1.092)	206160	10.0000	10.0	
$	74	2,4,6-Tribromophenol	330	8.397	8.397	(0.926)	24211	10.0000	9.60	
	75	4-Bromophenyl phenyl ether	248	8.654	8.654	(1.134)	47105	10.0000	9.83	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	54017	10.0000	9.56	
	80	Pentachlorophenol	266	8.900	8.900	(0.981)	27128	10.0000	9.53	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	1009083	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	274026	10.0000	10.0	
	84	Anthracene	178	9.142	9.142	(1.008)	265595	10.0000	10.1	
	85	Carbazole	167	9.313	9.313	(1.027)	252413	10.0000	10.2	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	298673	10.0000	10.3	
	89	Fluoranthene	202	10.255	10.255	(1.131)	288985	10.0000	10.2	
	91	Pyrene	202	10.473	10.473	(1.155)	304889	10.0000	10.1	
$	92	4-Terphenyl-d14	244	10.665	10.665	(1.176)	175768	10.0000	9.86	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	118983	10.0000	9.14	
	95	Bis (2-ethylhexyl) adipate	129	11.318	11.318	(1.248)	107228	10.0000	9.89	
	97	Benzo(a)anthracene	228	11.722	11.722	(0.999)	275529	10.0000	9.83	
	98	3,3'-Dichlorobenzidine	252	11.722	11.722	(0.999)	85668	10.0000	9.09	
*	96	Chrysene-d12	240	11.732	11.732	(1.000)	907909	40.0000		
	99	Chrysene	228	11.756	11.756	(1.002)	272908	10.0000	9.90	
	100	Bis(2-ethylhexyl)phthalate	149	11.843	11.843	(1.010)	176338	10.0000	9.67	
	101	Di-n-octylphthalate	149	12.530	12.530	(1.068)	270004	10.0000	8.63	
	102	Benzo(b)fluoranthene	252	12.838	12.838	(0.972)	249081	10.0000	9.62	
	103	Benzo(k)fluoranthene	252	12.866	12.866	(0.974)	274351	10.0000	10.1	
	105	Benzo(a)pyrene	252	13.155	13.155	(0.996)	238974	10.0000	9.55	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	882512	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.206	14.206	(1.075)	219800	10.0000	9.05(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.230	14.230	(1.077)	230111	10.0000	9.58	
110 Benzo(ghi)perylene	276	14.464	14.464	(1.095)	238049	10.0000	9.47	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 13-MAR-2016
Calibration Time: 01:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	239463	4.85
32 Naphthalene-d8	951723	475862	1903446	989313	3.95
59 Acenaphthene-d10	513405	256703	1026810	542678	5.70
82 Phenanthrene-d10	989616	494808	1979232	1009083	1.97
96 Chrysene-d12	880229	440115	1760458	907909	3.14
106 Perylene-d12	892749	446375	1785498	882512	-1.15

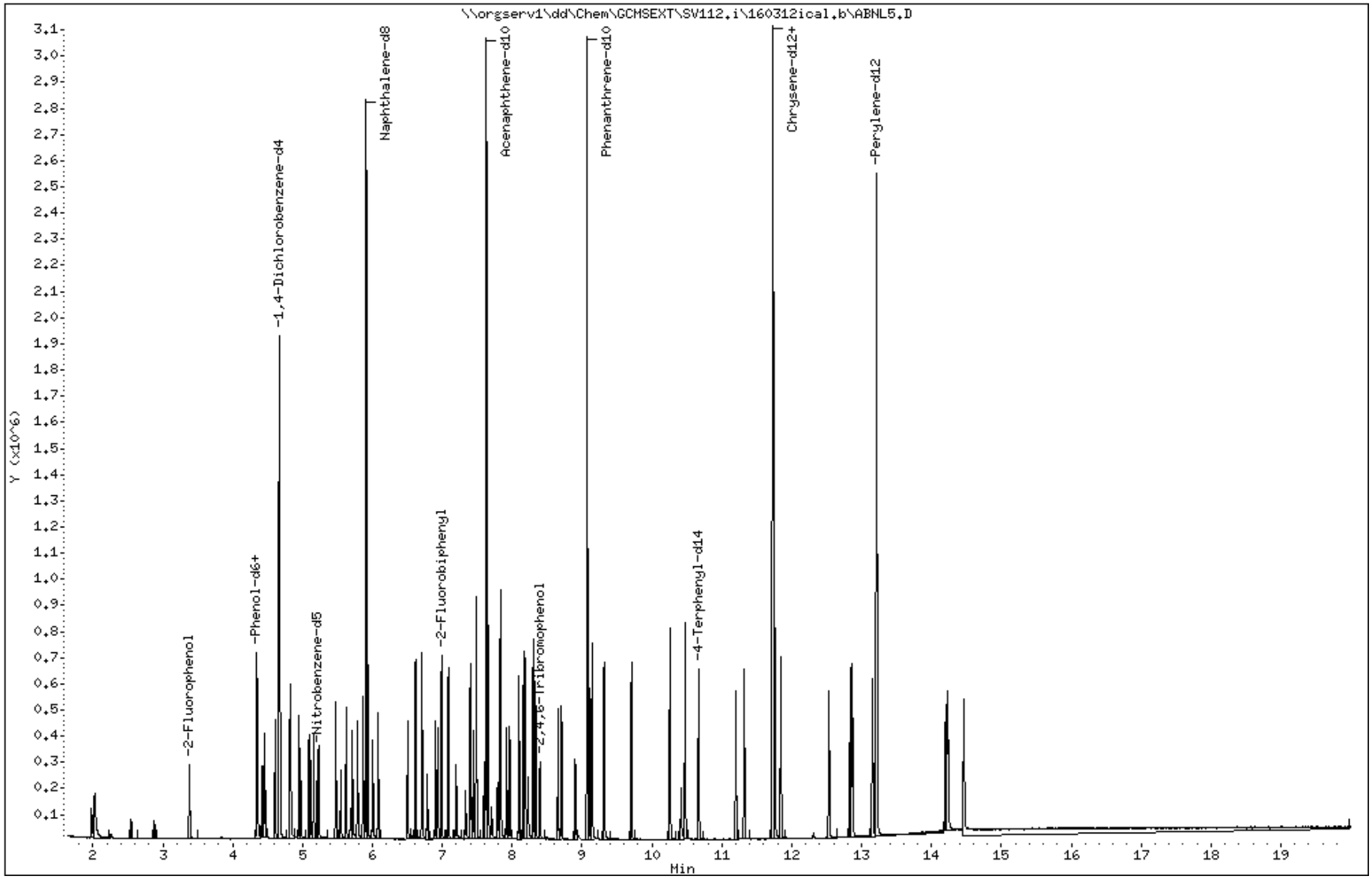
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.02
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL5.D
Date : 12-MAR-2016 13:17
Client ID:
Sample Info: ABN 10 LOT# 5810

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



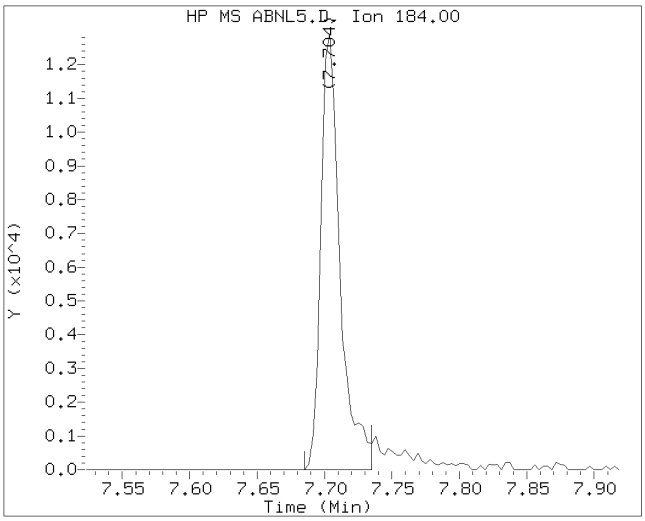
Alpha Analytical Labs

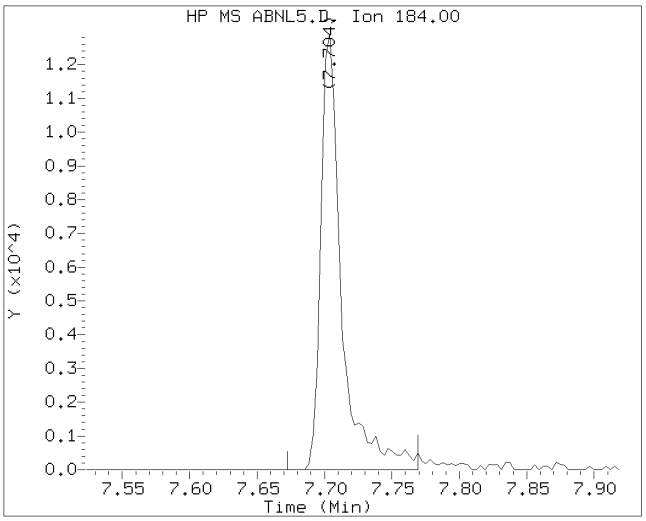
Manual Integration

Sample Info : ABN 10 LOT# 5810

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL5.D
Injection Date : 12-MAR-2016 13:17
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

Compound # 61: 2,4-Dinitrophenol

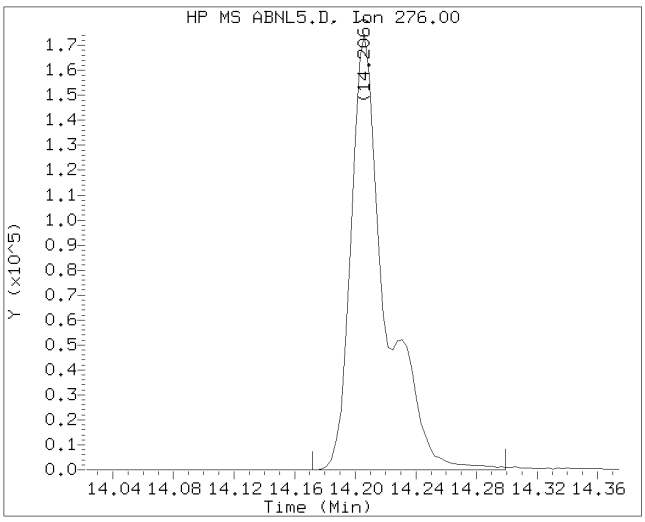


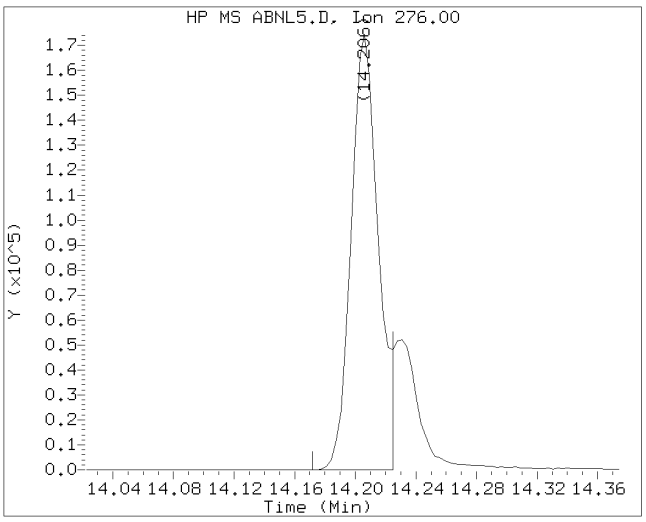


Original Peak Response = 12922 Manual Peak Response = 14006 M4

M4 = Poor automated baseline construction.

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 275628 Manual Peak Response = 219800 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL6.D
Lab Smp Id:
Inj Date : 12-MAR-2016 13:42
Operator : as Inst ID: SV112.i
Smp Info : ABN 20 LOT# 5811
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:02 Cal File: ADPL5.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.975	1.975	(0.424)	113913	20.0000	20.5	
	2 Pyridine	79	2.012	2.012	(0.432)	196016	20.0000	20.0	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	155482	20.0000	20.0	
	5 Aniline	93	4.344	4.344	(0.931)	306592	20.0000	18.7	
$	6 Phenol-d6	99	4.340	4.340	(0.931)	211711	20.0000	21.0	
	7 Phenol	94	4.353	4.353	(0.933)	241831	20.0000	20.7	
	8 Bis(2-chloroethyl)ether	93	4.424	4.424	(0.949)	169416	20.0000	20.5	
	9 2-Chlorophenol	128	4.455	4.455	(0.955)	168816	20.0000	20.1	
	10 1,3-Dichlorobenzene	146	4.605	4.605	(0.987)	184084	20.0000	19.8	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	234270	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	188027	20.0000	19.8	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	154772	20.0000	20.9	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	177545	20.0000	19.9	
	15 2-Methylphenol	108	4.947	4.947	(1.061)	155560	20.0000	20.2	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	258022	20.0000	19.4	
	18 n-Nitrosodi-n-propylamine	70	5.086	5.086	(1.091)	137891	20.0000	19.8	
	19 3-Methylphenol/4-Methylphenol	108	5.105	5.105	(1.095)	165201	20.0000	20.4	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	75440	20.0000	19.6	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	185538	20.0000	20.1	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	201631	20.0000	20.8	
	24 Isophorone	82	5.472	5.472	(1.173)	363357	20.0000	19.6	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	78452	20.0000	18.9	
	27 2,4-Dimethylphenol	107	5.621	5.621	(1.205)	164771	20.0000	19.3	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	216565	20.0000	19.8	
	30 Benzoic acid	105	5.705	5.705	(0.965)	102153	20.0000	18.1	
	29 2,4-Dichlorophenol	162	5.786	5.786	(0.979)	136768	20.0000	20.3	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	154294	20.0000	19.7	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	973530	40.0000		
	33 Naphthalene	128	5.929	5.929	(1.003)	486951	20.0000	19.8	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	75719	20.0000	20.4	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.029)	85361	20.0000	19.4	
	41 p-Chloro-m-cresol	107	6.501	6.501	(1.100)	147661	20.0000	20.3	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	323209	20.0000	20.2	

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	114244	20.0000	19.4	
	45	Hexachlorocyclopentadiene	237	6.787	6.787	(1.148)	63157	20.0000	15.9	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	100025	20.0000	20.2	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	102772	20.0000	19.8	
$	48	2-Fluorobiphenyl	172	6.989	6.989	(1.182)	344413	20.0000	20.0	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	313426	20.0000	20.2	
	51	2-Nitroaniline	138	7.197	7.197	(1.218)	92119	20.0000	18.7	
	52	1,4-Dinitrobenzene	168	7.334	7.334	(0.961)	39402	20.0000	17.0	
	53	Dimethyl phthalate	163	7.399	7.399	(0.970)	368454	20.0000	20.7	
	54	1,3-Dinitrobenzene	168	7.408	7.408	(0.971)	48037	20.0000	19.6	
	55	2,6-Dinitrotoluene	165	7.442	7.442	(1.259)	76172	20.0000	20.6	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	510742	20.0000	20.6	
	57	1,2-Dinitrobenzene	168	7.486	7.486	(0.981)	35544	20.0000	21.7	
	58	3-Nitroaniline	138	7.598	7.598	(0.996)	89060	20.0000	20.0	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	520118	40.0000		
	60	Acenaphthene	154	7.657	7.657	(1.004)	287793	20.0000	20.0	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	33294	20.0000	16.7	
	62	4-Nitrophenol	65	7.790	7.790	(1.021)	72210	20.0000	18.6	
	63	Dibenzofuran	168	7.828	7.828	(1.026)	450828	20.0000	20.7	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	101679	20.0000	21.6	
	65	2,3,5,6-Tetrachlorophenol	232	7.918	7.918	(1.038)	86784	20.0000	20.8	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	84106	20.0000	20.3	
	67	Diethyl phthalate	149	8.095	8.095	(1.061)	377318	20.0000	20.3	
	68	Fluorene	166	8.163	8.163	(1.070)	354848	20.0000	20.6	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	162701	20.0000	20.1	
	70	4-Nitroaniline	138	8.191	8.191	(1.074)	82103	20.0000	19.7	
	71	4,6-Dinitro-o-cresol	198	8.229	8.229	(1.079)	51789	20.0000	18.4	
	72	NDPA/DPA	169	8.300	8.300	(1.088)	302002	20.0000	21.2	
	73	Azobenzene	77	8.334	8.334	(1.092)	409163	20.0000	20.7	
$	74	2,4,6-Tribromophenol	330	8.397	8.397	(0.926)	48895	20.0000	19.9	
	75	4-Bromophenyl phenyl ether	248	8.655	8.655	(1.134)	91883	20.0000	20.0	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	105441	20.0000	19.5	
	80	Pentachlorophenol	266	8.900	8.900	(0.981)	52786	20.0000	17.0	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	983650	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	535590	20.0000	20.1	
	84	Anthracene	178	9.143	9.143	(1.008)	521542	20.0000	20.3	
	85	Carbazole	167	9.313	9.313	(1.027)	502222	20.0000	20.8	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	604688	20.0000	21.4	
	89	Fluoranthene	202	10.255	10.255	(1.131)	575823	20.0000	20.8	
	91	Pyrene	202	10.473	10.473	(1.155)	615212	20.0000	21.0	
$	92	4-Terphenyl-d14	244	10.669	10.669	(1.176)	359835	20.0000	20.7	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	260640	20.0000	20.5	
	95	Bis (2-ethylhexyl) adipate	129	11.318	11.318	(1.248)	230855	20.0000	20.1	
	97	Benzo(a)anthracene	228	11.722	11.722	(0.999)	568119	20.0000	20.0	
	98	3,3'-Dichlorobenzidine	252	11.722	11.722	(0.999)	197325	20.0000	19.0	
*	96	Chrysene-d12	240	11.732	11.732	(1.000)	921827	40.0000		
	99	Chrysene	228	11.760	11.760	(1.002)	544568	20.0000	19.5	
	100	Bis(2-ethylhexyl)phthalate	149	11.843	11.843	(1.010)	383215	20.0000	20.7	
	101	Di-n-octylphthalate	149	12.530	12.530	(1.068)	618868	20.0000	19.5	
	102	Benzo(b)fluoranthene	252	12.838	12.838	(0.972)	551743	20.0000	21.2	
	103	Benzo(k)fluoranthene	252	12.866	12.866	(0.974)	560066	20.0000	20.5	
	105	Benzo(a)pyrene	252	13.155	13.155	(0.996)	508478	20.0000	20.2	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	887757	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.206	14.206	(1.075)	477273	20.0000	19.5(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.231	14.231	(1.077)	491038	20.0000	20.3	
110 Benzo(ghi)perylene	276	14.464	14.464	(1.095)	503481	20.0000	19.9	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 13:42
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

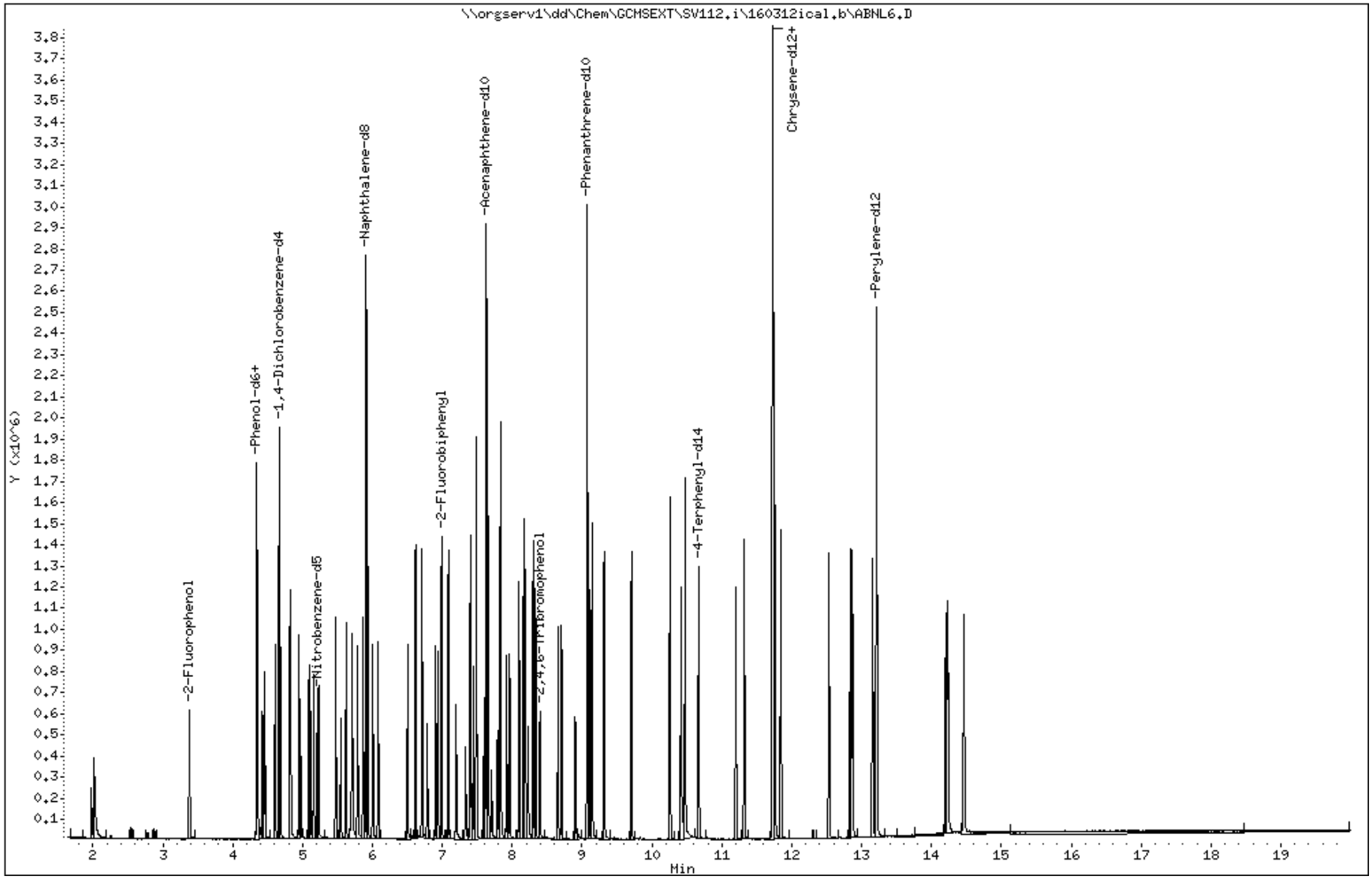
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	158353	79177	316706	234270	47.94
32 Naphthalene-d8	675605	337803	1351210	973530	44.10
59 Acenaphthene-d10	370505	185253	741010	520118	40.38
82 Phenanthrene-d10	721807	360904	1443614	983650	36.28
96 Chrysene-d12	650715	325358	1301430	921827	41.66
106 Perylene-d12	619797	309899	1239594	887757	43.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.03
106 Perylene-d12	13.21	12.71	13.71	13.21	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL6.D
Date : 12-MAR-2016 13:42
Client ID:
Sample Info: ABN 20 LOT# 5811

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



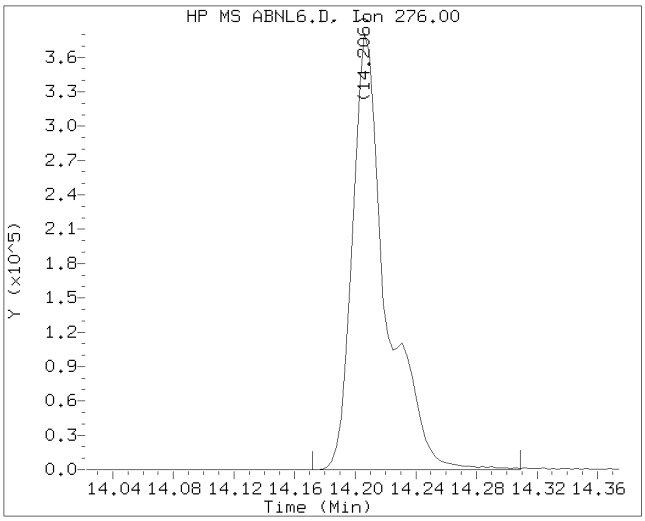
Alpha Analytical Labs

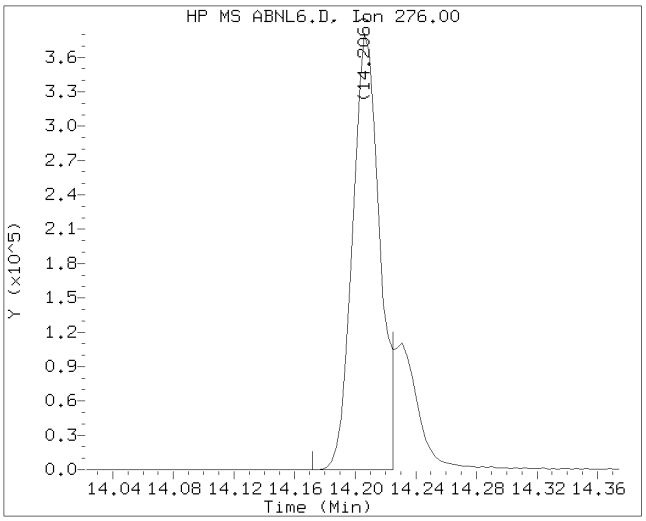
Manual Integration

Sample Info : ABN 20 LOT# 5811

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL6.D
Injection Date : 12-MAR-2016 13:42
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 592077 Manual Peak Response = 477273 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL7.D
Lab Smp Id:
Inj Date : 12-MAR-2016 14:07
Operator : as Inst ID: SV112.i
Smp Info : ABN 50 LOT# 5812
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:27 Cal File: ADPL6.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.969	1.969	(0.422)	336345	50.0000	58.6	
	2 Pyridine	79	2.003	2.003	(0.430)	609195	50.0000	60.4	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	487285	50.0000	60.6	
	5 Aniline	93	4.344	4.344	(0.931)	958098	50.0000	57.4	
$	6 Phenol-d6	99	4.344	4.344	(0.931)	642238	50.0000	61.8	
	7 Phenol	94	4.356	4.356	(0.934)	746792	50.0000	62.1	
	8 Bis(2-chloroethyl)ether	93	4.427	4.427	(0.949)	522752	50.0000	61.4	
	9 2-Chlorophenol	128	4.459	4.459	(0.956)	506772	50.0000	58.6	
	10 1,3-Dichlorobenzene	146	4.605	4.605	(0.987)	544068	50.0000	56.7	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	241644	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	554014	50.0000	56.6	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	483788	50.0000	63.5	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	518221	50.0000	56.4	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	482269	50.0000	60.7	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	773192	50.0000	56.5	
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	425182	50.0000	59.0	
	19 3-Methylphenol/4-Methylphenol	108	5.108	5.108	(1.095)	508954	50.0000	61.0	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	225384	50.0000	56.7	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	589247	50.0000	61.9	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	616351	50.0000	61.9	
	24 Isophorone	82	5.475	5.475	(1.174)	1121366	50.0000	58.6	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	252542	50.0000	59.0	
	27 2,4-Dimethylphenol	107	5.624	5.624	(1.206)	528322	50.0000	60.1	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	669411	50.0000	59.4	
	30 Benzoic acid	105	5.739	5.739	(0.971)	381108	50.0000	52.4	
	29 2,4-Dichlorophenol	162	5.789	5.789	(0.979)	415091	50.0000	59.9	
	31 1,2,4-Trichlorobenzene	180	5.867	5.867	(0.993)	453427	50.0000	56.2	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	1001783	40.0000		
	33 Naphthalene	128	5.932	5.932	(1.004)	1429006	50.0000	56.6	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	240737	50.0000	63.1	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.029)	250825	50.0000	55.5	
	41 p-Chloro-m-cresol	107	6.501	6.501	(1.100)	465470	50.0000	62.1	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	961800	50.0000	58.4	

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	342682	50.0000	56.6	
	45	Hexachlorocyclopentadiene	237	6.787	6.787	(1.148)	228983	50.0000	56.0	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	310177	50.0000	60.8	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	323971	50.0000	60.5	
$	48	2-Fluorobiphenyl	172	6.989	6.989	(1.182)	1016708	50.0000	57.3	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	928099	50.0000	58.1	
	51	2-Nitroaniline	138	7.197	7.197	(1.218)	305323	50.0000	60.4	
	52	1,4-Dinitrobenzene	168	7.334	7.334	(0.961)	137900	50.0000	57.2	
	53	Dimethyl phthalate	163	7.405	7.405	(0.971)	1065024	50.0000	57.6	
	54	1,3-Dinitrobenzene	168	7.408	7.408	(0.971)	156949	50.0000	61.6	
	55	2,6-Dinitrotoluene	165	7.445	7.445	(1.260)	234390	50.0000	61.5	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	1474098	50.0000	57.7	
	57	1,2-Dinitrobenzene	168	7.489	7.489	(0.982)	105307	50.0000	61.9	
	58	3-Nitroaniline	138	7.601	7.601	(0.996)	280973	50.0000	60.8	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	540428	40.0000		
	60	Acenaphthene	154	7.660	7.660	(1.004)	857754	50.0000	57.4	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	131478	50.0000	51.5	
	62	4-Nitrophenol	65	7.794	7.794	(1.022)	235407	50.0000	58.4	
	63	Dibenzofuran	168	7.831	7.831	(1.026)	1287546	50.0000	57.0	
	64	2,4-Dinitrotoluene	165	7.837	7.837	(1.027)	312418	50.0000	64.0	
	65	2,3,5,6-Tetrachlorophenol	232	7.921	7.921	(1.038)	264209	50.0000	61.0	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	256197	50.0000	59.6	
	67	Diethyl phthalate	149	8.101	8.101	(1.062)	1114044	50.0000	57.6	
	68	Fluorene	166	8.163	8.163	(1.070)	1040376	50.0000	58.2	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	480707	50.0000	57.2	
	70	4-Nitroaniline	138	8.198	8.198	(1.075)	262705	50.0000	60.6	
	71	4,6-Dinitro-o-cresol	198	8.232	8.232	(1.079)	177053	50.0000	53.8	
	72	NDPA/DPA	169	8.300	8.300	(1.088)	883105	50.0000	59.6	
	73	Azobenzene	77	8.334	8.334	(1.092)	1227787	50.0000	59.9	
$	74	2,4,6-Tribromophenol	330	8.400	8.400	(0.926)	151524	50.0000	60.3	
	75	4-Bromophenyl phenyl ether	248	8.655	8.655	(1.134)	282107	50.0000	59.1	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	310684	50.0000	55.2	
	80	Pentachlorophenol	266	8.903	8.903	(0.981)	169942	50.0000	49.3	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	1005487	40.0000		
	83	Phenanthrene	178	9.096	9.096	(1.003)	1545043	50.0000	56.6	
	84	Anthracene	178	9.146	9.146	(1.008)	1557789	50.0000	59.4	
	85	Carbazole	167	9.313	9.313	(1.027)	1497288	50.0000	60.6	
	86	Di-n-butylphthalate	149	9.708	9.708	(1.070)	1816999	50.0000	62.8	
	89	Fluoranthene	202	10.258	10.258	(1.131)	1664987	50.0000	58.7	
	91	Pyrene	202	10.476	10.476	(1.155)	1725927	50.0000	57.6	
$	92	4-Terphenyl-d14	244	10.669	10.669	(1.176)	1043952	50.0000	58.8	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	818895	50.0000	63.1	
	95	Bis (2-ethylhexyl) adipate	129	11.321	11.321	(1.248)	705339	50.0000	50.0	
	97	Benzo(a)anthracene	228	11.725	11.725	(0.999)	1644202	50.0000	58.4	
	98	3,3'-Dichlorobenzidine	252	11.725	11.725	(0.999)	600418	50.0000	55.9	
*	96	Chrysene-d12	240	11.735	11.735	(1.000)	911843	40.0000		
	99	Chrysene	228	11.763	11.763	(1.002)	1531521	50.0000	55.3	
	100	Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.010)	1146496	50.0000	62.6	
	101	Di-n-octylphthalate	149	12.534	12.534	(1.068)	1985712	50.0000	63.2	
	102	Benzo(b)fluoranthene	252	12.841	12.841	(0.972)	1605977	50.0000	62.6	
	103	Benzo(k)fluoranthene	252	12.869	12.869	(0.974)	1616168	50.0000	60.1	
	105	Benzo(a)pyrene	252	13.158	13.158	(0.996)	1520981	50.0000	61.4	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	873785	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.212	14.212	(1.076)	1439063	50.0000	59.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.237	14.237	(1.077)	1490161	50.0000	62.7	
110 Benzo(ghi)perylene	276	14.473	14.473	(1.095)	1491450	50.0000	59.9	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 13:42
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

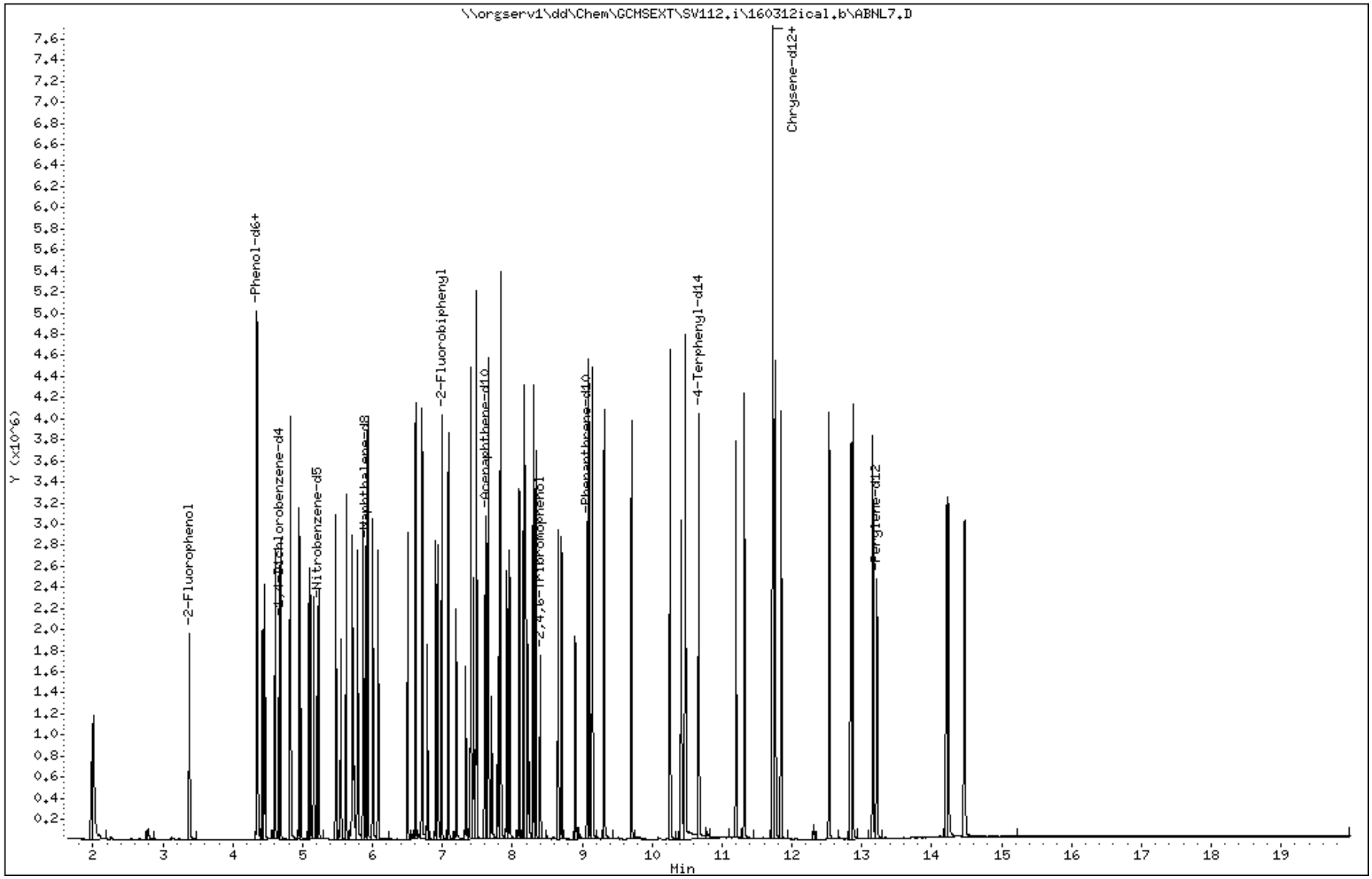
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	158353	79177	316706	241644	52.60
32 Naphthalene-d8	675605	337803	1351210	1001783	48.28
59 Acenaphthene-d10	370505	185253	741010	540428	45.86
82 Phenanthrene-d10	721807	360904	1443614	1005487	39.30
96 Chrysene-d12	650715	325358	1301430	911843	40.13
106 Perylene-d12	619797	309899	1239594	873785	40.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.74	0.05
106 Perylene-d12	13.21	12.71	13.71	13.21	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL7.D
Date : 12-MAR-2016 14:07
Client ID:
Sample Info: ABN 50 LOT# 5812

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : ABN 50 LOT# 5812

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL7.D
Injection Date : 12-MAR-2016 14:07
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL8.D
Lab Smp Id:
Inj Date : 12-MAR-2016 14:33
Operator : as Inst ID: SV112.i
Smp Info : ABN 100 LOT# 5813
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:53 Cal File: ADPL7.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.969	1.969	(0.422)	603738	100.000	105	
	2 Pyridine	79	2.003	2.003	(0.430)	1041966	100.000	103	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	873306	100.000	108	
	5 Aniline	93	4.343	4.343	(0.931)	1538820	100.000	97.2	
$	6 Phenol-d6	99	4.347	4.347	(0.932)	1097635	100.000	105	
	7 Phenol	94	4.359	4.359	(0.935)	1276856	100.000	106	
	8 Bis(2-chloroethyl)ether	93	4.427	4.427	(0.949)	905523	100.000	106	
	9 2-Chlorophenol	128	4.458	4.458	(0.956)	895060	100.000	103	
	10 1,3-Dichlorobenzene	146	4.608	4.608	(0.988)	935723	100.000	97.1	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	242610	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	945806	100.000	96.2	
	14 Benzyl alcohol	79	4.822	4.822	(1.034)	826793	100.000	108	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	876902	100.000	95.1	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	828946	100.000	104	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	1349631	100.000	98.2	
	18 n-Nitrosodi-n-propylamine	70	5.093	5.093	(1.092)	739250	100.000	102	
	19 3-Methylphenol/4-Methylphenol	108	5.111	5.111	(1.096)	876644	100.000	104	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	389940	100.000	97.7	
$	22 Nitrobenzene-d5	82	5.214	5.214	(1.118)	1026102	100.000	107	
	23 Nitrobenzene	77	5.232	5.232	(0.885)	1080556	100.000	109	
	24 Isophorone	82	5.478	5.478	(1.175)	1908490	100.000	99.4	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	456326	100.000	106	
	27 2,4-Dimethylphenol	107	5.624	5.624	(1.206)	911148	100.000	103	
	28 Bis(2-chloroethoxy)methane	93	5.714	5.714	(1.225)	1147786	100.000	101	
	30 Benzoic acid	105	5.761	5.761	(0.974)	738792	100.000	97.5	
	29 2,4-Dichlorophenol	162	5.789	5.789	(0.979)	720590	100.000	105	
	31 1,2,4-Trichlorobenzene	180	5.866	5.866	(0.992)	779430	100.000	97.3	
*	32 Naphthalene-d8	136	5.913	5.913	(1.000)	994306	40.0000		
	33 Naphthalene	128	5.932	5.932	(1.003)	2416823	100.000	96.4	
	36 4-Chloroaniline	65	6.003	6.003	(1.015)	401925	100.000	106	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.028)	434885	100.000	97.0	
	41 p-Chloro-m-cresol	107	6.504	6.504	(1.100)	804681	100.000	108	
	42 2-Methylnaphthalene	142	6.616	6.616	(1.119)	1621893	100.000	99.2	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.712	6.712	(1.135)	583682	100.000	97.2	
	45	Hexachlorocyclopentadiene	237	6.786	6.786	(1.148)	434771	100.000	107	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	536454	100.000	106	
	47	2,4,5-Trichlorophenol	196	6.936	6.936	(1.173)	568595	100.000	107	
$	48	2-Fluorobiphenyl	172	6.992	6.992	(1.182)	1708727	100.000	97.1	
	50	2-Chloronaphthalene	162	7.088	7.088	(1.199)	1560396	100.000	98.4	
	51	2-Nitroaniline	138	7.200	7.200	(1.218)	545494	100.000	109	
	52	1,4-Dinitrobenzene	168	7.337	7.337	(0.962)	258245	100.000	108	
	53	Dimethyl phthalate	163	7.408	7.408	(0.971)	1792517	100.000	98.0	
	54	1,3-Dinitrobenzene	168	7.411	7.411	(0.971)	275231	100.000	109	
	55	2,6-Dinitrotoluene	165	7.449	7.449	(1.260)	412213	100.000	109	
	56	Acenaphthylene	152	7.489	7.489	(1.266)	2473765	100.000	97.5	
	57	1,2-Dinitrobenzene	168	7.495	7.495	(0.982)	180454	100.000	107	
	58	3-Nitroaniline	138	7.607	7.607	(0.997)	497219	100.000	109	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	534475	40.0000		
	60	Acenaphthene	154	7.663	7.663	(1.004)	1429106	100.000	96.6	
	61	2,4-Dinitrophenol	184	7.706	7.706	(1.010)	252085	100.000	95.8	
	62	4-Nitrophenol	65	7.797	7.797	(1.022)	429457	100.000	108	
	63	Dibenzofuran	168	7.834	7.834	(1.027)	2140873	100.000	95.8	
	64	2,4-Dinitrotoluene	165	7.840	7.840	(1.028)	540524	100.000	112	
	65	2,3,5,6-Tetrachlorophenol	232	7.921	7.921	(1.038)	466715	100.000	109	
	66	2,3,4,6-Tetrachlorophenol	232	7.964	7.964	(1.044)	445320	100.000	105	
	67	Diethyl phthalate	149	8.104	8.104	(1.062)	1914416	100.000	100	
	68	Fluorene	166	8.166	8.166	(1.070)	1743691	100.000	98.6	
	69	4-Chlorophenyl phenyl ether	204	8.185	8.185	(1.073)	820335	100.000	98.6	
	70	4-Nitroaniline	138	8.204	8.204	(1.075)	468151	100.000	109	
	71	4,6-Dinitro-o-cresol	198	8.235	8.235	(1.079)	329569	100.000	98.7	
	72	NDPA/DPA	169	8.303	8.303	(1.088)	1499412	100.000	102	
	73	Azobenzene	77	8.337	8.337	(1.093)	2093803	100.000	103	
$	74	2,4,6-Tribromophenol	330	8.400	8.400	(0.926)	279736	100.000	111	
	75	4-Bromophenyl phenyl ether	248	8.658	8.658	(1.135)	494595	100.000	105	
	76	Hexachlorobenzene	284	8.707	8.707	(1.141)	554738	100.000	99.7	
	80	Pentachlorophenol	266	8.903	8.903	(0.981)	324081	100.000	92.0	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	1006737	40.0000		
	83	Phenanthrene	178	9.096	9.096	(1.003)	2613137	100.000	95.6	
	84	Anthracene	178	9.146	9.146	(1.008)	2656271	100.000	101	
	85	Carbazole	167	9.317	9.317	(1.027)	2560468	100.000	103	
	86	Di-n-butylphthalate	149	9.708	9.708	(1.070)	3139217	100.000	108	
	89	Fluoranthene	202	10.261	10.261	(1.131)	2888999	100.000	102	
	91	Pyrene	202	10.479	10.479	(1.155)	2962002	100.000	98.7	
$	92	4-Terphenyl-d14	244	10.669	10.669	(1.176)	1848875	100.000	104	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	1449833	100.000	112	
	95	Bis (2-ethylhexyl) adipate	129	11.321	11.321	(1.248)	1241681	100.000	69.8	
	97	Benzo(a)anthracene	228	11.725	11.725	(0.999)	2891546	100.000	102	
	98	3,3'-Dichlorobenzidine	252	11.728	11.728	(0.999)	1087026	100.000	99.5	
*	96	Chrysene-d12	240	11.738	11.738	(1.000)	919020	40.0000		
	99	Chrysene	228	11.766	11.766	(1.002)	2681945	100.000	96.1	
	100	Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.009)	2031288	100.000	110	
	101	Di-n-octylphthalate	149	12.533	12.533	(1.068)	3511068	100.000	111	
	102	Benzo(b)fluoranthene	252	12.847	12.847	(0.972)	2793272	100.000	108	
	103	Benzo(k)fluoranthene	252	12.875	12.875	(0.974)	2848551	100.000	105	
	105	Benzo(a)pyrene	252	13.164	13.164	(0.996)	2724061	100.000	109	
*	106	Perylene-d12	264	13.217	13.217	(1.000)	882529	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.218	14.218	(1.076)	2677728	100.000	110	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.243	14.243	(1.078)	2695249	100.000	112	
110 Benzo(ghi)perylene	276	14.479	14.479	(1.095)	2669398	100.000	106	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 13:42
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	158353	79177	316706	242610	53.21
32 Naphthalene-d8	675605	337803	1351210	994306	47.17
59 Acenaphthene-d10	370505	185253	741010	534475	44.26
82 Phenanthrene-d10	721807	360904	1443614	1006737	39.47
96 Chrysene-d12	650715	325358	1301430	919020	41.23
106 Perylene-d12	619797	309899	1239594	882529	42.39

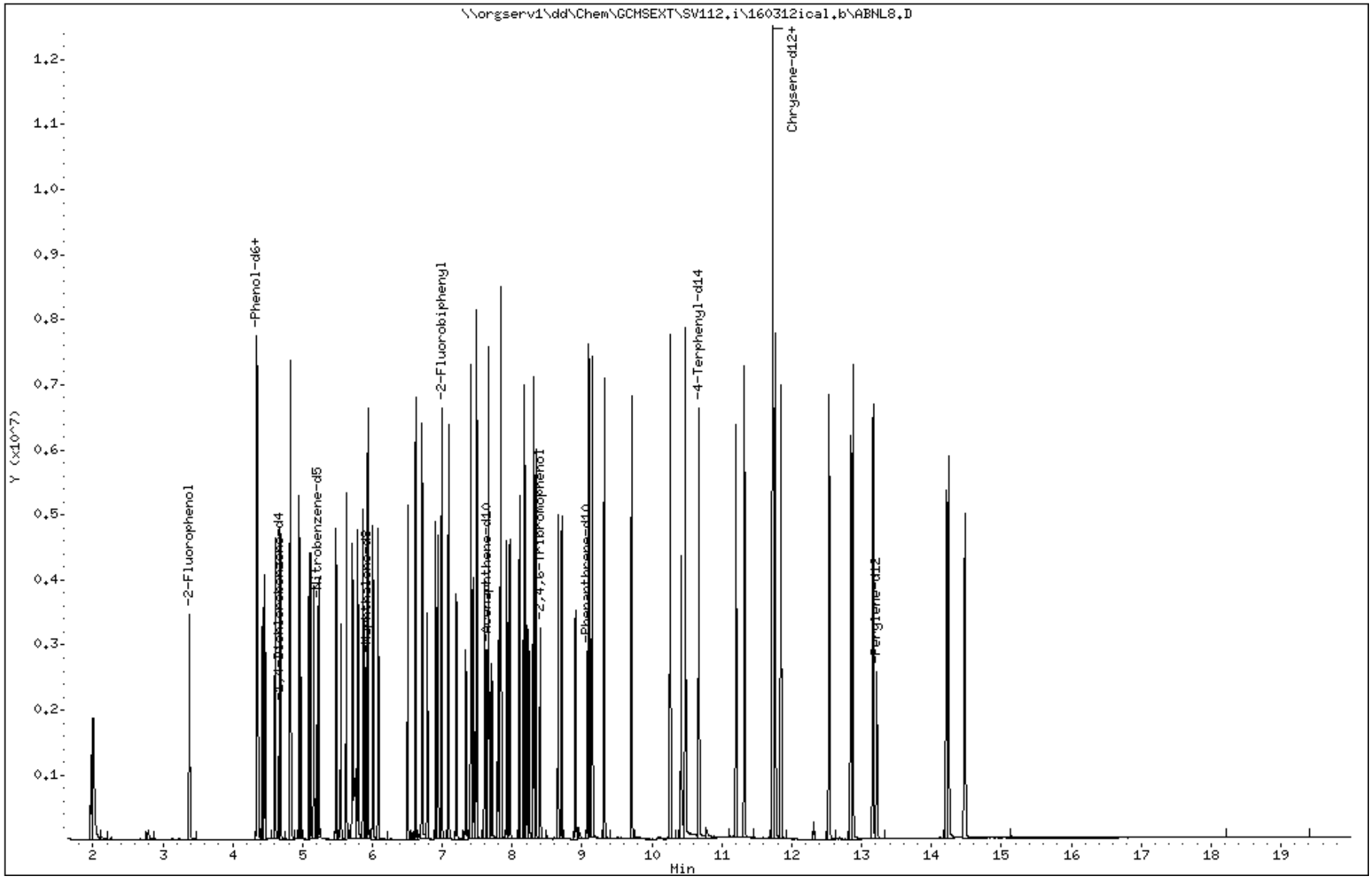
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.05
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.74	0.08
106 Perylene-d12	13.21	12.71	13.71	13.22	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL8.D
Date : 12-MAR-2016 14:33
Client ID:
Sample Info: ABN 100 LOT# 5813

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ABN 100 LOT# 5813

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL8.D
Injection Date : 12-MAR-2016 14:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL9.D
Lab Smp Id:
Inj Date : 12-MAR-2016 14:58
Operator : as Inst ID: SV112.i
Smp Info : ABN 150 LOT# 5814
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 00:18 Cal File: ADPL8.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.966	1.966	(0.422)	934443	150.000	161	
	2 Pyridine	79	1.994	1.994	(0.428)	1594744	150.000	156	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	1320849	150.000	162	
	5 Aniline	93	4.347	4.347	(0.932)	2178255	150.000	146	
$	6 Phenol-d6	99	4.350	4.350	(0.933)	1629860	150.000	155	
	7 Phenol	94	4.365	4.365	(0.936)	1896415	150.000	156	
	8 Bis(2-chloroethyl)ether	93	4.430	4.430	(0.950)	1344525	150.000	156	
	9 2-Chlorophenol	128	4.458	4.458	(0.956)	1346837	150.000	154	
	10 1,3-Dichlorobenzene	146	4.608	4.608	(0.988)	1367299	150.000	141	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	244508	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	1376037	150.000	139	
	14 Benzyl alcohol	79	4.825	4.825	(1.035)	1222643	150.000	158	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	1247105	150.000	134	
	15 2-Methylphenol	108	4.953	4.953	(1.062)	1236630	150.000	154	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	1958185	150.000	141	
	18 n-Nitrosodi-n-propylamine	70	5.096	5.096	(1.093)	1120333	150.000	154	
	19 3-Methylphenol/4-Methylphenol	108	5.114	5.114	(1.097)	1333621	150.000	158	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	578242	150.000	144	
$	22 Nitrobenzene-d5	82	5.214	5.214	(1.118)	1574308	150.000	164	
	23 Nitrobenzene	77	5.232	5.232	(0.885)	1621229	150.000	161	
	24 Isophorone	82	5.481	5.481	(1.175)	2886658	150.000	149	
	26 2-Nitrophenol	139	5.549	5.549	(1.190)	692633	150.000	160	
	27 2,4-Dimethylphenol	107	5.627	5.627	(1.207)	1390799	150.000	156	
	28 Bis(2-chloroethoxy)methane	93	5.714	5.714	(1.225)	1712840	150.000	150	
	30 Benzoic acid	105	5.786	5.786	(0.978)	1167905	150.000	148	
	29 2,4-Dichlorophenol	162	5.792	5.792	(0.980)	1072033	150.000	153	
	31 1,2,4-Trichlorobenzene	180	5.866	5.866	(0.992)	1149215	150.000	141	
*	32 Naphthalene-d8	136	5.913	5.913	(1.000)	1013001	40.0000		
	33 Naphthalene	128	5.935	5.935	(1.004)	3501360	150.000	137	
	36 4-Chloroaniline	65	6.006	6.006	(1.016)	580509	150.000	150	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.028)	653455	150.000	143	
	41 p-Chloro-m-cresol	107	6.507	6.507	(1.100)	1213596	150.000	160	
	42 2-Methylnaphthalene	142	6.619	6.619	(1.119)	2380899	150.000	143	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.712	6.712	(1.135)	861054	150.000	141	
	45	Hexachlorocyclopentadiene	237	6.786	6.786	(1.148)	709812	150.000	172	
	46	2,4,6-Trichlorophenol	196	6.908	6.908	(1.168)	809263	150.000	157	
	47	2,4,5-Trichlorophenol	196	6.936	6.936	(1.173)	857047	150.000	158	
$	48	2-Fluorobiphenyl	172	6.992	6.992	(1.182)	2521981	150.000	141	
	50	2-Chloronaphthalene	162	7.088	7.088	(1.199)	2286408	150.000	142	
	51	2-Nitroaniline	138	7.203	7.203	(1.218)	836331	150.000	164	
	52	1,4-Dinitrobenzene	168	7.340	7.340	(0.962)	402150	150.000	163	
	53	Dimethyl phthalate	163	7.411	7.411	(0.971)	2615957	150.000	138	
	54	1,3-Dinitrobenzene	168	7.417	7.417	(0.972)	408734	150.000	157	
	55	2,6-Dinitrotoluene	165	7.452	7.452	(1.260)	629714	150.000	163	
	56	Acenaphthylene	152	7.489	7.489	(1.266)	3603896	150.000	139	
	57	1,2-Dinitrobenzene	168	7.501	7.501	(0.983)	272750	150.000	157	
	58	3-Nitroaniline	138	7.610	7.610	(0.997)	750006	150.000	159	
*	59	Acenaphthene-d10	164	7.632	7.632	(1.000)	552041	40.0000		
	60	Acenaphthene	154	7.666	7.666	(1.004)	2084554	150.000	136	
	61	2,4-Dinitrophenol	184	7.710	7.710	(1.010)	408092	150.000	148	
	62	4-Nitrophenol	65	7.803	7.803	(1.022)	685892	150.000	167	
	63	Dibenzofuran	168	7.834	7.834	(1.026)	3137154	150.000	136	
	64	2,4-Dinitrotoluene	165	7.843	7.843	(1.028)	816828	150.000	164	
	65	2,3,5,6-Tetrachlorophenol	232	7.924	7.924	(1.038)	721826	150.000	163	
	66	2,3,4,6-Tetrachlorophenol	232	7.968	7.968	(1.044)	697111	150.000	159	
	67	Diethyl phthalate	149	8.104	8.104	(1.062)	2844301	150.000	144	
	68	Fluorene	166	8.170	8.170	(1.070)	2548076	150.000	140	
	69	4-Chlorophenyl phenyl ether	204	8.185	8.185	(1.072)	1228580	150.000	143	
	70	4-Nitroaniline	138	8.210	8.210	(1.076)	717136	150.000	162	
	71	4,6-Dinitro-o-cresol	198	8.241	8.241	(1.080)	506493	150.000	145	
	72	NDPA/DPA	169	8.306	8.306	(1.088)	2210231	150.000	146	
	73	Azobenzene	77	8.341	8.341	(1.093)	3062880	150.000	146	
$	74	2,4,6-Tribromophenol	330	8.403	8.403	(0.926)	448418	150.000	173	
	75	4-Bromophenyl phenyl ether	248	8.658	8.658	(1.134)	756975	150.000	155	
	76	Hexachlorobenzene	284	8.710	8.710	(1.141)	873171	150.000	152	
	80	Pentachlorophenol	266	8.906	8.906	(0.982)	549858	150.000	151	
*	82	Phenanthrene-d10	188	9.074	9.074	(1.000)	1034173	40.0000		
	83	Phenanthrene	178	9.099	9.099	(1.003)	3774803	150.000	134	
	84	Anthracene	178	9.149	9.149	(1.008)	3837053	150.000	142	
	85	Carbazole	167	9.320	9.320	(1.027)	3746165	150.000	147	
	86	Di-n-butylphthalate	149	9.711	9.711	(1.070)	4473228	150.000	150	
	89	Fluoranthene	202	10.264	10.264	(1.131)	4205362	150.000	144	
	91	Pyrene	202	10.482	10.482	(1.155)	4312738	150.000	140	
$	92	4-Terphenyl-d14	244	10.672	10.672	(1.176)	2826541	150.000	155	
	94	Butyl benzyl phthalate	149	11.203	11.203	(1.235)	2118124	150.000	159	
	95	Bis (2-ethylhexyl) adipate	129	11.324	11.324	(1.248)	1820273	150.000	74.6	
	97	Benzo(a)anthracene	228	11.728	11.728	(0.999)	4198690	150.000	147	
	98	3,3'-Dichlorobenzidine	252	11.732	11.732	(0.999)	1653641	150.000	150	
*	96	Chrysene-d12	240	11.741	11.741	(1.000)	922514	40.0000		
	99	Chrysene	228	11.772	11.772	(1.003)	3963823	150.000	142	
	100	Bis(2-ethylhexyl)phthalate	149	11.850	11.850	(1.009)	2932045	150.000	158	
	101	Di-n-octylphthalate	149	12.537	12.537	(1.068)	5035874	150.000	158	
	102	Benzo(b)fluoranthene	252	12.850	12.850	(0.972)	4169310	150.000	158	
	103	Benzo(k)fluoranthene	252	12.882	12.882	(0.975)	4272218	150.000	154	
	105	Benzo(a)pyrene	252	13.167	13.167	(0.996)	4092270	150.000	161	
*	106	Perylene-d12	264	13.217	13.217	(1.000)	897636	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.224	14.224	(1.076)	4154076	150.000	168	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.249	14.249	(1.078)	4063726	150.000	166	
110 Benzo(ghi)perylene	276	14.488	14.488	(1.096)	4039056	150.000	158	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ABNL9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 13:42
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

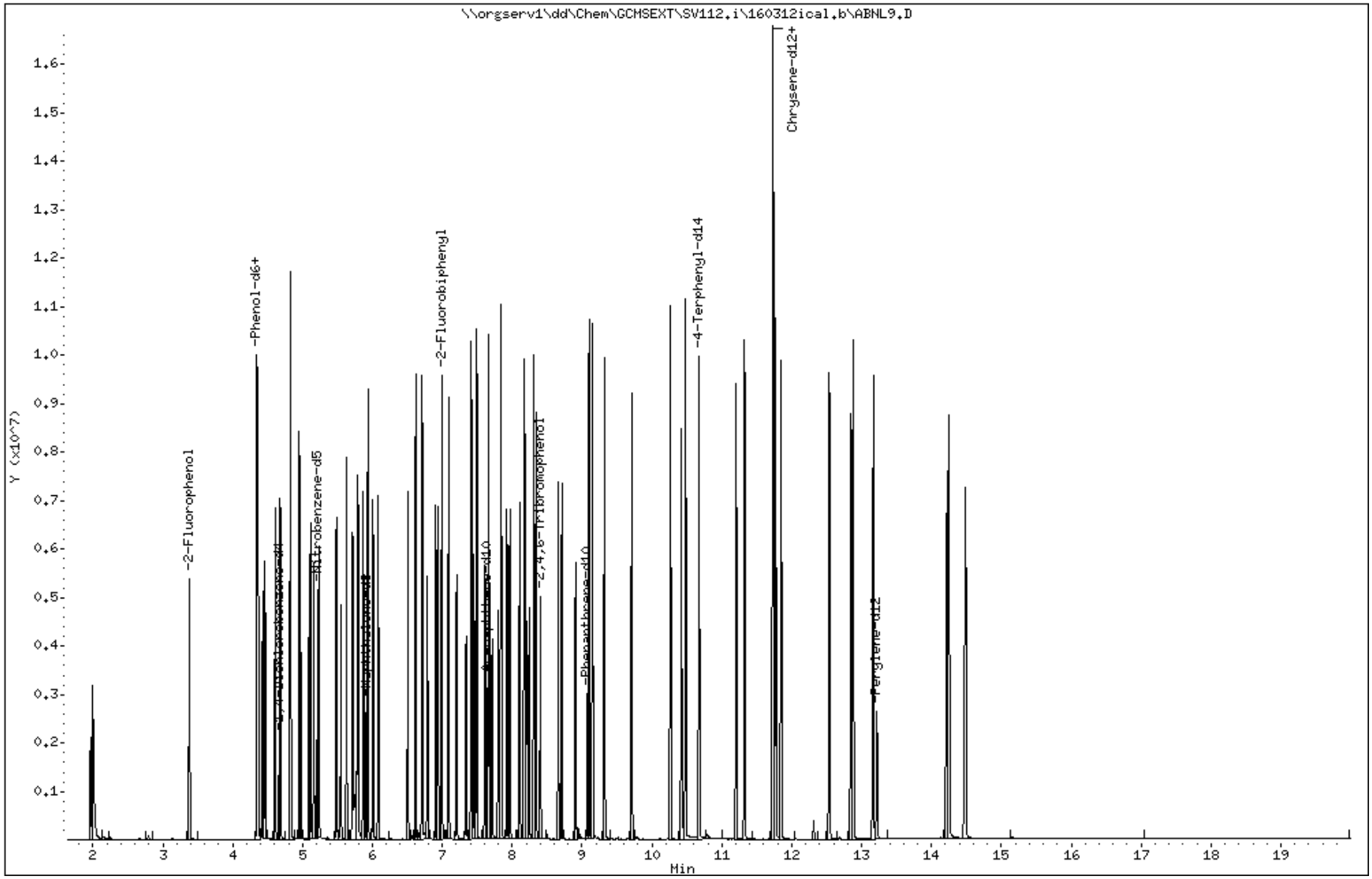
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	158353	79177	316706	244508	54.41
32 Naphthalene-d8	675605	337803	1351210	1013001	49.94
59 Acenaphthene-d10	370505	185253	741010	552041	49.00
82 Phenanthrene-d10	721807	360904	1443614	1034173	43.28
96 Chrysene-d12	650715	325358	1301430	922514	41.77
106 Perylene-d12	619797	309899	1239594	897636	44.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.05
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.03
96 Chrysene-d12	11.73	11.23	12.23	11.74	0.11
106 Perylene-d12	13.21	12.71	13.71	13.22	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL9.D
Date : 12-MAR-2016 14:58
Client ID:
Sample Info: ABN 150 LOT# 5814

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : ABN 150 LOT# 5814

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL9.D
Injection Date : 12-MAR-2016 14:58
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL10.D
Lab Smp Id:
Inj Date : 12-MAR-2016 15:23
Operator : as Inst ID: SV112.i
Smp Info : ABN 200 LOT# 5805
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:01 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 00:44 Cal File: ADPL9.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.969	1.969	(0.422)	1156796	200.000	216	
	2 Pyridine	79	2.000	2.000	(0.429)	1974974	200.000	210	
$	3 2-Fluorophenol	112	3.380	3.380	(0.725)	1606928	200.000	215	
	5 Aniline	93	4.347	4.347	(0.932)	2610742	200.000	202	
$	6 Phenol-d6	99	4.353	4.353	(0.933)	1973750	200.000	204	
	7 Phenol	94	4.368	4.368	(0.937)	2244517	200.000	200	
	8 Bis(2-chloroethyl)ether	93	4.431	4.431	(0.950)	1622428	200.000	204	
	9 2-Chlorophenol	128	4.462	4.462	(0.957)	1635248	200.000	203	
	10 1,3-Dichlorobenzene	146	4.608	4.608	(0.988)	1655599	200.000	185	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	225179	40.0000		
	12 1,4-Dichlorobenzene	146	4.682	4.682	(1.004)	1677895	200.000	184	
	14 Benzyl alcohol	79	4.825	4.825	(1.035)	1468510	200.000	207	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	1494577	200.000	175	
	15 2-Methylphenol	108	4.953	4.953	(1.062)	1487848	200.000	201	
	16 Bis(2-chloroisopropyl)ether	45	4.971	4.971	(1.066)	2322419	200.000	182	
	18 n-Nitrosodi-n-propylamine	70	5.099	5.099	(1.093)	1360879	200.000	203	
	19 3-Methylphenol/4-Methylphenol	108	5.117	5.117	(1.097)	1615914	200.000	208	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	701502	200.000	189	
$	22 Nitrobenzene-d5	82	5.217	5.217	(1.119)	1919956	200.000	217	
	23 Nitrobenzene	77	5.236	5.236	(0.885)	1957590	200.000	210	
	24 Isophorone	82	5.484	5.484	(1.176)	3525864	200.000	198	
	26 2-Nitrophenol	139	5.549	5.549	(1.190)	862030	200.000	216	
	27 2,4-Dimethylphenol	107	5.630	5.630	(1.207)	1693268	200.000	207	
	28 Bis(2-chloroethoxy)methane	93	5.717	5.717	(1.226)	2079488	200.000	198	
	30 Benzoic acid	105	5.801	5.801	(0.981)	1482584	200.000	202(M)	M2
	29 2,4-Dichlorophenol	162	5.795	5.795	(0.980)	1302421	200.000	201	
	31 1,2,4-Trichlorobenzene	180	5.870	5.870	(0.993)	1409637	200.000	187	
*	32 Naphthalene-d8	136	5.913	5.913	(1.000)	935895	40.0000		
	33 Naphthalene	128	5.935	5.935	(1.004)	4198913	200.000	178	
	36 4-Chloroaniline	65	6.006	6.006	(1.016)	708042	200.000	199	
	38 Hexachlorobutadiene	225	6.081	6.081	(1.028)	804563	200.000	191	
	41 p-Chloro-m-cresol	107	6.507	6.507	(1.100)	1490676	200.000	213	
	42 2-Methylnaphthalene	142	6.619	6.619	(1.119)	2860018	200.000	186	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.712	6.712	(1.135)	1038706	200.000	184	
	45	Hexachlorocyclopentadiene	237	6.787	6.787	(1.148)	889348	200.000	233	
	46	2,4,6-Trichlorophenol	196	6.908	6.908	(1.168)	1009721	200.000	212	
	47	2,4,5-Trichlorophenol	196	6.939	6.939	(1.173)	1069998	200.000	214	
$	48	2-Fluorobiphenyl	172	6.995	6.995	(1.183)	3065077	200.000	185	
	50	2-Chloronaphthalene	162	7.091	7.091	(1.199)	2782476	200.000	186	
	51	2-Nitroaniline	138	7.206	7.206	(1.219)	1047245	200.000	222	
	52	1,4-Dinitrobenzene	168	7.343	7.343	(0.962)	511028	200.000	225	
	53	Dimethyl phthalate	163	7.414	7.414	(0.971)	3148822	200.000	181	
	54	1,3-Dinitrobenzene	168	7.421	7.421	(0.972)	510884	200.000	213	
	55	2,6-Dinitrotoluene	165	7.455	7.455	(1.261)	782605	200.000	220	
	56	Acenaphthylene	152	7.492	7.492	(1.267)	4358439	200.000	182	
	57	1,2-Dinitrobenzene	168	7.504	7.504	(0.983)	342867	200.000	214	
	58	3-Nitroaniline	138	7.613	7.613	(0.998)	945688	200.000	217	
*	59	Acenaphthene-d10	164	7.632	7.632	(1.000)	509274	40.0000		
	60	Acenaphthene	154	7.666	7.666	(1.004)	2526023	200.000	179	
	61	2,4-Dinitrophenol	184	7.713	7.713	(1.011)	531301	200.000	206	
	62	4-Nitrophenol	65	7.806	7.806	(1.023)	885378	200.000	233	
	63	Dibenzofuran	168	7.837	7.837	(1.027)	3804777	200.000	179	
	64	2,4-Dinitrotoluene	165	7.846	7.846	(1.028)	1023911	200.000	223	
	65	2,3,5,6-Tetrachlorophenol	232	7.924	7.924	(1.038)	911095	200.000	223	
	66	2,3,4,6-Tetrachlorophenol	232	7.968	7.968	(1.044)	874153	200.000	216	
	67	Diethyl phthalate	149	8.107	8.107	(1.062)	3516499	200.000	193	
	68	Fluorene	166	8.170	8.170	(1.070)	3089121	200.000	183	
	69	4-Chlorophenyl phenyl ether	204	8.188	8.188	(1.073)	1518875	200.000	192	
	70	4-Nitroaniline	138	8.216	8.216	(1.077)	932088	200.000	228	
	71	4,6-Dinitro-o-cresol	198	8.244	8.244	(1.080)	655839	200.000	203	
	72	NDPA/DPA	169	8.309	8.309	(1.089)	2710870	200.000	194	
	73	Azobenzene	77	8.344	8.344	(1.093)	3761449	200.000	195	
$	74	2,4,6-Tribromophenol	330	8.406	8.406	(0.926)	590850	200.000	240	
	75	4-Bromophenyl phenyl ether	248	8.661	8.661	(1.135)	974839	200.000	217	
	76	Hexachlorobenzene	284	8.710	8.710	(1.141)	1100207	200.000	208	
	80	Pentachlorophenol	266	8.906	8.906	(0.982)	728998	200.000	209	
*	82	Phenanthrene-d10	188	9.074	9.074	(1.000)	984905	40.0000		
	83	Phenanthrene	178	9.102	9.102	(1.003)	4664792	200.000	174	
	84	Anthracene	178	9.152	9.152	(1.009)	4740465	200.000	185	
	85	Carbazole	167	9.323	9.323	(1.027)	4611377	200.000	190	
	86	Di-n-butylphthalate	149	9.711	9.711	(1.070)	5490362	200.000	194	
	89	Fluoranthene	202	10.265	10.265	(1.131)	5257640	200.000	189	
	91	Pyrene	202	10.485	10.485	(1.156)	5363116	200.000	183	
$	92	4-Terphenyl-d14	244	10.675	10.675	(1.176)	3540983	200.000	204	
	94	Butyl benzyl phthalate	149	11.206	11.206	(1.235)	2670610	200.000	210	
	95	Bis (2-ethylhexyl) adipate	129	11.324	11.324	(1.248)	2312411	200.000	62.6	
	97	Benzo(a)anthracene	228	11.732	11.732	(0.999)	5304564	200.000	193	
	98	3,3'-Dichlorobenzidine	252	11.735	11.735	(0.999)	2077839	200.000	195	
*	96	Chrysene-d12	240	11.744	11.744	(1.000)	888978	40.0000		
	99	Chrysene	228	11.775	11.775	(1.003)	5031201	200.000	186	
	100	Bis(2-ethylhexyl)phthalate	149	11.850	11.850	(1.009)	3690842	200.000	207	
	101	Di-n-octylphthalate	149	12.540	12.540	(1.068)	6338104	200.000	207	
	102	Benzo(b)fluoranthene	252	12.857	12.857	(0.972)	5640856	200.000	217	
	103	Benzo(k)fluoranthene	252	12.885	12.885	(0.975)	5299930	200.000	194	
	105	Benzo(a)pyrene	252	13.174	13.174	(0.996)	5306940	200.000	211	
*	106	Perylene-d12	264	13.220	13.220	(1.000)	886263	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.231	14.231	(1.076)	5747713	200.000	236(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.255	14.255	(1.078)	5329784	200.000	221	
110 Benzo(ghi)perylene	276	14.495	14.495	(1.096)	5343165	200.000	212	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 12-MAR-2016
Lab File ID: ABNL10.D Calibration Time: 13:42
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

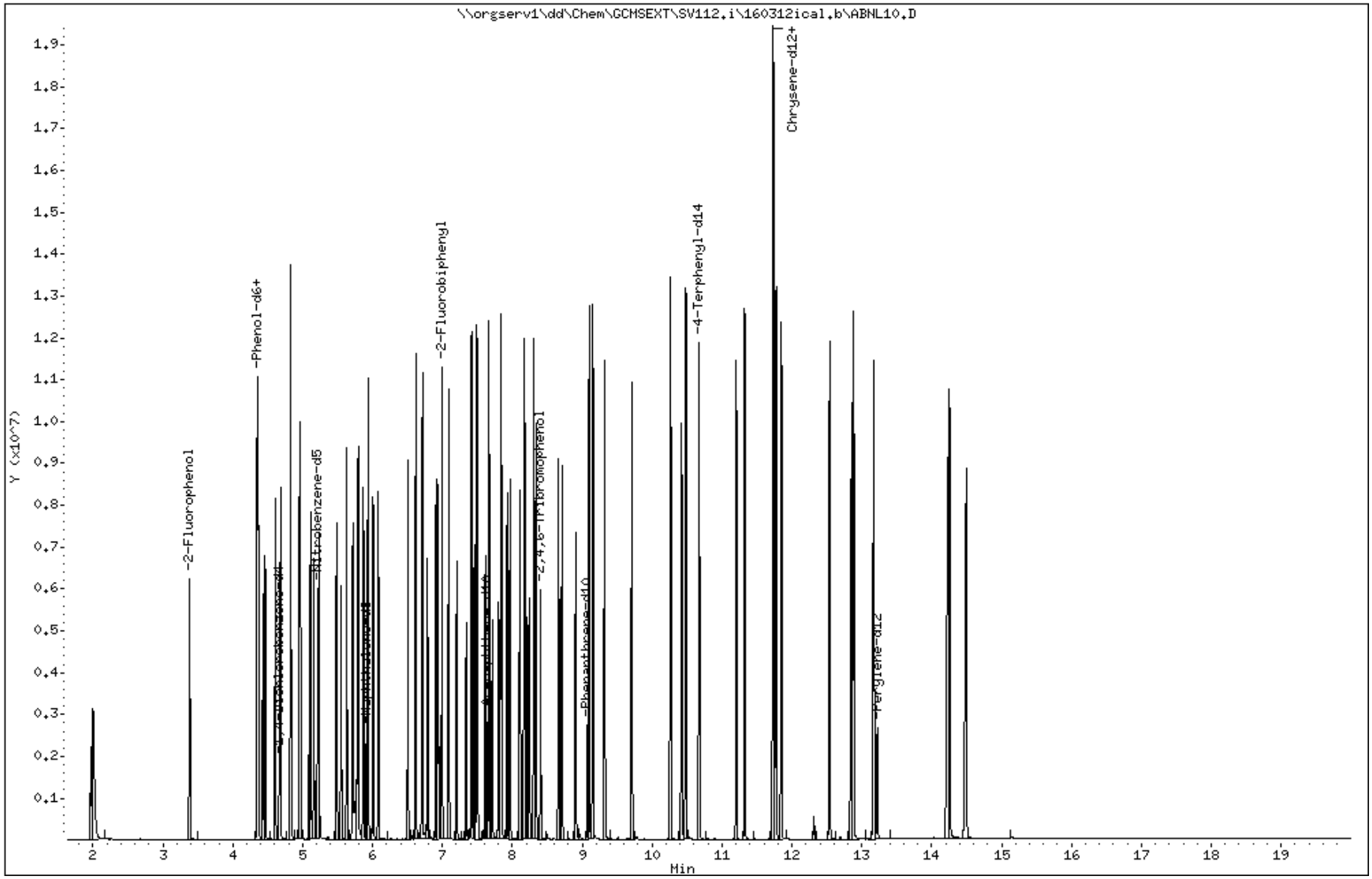
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	158353	79177	316706	225179	42.20
32 Naphthalene-d8	675605	337803	1351210	935895	38.53
59 Acenaphthene-d10	370505	185253	741010	509274	37.45
82 Phenanthrene-d10	721807	360904	1443614	984905	36.45
96 Chrysene-d12	650715	325358	1301430	888978	36.62
106 Perylene-d12	619797	309899	1239594	886263	42.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.05
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.03
96 Chrysene-d12	11.73	11.23	12.23	11.74	0.13
106 Perylene-d12	13.21	12.71	13.71	13.22	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.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNL10.D
Date : 12-MAR-2016 15:23
Client ID:
Sample Info: ABN 200 LOT# 5805

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



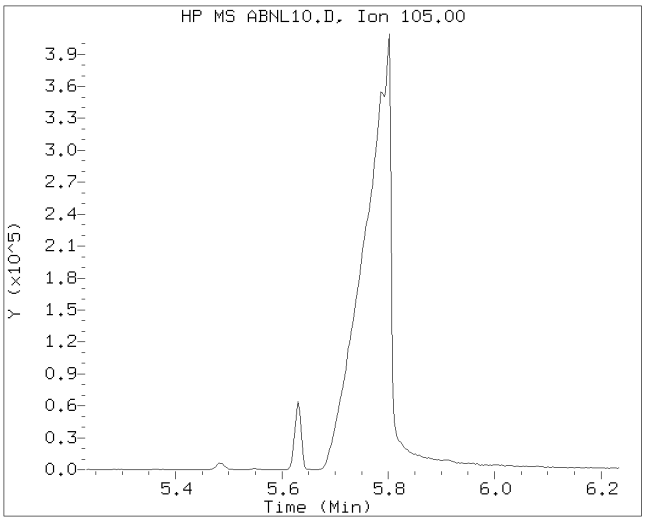
Alpha Analytical Labs

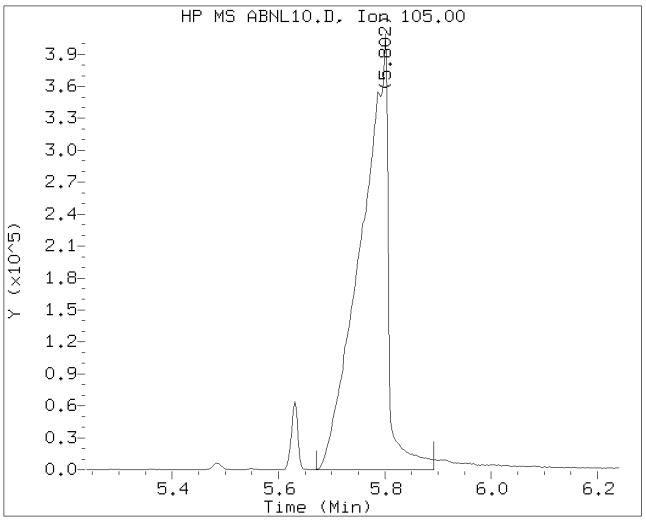
Manual Integration

Sample Info : ABN 200 LOT# 5805

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNL10.D
Injection Date : 12-MAR-2016 15:23
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

Compound # 30: Benzoic acid

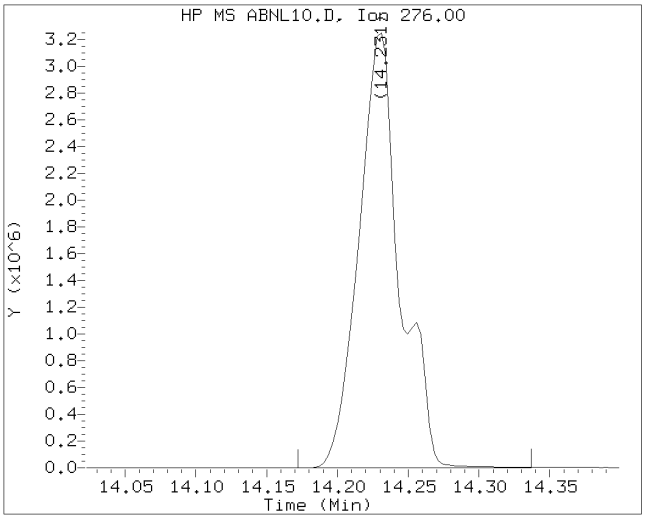


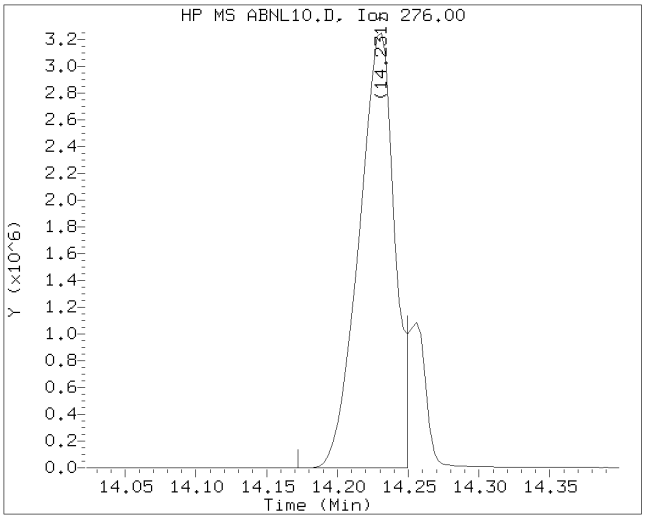


Original Peak Response = 0 Manual Peak Response = 1482584 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 6582046 Manual Peak Response = 5747713 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L1.D
Lab Smp Id:
Inj Date : 12-MAR-2016 15:48
Operator : as Inst ID: SV112.i
Smp Info : AP9 1 LOT# 5832
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.232	4.232	(0.907)	5257	1.00000	1.02	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	198641	40.0000		
	17 Acetophenone	105	5.071	5.071	(1.087)	8793	1.00000	0.855	
	21 m-Toluidine	106	5.155	5.155	(1.105)	7136	1.00000	0.930	
	25 2-Chloroaniline	127	5.515	5.515	(1.183)	8619	1.00000	1.01	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	855999	40.0000		
	34 a-Terpineol	59	5.969	5.969	(1.010)	6649	1.00000	1.04	
	35 3-Chloroaniline	65	Compound Not Detected.						
	37 2,6-Dichlorophenol	162	6.010	6.010	(1.289)	5818	1.00000	1.01	
	39 1-chloro-2-nitrobenzene	111	6.268	6.268	(1.344)	3000	1.00000	0.954	
	40 Caprolactam	55	6.314	6.314	(1.068)	2921	1.00000	0.788	
	44 1,2,4,5-Tetrachlorobenzene	216	6.784	6.784	(0.890)	7294	1.00000	1.06	
	49 Biphenyl	154	7.082	7.082	(0.929)	17106	1.00000	0.990	
*	59 Acenaphthene-d10	164	7.626	7.626	(1.000)	468205	40.0000		
	77 Dimethoate	87	8.745	8.745	(1.147)	4803	1.00000	0.712	
	78 Dichloran	206	8.767	8.767	(1.150)	926	1.00000	3.50	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	1536	1.00000	0.848	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	902975	40.0000		
	88 Diphenamid	167	9.985	9.985	(1.101)	9822	1.00000	0.936	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	831491	40.0000		
	104 Benzo(e)pyrene	252	13.109	13.109	(0.992)	21896	1.00000	0.972	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	817654	40.0000		
	107 Perylene	252	13.236	13.236	(1.002)	24702	1.00000	1.06	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:02
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	234270	117135	468540	198641	-15.21
32 Naphthalene-d8	973530	486765	1947060	855999	-12.07
59 Acenaphthene-d10	520118	260059	1040236	468205	-9.98
82 Phenanthrene-d10	983650	491825	1967300	902975	-8.20
96 Chrysene-d12	921827	460914	1843654	831491	-9.80
106 Perylene-d12	887757	443879	1775514	817654	-7.90

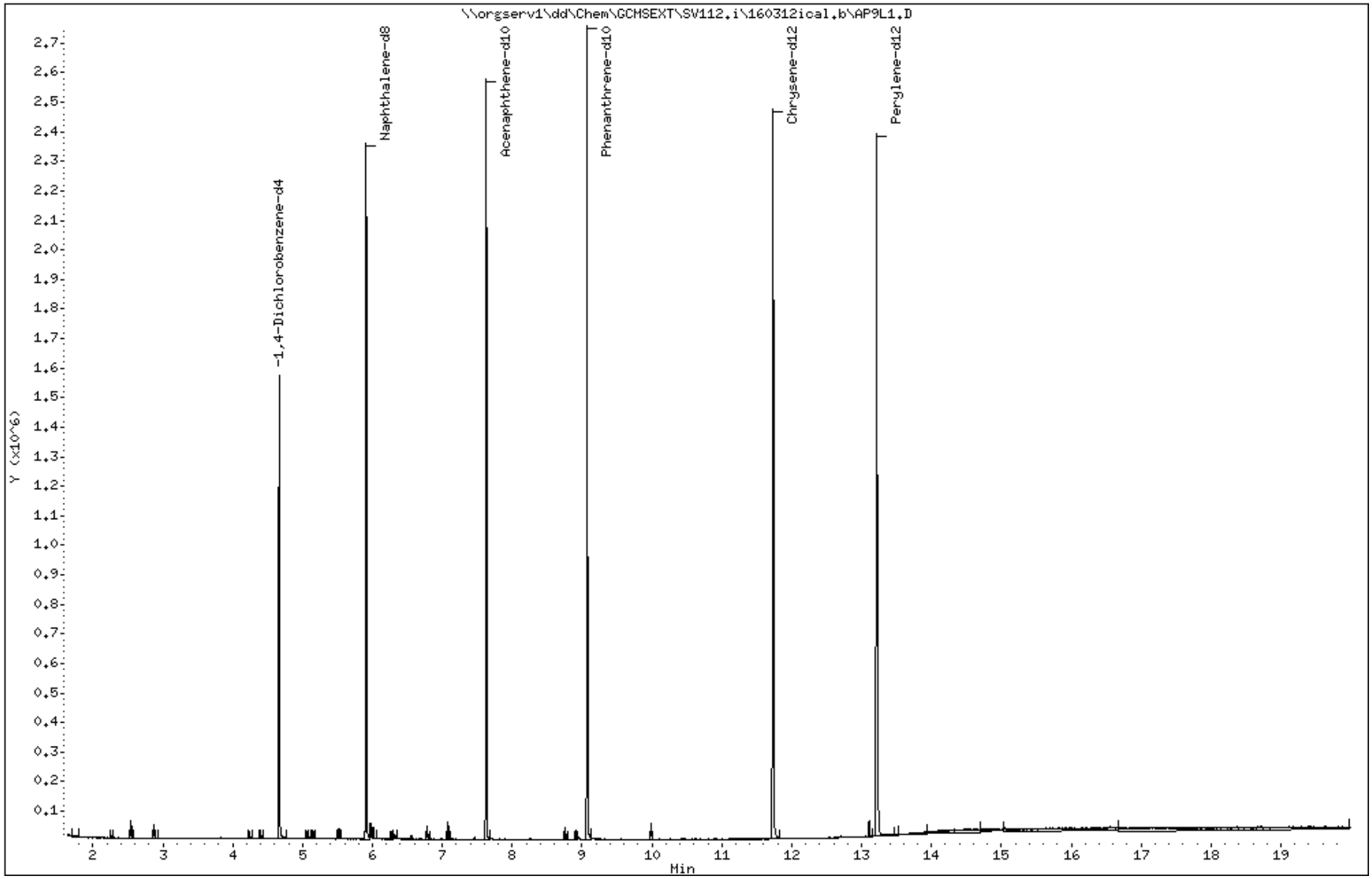
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L1.D
Date : 12-MAR-2016 15:48
Client ID:
Sample Info: AP9 1 LOT# 5832

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 1 LOT# 5832

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L1.D
Injection Date : 12-MAR-2016 15:48
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L2.D
Lab Smp Id:
Inj Date : 12-MAR-2016 16:14
Operator : as Inst ID: SV112.i
Smp Info : AP9 2 LOT# 5833
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 21:18 Cal File: ADPL1.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
4	Benzaldehyde	105	4.232	4.232	(0.907)	11097	2.00000	1.90	
* 11	1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	226129	40.0000		
17	Acetophenone	105	5.074	5.074	(1.088)	21473	2.00000	1.83	
21	m-Toluidine	106	5.152	5.152	(1.105)	14106	2.00000	1.62	
25	2-Chloroaniline	127	5.515	5.515	(1.183)	18488	2.00000	1.91	
* 32	Naphthalene-d8	136	5.910	5.910	(1.000)	960425	40.0000		
34	a-Terpineol	59	5.966	5.966	(1.009)	13820	2.00000	1.92	
35	3-Chloroaniline	65	5.981	5.981	(1.012)	7726	2.00000	2.03(M)	M4
37	2,6-Dichlorophenol	162	6.006	6.006	(1.288)	11964	2.00000	1.82	
39	1-chloro-2-nitrobenzene	111	6.267	6.267	(1.344)	6090	2.00000	1.70	
40	Caprolactam	55	6.311	6.311	(1.068)	7300	2.00000	1.76	
44	1,2,4,5-Tetrachlorobenzene	216	6.783	6.783	(0.890)	15187	2.00000	1.98	
49	Biphenyl	154	7.082	7.082	(0.929)	37756	2.00000	1.96	
* 59	Acenaphthene-d10	164	7.626	7.626	(1.000)	521780	40.0000		
77	Dimethoate	87	8.748	8.748	(1.147)	9724	2.00000	1.29	
78	Dichloran	206	8.763	8.763	(1.149)	2118	2.00000	3.94	
81	Pentachloronitrobenzene	237	8.916	8.916	(1.169)	3111	2.00000	1.54	
* 82	Phenanthrene-d10	188	9.071	9.071	(1.000)	987066	40.0000		
88	Diphenamid	167	9.985	9.985	(1.101)	20113	2.00000	1.75	
* 96	Chrysene-d12	240	11.731	11.731	(1.000)	892233	40.0000		
104	Benzo(e)pyrene	252	13.105	13.105	(0.992)	44292	2.00000	1.78	
* 106	Perylene-d12	264	13.214	13.214	(1.000)	903400	40.0000		
107	Perylene	252	13.239	13.239	(1.002)	49524	2.00000	1.92	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:02
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	234270	117135	468540	226129	-3.48
32 Naphthalene-d8	973530	486765	1947060	960425	-1.35
59 Acenaphthene-d10	520118	260059	1040236	521780	0.32
82 Phenanthrene-d10	983650	491825	1967300	987066	0.35
96 Chrysene-d12	921827	460914	1843654	892233	-3.21
106 Perylene-d12	887757	443879	1775514	903400	1.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-0.00

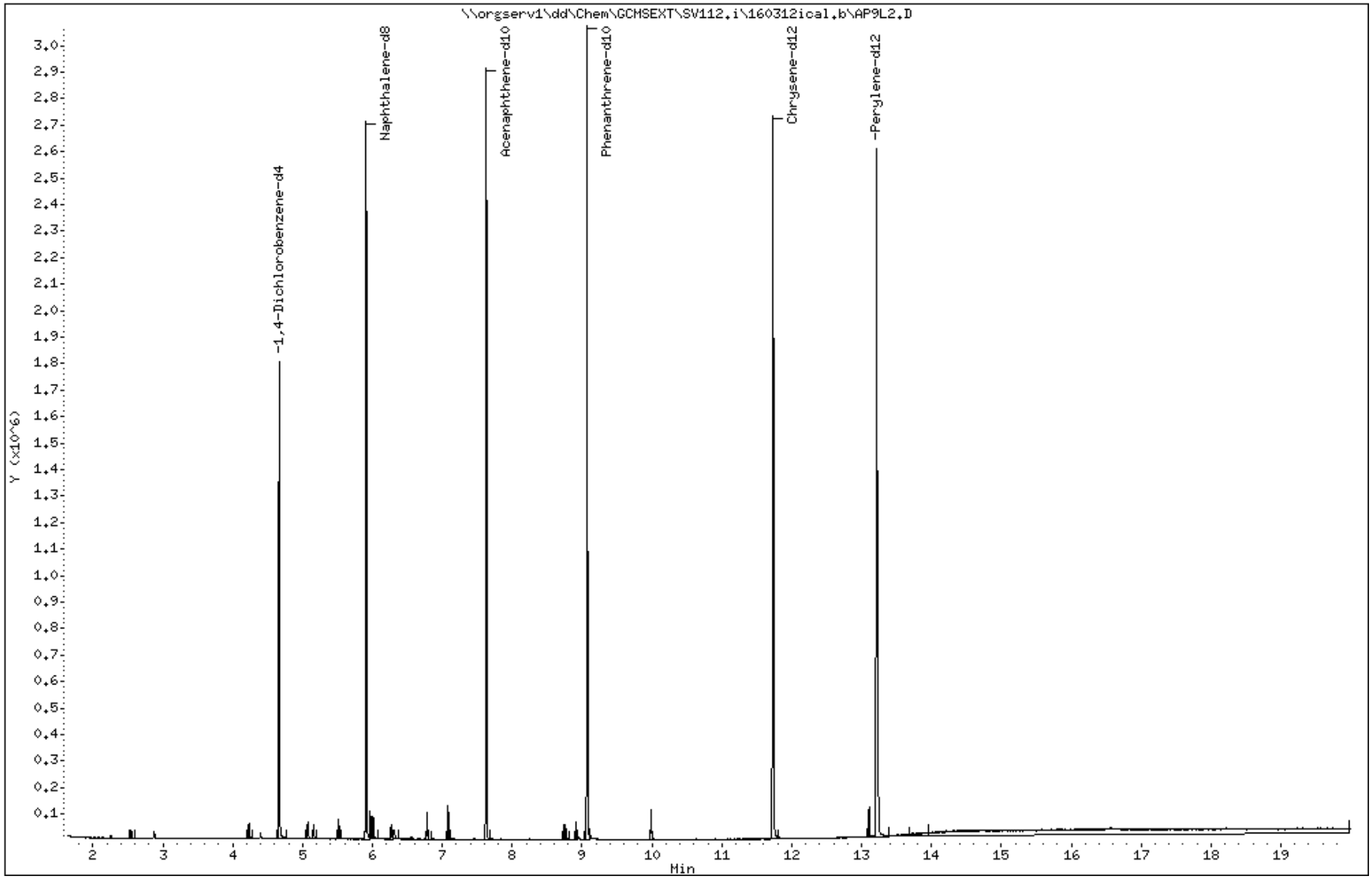
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L2.D
Date : 12-MAR-2016 16:14
Client ID:
Sample Info: AP9 2 LOT# 5833

Column phase: RTx-5

Instrument: SV112.i

Operator: as
Column diameter: 0.32



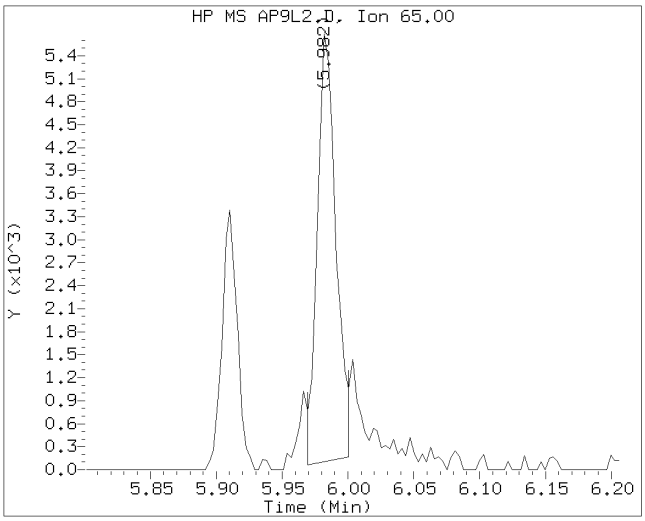
Alpha Analytical Labs

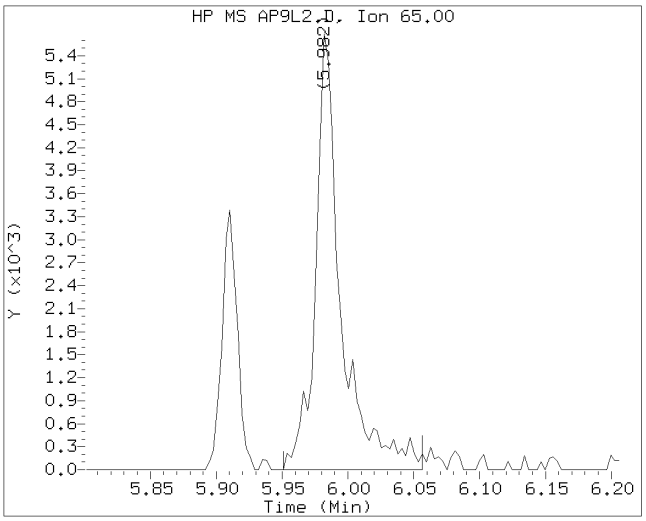
Manual Integration

Sample Info : AP9 2 LOT# 5833

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L2.D
Injection Date : 12-MAR-2016 16:14
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 35: 3-Chloroaniline





Original Peak Response = 5587 Manual Peak Response = 7726 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L3.D
Lab Smp Id:
Inj Date : 12-MAR-2016 16:39
Operator : as Inst ID: SV112.i
Smp Info : AP9 3 LOT#5834
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 21:44 Cal File: ADPL2.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
4	Benzaldehyde	105	4.232	4.232	(0.907)	16755	3.00000	2.98	
* 11	1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	217541	40.0000		
17	Acetophenone	105	5.071	5.071	(1.087)	31104	3.00000	2.76	
21	m-Toluidine	106	5.152	5.152	(1.105)	22515	3.00000	2.68	
25	2-Chloroaniline	127	5.515	5.515	(1.183)	26327	3.00000	2.82	
* 32	Naphthalene-d8	136	5.910	5.910	(1.000)	928576	40.0000		
34	a-Terpineol	59	5.966	5.966	(1.009)	20180	3.00000	2.90	
35	3-Chloroaniline	65	5.985	5.985	(1.013)	11911	3.00000	3.24(M)	M4
37	2,6-Dichlorophenol	162	6.010	6.010	(1.289)	17293	3.00000	2.74	
39	1-chloro-2-nitrobenzene	111	6.264	6.264	(1.343)	8628	3.00000	2.50	
40	Caprolactam	55	6.308	6.308	(1.067)	10521	3.00000	2.62	
44	1,2,4,5-Tetrachlorobenzene	216	6.783	6.783	(0.890)	21504	3.00000	2.92	
49	Biphenyl	154	7.079	7.079	(0.928)	53981	3.00000	2.92	
* 59	Acenaphthene-d10	164	7.626	7.626	(1.000)	500636	40.0000		
77	Dimethoate	87	8.745	8.745	(1.147)	14169	3.00000	1.96	
78	Dichloran	206	8.766	8.766	(1.150)	3191	3.00000	4.44	
81	Pentachloronitrobenzene	237	8.916	8.916	(1.169)	4702	3.00000	2.43	
* 82	Phenanthrene-d10	188	9.071	9.071	(1.000)	958657	40.0000		
88	Diphenamid	167	9.985	9.985	(1.101)	29188	3.00000	2.62	
* 96	Chrysene-d12	240	11.732	11.732	(1.000)	856403	40.0000		
104	Benzo(e)pyrene	252	13.105	13.105	(0.992)	64494	3.00000	2.75	
* 106	Perylene-d12	264	13.214	13.214	(1.000)	850955	40.0000		
107	Perylene	252	13.236	13.236	(1.002)	71849	3.00000	2.96	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:02
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	234270	117135	468540	217541	-7.14
32 Naphthalene-d8	973530	486765	1947060	928576	-4.62
59 Acenaphthene-d10	520118	260059	1040236	500636	-3.75
82 Phenanthrene-d10	983650	491825	1967300	958657	-2.54
96 Chrysene-d12	921827	460914	1843654	856403	-7.10
106 Perylene-d12	887757	443879	1775514	850955	-4.15

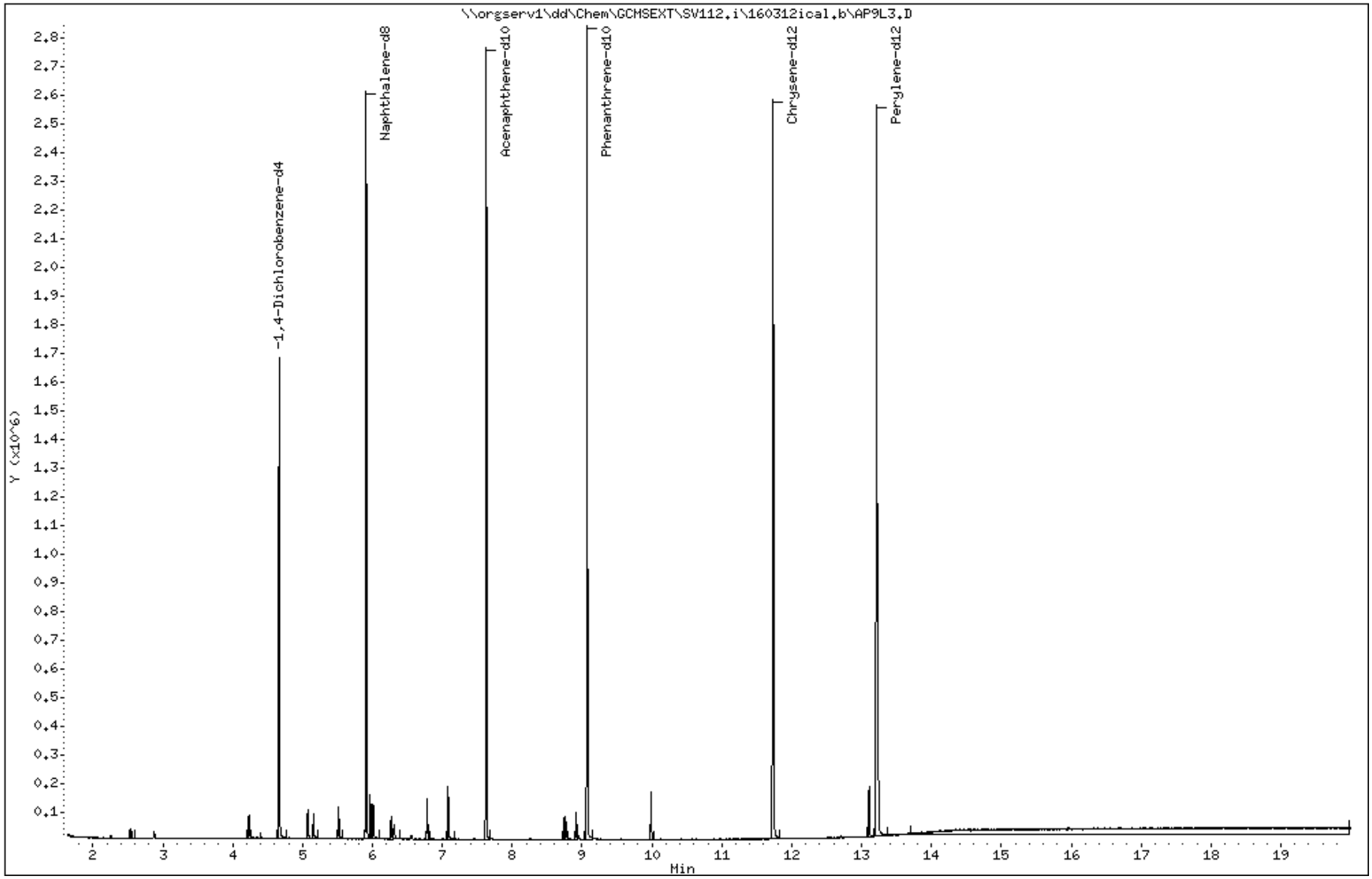
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L3.D
Date : 12-MAR-2016 16:39
Client ID:
Sample Info: AP9 3 LOT#5834

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



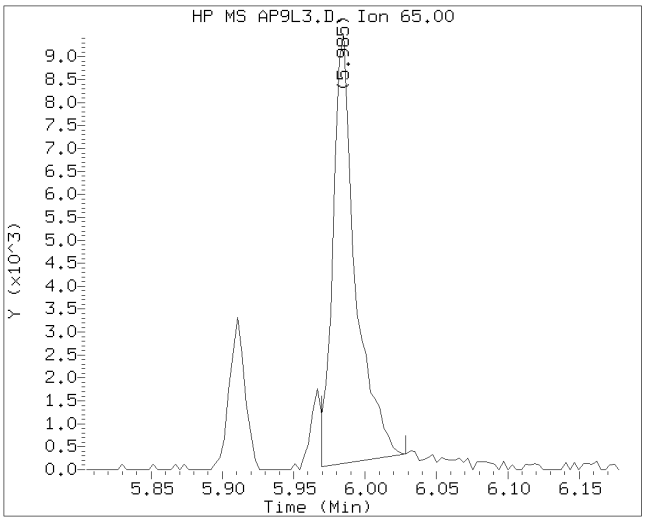
Alpha Analytical Labs

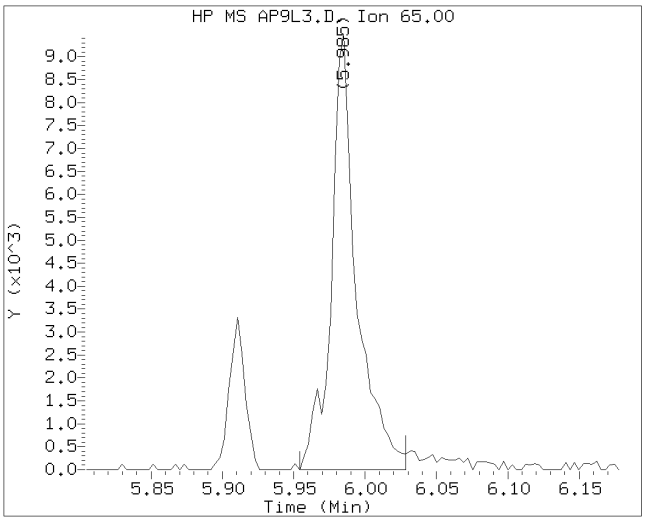
Manual Integration

Sample Info : AP9 3 LOT#5834

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L3.D
Injection Date : 12-MAR-2016 16:39
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 35: 3-Chloroaniline





Original Peak Response = 10417 Manual Peak Response = 11911 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L4.D
Lab Smp Id:
Inj Date : 12-MAR-2016 17:05
Operator : as Inst ID: SV112.i
Smp Info : AP9 5 LOT# 5835
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 22:10 Cal File: ADPL3.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.232	4.232	(0.907)	28559	5.00000	5.11	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	216689	40.0000		
	17 Acetophenone	105	5.071	5.071	(1.087)	53350	5.00000	4.75	
	21 m-Toluidine	106	5.152	5.152	(1.105)	43359	5.00000	5.18	
	25 2-Chloroaniline	127	5.515	5.515	(1.183)	45934	5.00000	4.94	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	909647	40.0000		
	34 a-Terpineol	59	5.969	5.969	(1.010)	33879	5.00000	4.98	
	35 3-Chloroaniline	65	5.982	5.982	(1.012)	19643	5.00000	5.45	
	37 2,6-Dichlorophenol	162	6.006	6.006	(1.288)	30400	5.00000	4.84	
	39 1-chloro-2-nitrobenzene	111	6.268	6.268	(1.344)	15054	5.00000	4.39	
	40 Caprolactam	55	6.305	6.305	(1.067)	17931	5.00000	4.55	
	44 1,2,4,5-Tetrachlorobenzene	216	6.784	6.784	(0.889)	35288	5.00000	4.86	
	49 Biphenyl	154	7.079	7.079	(0.928)	89719	5.00000	4.94	
*	59 Acenaphthene-d10	164	7.629	7.629	(1.000)	492699	40.0000		
	77 Dimethoate	87	8.748	8.748	(1.147)	24438	5.00000	3.44	
	78 Dichloran	206	8.767	8.767	(1.149)	6359	5.00000	5.82	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	8264	5.00000	4.33	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	936738	40.0000		
	88 Diphenamid	167	9.985	9.985	(1.101)	49760	5.00000	4.57	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	848775	40.0000		
	104 Benzo(e)pyrene	252	13.106	13.106	(0.992)	109400	5.00000	4.60	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	863849	40.0000		
	107 Perylene	252	13.236	13.236	(1.002)	121144	5.00000	4.93	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:02
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

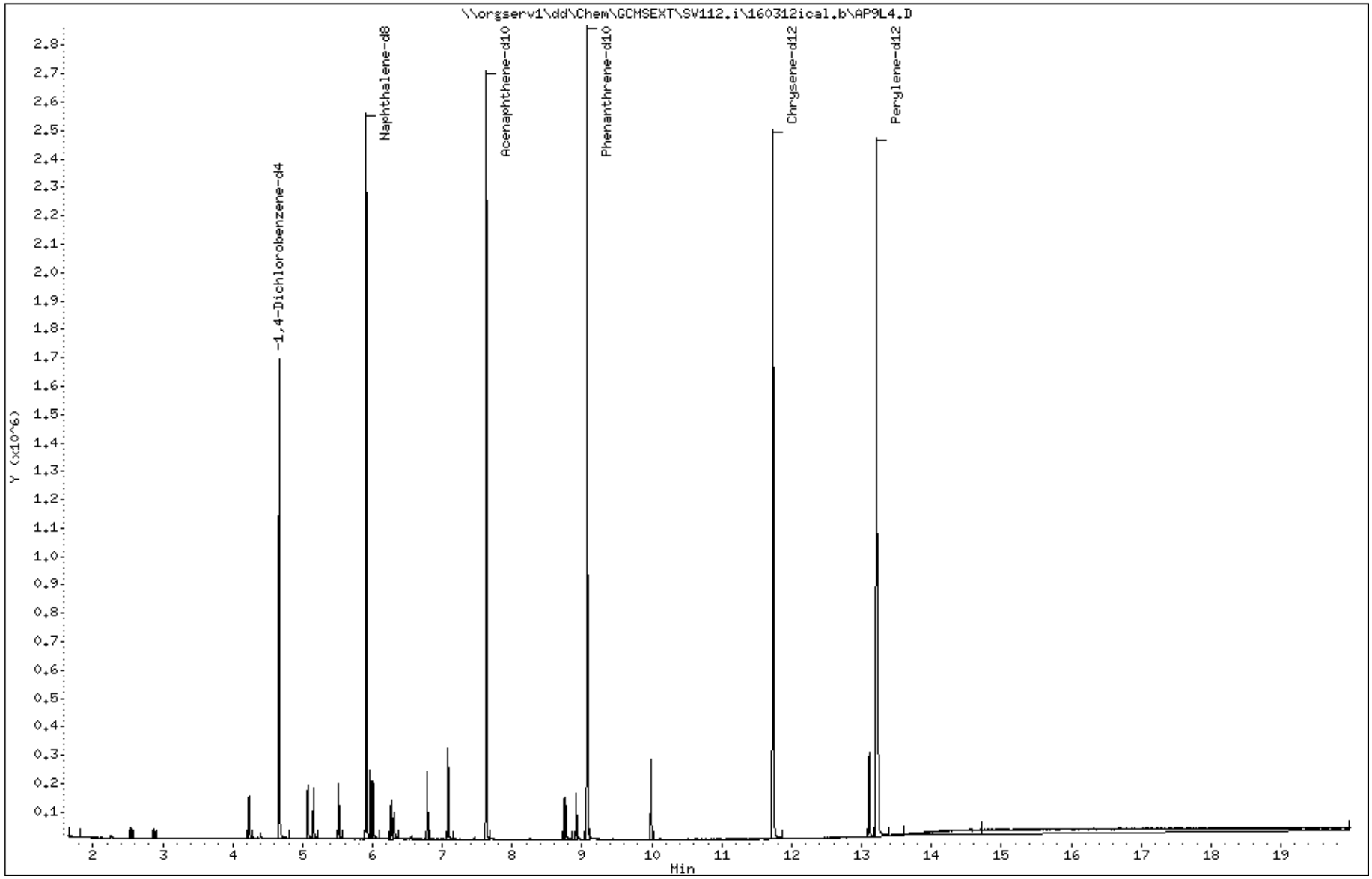
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	234270	117135	468540	216689	-7.50
32 Naphthalene-d8	973530	486765	1947060	909647	-6.56
59 Acenaphthene-d10	520118	260059	1040236	492699	-5.27
82 Phenanthrene-d10	983650	491825	1967300	936738	-4.77
96 Chrysene-d12	921827	460914	1843654	848775	-7.92
106 Perylene-d12	887757	443879	1775514	863849	-2.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L4.D
Date : 12-MAR-2016 17:05
Client ID:
Sample Info: AP9 5 LOT# 5835

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 5 LOT# 5835

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L4.D
Injection Date : 12-MAR-2016 17:05
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L5.D
Lab Smp Id:
Inj Date : 12-MAR-2016 17:30
Operator : as Inst ID: SV112.i
Smp Info : AP9 10 LOT# 5836
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 22:36 Cal File: ADPL4.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.228	4.228	(0.907)	62092	10.0000	11.0	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	219170	40.0000		
	17 Acetophenone	105	5.071	5.071	(1.087)	113411	10.0000	9.99	
	21 m-Toluidine	106	5.152	5.152	(1.105)	98516	10.0000	11.6	
	25 2-Chloroaniline	127	5.515	5.515	(1.183)	95974	10.0000	10.2	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	908652	40.0000		
	34 a-Terpineol	59	5.966	5.966	(1.009)	68380	10.0000	10.0	
	35 3-Chloroaniline	65	5.981	5.981	(1.012)	39741	10.0000	11.0	
	37 2,6-Dichlorophenol	162	6.009	6.009	(1.289)	64805	10.0000	10.2	
	39 1-chloro-2-nitrobenzene	111	6.264	6.264	(1.343)	31754	10.0000	9.15	
	40 Caprolactam	55	6.305	6.305	(1.067)	39959	10.0000	10.2	
	44 1,2,4,5-Tetrachlorobenzene	216	6.783	6.783	(0.889)	71352	10.0000	9.89	
	49 Biphenyl	154	7.079	7.079	(0.928)	184378	10.0000	10.2	
*	59 Acenaphthene-d10	164	7.629	7.629	(1.000)	489816	40.0000		
	77 Dimethoate	87	8.748	8.748	(1.147)	58997	10.0000	8.36	
	78 Dichloran	206	8.766	8.766	(1.149)	15273	10.0000	9.70	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	18850	10.0000	9.94	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	959093	40.0000		
	88 Diphenamid	167	9.985	9.985	(1.101)	112006	10.0000	10.0	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	862549	40.0000		
	104 Benzo(e)pyrene	252	13.105	13.105	(0.992)	234513	10.0000	9.71	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	876754	40.0000		
	107 Perylene	252	13.239	13.239	(1.002)	248018	10.0000	9.94	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:02
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	234270	117135	468540	219170	-6.45
32 Naphthalene-d8	973530	486765	1947060	908652	-6.66
59 Acenaphthene-d10	520118	260059	1040236	489816	-5.83
82 Phenanthrene-d10	983650	491825	1967300	959093	-2.50
96 Chrysene-d12	921827	460914	1843654	862549	-6.43
106 Perylene-d12	887757	443879	1775514	876754	-1.24

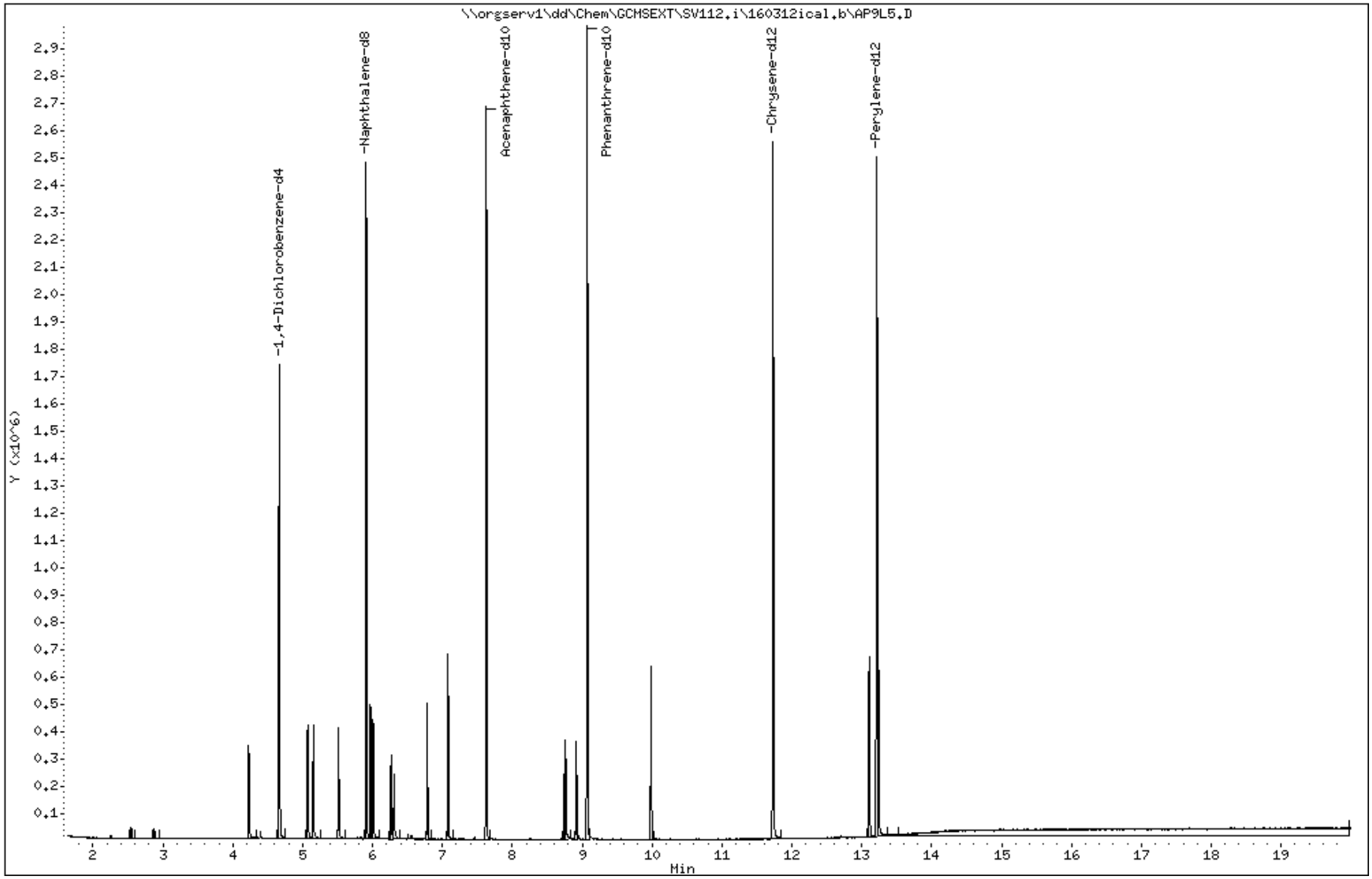
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L5.D
Date : 12-MAR-2016 17:30
Client ID:
Sample Info: AP9 10 LOT# 5836

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 10 LOT# 5836

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L5.D
Injection Date : 12-MAR-2016 17:30
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L6.D
Lab Smp Id:
Inj Date : 12-MAR-2016 17:55
Operator : as Inst ID: SV112.i
Smp Info : AP9 20 LOT# 5837
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:02 Cal File: ADPL5.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.225	4.225	(0.906)	127732	20.0000	22.3	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	221689	40.0000		
	17 Acetophenone	105	5.068	5.068	(1.087)	234965	20.0000	20.5	
	21 m-Toluidine	106	5.152	5.152	(1.105)	205696	20.0000	24.0	
	25 2-Chloroaniline	127	5.512	5.512	(1.182)	200308	20.0000	21.1	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	924391	40.0000		
	34 a-Terpineol	59	5.966	5.966	(1.009)	137283	20.0000	19.8	
	35 3-Chloroaniline	65	5.982	5.982	(1.012)	82061	20.0000	22.4	
	37 2,6-Dichlorophenol	162	6.006	6.006	(1.288)	128987	20.0000	20.1	
	39 1-chloro-2-nitrobenzene	111	6.264	6.264	(1.343)	66982	20.0000	19.1	
	40 Caprolactam	55	6.308	6.308	(1.067)	82615	20.0000	20.6	
	44 1,2,4,5-Tetrachlorobenzene	216	6.783	6.783	(0.890)	146759	20.0000	20.0	
	49 Biphenyl	154	7.079	7.079	(0.928)	378082	20.0000	20.6	
*	59 Acenaphthene-d10	164	7.626	7.626	(1.000)	497618	40.0000		
	77 Dimethoate	87	8.748	8.748	(1.147)	131985	20.0000	18.4	
	78 Dichloran	206	8.766	8.766	(1.150)	34939	20.0000	18.0	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	39823	20.0000	20.7	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	965416	40.0000		
	88 Diphenamid	167	9.985	9.985	(1.101)	226174	20.0000	20.1	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	849428	40.0000		
	104 Benzo(e)pyrene	252	13.105	13.105	(0.992)	465371	20.0000	19.5	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	865323	40.0000		
	107 Perylene	252	13.239	13.239	(1.002)	480102	20.0000	19.5	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 17:55
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

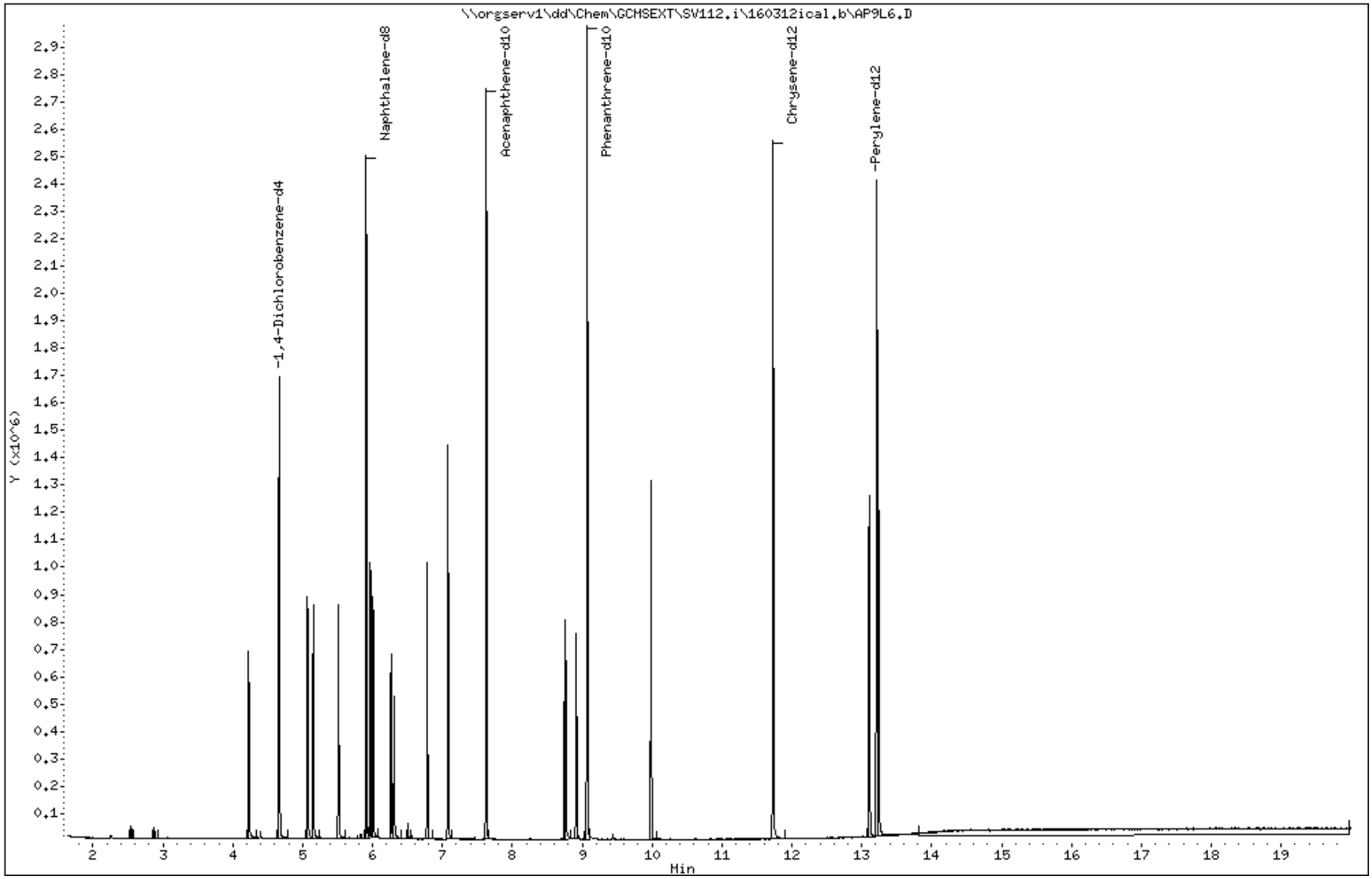
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	230418	115209	460836	221689	-3.79
32 Naphthalene-d8	952898	476449	1905796	924391	-2.99
59 Acenaphthene-d10	512516	256258	1025032	497618	-2.91
82 Phenanthrene-d10	965231	482616	1930462	965416	0.02
96 Chrysene-d12	909396	454698	1818792	849428	-6.59
106 Perylene-d12	861583	430792	1723166	865323	0.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.74	11.24	12.24	11.73	-0.03
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L6.D
Date : 12-MAR-2016 17:55
Client ID:
Sample Info: AP9 20 LOT# 5837

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 20 LOT# 5837

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L6.D
Injection Date : 12-MAR-2016 17:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L7.D
Lab Smp Id:
Inj Date : 12-MAR-2016 18:21
Operator : as Inst ID: SV112.i
Smp Info : AP9 50 LOT#5838
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:27 Cal File: ADPL6.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

		QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	4 Benzaldehyde	105	4.225	4.225	(0.906)	298061	50.0000	53.3	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	216668	40.0000		
	17 Acetophenone	105	5.068	5.068	(1.087)	604182	50.0000	53.8	
	21 m-Toluidine	106	5.152	5.152	(1.105)	453347	50.0000	54.2	
	25 2-Chloroaniline	127	5.512	5.512	(1.182)	495174	50.0000	53.3	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	906028	40.0000		
	34 a-Terpineol	59	5.969	5.969	(1.010)	348014	50.0000	51.3	
	35 3-Chloroaniline	65	5.982	5.982	(1.012)	196400	50.0000	54.7	
	37 2,6-Dichlorophenol	162	6.009	6.009	(1.289)	326911	50.0000	52.0	
	39 1-chloro-2-nitrobenzene	111	6.264	6.264	(1.343)	179277	50.0000	52.2	
	40 Caprolactam	55	6.314	6.314	(1.068)	214620	50.0000	54.7	
	44 1,2,4,5-Tetrachlorobenzene	216	6.783	6.783	(0.890)	367850	50.0000	51.2	
	49 Biphenyl	154	7.079	7.079	(0.928)	951072	50.0000	52.8	
*	59 Acenaphthene-d10	164	7.626	7.626	(1.000)	487993	40.0000		
	77 Dimethoate	87	8.751	8.751	(1.148)	372049	50.0000	52.9	
	78 Dichloran	206	8.766	8.766	(1.150)	101673	50.0000	47.3	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	108116	50.0000	57.2	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	939008	40.0000		
	88 Diphenamid	167	9.988	9.988	(1.101)	602707	50.0000	55.2	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	844773	40.0000		
	104 Benzo(e)pyrene	252	13.108	13.108	(0.992)	1244168	50.0000	52.9	
*	106 Perylene-d12	264	13.217	13.217	(1.000)	853027	40.0000		
	107 Perylene	252	13.242	13.242	(1.002)	1238738	50.0000	51.0	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 17:55
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	230418	115209	460836	216668	-5.97
32 Naphthalene-d8	952898	476449	1905796	906028	-4.92
59 Acenaphthene-d10	512516	256258	1025032	487993	-4.78
82 Phenanthrene-d10	965231	482616	1930462	939008	-2.72
96 Chrysene-d12	909396	454698	1818792	844773	-7.11
106 Perylene-d12	861583	430792	1723166	853027	-0.99

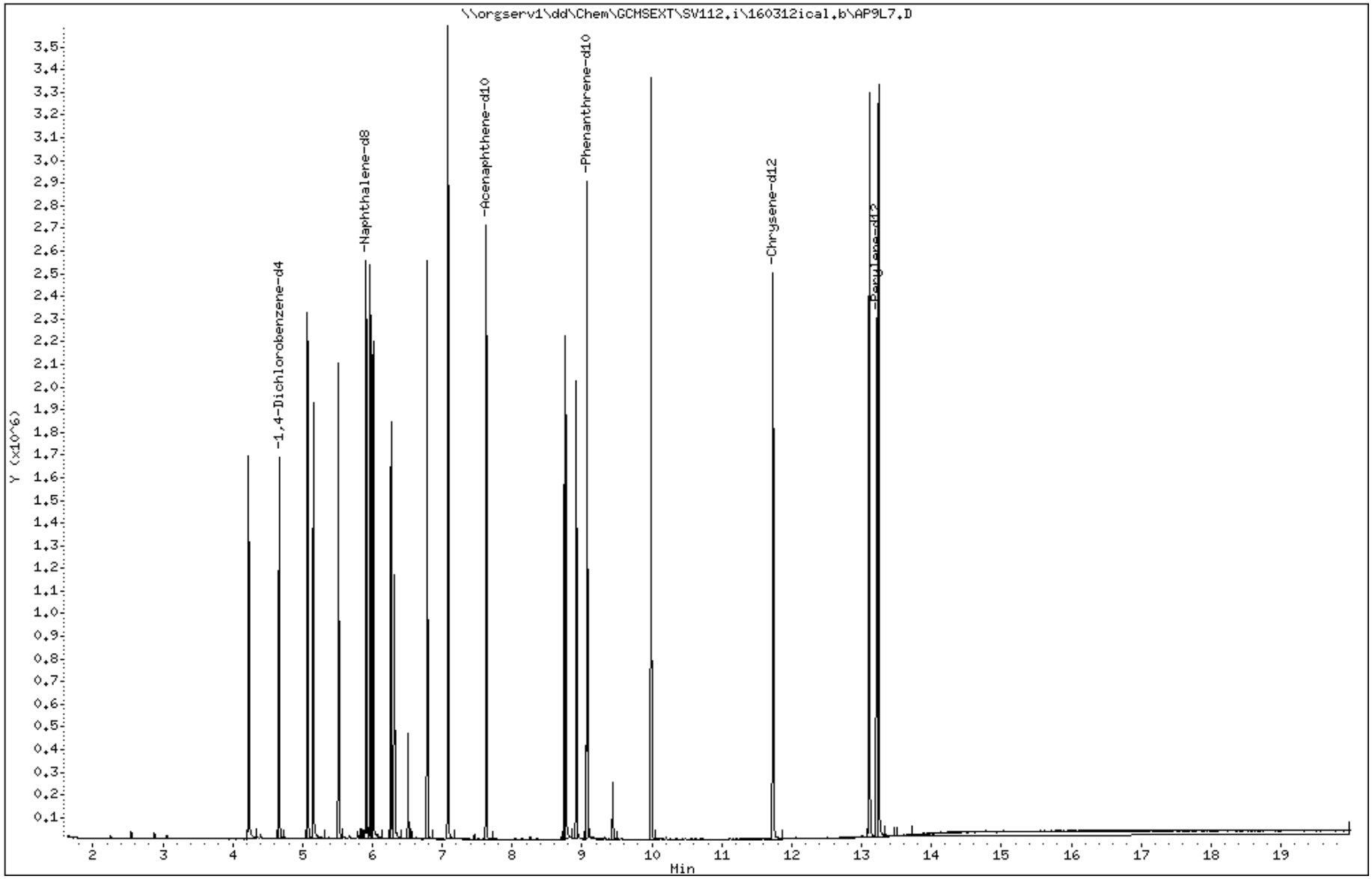
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.74	11.24	12.24	11.73	-0.03
106 Perylene-d12	13.21	12.71	13.71	13.22	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L7.D
Date : 12-MAR-2016 18:21
Client ID:
Sample Info: AP9 50 LOT#5838

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 50 LOT#5838

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L7.D
Injection Date : 12-MAR-2016 18:21
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L8.D
Lab Smp Id:
Inj Date : 12-MAR-2016 18:46
Operator : as Inst ID: SV112.i
Smp Info : AP9 100 LOT# 5839
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:53 Cal File: ADPL7.D
Als bottle: 18 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.225	4.225	(0.906)	526553	100.000	94.2	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	216562	40.0000		
	17 Acetophenone	105	5.068	5.068	(1.087)	1214562	100.000	108	
	21 m-Toluidine	106	5.152	5.152	(1.105)	794486	100.000	95.0	
	25 2-Chloroaniline	127	5.512	5.512	(1.182)	935275	100.000	101	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	904958	40.0000		
	34 a-Terpineol	59	5.969	5.969	(1.010)	674629	100.000	99.6	
	35 3-Chloroaniline	65	5.985	5.985	(1.013)	337167	100.000	94.0	
	37 2,6-Dichlorophenol	162	6.010	6.010	(1.289)	644546	100.000	103	
	39 1-chloro-2-nitrobenzene	111	6.264	6.264	(1.343)	376218	100.000	110	
	40 Caprolactam	55	6.323	6.323	(1.070)	436958	100.000	111	
	44 1,2,4,5-Tetrachlorobenzene	216	6.784	6.784	(0.890)	716707	100.000	101	
	49 Biphenyl	154	7.082	7.082	(0.929)	1819316	100.000	102	
*	59 Acenaphthene-d10	164	7.626	7.626	(1.000)	483608	40.0000		
	77 Dimethoate	87	8.754	8.754	(1.148)	810352	100.000	116	
	78 Dichloran	206	8.770	8.770	(1.150)	220260	100.000	99.8	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	219375	100.000	117	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	946889	40.0000		
	88 Diphenamid	167	9.988	9.988	(1.101)	1225365	100.000	111	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	872707	40.0000		
	104 Benzo(e)pyrene	252	13.112	13.112	(0.992)	2572893	100.000	105	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	889208	40.0000		
	107 Perylene	252	13.245	13.245	(1.002)	2546860	100.000	101	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 17:55
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

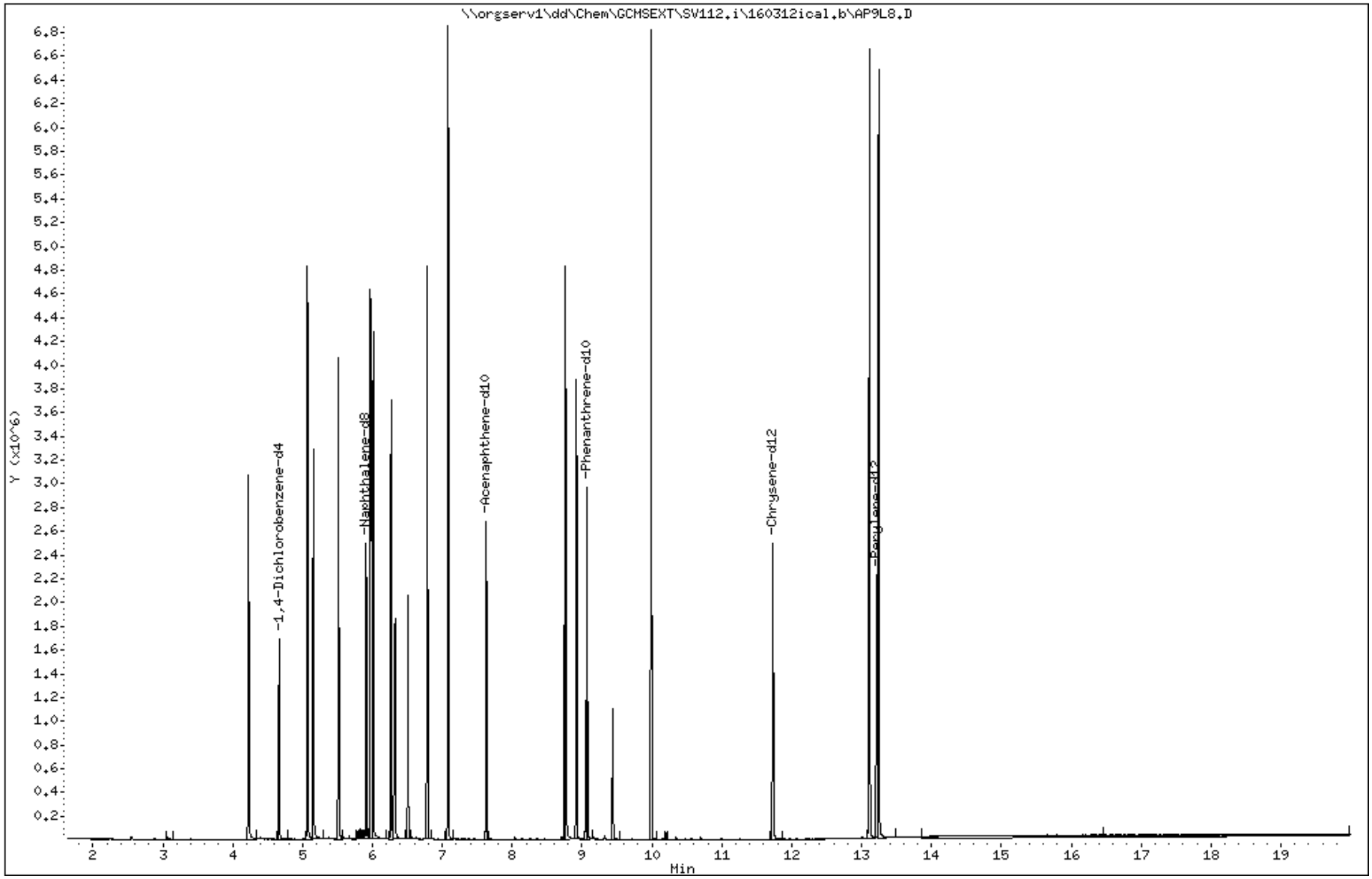
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	230418	115209	460836	216562	-6.01
32 Naphthalene-d8	952898	476449	1905796	904958	-5.03
59 Acenaphthene-d10	512516	256258	1025032	483608	-5.64
82 Phenanthrene-d10	965231	482616	1930462	946889	-1.90
96 Chrysene-d12	909396	454698	1818792	872707	-4.03
106 Perylene-d12	861583	430792	1723166	889208	3.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.74	11.24	12.24	11.73	-0.02
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L8.D
Date : 12-MAR-2016 18:46
Client ID:
Sample Info: AP9 100 LOT# 5839

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 100 LOT# 5839

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L8.D
Injection Date : 12-MAR-2016 18:46
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L9.D
Lab Smp Id:
Inj Date : 12-MAR-2016 19:11
Operator : as Inst ID: SV112.i
Smp Info : AP9 150 LOT# 5840
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 00:18 Cal File: ADPL8.D
Als bottle: 19 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.226	4.226	(0.906)	729296	150.000	137	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	205790	40.0000		
	17 Acetophenone	105	5.068	5.068	(1.087)	1759829	150.000	165	
	21 m-Toluidine	106	5.152	5.152	(1.105)	1115008	150.000	140	
	25 2-Chloroaniline	127	5.515	5.515	(1.183)	1335000	150.000	151	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	876753	40.0000		
	34 a-Terpineol	59	5.972	5.972	(1.011)	998636	150.000	152	
	35 3-Chloroaniline	65	5.988	5.988	(1.013)	423712	150.000	122	
	37 2,6-Dichlorophenol	162	6.013	6.013	(1.289)	951525	150.000	160	
	39 1-chloro-2-nitrobenzene	111	6.268	6.268	(1.344)	595478	150.000	183	
	40 Caprolactam	55	6.333	6.333	(1.072)	655563	150.000	173	
	44 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	(0.890)	1053326	150.000	149	
	49 Biphenyl	154	7.082	7.082	(0.928)	2608277	150.000	147	
*	59 Acenaphthene-d10	164	7.629	7.629	(1.000)	479625	40.0000		
	77 Dimethoate	87	8.757	8.757	(1.148)	1215814	150.000	176	
	78 Dichloran	206	8.770	8.770	(1.150)	335378	150.000	152	
	81 Pentachloronitrobenzene	237	8.919	8.919	(1.169)	328367	150.000	177	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	933039	40.0000		
	88 Diphenamid	167	9.991	9.991	(1.101)	1782820	150.000	164	
*	96 Chrysene-d12	240	11.732	11.732	(1.000)	844424	40.0000		
	104 Benzo(e)pyrene	252	13.115	13.115	(0.992)	3819538	150.000	160	
*	106 Perylene-d12	264	13.217	13.217	(1.000)	868890	40.0000		
	107 Perylene	252	13.249	13.249	(1.002)	3736655	150.000	151	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: AP9L9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 17:55
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

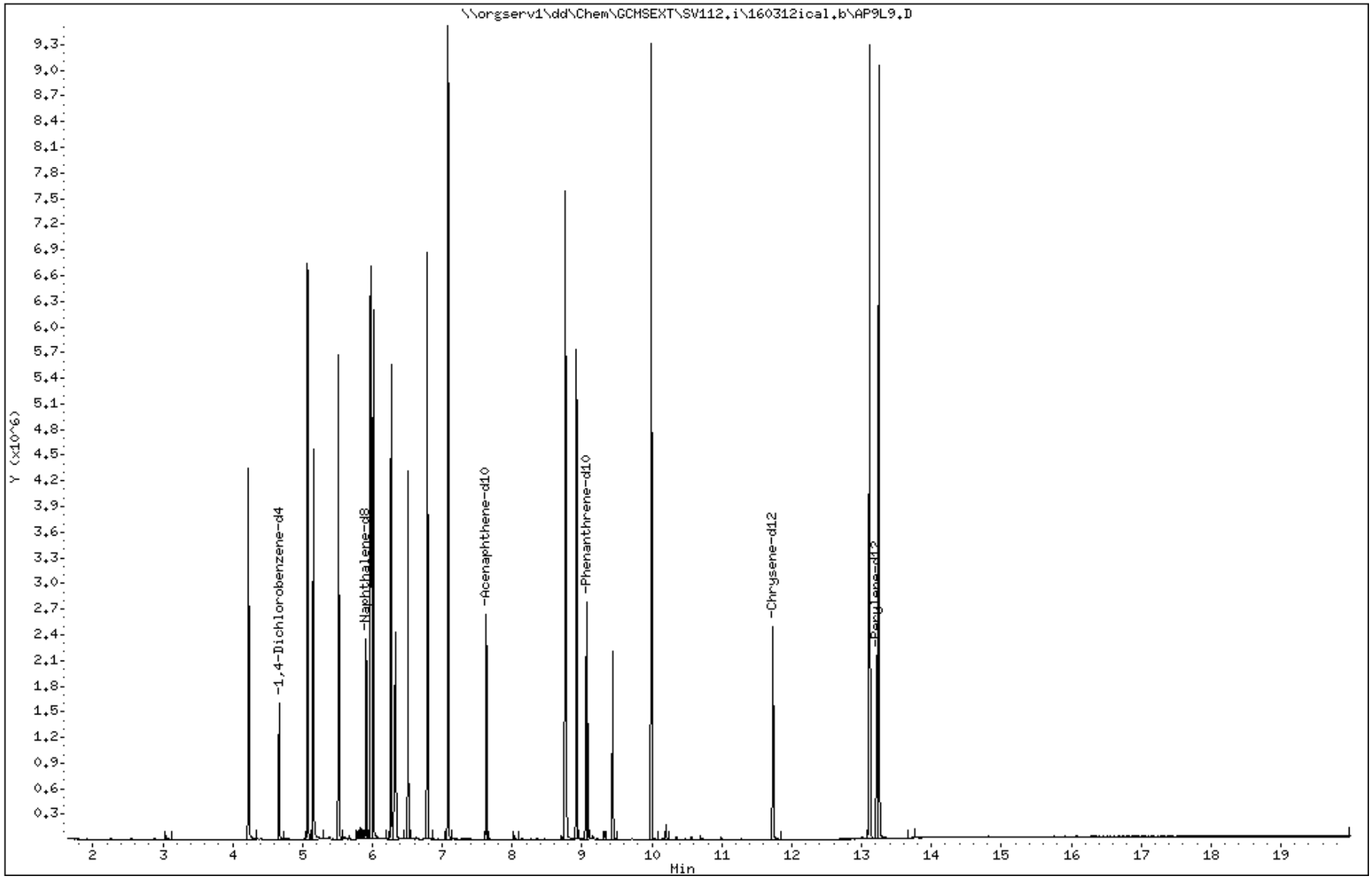
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	230418	115209	460836	205790	-10.69
32 Naphthalene-d8	952898	476449	1905796	876753	-7.99
59 Acenaphthene-d10	512516	256258	1025032	479625	-6.42
82 Phenanthrene-d10	965231	482616	1930462	933039	-3.34
96 Chrysene-d12	909396	454698	1818792	844424	-7.14
106 Perylene-d12	861583	430792	1723166	868890	0.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.01
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.74	11.24	12.24	11.73	-0.02
106 Perylene-d12	13.21	12.71	13.71	13.22	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L9.D
Date : 12-MAR-2016 19:11
Client ID:
Sample Info: AP9 150 LOT# 5840

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 150 LOT# 5840

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L9.D
Injection Date : 12-MAR-2016 19:11
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L10.D
Lab Smp Id:
Inj Date : 12-MAR-2016 19:37
Operator : as Inst ID: SV112.i
Smp Info : AP9 200 LOT# 5831
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 00:44 Cal File: ADPL9.D
Als bottle: 20 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.225	4.225	(0.906)	889832	200.000	174	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	198674	40.0000		
	17 Acetophenone	105	5.071	5.071	(1.087)	2207994	200.000	215	
	21 m-Toluidine	106	5.152	5.152	(1.105)	1359784	200.000	177	
	25 2-Chloroaniline	127	5.515	5.515	(1.183)	1616321	200.000	190	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	837926	40.0000		
	34 a-Terpineol	59	5.972	5.972	(1.011)	1258412	200.000	201	
	35 3-Chloroaniline	65	5.994	5.994	(1.014)	492990	200.000	148	
	37 2,6-Dichlorophenol	162	6.016	6.016	(1.290)	1197008	200.000	208	
	39 1-chloro-2-nitrobenzene	111	6.267	6.267	(1.344)	789811	200.000	251	
	40 Caprolactam	55	6.339	6.339	(1.073)	831081	200.000	229	
	44 1,2,4,5-Tetrachlorobenzene	216	6.786	6.786	(0.890)	1326974	200.000	199	
	49 Biphenyl	154	7.082	7.082	(0.928)	3202219	200.000	192	
*	59 Acenaphthene-d10	164	7.629	7.629	(1.000)	452958	40.0000		
	77 Dimethoate	87	8.760	8.760	(1.148)	1510001	200.000	232	
	78 Dichloran	206	8.773	8.773	(1.150)	425086	200.000	202	
	81 Pentachloronitrobenzene	237	8.919	8.919	(1.169)	414049	200.000	236	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	886153	40.0000		
	88 Diphenamid	167	9.991	9.991	(1.101)	2219192	200.000	215	
*	96 Chrysene-d12	240	11.731	11.731	(1.000)	803427	40.0000		
	104 Benzo(e)pyrene	252	13.118	13.118	(0.992)	4779089	200.000	209	
*	106 Perylene-d12	264	13.217	13.217	(1.000)	829035	40.0000		
	107 Perylene	252	13.251	13.251	(1.003)	4721520	200.000	200	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 12-MAR-2016
Lab File ID: AP9L10.D Calibration Time: 17:55
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

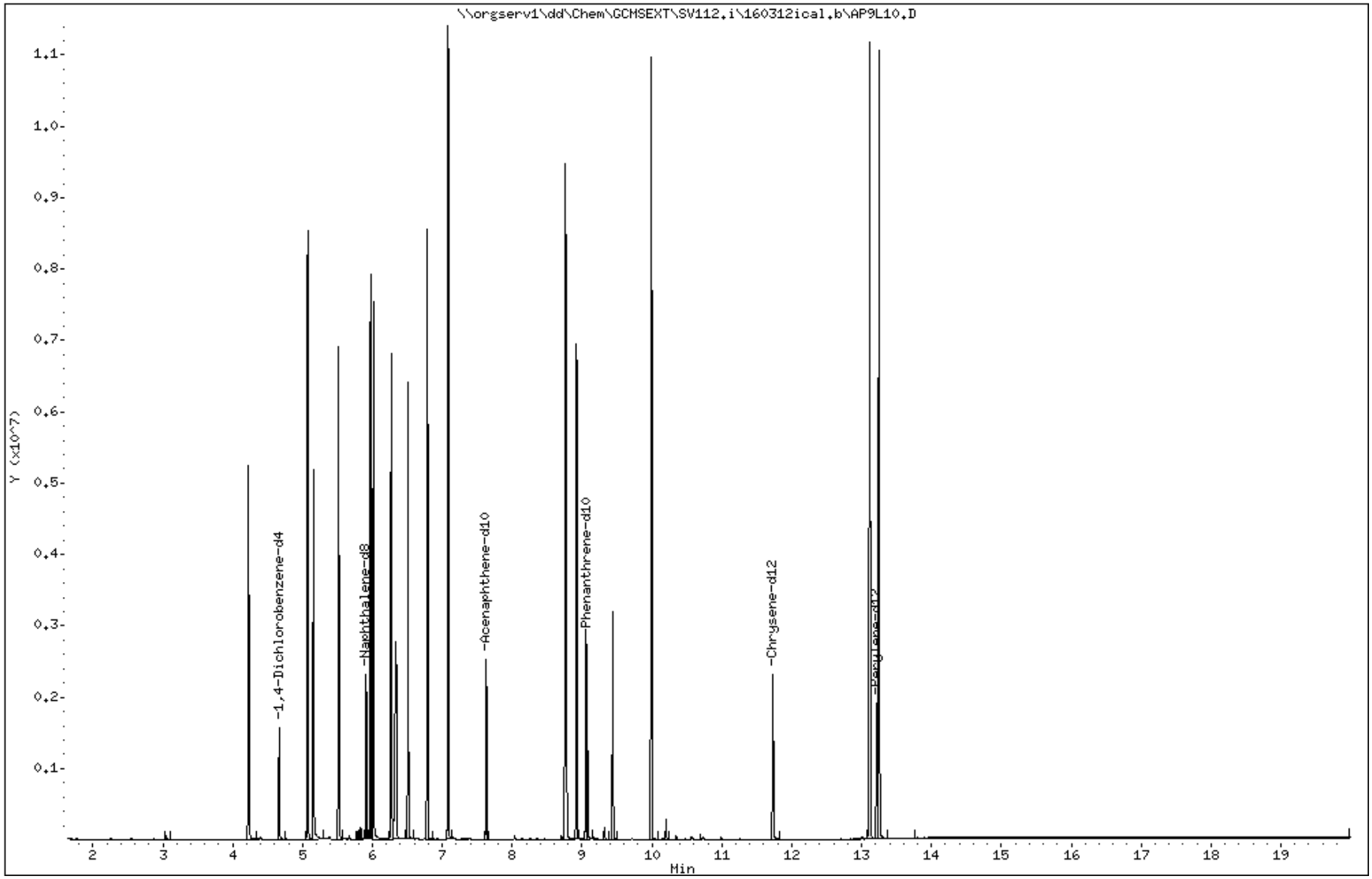
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	230418	115209	460836	198674	-13.78
32 Naphthalene-d8	952898	476449	1905796	837926	-12.07
59 Acenaphthene-d10	512516	256258	1025032	452958	-11.62
82 Phenanthrene-d10	965231	482616	1930462	886153	-8.19
96 Chrysene-d12	909396	454698	1818792	803427	-11.65
106 Perylene-d12	861583	430792	1723166	829035	-3.78

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.74	11.24	12.24	11.73	-0.03
106 Perylene-d12	13.21	12.71	13.71	13.22	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9L10.D
Date : 12-MAR-2016 19:37
Client ID:
Sample Info: AP9 200 LOT# 5831

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 200 LOT# 5831

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9L10.D
Injection Date : 12-MAR-2016 19:37
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 12-MAR-2016 20:02
Lab File ID: ABNICV.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 n-Nitrosodimethylamine	0.95051	0.99634	0.99634	0.050	4.82201	20.00000	Averaged
2 Pyridine	1.66913	1.77013	1.77013	0.050	6.05102	20.00000	Averaged
$ 3 2-Fluorophenol	1.32994	1.37935	1.37935	0.050	3.71518	20.00000	Averaged
5 Aniline	50.00000	41.25858	2.32494	0.050	-17.48283	20.00000	Quadratic
$ 6 Phenol-d6	1.72051	1.80661	1.80661	0.050	5.00413	20.00000	Averaged
7 Phenol	1.99077	2.05897	2.05897	0.050	3.42551	20.00000	Averaged
8 Bis(2-chloroethyl)ether	1.41037	1.45479	1.45479	0.050	3.14933	20.00000	Averaged
9 2-Chlorophenol	1.43121	1.47003	1.47003	0.050	2.71281	20.00000	Averaged
10 1,3-Dichlorobenzene	1.58891	1.55068	1.55068	0.050	-2.40593	20.00000	Averaged
12 1,4-Dichlorobenzene	1.62167	1.58241	1.58241	0.050	-2.42055	20.00000	Averaged
14 Benzyl alcohol	1.26141	1.35538	1.35538	0.050	7.44952	20.00000	Averaged
13 1,2-Dichlorobenzene	1.52031	1.50002	1.50002	0.050	-1.33418	20.00000	Averaged
15 2-Methylphenol	1.31568	1.34902	1.34902	0.050	2.53392	20.00000	Averaged
16 Bis(2-chloroisopropyl)ether	2.26574	2.11196	2.11196	0.050	-6.78731	20.00000	Averaged
18 n-Nitrosodi-n-propylamine	1.19178	1.18785	1.18785	0.050	-0.33029	20.00000	Averaged
19 3-Methylphenol/4-Methylphen	1.38217	1.43800	1.43800	0.050	4.03930	20.00000	Averaged
20 Hexachloroethane	0.65793	0.64375	0.64375	0.050	-2.15587	20.00000	Averaged
$ 22 Nitrobenzene-d5	1.57449	1.62730	1.62730	0.050	3.35371	20.00000	Averaged
23 Nitrobenzene	0.39751	0.42013	0.42013	0.050	5.69068	20.00000	Averaged
24 Isophorone	3.16466	3.10317	3.10317	0.050	-1.94307	20.00000	Averaged
26 2-Nitrophenol	0.70783	0.71847	0.71847	0.050	1.50338	20.00000	Averaged
27 2,4-Dimethylphenol	1.45424	1.48917	1.48917	0.050	2.40206	20.00000	Averaged
28 Bis(2-chloroethoxy)methane	1.86496	1.88873	1.88873	0.050	1.27478	20.00000	Averaged
30 Benzoic acid	50.00000	46.03764	0.26345	0.050	-7.92473	20.00000	Wt Linear
29 2,4-Dichlorophenol	0.27661	0.28886	0.28886	0.050	4.43007	20.00000	Averaged
31 1,2,4-Trichlorobenzene	0.32211	0.32353	0.32353	0.050	0.44125	20.00000	Averaged
33 Naphthalene	1.00845	0.98119	0.98119	0.050	-2.70316	20.00000	Averaged
36 4-Chloroaniline	0.15223	0.14978	0.14978	0.050	-1.60721	20.00000	Averaged
38 Hexachlorobutadiene	0.18035	0.17998	0.17998	0.050	-0.20515	20.00000	Averaged
41 p-Chloro-m-cresol	0.29911	0.31930	0.31930	0.050	6.75012	20.00000	Averaged
42 2-Methylnaphthalene	0.65774	0.65822	0.65822	0.050	0.07190	20.00000	Averaged
43 1-Methylnaphthalene	0.24165	0.23725	0.23725	0.050	-1.82161	20.00000	Averaged
45 Hexachlorocyclopentadiene	0.16324	0.15365	0.15365	0.050	-5.87565	20.00000	Averaged
46 2,4,6-Trichlorophenol	0.20357	0.21011	0.21011	0.050	3.20845	20.00000	Averaged
47 2,4,5-Trichlorophenol	0.21369	0.22517	0.22517	0.050	5.37522	20.00000	Averaged
$ 48 2-Fluorobiphenyl	0.70811	0.71605	0.71605	0.050	1.12047	20.00000	Averaged
50 2-Chloronaphthalene	0.63795	0.64183	0.64183	0.050	0.60876	20.00000	Averaged
51 2-Nitroaniline	0.20190	0.20885	0.20885	0.050	3.44101	20.00000	Averaged
52 1,4-Dinitrobenzene	0.17850	0.17717	0.17717	0.050	-0.74473	20.00000	Averaged
53 Dimethyl phthalate	1.36905	1.39213	1.39213	0.050	1.68552	20.00000	Averaged
54 1,3-Dinitrobenzene	0.18852	0.20235	0.20235	0.050	7.33454	20.00000	Averaged
55 2,6-Dinitrotoluene	0.15220	0.16282	0.16282	0.050	6.97807	20.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 12-MAR-2016 20:02
Lab File ID: ABNICV.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
56 Acenaphthylene	1.02071	1.02317	1.02317	0.050	0.24114	20.00000	Averaged
57 1,2-Dinitrobenzene	0.12584	0.13541	0.13541	0.050	7.60388	20.00000	Averaged
58 3-Nitroaniline	0.34175	0.35026	0.35026	0.050	2.49008	20.00000	Averaged
60 Acenaphthene	1.10652	1.08758	1.08758	0.050	-1.71211	20.00000	Averaged
61 2,4-Dinitrophenol	50.00000	44.21787	0.16463	0.050	-11.56426	20.00000	Wt Linear
62 4-Nitrophenol	0.29821	0.31945	0.31945	0.050	7.12281	20.00000	Averaged
63 Dibenzofuran	1.67223	1.70324	1.70324	0.050	1.85435	20.00000	Averaged
64 2,4-Dinitrotoluene	0.36112	0.40595	0.40595	0.050	12.41337	20.00000	Averaged
65 2,3,5,6-Tetrachlorophenol	0.32045	0.35300	0.35300	0.050	10.15621	20.00000	Averaged
66 2,3,4,6-Tetrachlorophenol	0.31818	0.34349	0.34349	0.050	7.95505	20.00000	Averaged
67 Diethyl phthalate	1.43153	1.43953	1.43953	0.050	0.55896	20.00000	Averaged
68 Fluorene	1.32344	1.35352	1.35352	0.050	2.27287	20.00000	Averaged
69 4-Chlorophenyl phenyl ether	0.62236	0.63089	0.63089	0.050	1.37195	20.00000	Averaged
70 4-Nitroaniline	0.32064	0.34051	0.34051	0.050	6.19681	20.00000	Averaged
71 4,6-Dinitro-o-cresol	50.00000	46.96099	0.22676	0.050	-6.07801	20.00000	Wt Linear
72 NDPA/DPA	1.09650	1.16275	1.16275	0.050	6.04216	20.00000	Averaged
73 Azobenzene	1.51748	1.56602	1.56602	0.050	3.19914	20.00000	Averaged
$ 74 2,4,6-Tribromophenol	0.09998	0.10745	0.10745	0.050	7.47095	20.00000	Averaged
75 4-Bromophenyl phenyl ether	0.35325	0.36831	0.36831	0.050	4.26435	20.00000	Averaged
76 Hexachlorobenzene	0.41644	0.41538	0.41538	0.050	-0.25610	20.00000	Averaged
80 Pentachlorophenol	50.00000	50.02793	0.13736	0.050	0.05586	20.00000	Wt Linear
83 Phenanthrene	1.08563	1.09398	1.09398	0.050	0.76923	20.00000	Averaged
84 Anthracene	1.04259	1.09152	1.09152	0.050	4.69247	20.00000	Averaged
85 Carbazole	0.98317	1.04669	1.04669	0.050	6.46094	20.00000	Averaged
86 Di-n-butylphthalate	1.15058	1.25192	1.25192	0.050	8.80747	20.00000	Averaged
89 Fluoranthene	1.12837	1.18473	1.18473	0.050	4.99519	20.00000	Averaged
91 Pyrene	1.19199	1.22838	1.22838	0.050	3.05296	20.00000	Averaged
$ 92 4-Terphenyl-d14	0.70634	0.74526	0.74526	0.050	5.50976	20.00000	Averaged
94 Butyl benzyl phthalate	0.51619	0.56145	0.56145	0.050	8.76750	20.00000	Averaged
95 Bis (2-ethylhexyl) adipate	50.00000	44.83484	0.48492	0.050	-10.33032	20.00000	Quadratic
97 Benzo(a)anthracene	1.23523	1.23664	1.23664	0.050	0.11398	20.00000	Averaged
98 3,3'-Dichlorobenzidine	50.00000	49.00625	0.45995	0.050	-1.98750	20.00000	Wt Linear
99 Chrysene	1.21415	1.18283	1.18283	0.050	-2.57938	20.00000	Averaged
100 Bis(2-ethylhexyl)phthalate	0.80309	0.85263	0.85263	0.050	6.16892	20.00000	Averaged
101 Di-n-octylphthalate	1.37766	1.43230	1.43230	0.050	3.96678	20.00000	Averaged
102 Benzo(b)fluoranthene	1.17387	1.22918	1.22918	0.050	4.71117	20.00000	Averaged
103 Benzo(k)fluoranthene	1.23169	1.29760	1.29760	0.050	5.35138	20.00000	Averaged
105 Benzo(a)pyrene	1.13371	1.19493	1.19493	0.050	5.40042	20.00000	Averaged
108 Indeno(1,2,3-cd)pyrene	1.10071	1.12011	1.12011	0.050	1.76242	20.00000	Averaged
109 Dibenzo(a,h)anthracene	1.08828	1.15065	1.15065	0.050	5.73066	20.00000	Averaged
110 Benzo(ghi)perylene	1.13925	1.16514	1.16514	0.050	2.27280	20.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 12-MAR-2016 20:02
Lab File ID: ABNICV.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m

Average %D / Drift Results.
Calculated Average %D/Drift = 4.20032
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNICV.D
Lab Smp Id:
Inj Date : 12-MAR-2016 20:02
Operator : as Inst ID: SV112.i
Smp Info : ABN ICV LOT# 5842
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:02 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.969	1.969	(0.422)	286968	20.0000	52.4	
	2 Pyridine	79	2.003	2.003	(0.430)	509836	20.0000	53.0	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	397284	20.0000	51.8	
	5 Aniline	93	4.343	4.343	(0.931)	669636	20.0000	41.2	
$	6 Phenol-d6	99	4.343	4.343	(0.931)	520344	20.0000	52.5	
	7 Phenol	94	4.356	4.356	(0.934)	593029	20.0000	51.7	
	8 Bis(2-chloroethyl)ether	93	4.424	4.424	(0.949)	419012	20.0000	51.6	
	9 2-Chlorophenol	128	4.455	4.455	(0.955)	423402	20.0000	51.4	
	10 1,3-Dichlorobenzene	146	4.605	4.605	(0.987)	446630	20.0000	48.8	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	230418	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	455771	20.0000	48.8	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	390380	20.0000	53.7	
	13 1,2-Dichlorobenzene	146	4.828	4.828	(1.035)	432040	20.0000	49.3	
	15 2-Methylphenol	108	4.950	4.950	(1.061)	388548	20.0000	51.3	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	608291	20.0000	46.6	
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	342127	20.0000	49.8	
	19 3-Methylphenol/4-Methylphenol	108	5.105	5.105	(1.095)	414177	20.0000	52.0	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	185414	20.0000	48.9	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	468698	20.0000	51.7	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	500428	20.0000	52.8	
	24 Isophorone	82	5.472	5.472	(1.173)	893782	20.0000	49.0	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	206935	20.0000	50.8	
	27 2,4-Dimethylphenol	107	5.621	5.621	(1.205)	428915	20.0000	51.2	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	543997	20.0000	50.6	
	30 Benzoic acid	105	5.733	5.733	(0.970)	313801	20.0000	46.0	
	29 2,4-Dichlorophenol	162	5.786	5.786	(0.979)	344068	20.0000	52.2	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	385366	20.0000	50.2	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	952898	40.0000		
	33 Naphthalene	128	5.929	5.929	(1.003)	1168718	20.0000	48.6	
	36 4-Chloroaniline	65	6.003	6.003	(1.016)	178407	20.0000	49.2	
	38 Hexachlorobutadiene	225	6.078	6.078	(1.028)	214374	20.0000	49.9	
	41 p-Chloro-m-cresol	107	6.500	6.500	(1.100)	380325	20.0000	53.4	
	42 2-Methylnaphthalene	142	6.615	6.615	(1.119)	784015	20.0000	50.0	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	282590	20.0000	49.1	
	45	Hexachlorocyclopentadiene	237	6.783	6.783	(1.148)	183013	20.0000	47.1	
	46	2,4,6-Trichlorophenol	196	6.905	6.905	(1.168)	250261	20.0000	51.6	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	268210	20.0000	52.7	
$	48	2-Fluorobiphenyl	172	6.988	6.988	(1.182)	852900	20.0000	50.6	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	764500	20.0000	50.3	
	51	2-Nitroaniline	138	7.197	7.197	(1.218)	248768	20.0000	51.7	
	52	1,4-Dinitrobenzene	168	7.333	7.333	(0.961)	113501	20.0000	49.6	
	53	Dimethyl phthalate	163	7.402	7.402	(0.970)	891859	20.0000	50.8	
	54	1,3-Dinitrobenzene	168	7.408	7.408	(0.971)	129632	20.0000	53.7	
	55	2,6-Dinitrotoluene	165	7.445	7.445	(1.260)	193933	20.0000	53.5	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	1218723	20.0000	50.1	
	57	1,2-Dinitrobenzene	168	7.489	7.489	(0.982)	86751	20.0000	53.8	
	58	3-Nitroaniline	138	7.601	7.601	(0.996)	224395	20.0000	51.2	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	512516	40.0000		
	60	Acenaphthene	154	7.660	7.660	(1.004)	696752	20.0000	49.1	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	105468	20.0000	44.2	
	62	4-Nitrophenol	65	7.793	7.793	(1.022)	204654	20.0000	53.6	
	63	Dibenzofuran	168	7.831	7.831	(1.026)	1091174	20.0000	50.9	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	260070	20.0000	56.2	
	65	2,3,5,6-Tetrachlorophenol	232	7.921	7.921	(1.038)	226146	20.0000	55.1	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	220054	20.0000	54.0	
	67	Diethyl phthalate	149	8.098	8.098	(1.062)	922229	20.0000	50.3	
	68	Fluorene	166	8.163	8.163	(1.070)	867129	20.0000	51.1	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	404179	20.0000	50.7	
	70	4-Nitroaniline	138	8.194	8.194	(1.074)	218146	20.0000	53.1	
	71	4,6-Dinitro-o-cresol	198	8.229	8.229	(1.079)	145274	20.0000	47.0	
	72	NDPA/DPA	169	8.300	8.300	(1.088)	744911	20.0000	53.0	
	73	Azobenzene	77	8.334	8.334	(1.092)	1003266	20.0000	51.6	
$	74	2,4,6-Tribromophenol	330	8.400	8.400	(0.926)	129644	20.0000	53.7	
	75	4-Bromophenyl phenyl ether	248	8.654	8.654	(1.134)	235956	20.0000	52.1	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	266108	20.0000	49.9	
	80	Pentachlorophenol	266	8.903	8.903	(0.981)	165726	20.0000	50.0	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	965231	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	1319931	20.0000	50.4	
	84	Anthracene	178	9.146	9.146	(1.008)	1316957	20.0000	52.3	
	85	Carbazole	167	9.313	9.313	(1.027)	1262877	20.0000	53.2	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	1510492	20.0000	54.4	
	89	Fluoranthene	202	10.255	10.255	(1.131)	1429426	20.0000	52.5	
	91	Pyrene	202	10.476	10.476	(1.155)	1482090	20.0000	51.5	
$	92	4-Terphenyl-d14	244	10.665	10.665	(1.176)	899182	20.0000	52.8	
	94	Butyl benzyl phthalate	149	11.197	11.197	(1.234)	677408	20.0000	54.4	
	95	Bis (2-ethylhexyl) adipate	129	11.318	11.318	(1.248)	585069	20.0000	44.8	
	97	Benzo(a)anthracene	228	11.722	11.722	(0.999)	1405745	20.0000	50.0	
	98	3,3'-Dichlorobenzidine	252	11.722	11.722	(0.999)	522843	20.0000	49.0	
*	96	Chrysene-d12	240	11.735	11.735	(1.000)	909396	40.0000		
	99	Chrysene	228	11.759	11.759	(1.002)	1344575	20.0000	48.7	
	100	Bis(2-ethylhexyl)phthalate	149	11.843	11.843	(1.009)	969227	20.0000	53.1	
	101	Di-n-octylphthalate	149	12.530	12.530	(1.068)	1628165	20.0000	52.0	
	102	Benzo(b)fluoranthene	252	12.841	12.841	(0.972)	1323796	20.0000	52.4(H)	
	103	Benzo(k)fluoranthene	252	12.869	12.869	(0.974)	1397491	20.0000	52.7	
	105	Benzo(a)pyrene	252	13.158	13.158	(0.996)	1286917	20.0000	52.7	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	861583	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.209	14.209	(1.075)	1206331	20.0000	50.9(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.234	14.234	(1.077)	1239223	20.0000	52.9	
110 Benzo(ghi)perylene	276	14.467	14.467	(1.095)	1254836	20.0000	51.1	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 12-MAR-2016
Lab File ID: ABNICV.D Calibration Time: 13:42
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	241644	120822	483288	230418	-4.65
32 Naphthalene-d8	1001783	500892	2003566	952898	-4.88
59 Acenaphthene-d10	540428	270214	1080856	512516	-5.16
82 Phenanthrene-d10	1005487	502744	2010974	965231	-4.00
96 Chrysene-d12	911843	455922	1823686	909396	-0.27
106 Perylene-d12	873785	436893	1747570	861583	-1.40

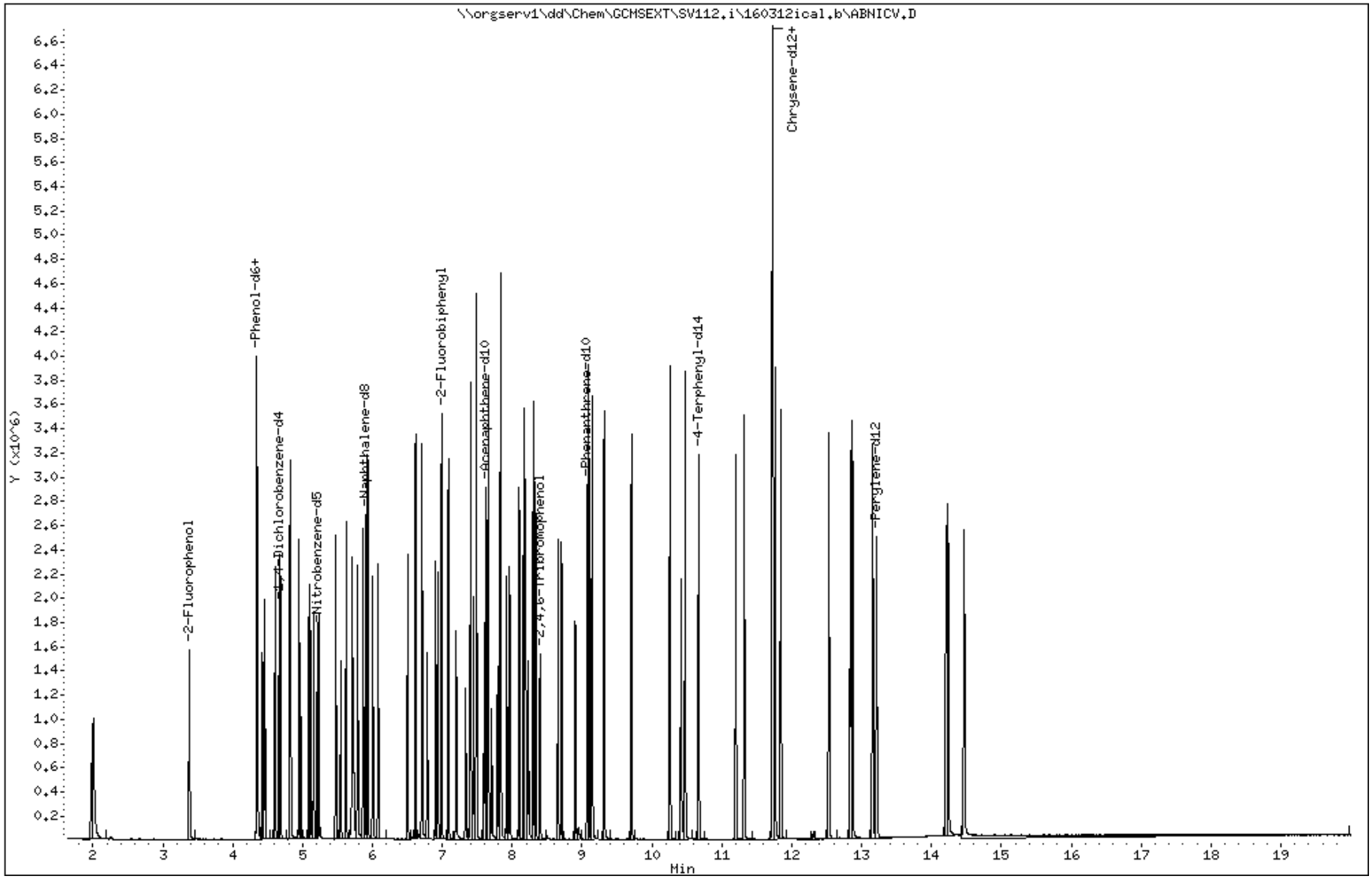
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.74	0.05
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ABNICV.D
Date : 12-MAR-2016 20:02
Client ID:
Sample Info: ABN ICV LOT# 5842

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



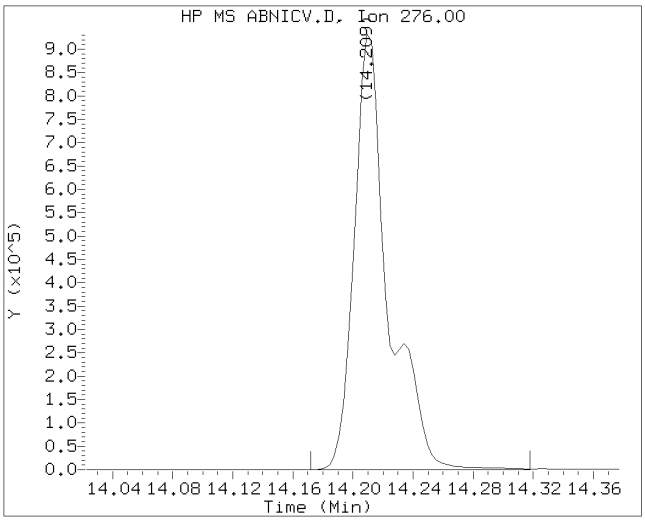
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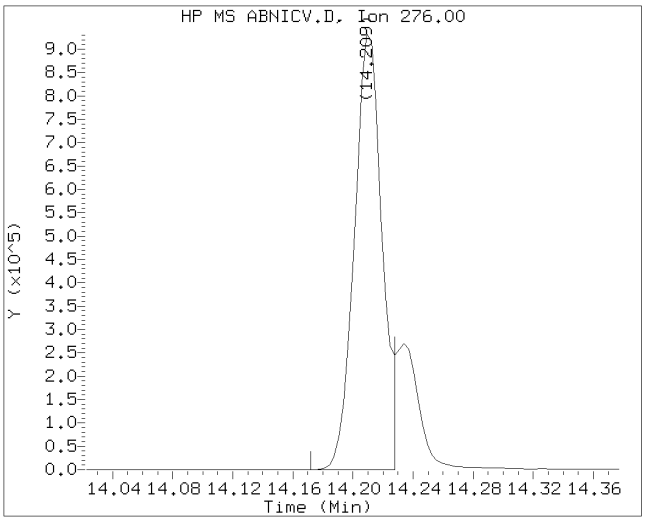
Manual Integration

Sample Info : ABN ICV LOT# 5842

Instrument ID : SV112.i
Method : SV112ABN.m
File : ABNICV.D
Injection Date : 12-MAR-2016 20:02
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

Compound # 108: Indeno(1,2,3-cd)pyrene





Original Peak Response = 1476653 Manual Peak Response = 1206331 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 12-MAR-2016 20:28
Lab File ID: AP9ICV.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Benzaldehyde	1.03209	1.04669	1.04669	0.050	1.41481	20.00000	Averaged
17 Acetophenone	2.07128	2.15524	2.15524	0.050	4.05365	20.00000	Averaged
21 m-Toluidine	1.52741	1.58882	1.58882	0.050	4.02093	20.00000	Averaged
25 2-Chloroaniline	1.71518	1.75408	1.75408	0.050	2.26793	20.00000	Averaged
34 a-Terpineol	0.29938	0.30266	0.30266	0.050	1.09615	20.00000	Averaged
35 3-Chloroaniline	0.15846	0.16512	0.16512	0.050	4.20142	20.00000	Averaged
37 2,6-Dichlorophenol	1.15939	1.15571	1.15571	0.050	-0.31786	20.00000	Averaged
39 1-chloro-2-nitrobenzene	0.63347	0.64455	0.64455	0.050	1.74911	20.00000	Averaged
40 Caprolactam	0.17323	0.18701	0.18701	0.050	7.95486	20.00000	Averaged
44 1,2,4,5-Tetrachlorobenzene	0.58909	0.57574	0.57574	0.050	-2.26660	20.00000	Averaged
49 Biphenyl	1.47563	1.48834	1.48834	0.050	0.86077	20.00000	Averaged
77 Dimethoate	0.57599	0.59507	0.59507	0.050	3.31186	20.00000	Averaged
78 Dichloran	50.00000	46.32433	0.16294	0.050	-7.35135	20.00000	Wt Linear
81 Pentachloronitrobenzene	0.15480	0.17195	0.17195	0.050	11.08140	20.00000	Averaged
88 Diphenamid	0.46508	0.48553	0.48553	0.050	4.39863	20.00000	Averaged
104 Benzo(e)pyrene	1.10232	1.09008	1.09008	0.050	-1.11028	20.00000	Averaged
107 Perylene	1.13869	1.14173	1.14173	0.050	0.26675	20.00000	Averaged

Average %D / Drift Results.
Calculated Average %D/Drift = 3.39555
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9ICV.D
Lab Smp Id:
Inj Date : 12-MAR-2016 20:28
Operator : as Inst ID: SV112.i
Smp Info : AP9 ICV LOT# 5841
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:16 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.226	4.226	(0.906)	298824	20.0000	50.7	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	228396	40.0000		
	17 Acetophenone	105	5.068	5.068	(1.087)	615310	20.0000	52.0	
	21 m-Toluidine	106	5.152	5.152	(1.105)	453601	20.0000	52.0	
	25 2-Chloroaniline	127	5.512	5.512	(1.182)	500780	20.0000	51.1	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	951723	40.0000		
	34 a-Terpineol	59	5.969	5.969	(1.010)	360066	20.0000	50.5	
	35 3-Chloroaniline	65	5.982	5.982	(1.012)	196434	20.0000	52.1	
	37 2,6-Dichlorophenol	162	6.010	6.010	(1.289)	329949	20.0000	49.8	
	39 1-chloro-2-nitrobenzene	111	6.265	6.265	(1.343)	184016	20.0000	50.9	
	40 Caprolactam	55	6.314	6.314	(1.068)	222481	20.0000	54.0	
	44 1,2,4,5-Tetrachlorobenzene	216	6.784	6.784	(0.890)	369482	20.0000	48.9	
	49 Biphenyl	154	7.079	7.079	(0.928)	955149	20.0000	50.4	
*	59 Acenaphthene-d10	164	7.626	7.626	(1.000)	513405	40.0000		
	77 Dimethoate	87	8.751	8.751	(1.148)	381889	20.0000	51.6	
	78 Dichloran	206	8.767	8.767	(1.150)	104570	20.0000	46.3	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	110349	20.0000	55.5	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	989616	40.0000		
	88 Diphenamid	167	9.988	9.988	(1.101)	600613	20.0000	52.2	
*	96 Chrysene-d12	240	11.729	11.729	(1.000)	880229	40.0000		
	104 Benzo(e)pyrene	252	13.109	13.109	(0.992)	1216462	20.0000	49.4	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	892749	40.0000		
	107 Perylene	252	13.239	13.239	(1.002)	1274098	20.0000	50.1	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 13-MAR-2016
Lab File ID: AP9ICV.D Calibration Time: 01:35
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

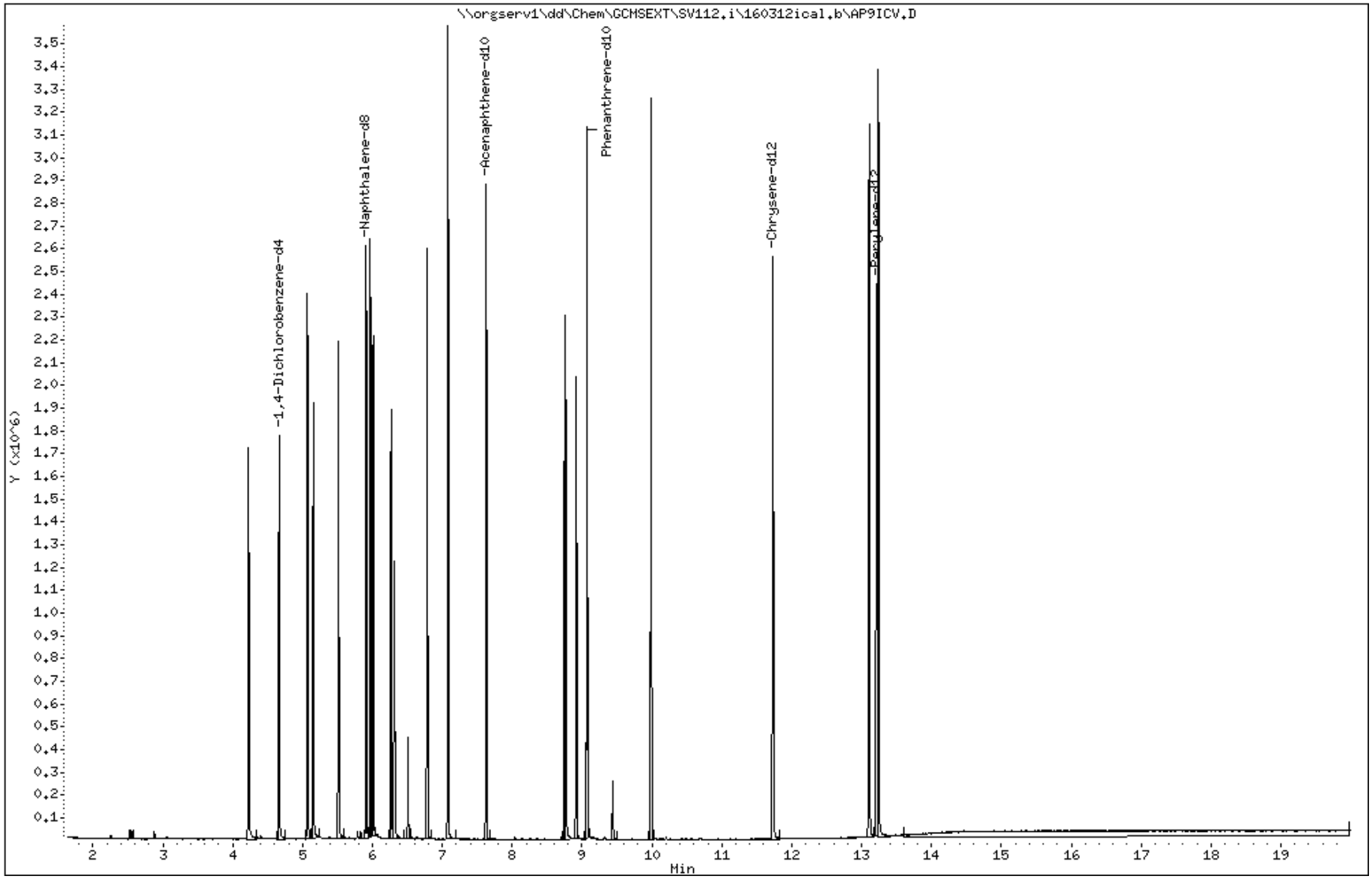
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	199733	99867	399466	228396	14.35
32 Naphthalene-d8	838586	419293	1677172	951723	13.49
59 Acenaphthene-d10	452272	226136	904544	513405	13.52
82 Phenanthrene-d10	867809	433905	1735618	989616	14.04
96 Chrysene-d12	812854	406427	1625708	880229	8.29
106 Perylene-d12	773841	386921	1547682	892749	15.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\AP9ICV.D
Date : 12-MAR-2016 20:28
Client ID:
Sample Info: AP9 ICV LOT# 5841

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 ICV LOT# 5841

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9ICV.D
Injection Date : 12-MAR-2016 20:28
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\degz.D
Lab Smp Id:
Inj Date : 12-MAR-2016 20:53
Operator : as Inst ID: SV112.i
Smp Info : degdft0312
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\DDT.m
Meth Date : 07-Mar-2016 09:40 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP-DEG
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	Compound Not Detected.						
6 4,4'-DDT	235	11.272	11.440	-0.168	404543			

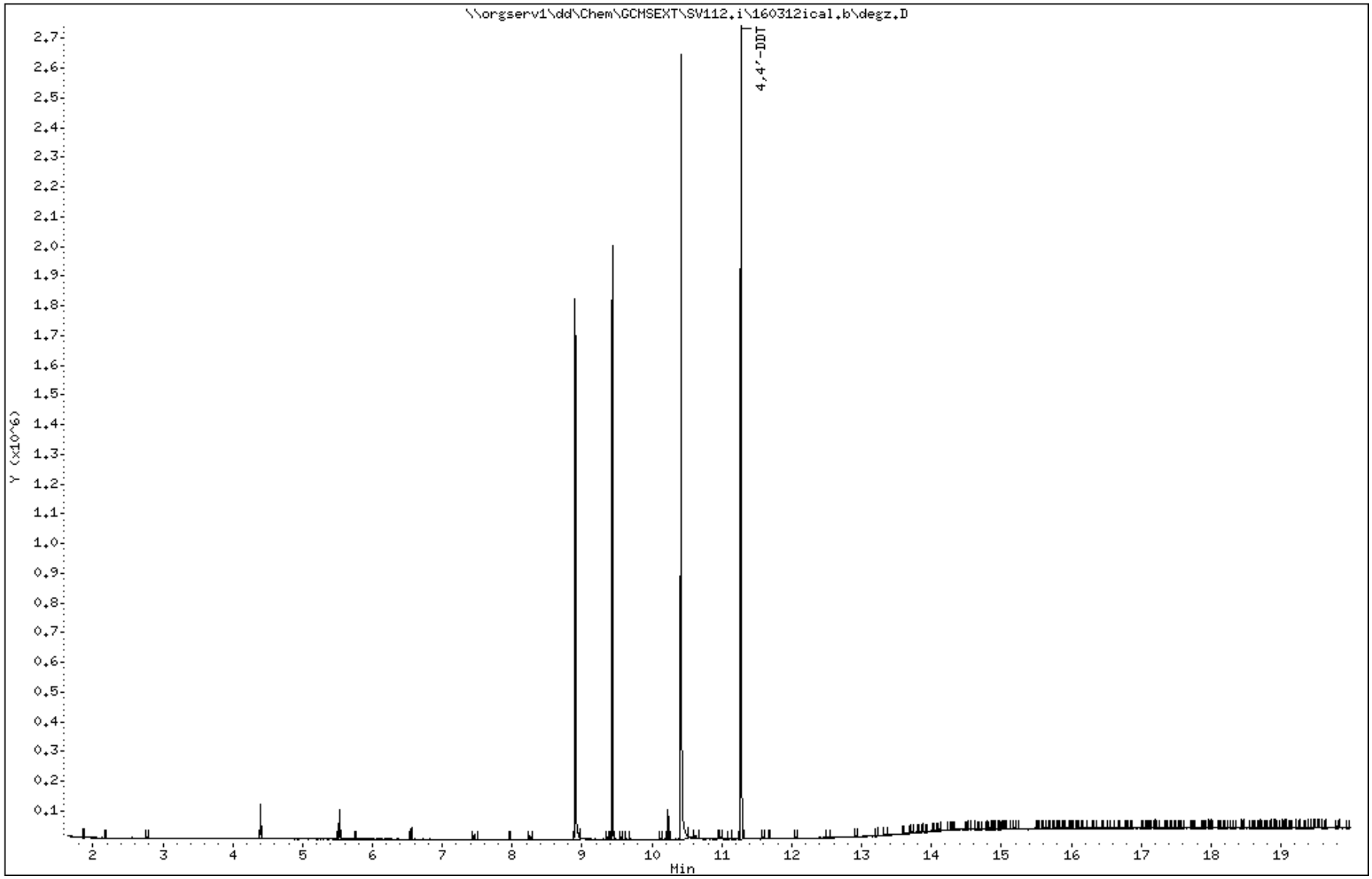
DDT Degradation Percent = 0.000

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\degz.D
Date : 12-MAR-2016 20:53
Client ID:
Sample Info: degdft0312

Instrument: SV112.i

Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : degdft0312

Instrument ID : SV112.i
Method : DDT.m
File : degz.D
Injection Date : 12-MAR-2016 20:53
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: DFTPP-DEG

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dftz.D
Lab Smp Id:
Inj Date : 12-MAR-2016 20:53
Operator : as Inst ID: SV112.i
Smp Info : degdft0312
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dftpp.m
Meth Date : 06-Mar-2016 19:12 asus Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUALXP-52160

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.432	9.600	-0.168	198	193664			0.00- 100.00	100.00
9.432	9.600	-0.168	51	87008			30.00- 60.00	44.93
9.432	9.600	-0.168	68	1366			0.00- 2.00	1.46
9.432	9.600	-0.168	69	93672			0.00- 0.00	48.37
9.432	9.600	-0.168	70	540			0.00- 2.00	0.58
9.432	9.600	-0.168	127	105064			40.00- 60.00	54.25
9.432	9.600	-0.168	197	351			0.00- 1.00	0.18
9.432	9.600	-0.168	199	12834			5.00- 9.00	6.63
9.432	9.600	-0.168	275	45768			10.00- 30.00	23.63
9.432	9.600	-0.168	365	5678			1.00- 0.00	2.93
9.432	9.600	-0.168	441	22608			0.01- 99.99	82.75
9.432	9.600	-0.168	442	145280			40.00- 99.99	75.02
9.432	9.600	-0.168	443	27320			17.00- 23.00	18.81

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dftz.D

Date : 12-MAR-2016 20:53

Client ID:

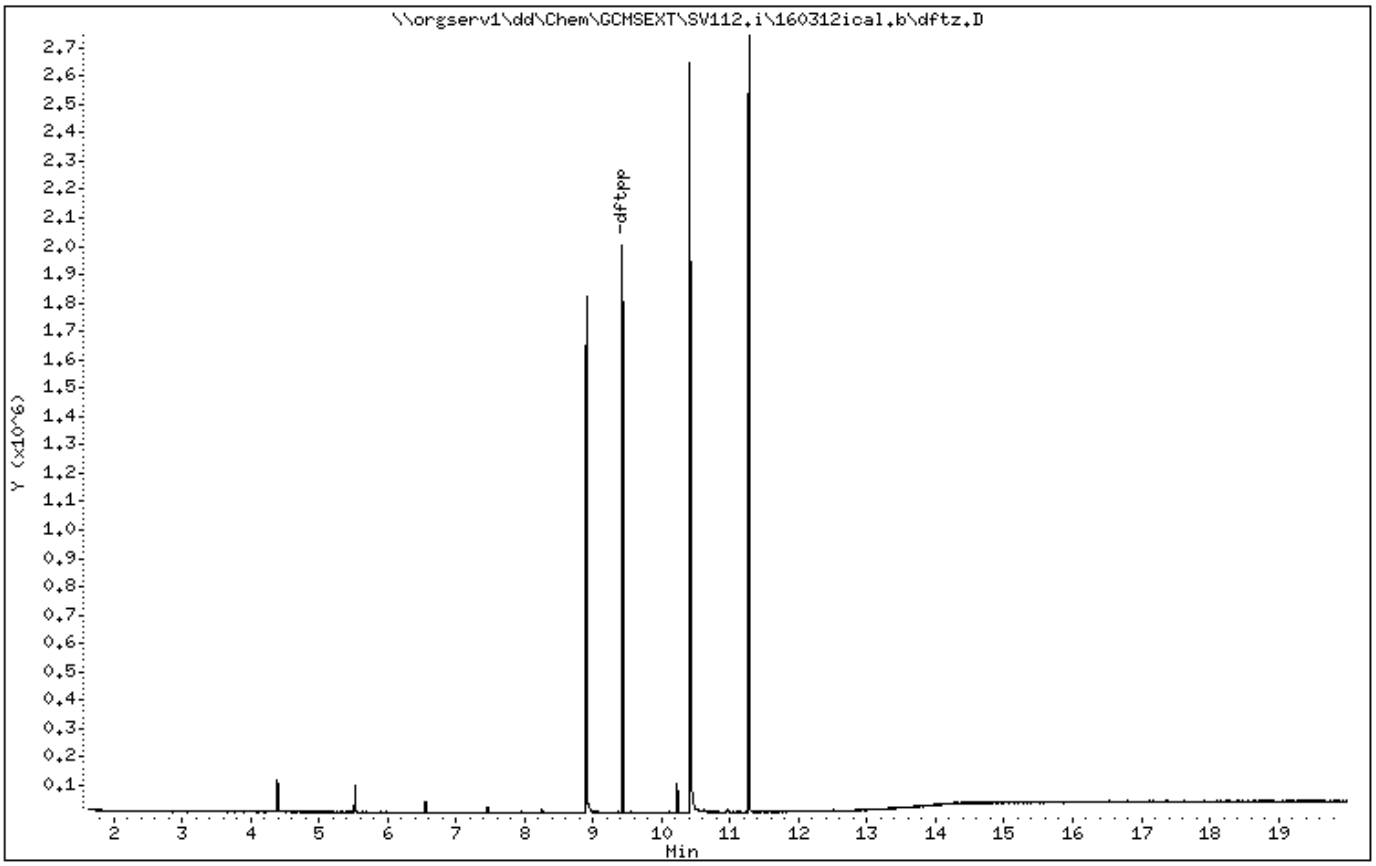
Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\dftz.D

Date : 12-MAR-2016 20:53

Client ID:

Instrument: SV112.i

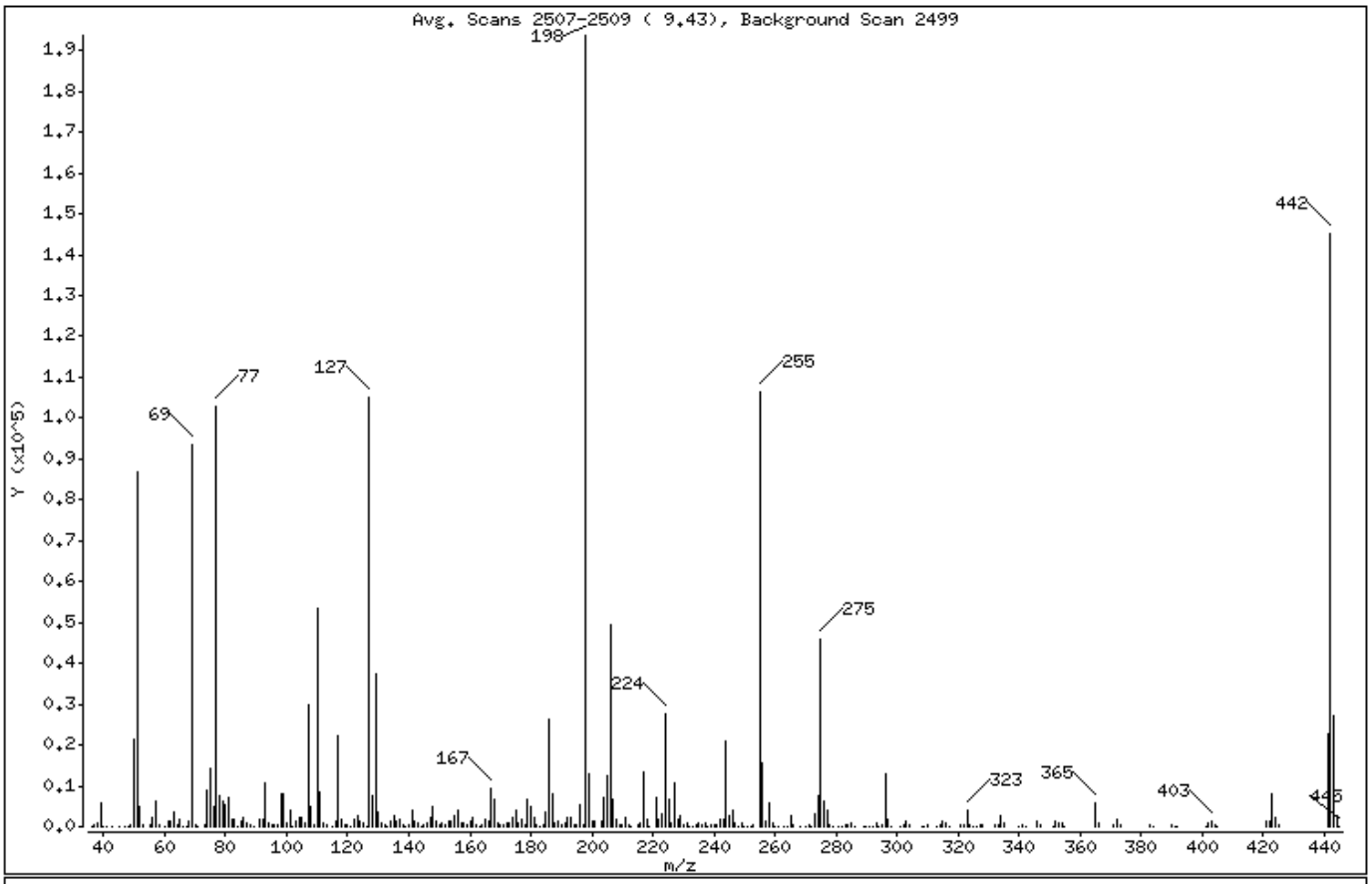
Sample Info: degdft0312

Operator: as

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.93
68	Less than 2.00% of mass 69	0.71 (1.46)
69	Mass 69 relative abundance	48.37
70	Less than 2.00% of mass 69	0.28 (0.58)
127	40.00 - 60.00% of mass 198	54.25
197	Less than 1.00% of mass 198	0.18
199	5.00 - 9.00% of mass 198	6.63
275	10.00 - 30.00% of mass 198	23.63
365	Greater than 1.00% of mass 198	2.93
441	Present, but less than mass 443	11.67
442	40.00 - 99.99% of mass 198	75.02
443	17.00 - 23.00% of mass 442	14.11 (18.81)

Date : 12-MAR-2016 20:53

Client ID: Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase: Column diameter: 2.00

Data File: dftz.D
Spectrum: Avg. Scans 2507-2509 (9.43), Background Scan 2499
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	84	121.00	99	198.00	193664	283.00	470
37.00	360	122.00	1568	199.00	12834	284.00	362
38.00	931	123.00	2807	200.00	1161	285.00	711
39.00	6002	124.00	1261	201.00	1224	286.00	54
40.00	117	125.00	1052	203.00	1122	289.00	119
41.00	122	126.00	89	204.00	7199	290.00	132
43.00	101	127.00	105064	205.00	12321	291.00	85
45.00	186	128.00	7648	206.00	49528	292.00	139
47.00	33	129.00	37256	207.00	6826	293.00	757
48.00	50	130.00	3487	208.00	1716	294.00	219
49.00	585	131.00	686	209.00	486	295.00	362
50.00	21440	132.00	243	210.00	407	296.00	12928
51.00	87008	133.00	78	211.00	2065	297.00	1984
52.00	4954	134.00	1124	212.00	413	298.00	149
53.00	273	135.00	2889	213.00	131	301.00	180
55.00	398	136.00	1264	215.00	467	302.00	252
56.00	2399	137.00	1806	216.00	1019	303.00	1533
57.00	6296	138.00	236	217.00	13469	304.00	363
58.00	235	139.00	85	218.00	1842	308.00	188
60.00	142	140.00	441	219.00	101	309.00	90
61.00	1210	141.00	4166	221.00	7144	310.00	246
62.00	1268	142.00	1391	222.00	1733	313.00	53
63.00	3491	143.00	1080	223.00	2920	314.00	548
64.00	409	144.00	214	224.00	27800	315.00	1477
65.00	1580	145.00	251	225.00	6708	316.00	799
66.00	180	146.00	733	226.00	760	317.00	144
67.00	168	147.00	2185	227.00	10463	321.00	398
68.00	1366	148.00	4948	228.00	1613	322.00	329
69.00	93672	149.00	1307	229.00	2491	323.00	3910
70.00	540	150.00	306	230.00	373	324.00	656
71.00	100	151.00	916	231.00	999	325.00	128
73.00	428	152.00	244	232.00	191	326.00	35
74.00	8815	153.00	1360	233.00	189	327.00	645
75.00	14384	154.00	1166	234.00	634	328.00	389
76.00	5000	155.00	2560	235.00	736	332.00	342

Date : 12-MAR-2016 20:53

Client ID: Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase: Column diameter: 2.00

Data File: dftz.D
Spectrum: Avg. Scans 2507-2509 (9.43), Background Scan 2499
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	102936	156.00	3963	236.00	499	333.00	387
78.00	7360	157.00	681	237.00	1091	334.00	2599
79.00	6217	158.00	861	238.00	115	335.00	756
80.00	5154	159.00	645	239.00	516	340.00	79
81.00	7152	160.00	1440	240.00	428	341.00	352
82.00	1945	161.00	2339	241.00	519	342.00	47
83.00	1857	162.00	566	242.00	1561	346.00	1126
84.00	138	163.00	203	243.00	1643	347.00	224
85.00	1515	164.00	423	244.00	20992	351.00	92
86.00	2019	165.00	1849	245.00	2885	352.00	1331
87.00	922	166.00	1425	246.00	3966	353.00	682
88.00	477	167.00	9265	247.00	758	354.00	959
89.00	180	168.00	6883	248.00	205	355.00	176
91.00	1565	169.00	937	249.00	823	365.00	5678
92.00	1570	170.00	302	250.00	174	366.00	749
93.00	10844	171.00	262	251.00	100	371.00	404
94.00	823	172.00	842	252.00	219	372.00	1995
95.00	224	173.00	1059	253.00	379	373.00	466
96.00	563	174.00	2065	255.00	106408	383.00	651
97.00	268	175.00	3889	256.00	15402	384.00	165
98.00	8152	176.00	1057	257.00	1475	390.00	324
99.00	7926	177.00	1649	258.00	5878	391.00	131
100.00	670	178.00	595	259.00	841	392.00	163
101.00	3878	179.00	6887	260.00	190	401.00	65
102.00	213	180.00	4876	261.00	199	402.00	972
103.00	1145	181.00	2355	263.00	82	403.00	1323
104.00	2339	182.00	364	264.00	159	404.00	610
105.00	2021	183.00	177	265.00	2517	405.00	35
106.00	747	184.00	492	266.00	310	421.00	1231
107.00	29656	185.00	3396	268.00	34	422.00	1260
108.00	4722	186.00	26200	270.00	88	423.00	7894
109.00	614	187.00	8182	271.00	229	424.00	2102
110.00	53360	188.00	764	272.00	222	425.00	289
111.00	8491	189.00	1489	273.00	3038	441.00	22608
112.00	943	190.00	267	274.00	7791	442.00	145280

Date : 12-MAR-2016 20:53

Client ID: Instrument: SV112.i

Sample Info: degdft0312

Operator: as

Column phase: Column diameter: 2.00

Data File: dftz.D
Spectrum: Avg. Scans 2507-2509 (9.43), Background Scan 2499
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	353	191.00	830	275.00	45768	443.00	27320
115.00	46	192.00	2239	276.00	6413	444.00	2422
116.00	1341	193.00	2398	277.00	3839	445.00	109
117.00	22072	194.00	584	278.00	569		
118.00	1801	195.00	243	279.00	157		
119.00	257	196.00	5297	281.00	36		
120.00	327	197.00	351	282.00	99		

Alpha Analytical Labs

Manual Integration

Sample Info : degdft0312

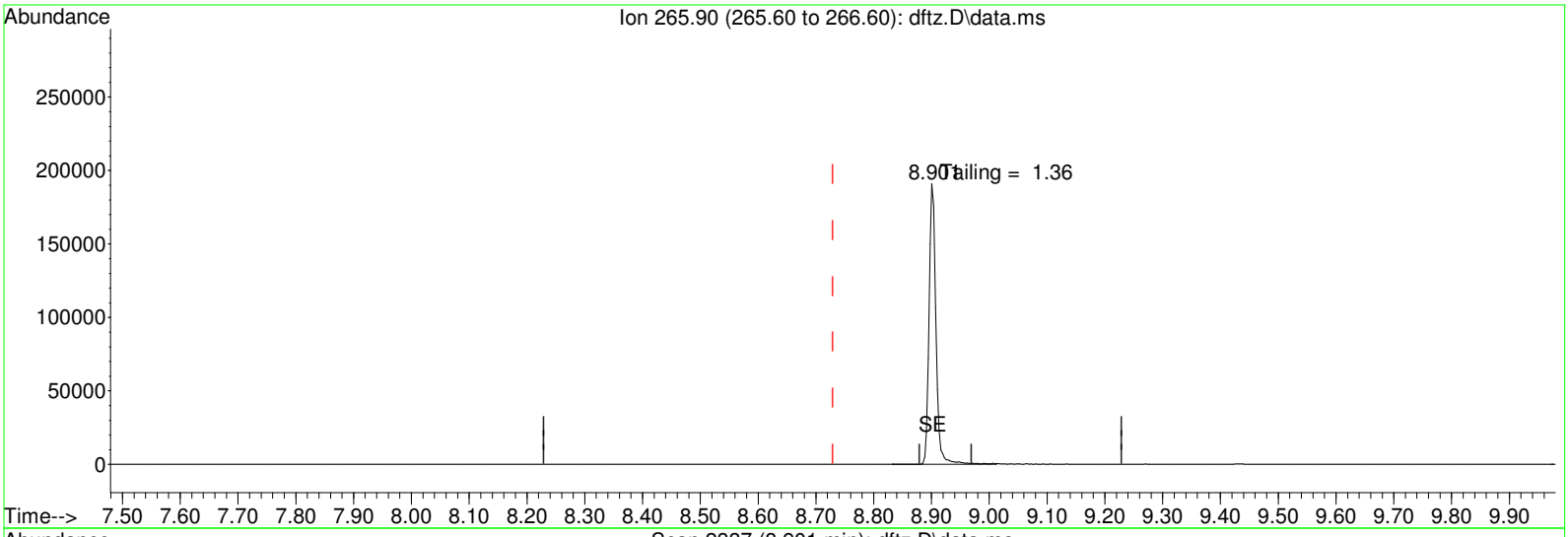
Instrument ID : SV112.i
Method : dftpp.m
File : dftz.D
Injection Date : 12-MAR-2016 20:53
Quantitation : ESTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: DFTPP

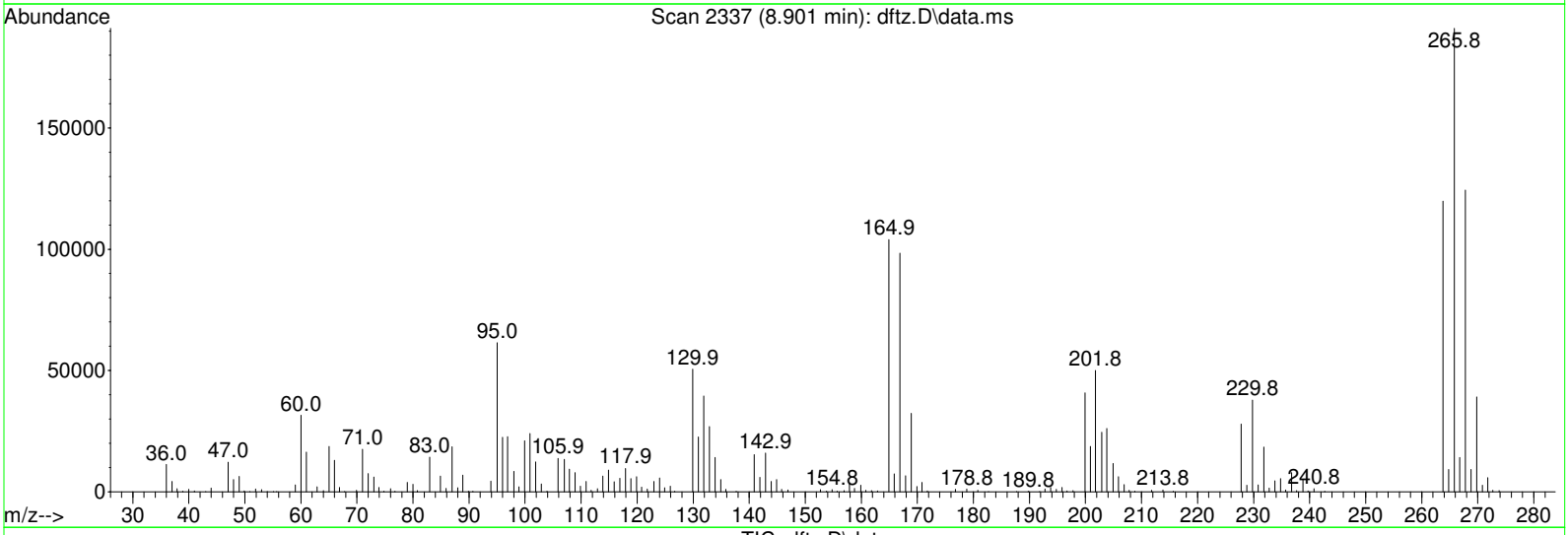
There are no manual integrations in this file.

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV112.i\160312ical.b\
Data File : dftz.D
Acq On : 12 Mar 2016 08:53 pm
Operator : ps
Sample : degdft0312
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 15 10:19:57 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 08:27:21 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftz.D\data.ms

(1) pentachlorophenol (T)

8.901min (+0.172) 74.93

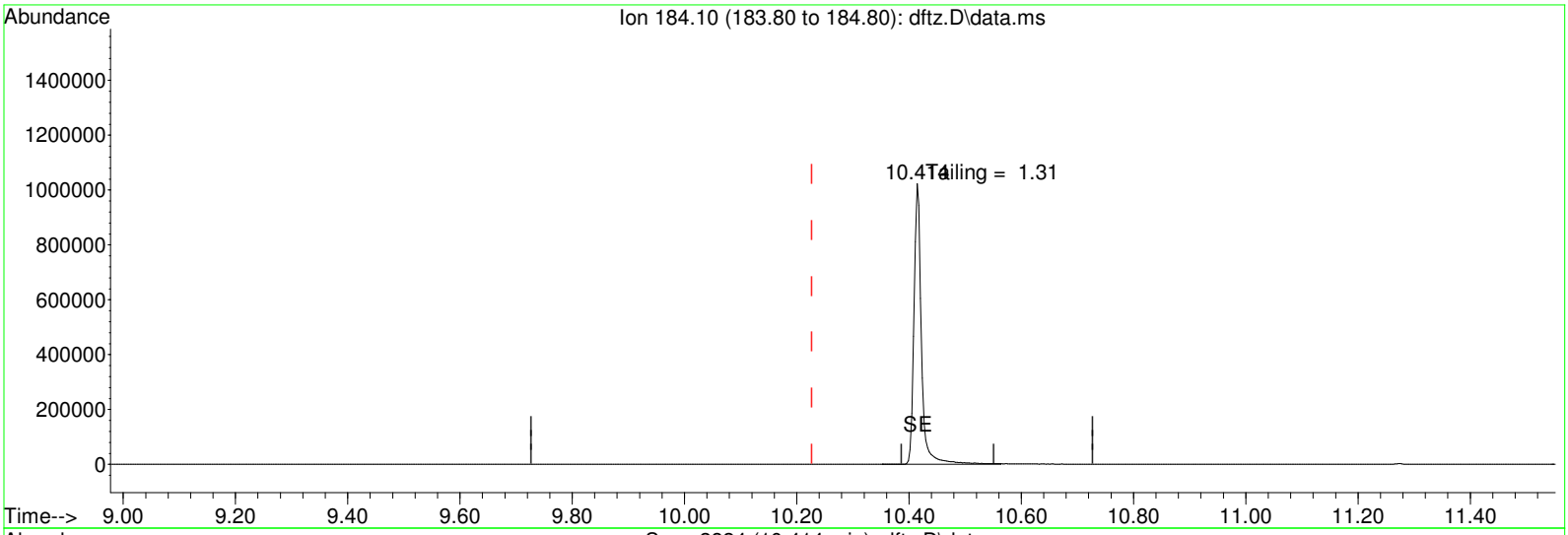
response 157383

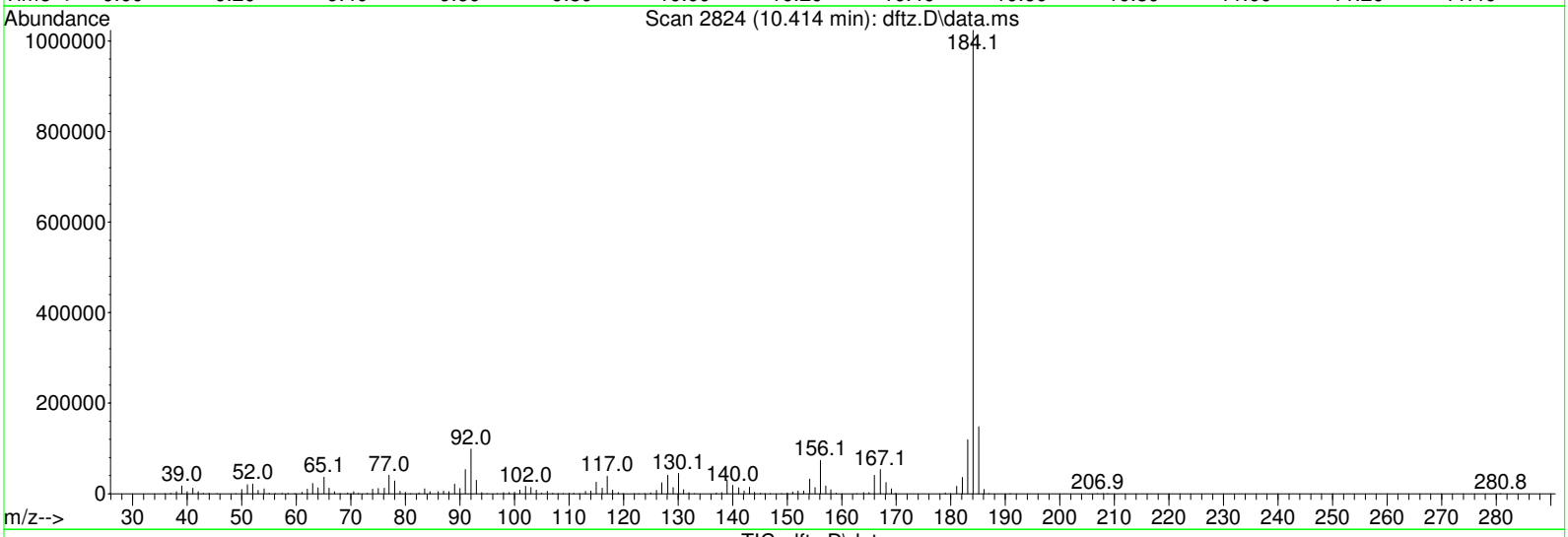
Ion	Exp%	Act%
265.90	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV112.i\160312ical.b\
Data File : dftz.D
Acq On : 12 Mar 2016 08:53 pm
Operator : ps
Sample : degdft0312
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 15 10:19:57 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 08:27:21 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dftz.D\data.ms

(3) benzidine (T)

10.414min (+0.187) 93.75

response 954356

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL1.D
Lab Smp Id:
Inj Date : 12-MAR-2016 21:18
Operator : as Inst ID: SV112.i
Smp Info : ADP 1 LOT#5816
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 23 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	202263	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	863610	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	473938	40.0000		
79 Atrazine	200	8.841	8.841	(0.975)	3280	1.00000	0.774	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	899209	40.0000		
87 Parathion	109	9.860	9.860	(1.087)	1253	1.00000	6.36	
90 Benzidine	184	Compound Not Detected.						
93 3,3'-Dimethylbenzidine	212	11.163	11.163	(2.393)	845	1.00000	5.82(M)	M2
* 96 Chrysene-d12	240	11.732	11.732	(1.000)	793336	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	762184	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:28
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

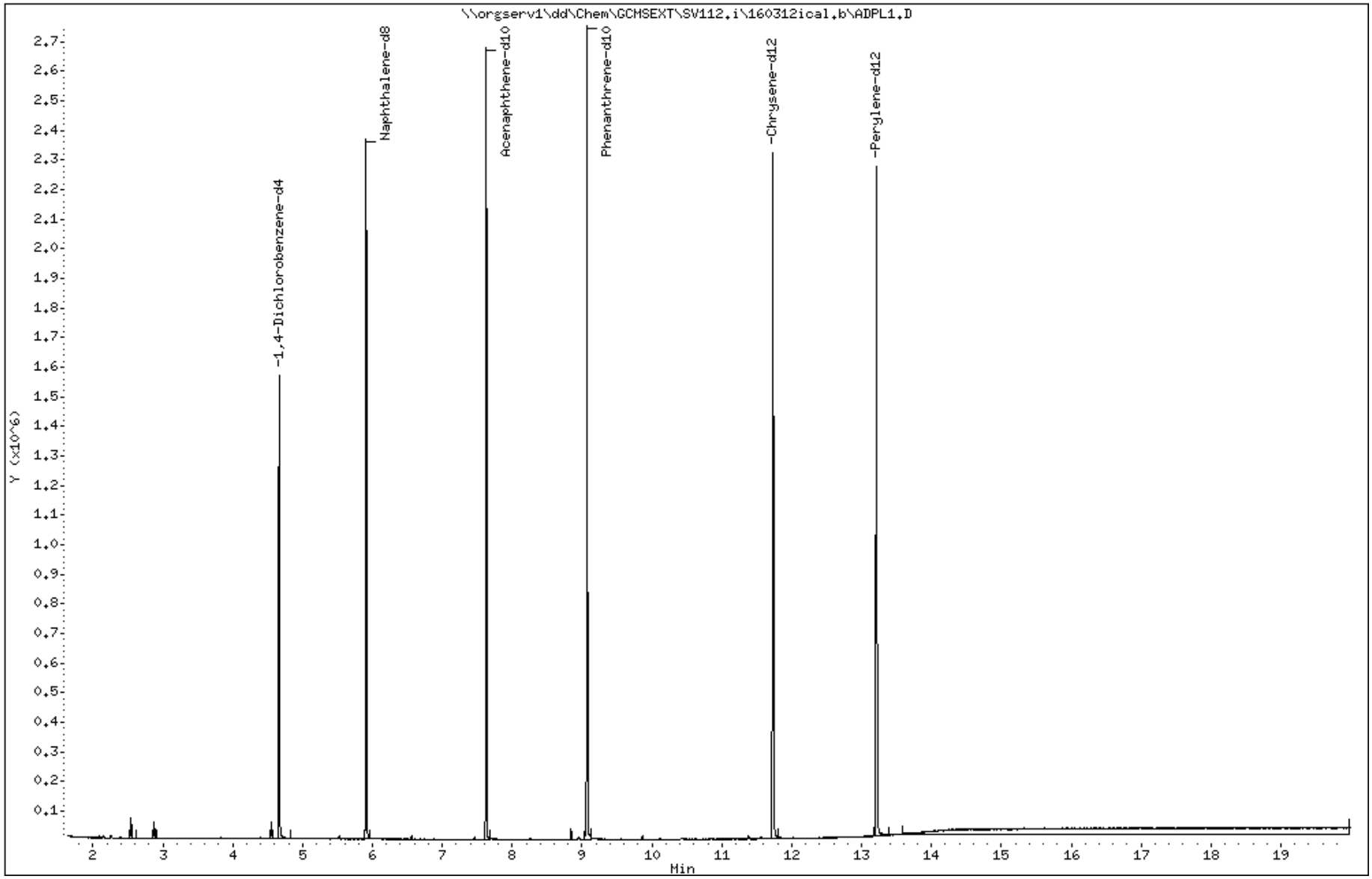
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	221689	110845	443378	202263	-8.76
32 Naphthalene-d8	924391	462196	1848782	863610	-6.58
59 Acenaphthene-d10	497618	248809	995236	473938	-4.76
82 Phenanthrene-d10	965416	482708	1930832	899209	-6.86
96 Chrysene-d12	849428	424714	1698856	793336	-6.60
106 Perylene-d12	865323	432662	1730646	762184	-11.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL1.D
Date : 12-MAR-2016 21:18
Client ID:
Sample Info: ADP 1 LOT#5816

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



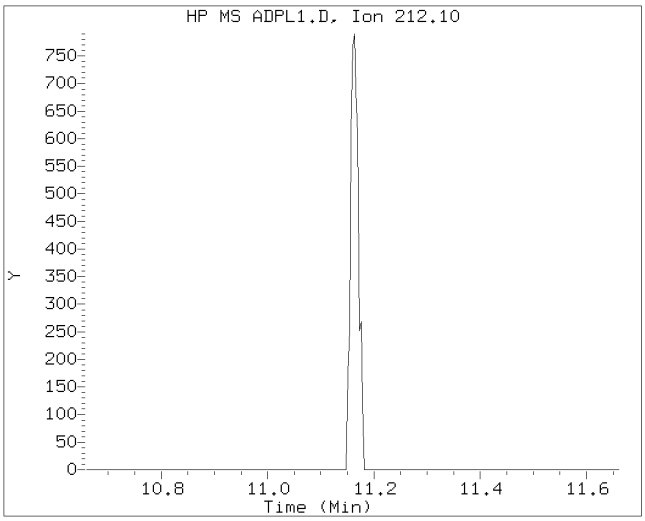
Alpha Analytical Labs

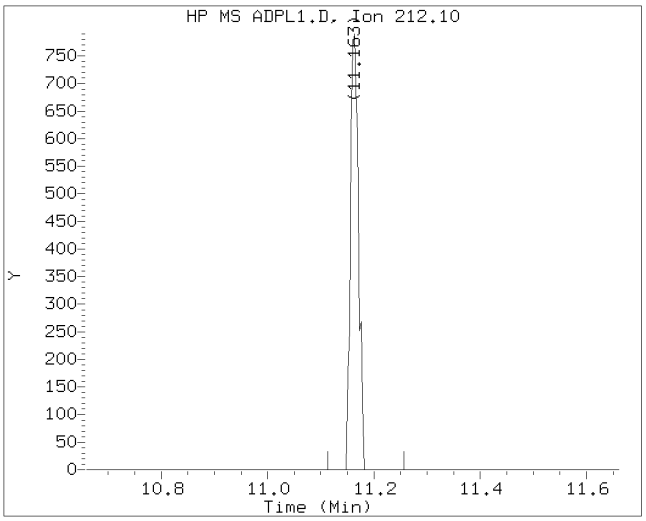
Manual Integration

Sample Info : ADP 1 LOT#5816

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL1.D
Injection Date : 12-MAR-2016 21:18
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 93: 3,3'-Dimethylbenzidine





Original Peak Response = 0 Manual Peak Response = 845 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL2.D
Lab Smp Id:
Inj Date : 12-MAR-2016 21:44
Operator : as Inst ID: SV112.i
Smp Info : ADP 2 LOT#5817
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 21:18 Cal File: ADPL1.D
Als bottle: 24 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	197273	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	845463	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	452024	40.0000		
79 Atrazine	200	8.838	8.838	(0.974)	6916	2.00000	1.70	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	861163	40.0000		
87 Parathion	109	9.860	9.860	(1.087)	2312	2.00000	6.70	
90 Benzidine	184	10.420	10.420	(1.149)	9468	2.00000	0.684(M)	M2
93 3,3'-Dimethylbenzidine	212	11.157	11.157	(2.392)	1449	2.00000	5.80(M)	M2
* 96 Chrysene-d12	240	11.728	11.728	(1.000)	768685	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	744724	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:28
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	221689	110845	443378	197273	-11.01
32 Naphthalene-d8	924391	462196	1848782	845463	-8.54
59 Acenaphthene-d10	497618	248809	995236	452024	-9.16
82 Phenanthrene-d10	965416	482708	1930832	861163	-10.80
96 Chrysene-d12	849428	424714	1698856	768685	-9.51
106 Perylene-d12	865323	432662	1730646	744724	-13.94

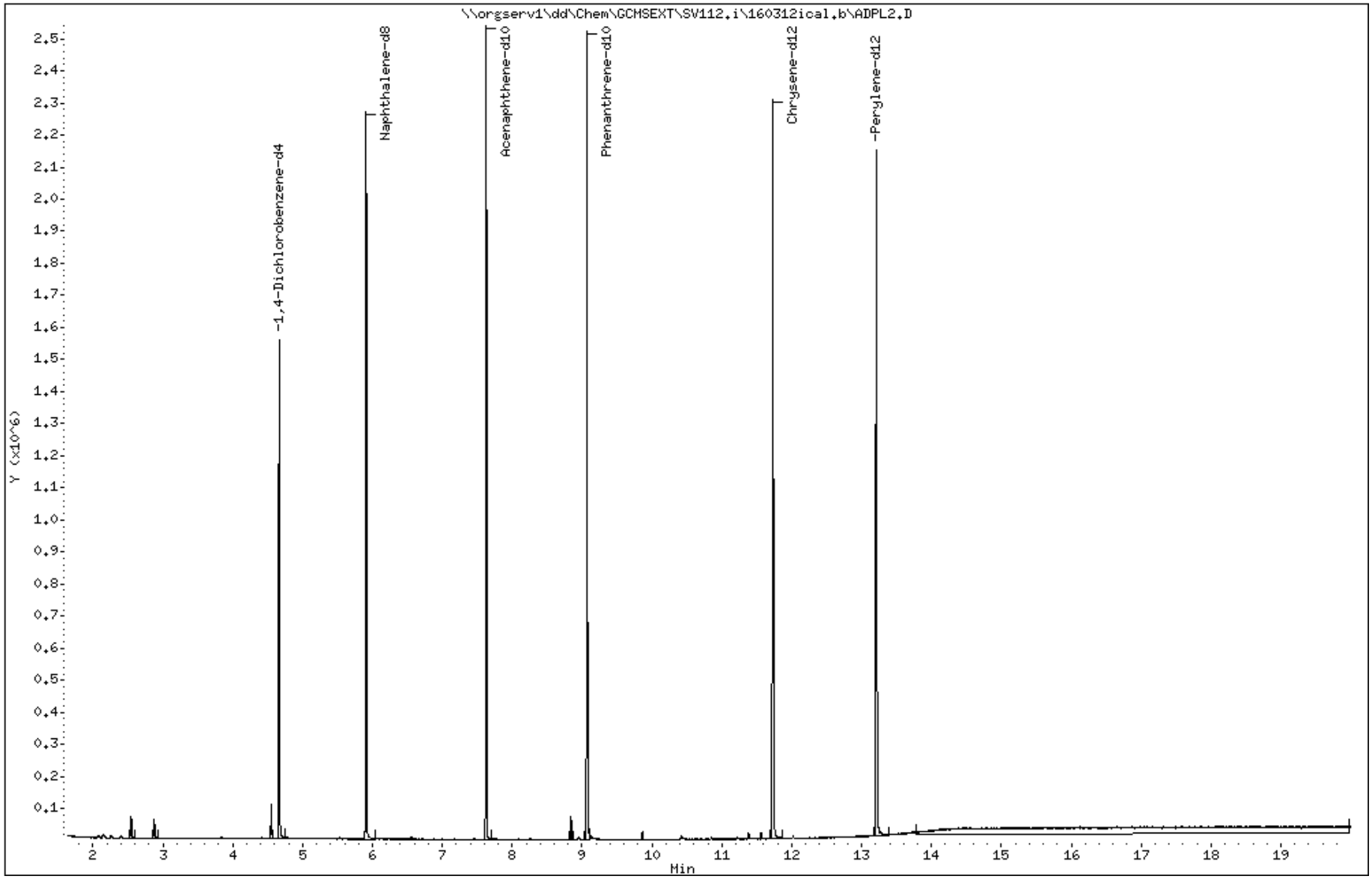
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.03
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL2.D
Date : 12-MAR-2016 21:44
Client ID:
Sample Info: ADP 2 LOT#5817

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



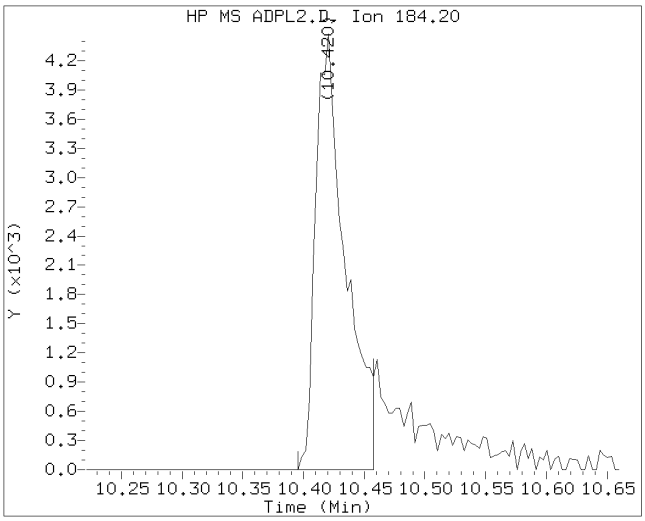
Alpha Analytical Labs

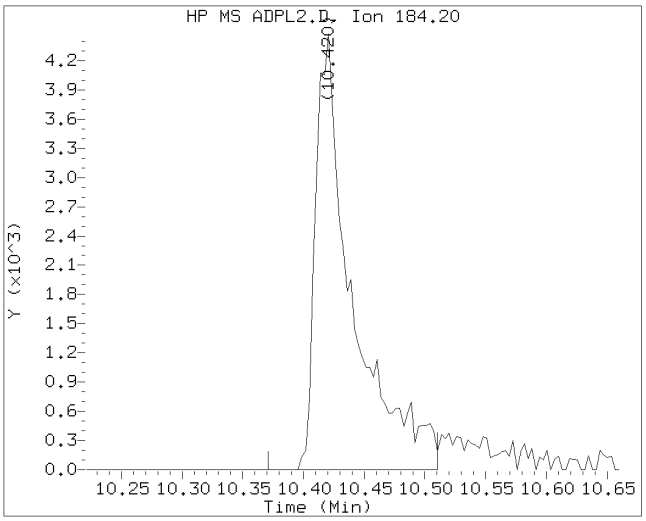
Manual Integration

Sample Info : ADP 2 LOT#5817

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL2.D
Injection Date : 12-MAR-2016 21:44
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 90: Benzidine

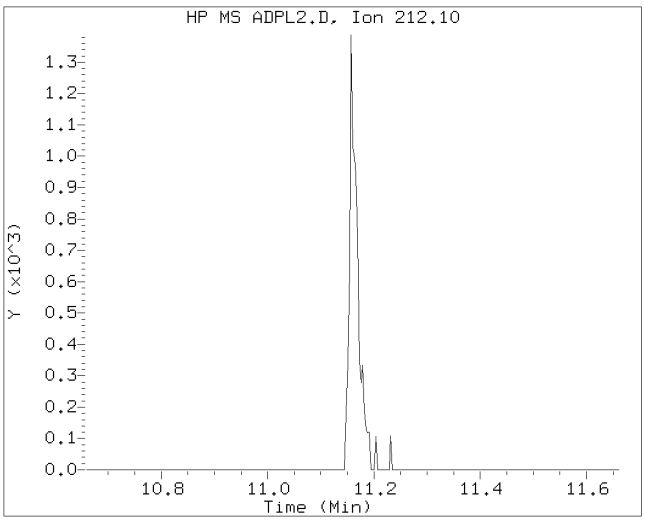


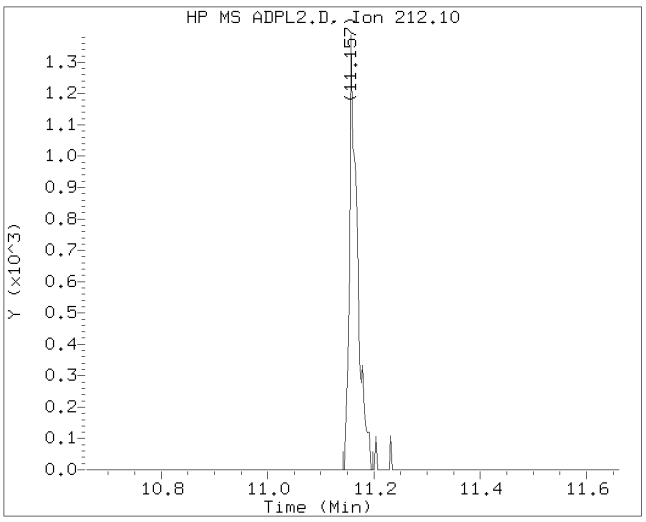


Original Peak Response = 7716 Manual Peak Response = 9468 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 93: 3,3'-Dimethylbenzidine





Original Peak Response = 0 Manual Peak Response = 1449 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL3.D
Lab Smp Id:
Inj Date : 12-MAR-2016 22:10
Operator : as Inst ID: SV112.i
Smp Info : ADP 3 LOT#5818
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 21:44 Cal File: ADPL2.D
Als bottle: 25 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	195626	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	819583	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	443077	40.0000		
79 Atrazine	200	8.841	8.841	(0.975)	10335	3.00000	2.60	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	844855	40.0000		
87 Parathion	109	9.864	9.864	(1.087)	3713	3.00000	7.14	
90 Benzidine	184	10.417	10.417	(1.148)	15138	3.00000	1.11(M)	M2
93 3,3'-Dimethylbenzidine	212	11.163	11.163	(2.393)	2103	3.00000	5.79(M)	M1
* 96 Chrysene-d12	240	11.732	11.732	(1.000)	768131	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	749213	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:28
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	221689	110845	443378	195626	-11.76
32 Naphthalene-d8	924391	462196	1848782	819583	-11.34
59 Acenaphthene-d10	497618	248809	995236	443077	-10.96
82 Phenanthrene-d10	965416	482708	1930832	844855	-12.49
96 Chrysene-d12	849428	424714	1698856	768131	-9.57
106 Perylene-d12	865323	432662	1730646	749213	-13.42

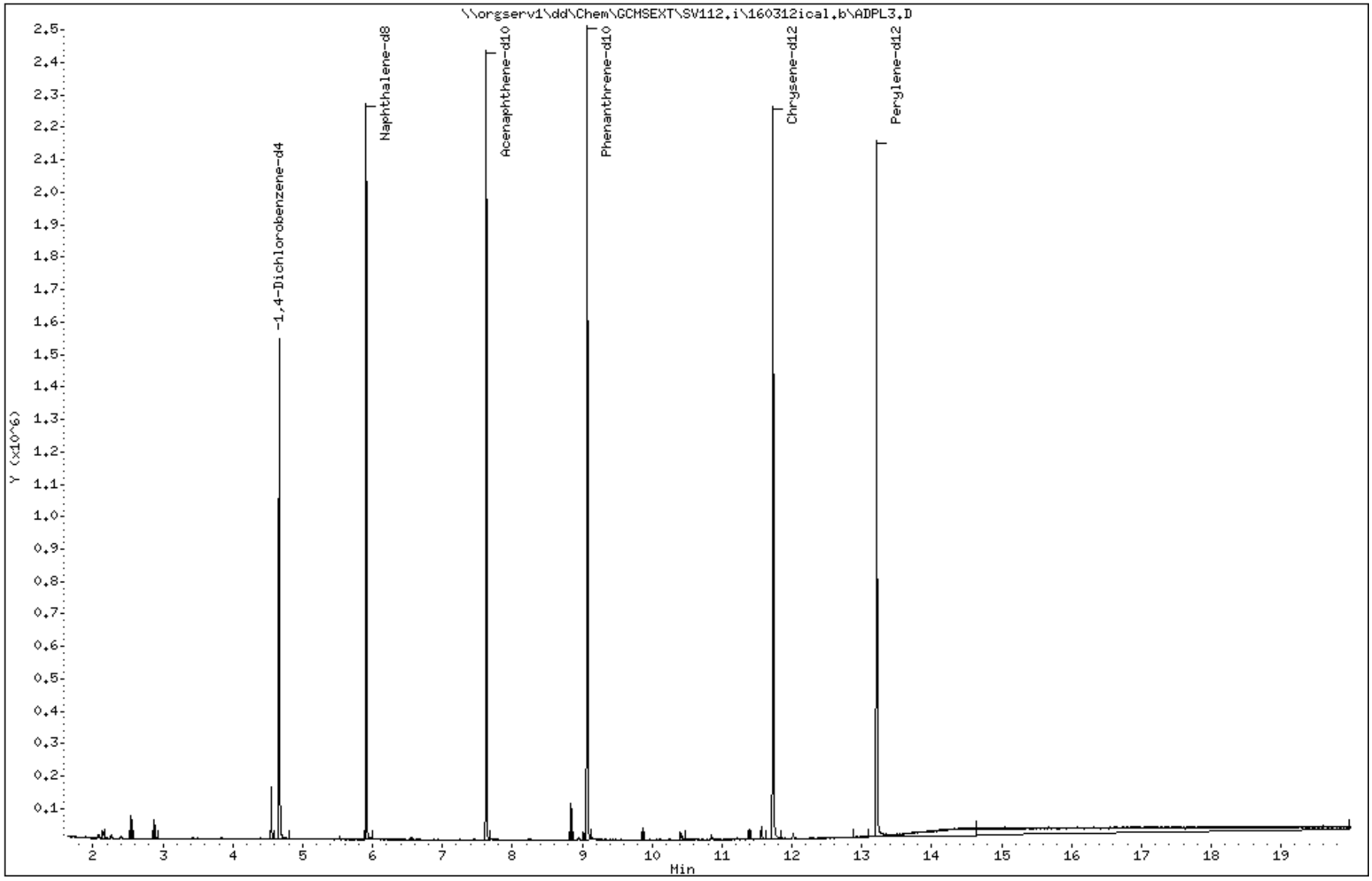
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL3.D
Date : 12-MAR-2016 22:10
Client ID:
Sample Info: ADP 3 LOT#5818

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



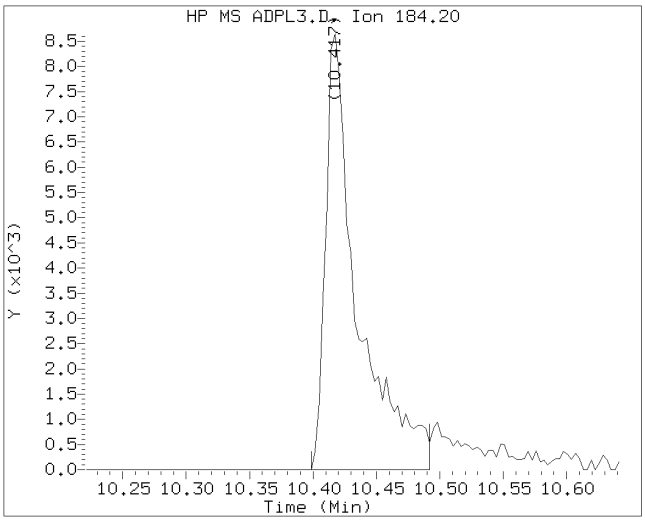
Alpha Analytical Labs

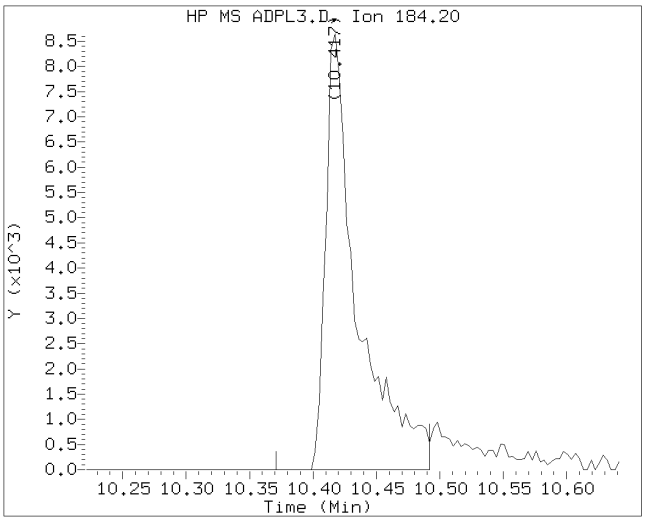
Manual Integration

Sample Info : ADP 3 LOT#5818

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL3.D
Injection Date : 12-MAR-2016 22:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 90: Benzidine

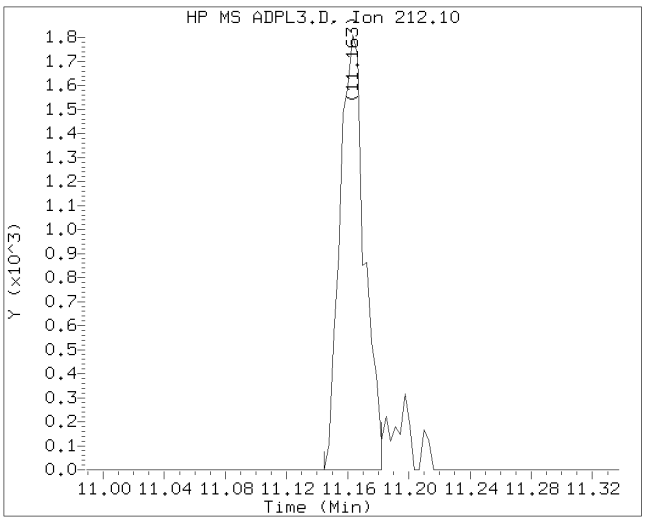


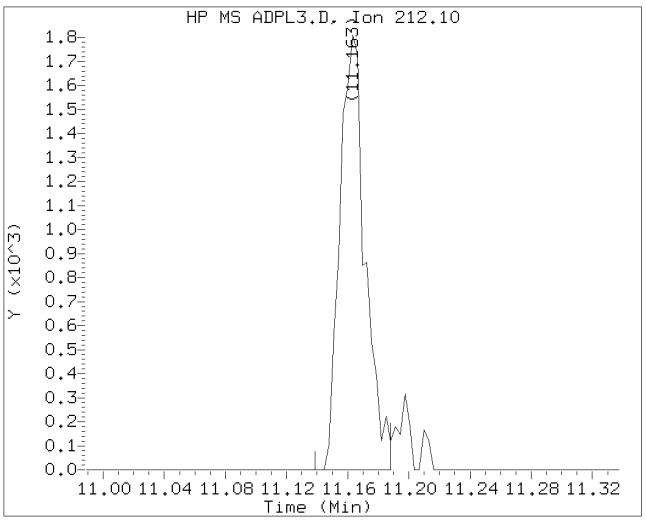


Original Peak Response = 15139 Manual Peak Response = 15138 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 93: 3,3'-Dimethylbenzidine





Original Peak Response = 2040 Manual Peak Response = 2103 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL4.D
Lab Smp Id:
Inj Date : 12-MAR-2016 22:36
Operator : as Inst ID: SV112.i
Smp Info : ADP 5 LOT#5819
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 22:10 Cal File: ADPL3.D
Als bottle: 26 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	208097	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	880452	40.0000		
* 59 Acenaphthene-d10	164	7.629	7.629	(1.000)	471419	40.0000		
79 Atrazine	200	8.841	8.841	(0.975)	18540	5.00000	4.41	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	893342	40.0000		
87 Parathion	109	9.864	9.864	(1.087)	6524	5.00000	7.90	
90 Benzidine	184	10.414	10.414	(1.148)	35982	5.00000	2.50(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	4963	5.00000	5.74(M)	M1
* 96 Chrysene-d12	240	11.729	11.729	(1.000)	791616	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	750462	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:28
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	221689	110845	443378	208097	-6.13
32 Naphthalene-d8	924391	462196	1848782	880452	-4.75
59 Acenaphthene-d10	497618	248809	995236	471419	-5.26
82 Phenanthrene-d10	965416	482708	1930832	893342	-7.47
96 Chrysene-d12	849428	424714	1698856	791616	-6.81
106 Perylene-d12	865323	432662	1730646	750462	-13.27

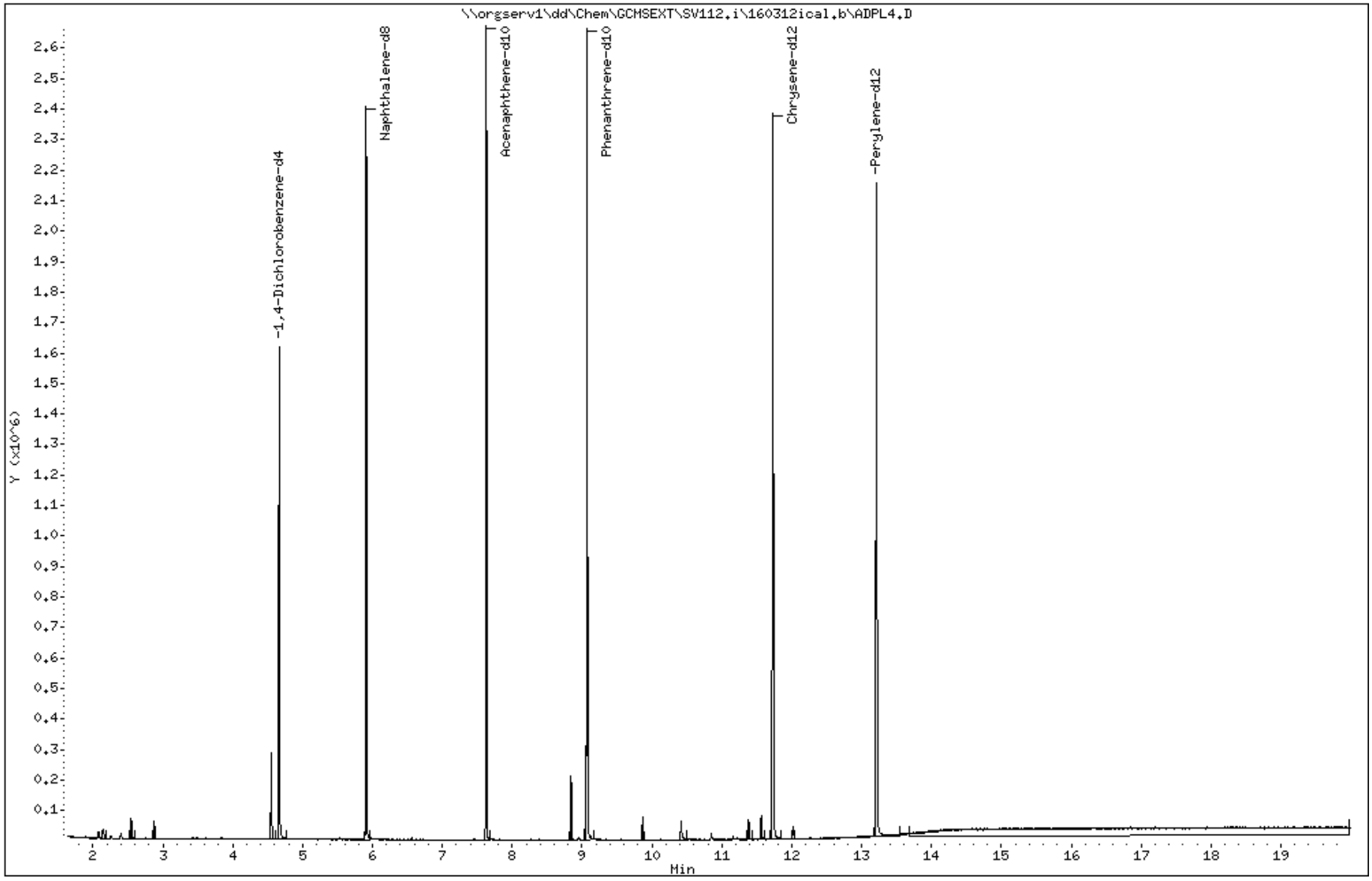
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.03
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL4.D
Date : 12-MAR-2016 22:36
Client ID:
Sample Info: ADP 5 LOT#5819

Instrument: SV112.i
Operator: as
Column diameter: 0.32

Column phase: RTx-5



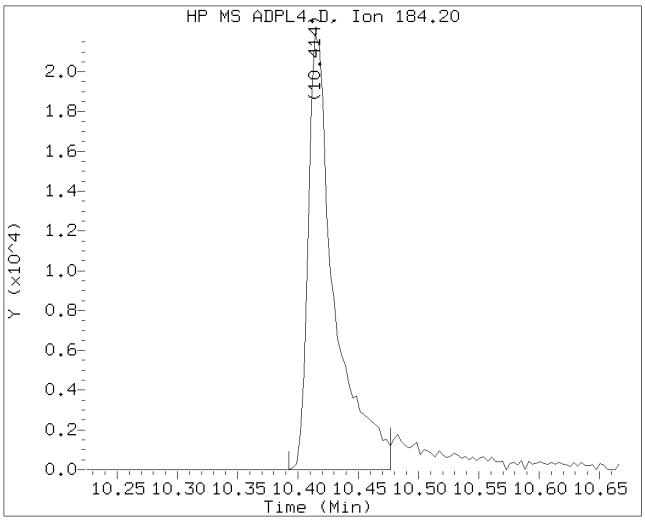
Alpha Analytical Labs

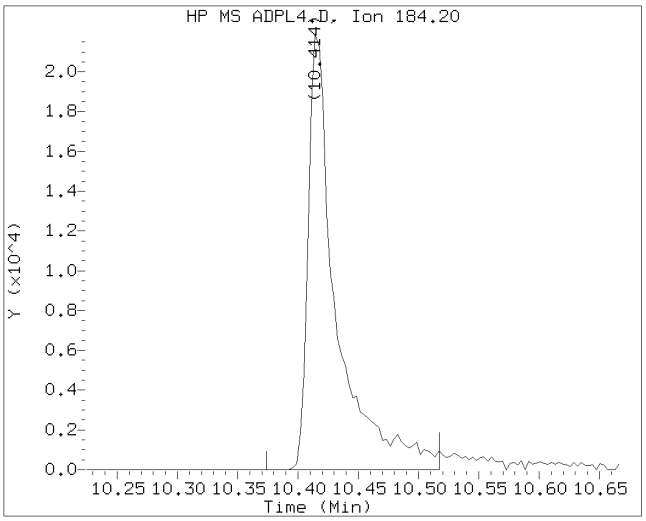
Manual Integration

Sample Info : ADP 5 LOT#5819

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL4.D
Injection Date : 12-MAR-2016 22:36
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

Compound # 90: Benzidine

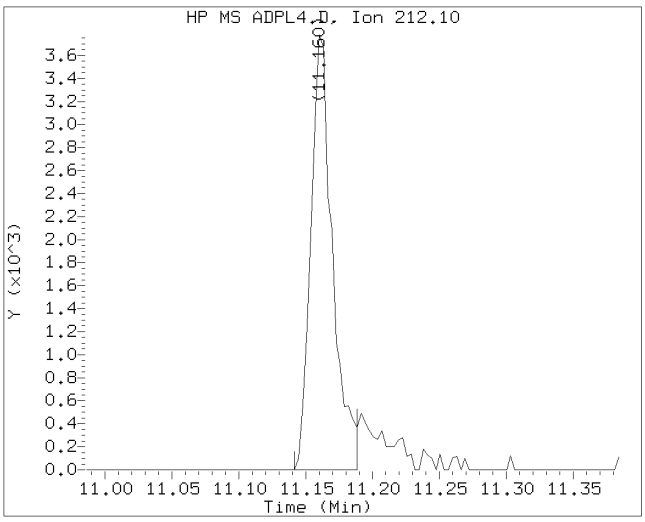


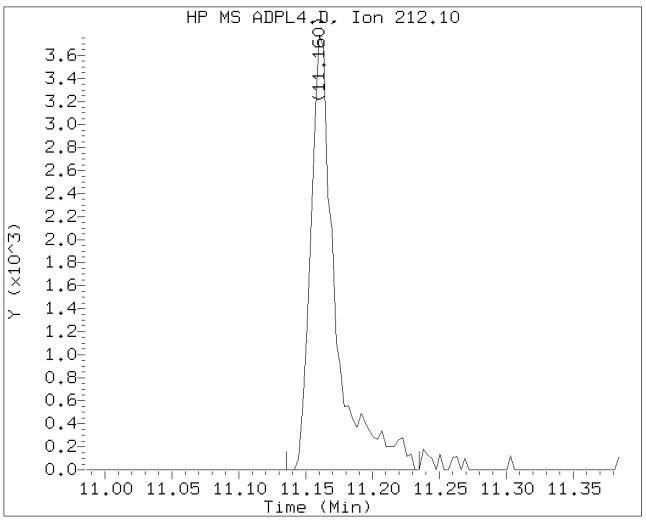


Original Peak Response = 33222 Manual Peak Response = 35982 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 93: 3,3'-Dimethylbenzidine





Original Peak Response = 4305 Manual Peak Response = 4963 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo
area count.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL5.D
Lab Smp Id:
Inj Date : 12-MAR-2016 23:02
Operator : as Inst ID: SV112.i
Smp Info : ADP 10 LOT#5820
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 22:36 Cal File: ADPL4.D
Als bottle: 27 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	205613	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	878221	40.0000		
* 59 Acenaphthene-d10	164	7.629	7.629	(1.000)	482019	40.0000		
79 Atrazine	200	8.841	8.841	(0.975)	43684	10.0000	9.97	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	930213	40.0000		
87 Parathion	109	9.864	9.864	(1.087)	17258	10.0000	10.8	
90 Benzidine	184	10.414	10.414	(1.148)	124216	10.0000	8.30(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	58445	10.0000	6.09	
* 96 Chrysene-d12	240	11.732	11.732	(1.000)	792959	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	739228	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 20:28
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	221689	110845	443378	205613	-7.25
32 Naphthalene-d8	924391	462196	1848782	878221	-4.99
59 Acenaphthene-d10	497618	248809	995236	482019	-3.13
82 Phenanthrene-d10	965416	482708	1930832	930213	-3.65
96 Chrysene-d12	849428	424714	1698856	792959	-6.65
106 Perylene-d12	865323	432662	1730646	739228	-14.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-0.02

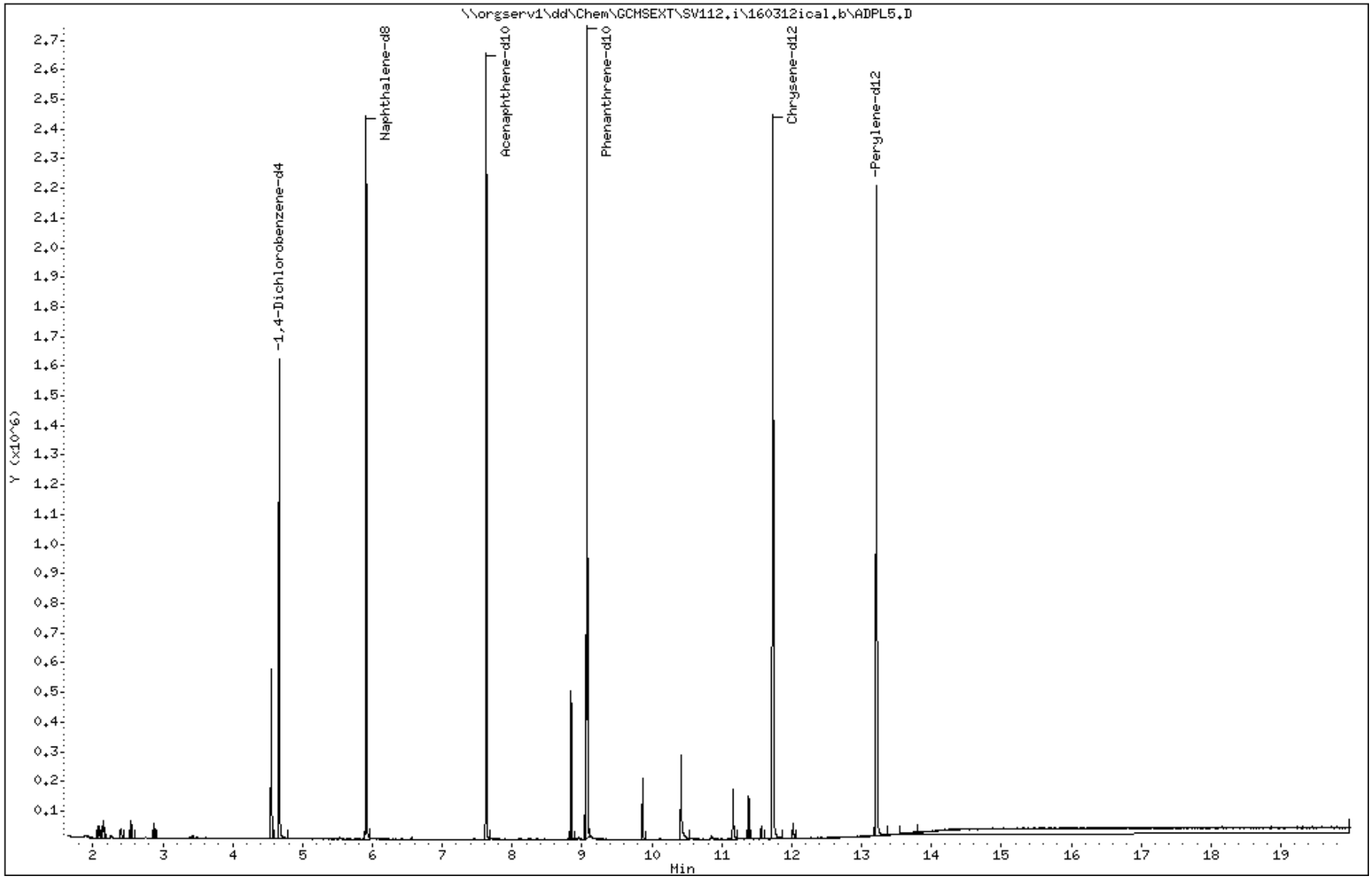
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL5.D
Date : 12-MAR-2016 23:02
Client ID:
Sample Info: ADP 10 LOT#5820

Instrument: SV112.i

Operator: as
Column diameter: 0.32

Column phase: RTx-5



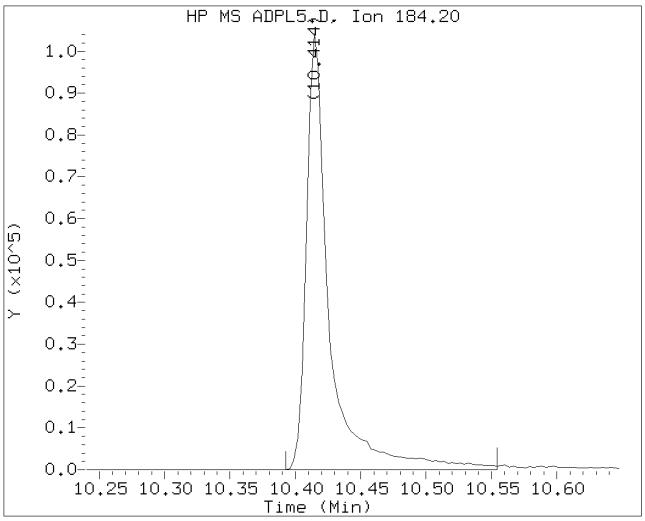
Alpha Analytical Labs

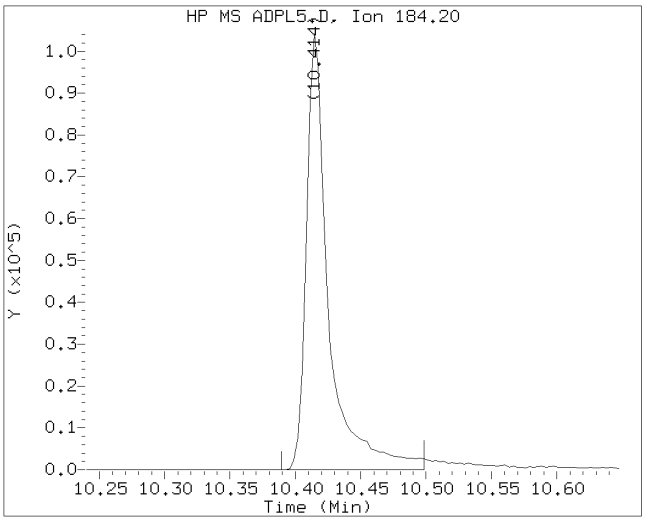
Manual Integration

Sample Info : ADP 10 LOT#5820

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL5.D
Injection Date : 12-MAR-2016 23:02
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

Compound # 90: Benzidine





Original Peak Response = 129343 Manual Peak Response = 124216 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL6.D
Lab Smp Id:
Inj Date : 12-MAR-2016 23:27
Operator : as Inst ID: SV112.i
Smp Info : ADP 20 LOT#5821
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:02 Cal File: ADPL5.D
Als bottle: 28 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	210663	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	885466	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	477895	40.0000		
79 Atrazine	200	8.841	8.841	(0.975)	87331	20.0000	20.3	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	911350	40.0000		
87 Parathion	109	9.864	9.864	(1.087)	41333	20.0000	17.8	
90 Benzidine	184	10.414	10.414	(1.148)	298619	20.0000	20.4(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	202459	20.0000	19.4	
* 96 Chrysene-d12	240	11.732	11.732	(1.000)	833504	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	782328	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 23:27
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	210663	-7.76
32 Naphthalene-d8	951723	475862	1903446	885466	-6.96
59 Acenaphthene-d10	513405	256703	1026810	477895	-6.92
82 Phenanthrene-d10	989616	494808	1979232	911350	-7.91
96 Chrysene-d12	880229	440115	1760458	833504	-5.31
106 Perylene-d12	892749	446375	1785498	782328	-12.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	0.03
106 Perylene-d12	13.21	12.71	13.71	13.21	-0.02

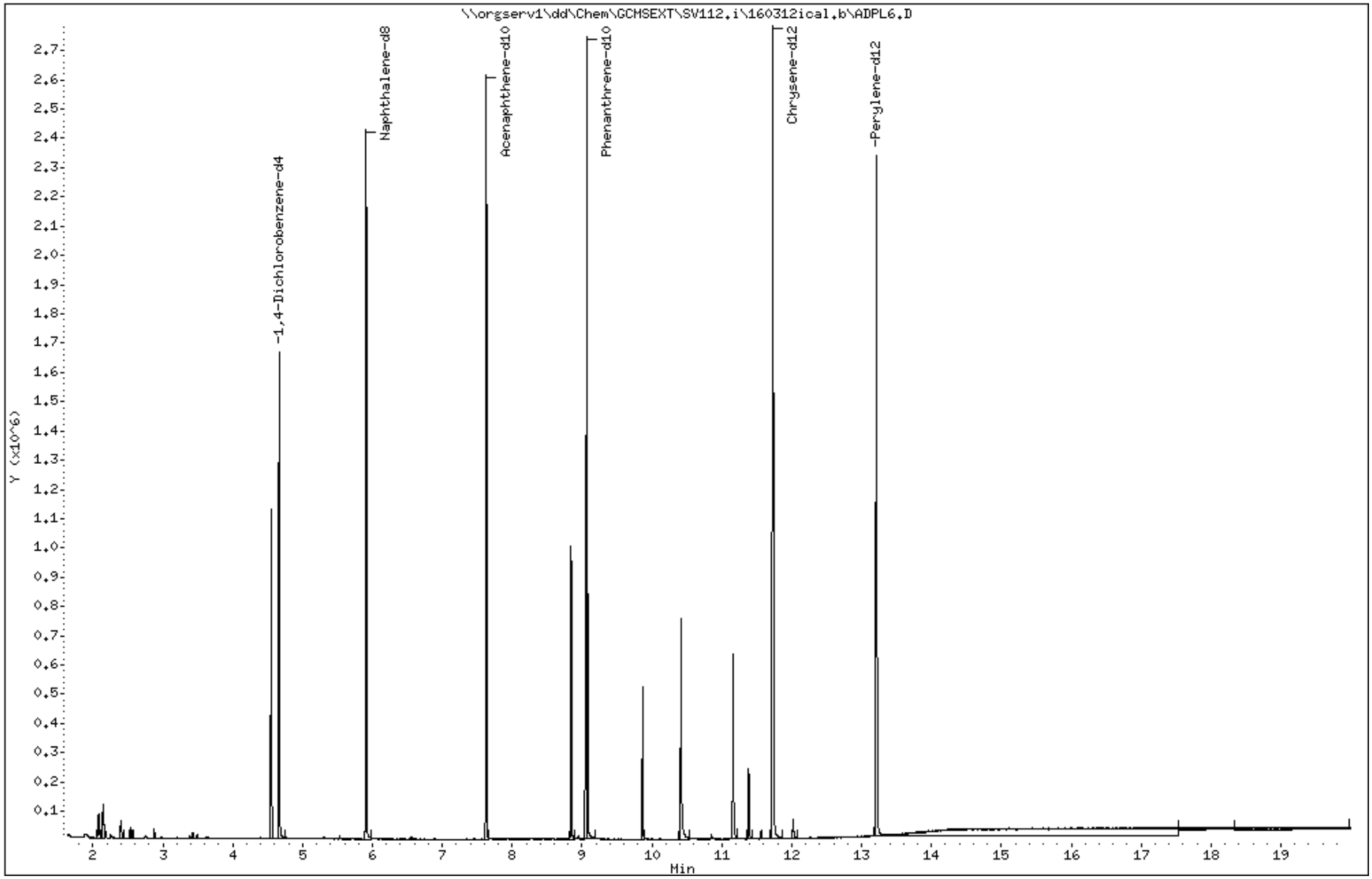
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL6.D
Date : 12-MAR-2016 23:27
Client ID:
Sample Info: ADP 20 LOT#5821

Instrument: SV112.i

Operator: as
Column diameter: 0.32

Column phase: RTx-5



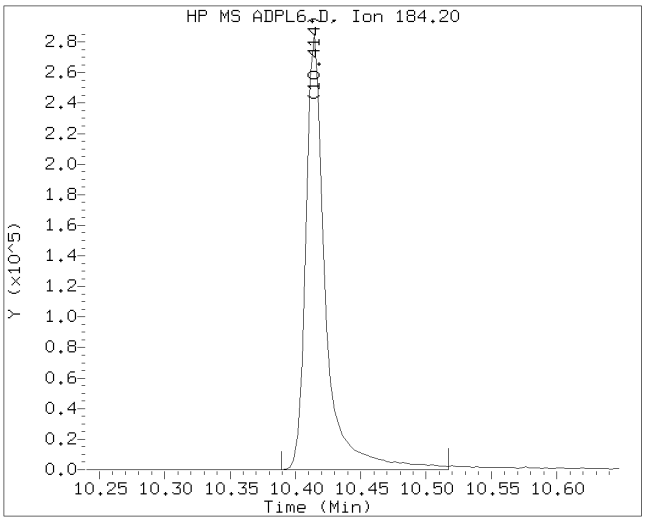
Alpha Analytical Labs

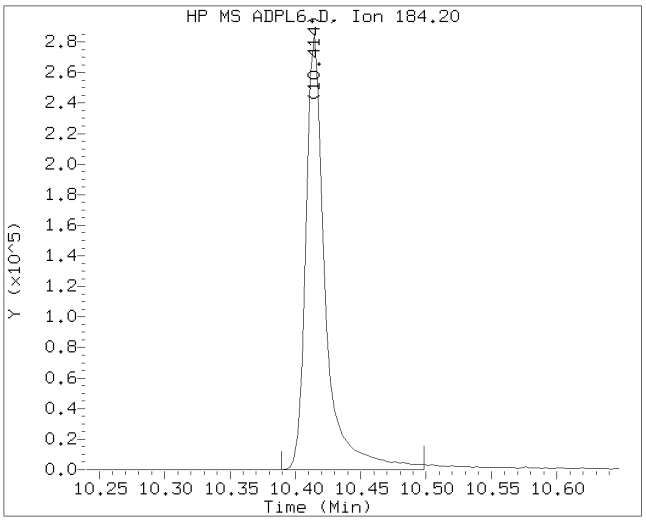
Manual Integration

Sample Info : ADP 20 LOT#5821

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL6.D
Injection Date : 12-MAR-2016 23:27
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

Compound # 90: Benzidine





Original Peak Response = 301536 Manual Peak Response = 298619 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL7.D
Lab Smp Id:
Inj Date : 12-MAR-2016 23:53
Operator : as Inst ID: SV112.i
Smp Info : ADP 50 LOT#5822
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:27 Cal File: ADPL6.D
Als bottle: 29 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	199733	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	838586	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	452272	40.0000		
79 Atrazine	200	8.844	8.844	(0.975)	234381	50.0000	57.4	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	867809	40.0000		
87 Parathion	109	9.864	9.864	(1.087)	141253	50.0000	47.8	
90 Benzidine	184	10.414	10.414	(1.148)	733561	50.0000	52.6(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	325475	50.0000	50.0	
* 96 Chrysene-d12	240	11.729	11.729	(1.000)	812854	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	773841	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 23:27
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

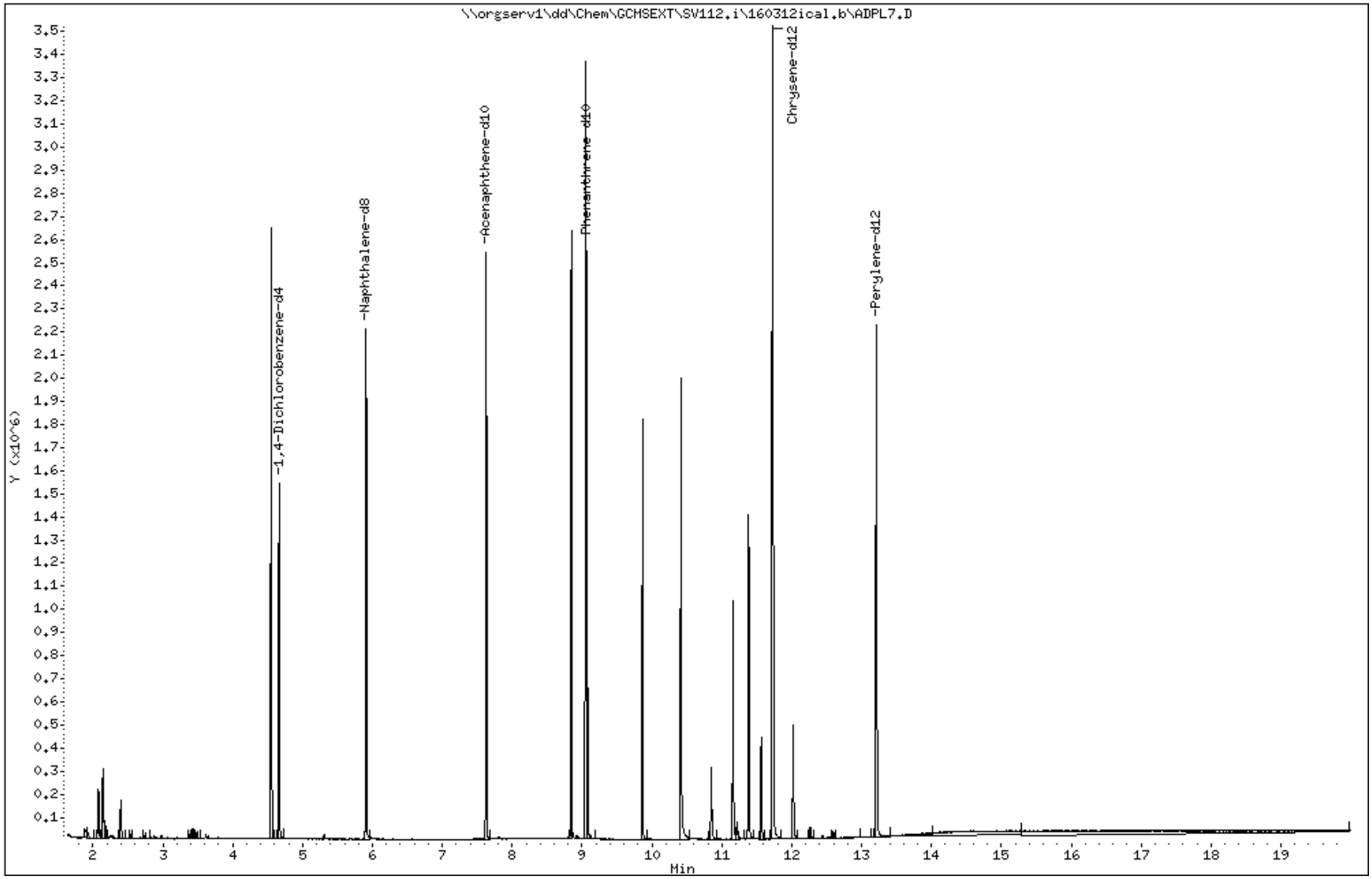
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	199733	-12.55
32 Naphthalene-d8	951723	475862	1903446	838586	-11.89
59 Acenaphthene-d10	513405	256703	1026810	452272	-11.91
82 Phenanthrene-d10	989616	494808	1979232	867809	-12.31
96 Chrysene-d12	880229	440115	1760458	812854	-7.65
106 Perylene-d12	892749	446375	1785498	773841	-13.32

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL7.D
Date : 12-MAR-2016 23:53
Client ID:
Sample Info: ADP 50 LOT#5822

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



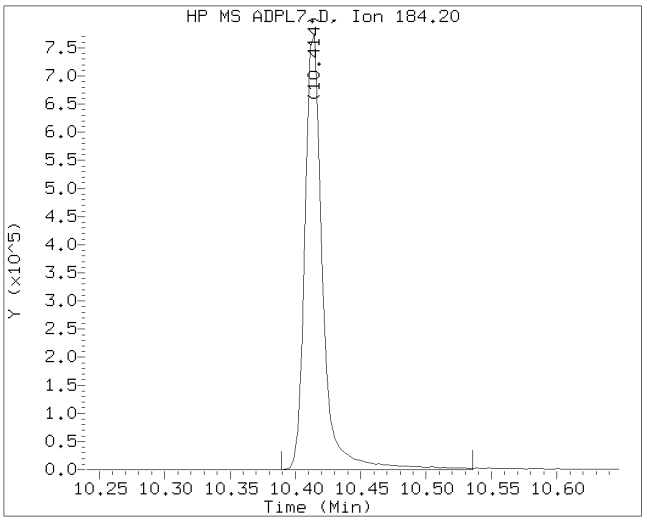
Alpha Analytical Labs

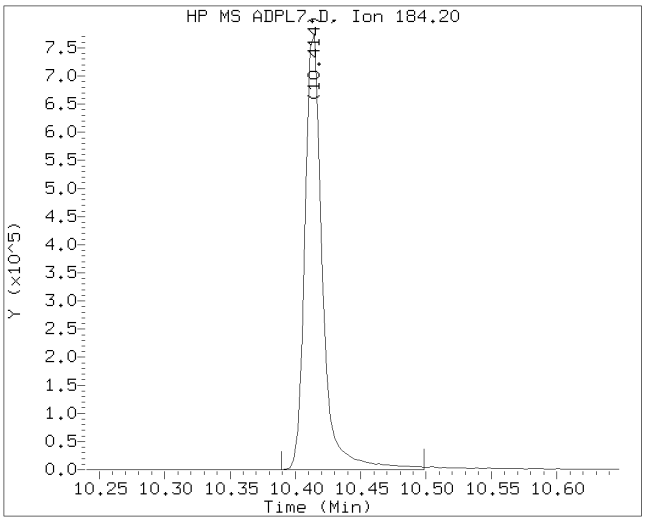
Manual Integration

Sample Info : ADP 50 LOT#5822

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL7.D
Injection Date : 12-MAR-2016 23:53
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

Compound # 90: Benzidine





Original Peak Response = 741440 Manual Peak Response = 733561 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL8.D
Lab Smp Id:
Inj Date : 13-MAR-2016 00:18
Operator : as Inst ID: SV112.i
Smp Info : ADP 100 LOT#5823
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 12-MAR-2016 23:53 Cal File: ADPL7.D
Als bottle: 30 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	202103	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	830414	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	447429	40.0000		
79 Atrazine	200	8.847	8.847	(0.975)	453377	100.000	111	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	867464	40.0000		
87 Parathion	109	9.863	9.863	(1.087)	316638	100.000	98.0	
90 Benzidine	184	10.414	10.414	(1.148)	1463418	100.000	105(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	578456	100.000	152	
* 96 Chrysene-d12	240	11.728	11.728	(1.000)	839437	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	802359	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 23:27
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

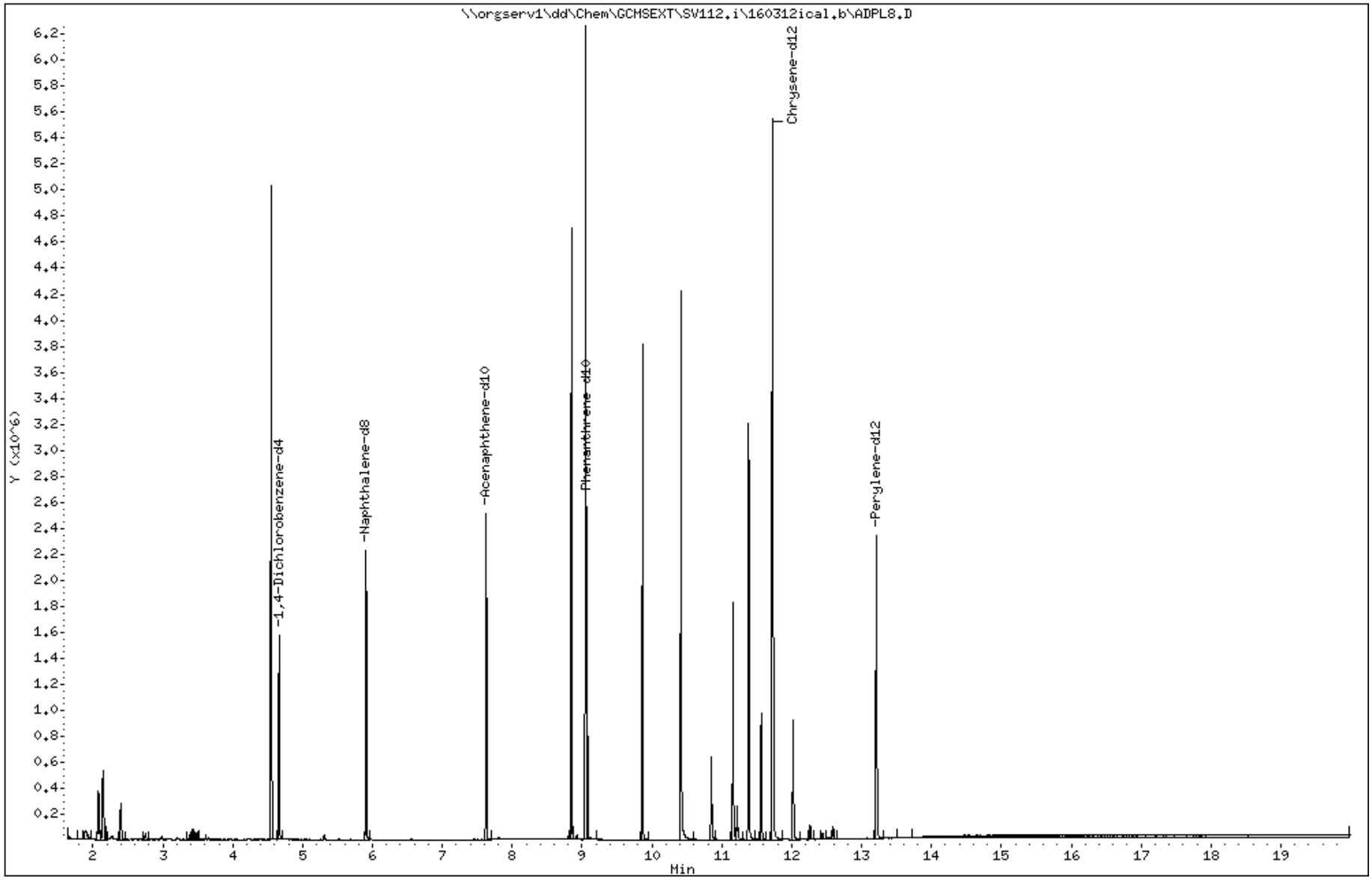
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	202103	-11.51
32 Naphthalene-d8	951723	475862	1903446	830414	-12.75
59 Acenaphthene-d10	513405	256703	1026810	447429	-12.85
82 Phenanthrene-d10	989616	494808	1979232	867464	-12.34
96 Chrysene-d12	880229	440115	1760458	839437	-4.63
106 Perylene-d12	892749	446375	1785498	802359	-10.12

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.01
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.01
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL8.D
Date : 13-MAR-2016 00:18
Client ID:
Sample Info: ADP 100 LOT#5823

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



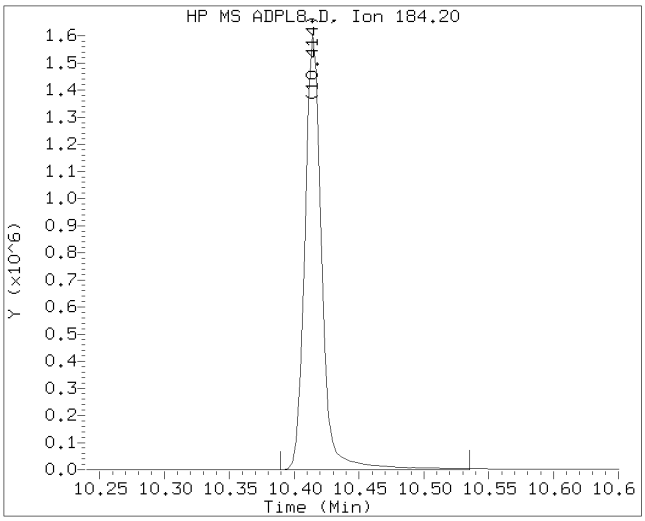
Alpha Analytical Labs

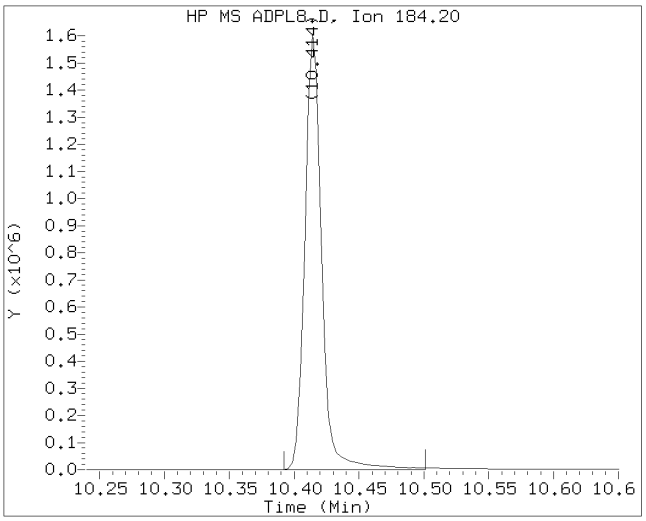
Manual Integration

Sample Info : ADP 100 LOT#5823

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL8.D
Injection Date : 13-MAR-2016 00:18
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

Compound # 90: Benzidine





Original Peak Response = 1473457 Manual Peak Response = 1463418 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL9.D
Lab Smp Id:
Inj Date : 13-MAR-2016 00:44
Operator : as Inst ID: SV112.i
Smp Info : ADP 150 LOT#5824
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 00:18 Cal File: ADPL8.D
Als bottle: 31 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	183881	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	769780	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	421786	40.0000		
79 Atrazine	200	8.850	8.850	(0.976)	688478	150.000	180	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	812540	40.0000		
87 Parathion	109	9.867	9.867	(1.088)	491538	150.000	155	
90 Benzidine	184	10.417	10.417	(1.148)	2120415	150.000	162(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	507190	150.000	141	
* 96 Chrysene-d12	240	11.728	11.728	(1.000)	802708	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	759039	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i
Lab File ID: ADPL9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Calibration Date: 12-MAR-2016
Calibration Time: 23:27
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

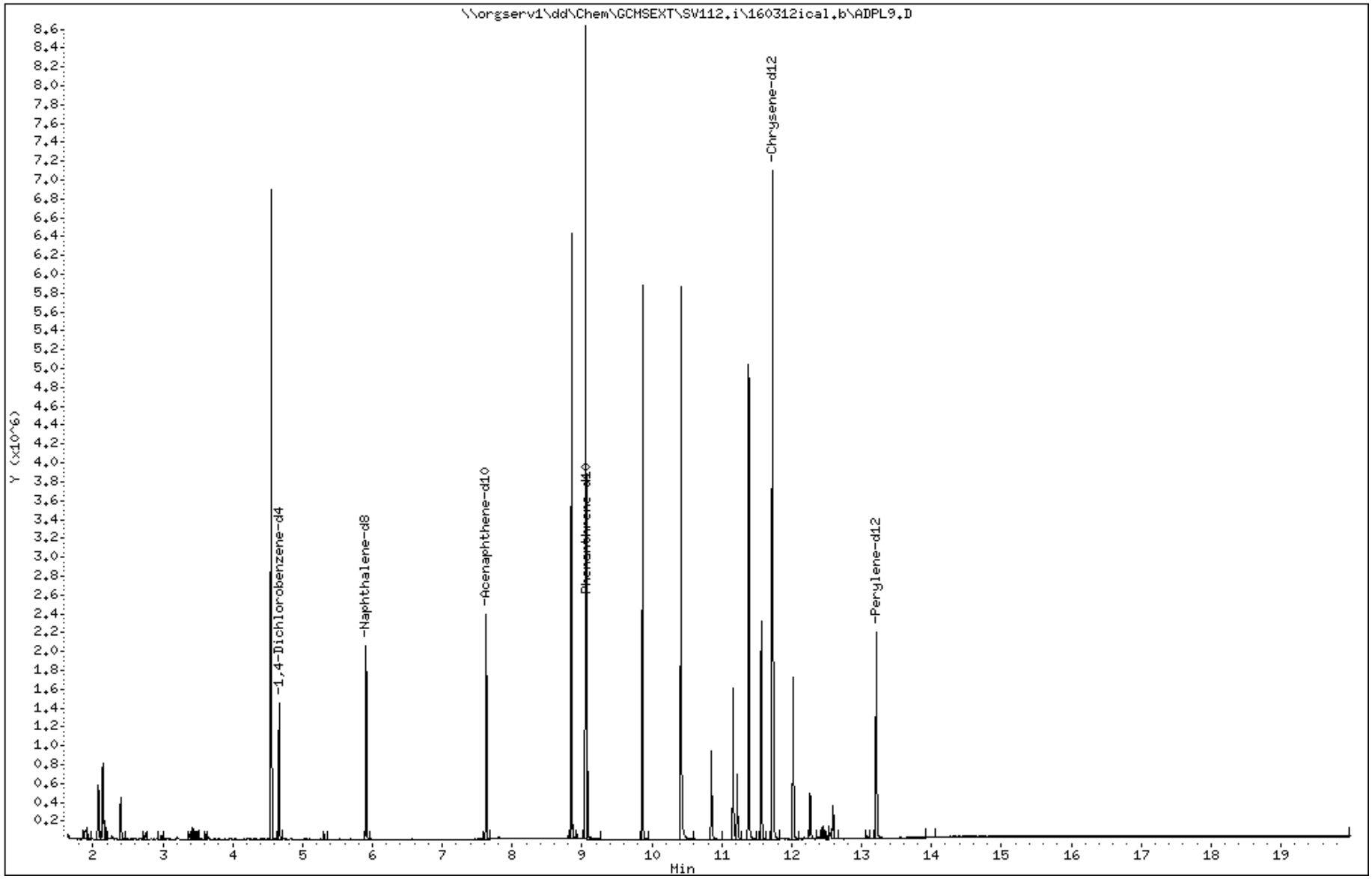
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	183881	-19.49
32 Naphthalene-d8	951723	475862	1903446	769780	-19.12
59 Acenaphthene-d10	513405	256703	1026810	421786	-17.85
82 Phenanthrene-d10	989616	494808	1979232	812540	-17.89
96 Chrysene-d12	880229	440115	1760458	802708	-8.81
106 Perylene-d12	892749	446375	1785498	759039	-14.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL9.D
Date : 13-MAR-2016 00:44
Client ID:
Sample Info: ADP 150 LOT#5824

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



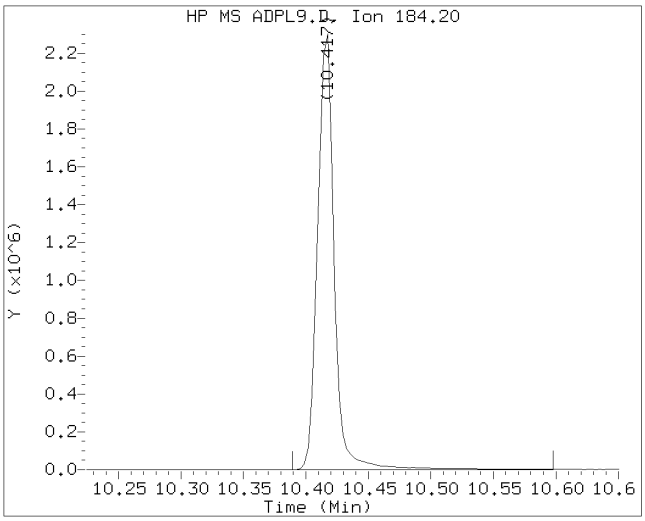
Alpha Analytical Labs

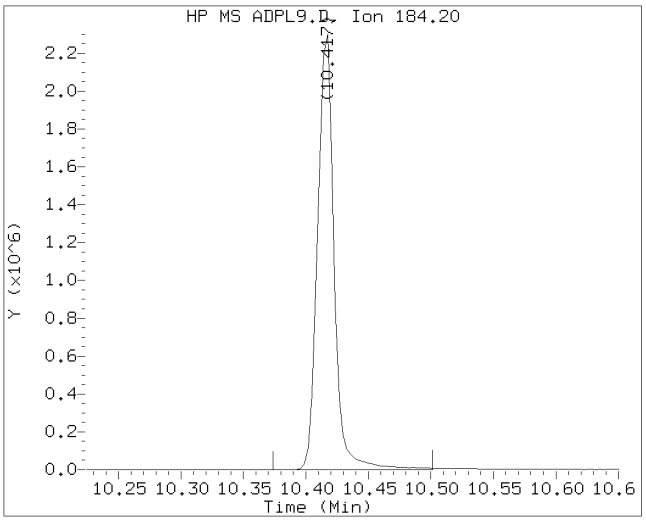
Manual Integration

Sample Info : ADP 150 LOT#5824

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL9.D
Injection Date : 13-MAR-2016 00:44
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

Compound # 90: Benzidine





Original Peak Response = 2150880 Manual Peak Response = 2120415 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL10.D
Lab Smp Id:
Inj Date : 13-MAR-2016 01:09
Operator : as Inst ID: SV112.i
Smp Info : ADP 200 LOT#5815
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:03 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 00:44 Cal File: ADPL9.D
Als bottle: 32 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	201896	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	835628	40.0000		
* 59 Acenaphthene-d10	164	7.626	7.626	(1.000)	453317	40.0000		
79 Atrazine	200	8.853	8.853	(0.976)	941172	200.000	231	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	865356	40.0000		
87 Parathion	109	9.867	9.867	(1.088)	684627	200.000	198	
90 Benzidine	184	10.417	10.417	(1.148)	2693923	200.000	194(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	588524	200.000	158	
* 96 Chrysene-d12	240	11.728	11.728	(1.000)	857918	40.0000		
* 106 Perylene-d12	264	13.211	13.211	(1.000)	812014	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 12-MAR-2016
Lab File ID: ADPL10.D Calibration Time: 23:27
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

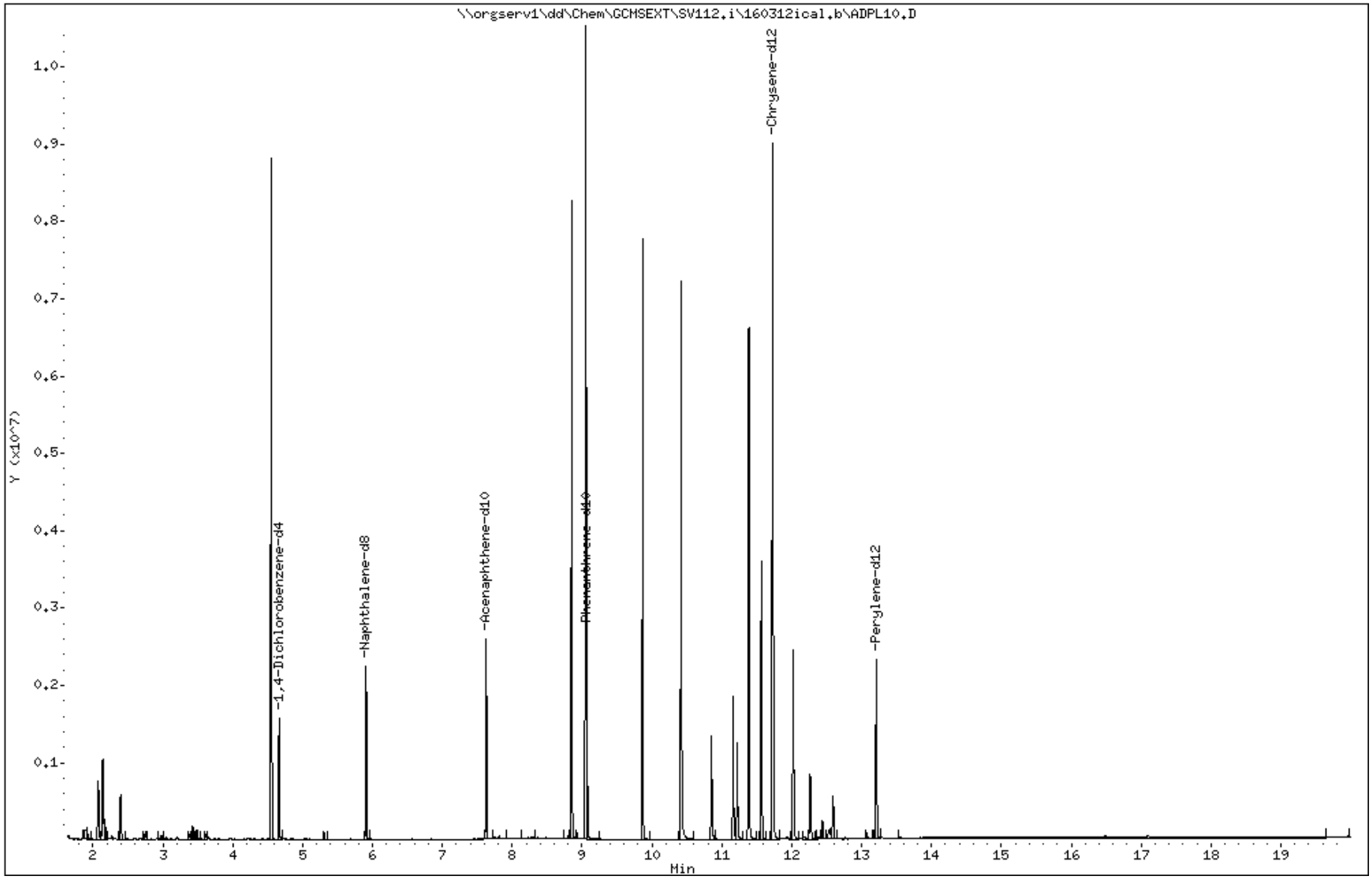
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	228396	114198	456792	201896	-11.60
32 Naphthalene-d8	951723	475862	1903446	835628	-12.20
59 Acenaphthene-d10	513405	256703	1026810	453317	-11.70
82 Phenanthrene-d10	989616	494808	1979232	865356	-12.56
96 Chrysene-d12	880229	440115	1760458	857918	-2.53
106 Perylene-d12	892749	446375	1785498	812014	-9.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	-0.00
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPL10.D
Date : 13-MAR-2016 01:09
Client ID:
Sample Info: ADP 200 LOT#5815

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



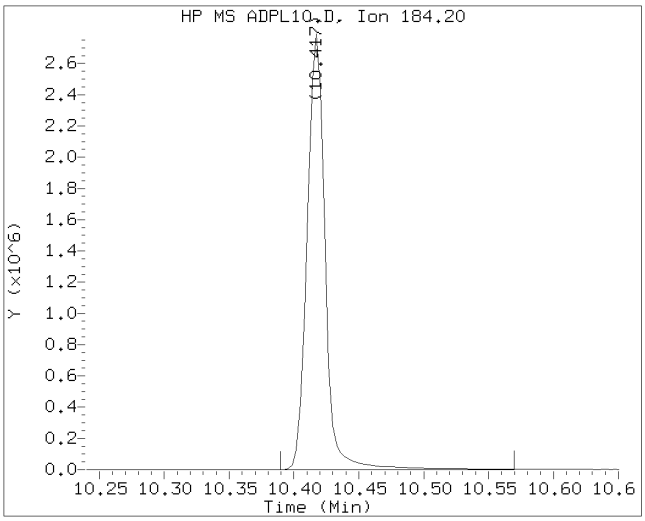
Alpha Analytical Labs

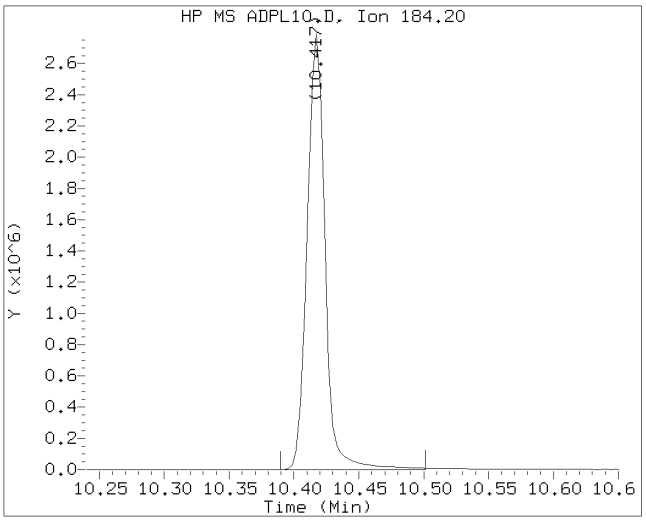
Manual Integration

Sample Info : ADP 200 LOT#5815

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPL10.D
Injection Date : 13-MAR-2016 01:09
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

Compound # 90: Benzidine





Original Peak Response = 2718833 Manual Peak Response = 2693923 M2

M2 = Peak not found by automatic integration algorithm.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 13-MAR-2016 01:35
Lab File ID: ADPicv.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
79 Atrazine	0.18838	0.20846	0.20846	0.050	10.66379	20.00000	Averaged	
87 Parathion	50.00000	49.20891	0.13462	0.050	-1.58218	20.00000	Quadratic	
90 Benzidine	0.64317	0.76669	0.76669	0.050	19.20492	20.00000	Averaged	
93 3,3'-Dimethylbenzidine	50.00000	32.75606	1.04096	0.050	-34.48788	20.00000	Quadratic	<-

Average %D / Drift Results.	
Calculated Average %D/Drift =	16.48469
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPicv.D
Lab Smp Id:
Inj Date : 13-MAR-2016 01:35
Operator : as Inst ID: SV112.i
Smp Info : ADP ICV LOT#5614
Misc Info :
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Meth Date : 15-Mar-2016 11:04 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	158353	40.0000		
* 32 Naphthalene-d8	136	5.910	5.910	(1.000)	675605	40.0000		
* 59 Acenaphthene-d10	164	7.629	7.629	(1.000)	370505	40.0000		
79 Atrazine	200	8.844	8.844	(0.975)	188088	20.0000	55.3	
* 82 Phenanthrene-d10	188	9.071	9.071	(1.000)	721807	40.0000		
87 Parathion	109	9.864	9.864	(1.087)	121459	20.0000	49.2	
90 Benzidine	184	10.414	10.414	(1.148)	691755	20.0000	59.6(M)	M2
93 3,3'-Dimethylbenzidine	212	11.160	11.160	(2.393)	206048	20.0000	32.8	
* 96 Chrysene-d12	240	11.728	11.728	(1.000)	650715	40.0000		
* 106 Perylene-d12	264	13.208	13.208	(1.000)	619797	40.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 12-MAR-2016
Lab File ID: ADPicv.D Calibration Time: 23:27
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\SV112ABN.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

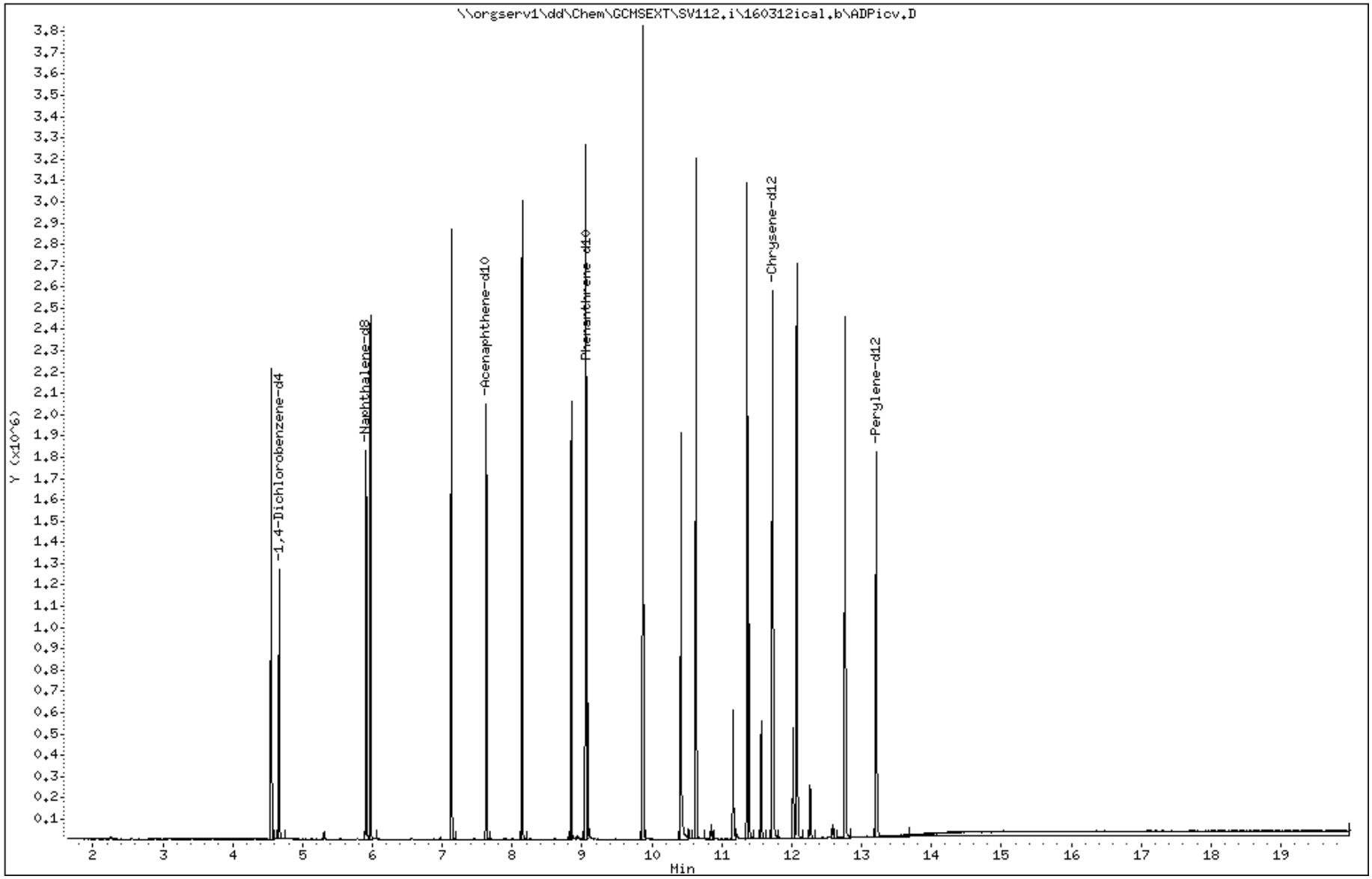
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	199733	99867	399466	158353	-20.72
32 Naphthalene-d8	838586	419293	1677172	675605	-19.44
59 Acenaphthene-d10	452272	226136	904544	370505	-18.08
82 Phenanthrene-d10	867809	433905	1735618	721807	-16.82
96 Chrysene-d12	812854	406427	1625708	650715	-19.95
106 Perylene-d12	773841	386921	1547682	619797	-19.91

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.66	4.16	5.16	4.66	-0.00
32 Naphthalene-d8	5.91	5.41	6.41	5.91	-0.00
59 Acenaphthene-d10	7.63	7.13	8.13	7.63	0.04
82 Phenanthrene-d10	9.07	8.57	9.57	9.07	-0.00
96 Chrysene-d12	11.73	11.23	12.23	11.73	-0.00
106 Perylene-d12	13.21	12.71	13.71	13.21	-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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160312ical.b\ADPicv.D
Date : 13-MAR-2016 01:35
Client ID:
Sample Info: ADP ICV LOT#5614

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



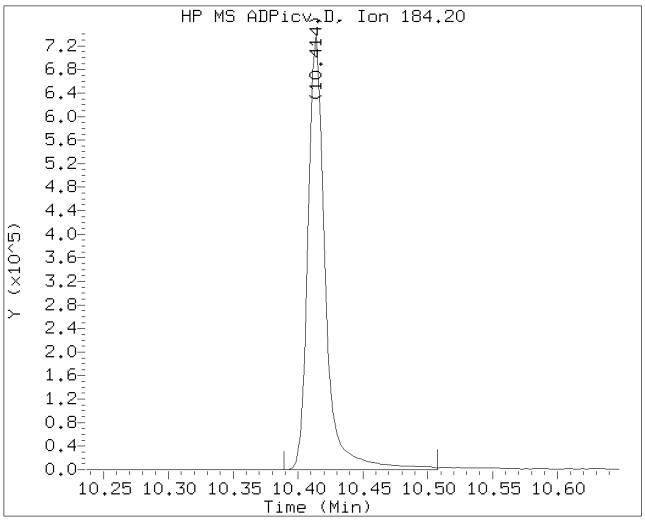
Alpha Analytical Labs

Manual Integration

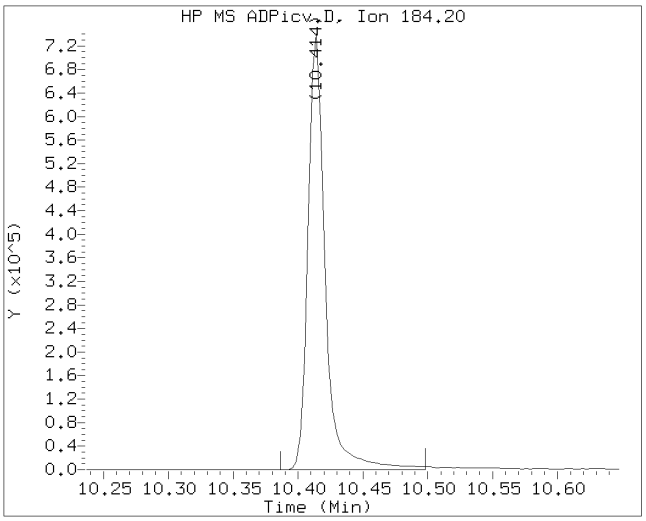
Sample Info : ADP ICV LOT#5614

Instrument ID : SV112.i
Method : SV112ABN.m
File : ADPicv.D
Injection Date : 13-MAR-2016 01:35
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

Compound # 90: Benzidine



Original Peak Response = 693180



Manual Peak Response = 691755 M2

M2 = Peak not found by automatic integration algorithm.

Continuing Calibration

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.i Calibration Date: 15-MAR-2016 Time: 12:35

Lab File ID: ABNccv0315 Init. Calib. Date(s): 12-MAR-2016 13-MAR-2016

Sample No: ABN 50 LOT# 584 Init. Calib. Times : 11:36 01:09

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
n-Nitrosodimethylamine	.95051	.95592	.05	1	20	
Pyridine	1.6691	1.6591	.05	-1	20	
Aniline	50	38.132	.05	-24	20	F
Phenol	1.9907	1.9853	.05	0	20	
Bis(2-chloroethyl)ether	1.4103	1.4079	.05	0	20	
2-Chlorophenol	1.4312	1.4102	.05	-1	20	
1,3-Dichlorobenzene	1.5889	1.5183	.05	-4	20	
1,4-Dichlorobenzene	1.6216	1.5479	.05	-5	20	
Benzyl alcohol	1.2614	1.2962	.05	3	20	
1,2-Dichlorobenzene	1.5203	1.4441	.05	-5	20	
2-Methylphenol	1.3156	1.2893	.05	-2	20	
Bis(2-chloroisopropyl)ether	2.2657	1.9725	.05	-13	20	
n-Nitrosodi-n-propylamine	1.1917	1.1036	.05	-7	20	
3-Methylphenol/4-Methylphen	1.3821	1.3615	.05	-1	20	
Hexachloroethane	.65793	.62523	.05	-5	20	
Nitrobenzene	.39751	.41077	.05	3	20	
Isophorone	3.1646	2.9370	.05	-7	20	
2-Nitrophenol	.70783	.69848	.05	-1	20	
2,4-Dimethylphenol	1.4542	1.3969	.05	-4	20	
Bis(2-chloroethoxy)methane	1.8649	1.7883	.05	-4	20	
Benzoic acid	50	45.580	.05	-9	20	
2,4-Dichlorophenol	.27661	.28877	.05	4	20	
1,2,4-Trichlorobenzene	.32211	.32079	.05	0	20	
Naphthalene	1.0084	.96007	.05	-5	20	
4-Chloroaniline	.15223	.14672	.05	-4	20	
Hexachlorobutadiene	.18035	.18166	.05	1	20	
p-Chloro-m-cresol	.29911	.31061	.05	4	20	
2-Methylnaphthalene	.65774	.64007	.05	-3	20	
1-Methylnaphthalene	.24165	.2344	.05	-3	20	
Hexachlorocyclopentadiene	.16324	.13272	.05	-19	20	
2,4,6-Trichlorophenol	.20357	.20877	.05	3	20	
2,4,5-Trichlorophenol	.21369	.22178	.05	4	20	
2-Chloronaphthalene	.63795	.62865	.05	-1	20	
2-Nitroaniline	.2019	.20272	.05	0	20	
1,4-Dinitrobenzene	.1785	.17631	.05	-1	20	
Dimethyl phthalate	1.3690	1.3306	.05	-3	20	
1,3-Dinitrobenzene	.18852	.19787	.05	5	20	
2,6-Dinitrotoluene	.1522	.16144	.05	6	20	

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.i Calibration Date: 15-MAR-2016 Time: 12:35

Lab File ID: ABNccv0315 Init. Calib. Date(s): 12-MAR-2016 13-MAR-2016

Sample No: ABN 50 LOT# 584 Init. Calib. Times : 11:36 01:09

Compound	RRF	RRF	MIN RRF	%D	MAX %D
Acenaphthylene	1.0207	.98197	.05	-4	20
1,2-Dinitrobenzene	.12584	.13146	.05	4	20
3-Nitroaniline	.34175	.3368	.05	-1	20
Acenaphthene	1.1065	1.0435	.05	-6	20
2,4-Dinitrophenol	50	45.473	.05	-9	20
4-Nitrophenol	.29821	.31215	.05	5	20
Dibenzofuran	1.6722	1.6164	.05	-3	20
2,4-Dinitrotoluene	.36112	.39318	.05	9	20
2,3,5,6-Tetrachlorophenol	.32045	.34989	.05	9	20
2,3,4,6-Tetrachlorophenol	.31818	.33278	.05	5	20
Diethyl phthalate	1.4315	1.3847	.05	-3	20
Fluorene	1.3234	1.2964	.05	-2	20
4-Chlorophenyl phenyl ether	.62236	.62081	.05	0	20
4-Nitroaniline	.32064	.32283	.05	1	20
4,6-Dinitro-o-cresol	50	47.467	.05	-5	20
NDPA/DPA	1.0965	1.1127	.05	1	20
Azobenzene	1.5174	1.4900	.05	-2	20
4-Bromophenyl phenyl ether	.35325	.36522	.05	3	20
Hexachlorobenzene	.41644	.41859	.05	1	20
Pentachlorophenol	50	48.560	.05	-3	20
Phenanthrene	1.0856	1.0237	.05	-6	20
Anthracene	1.0425	1.0271	.05	-1	20
Carbazole	.98317	.98198	.05	0	20
Di-n-butylphthalate	1.1505	1.1828	.05	3	20
Fluoranthene	1.1283	1.1365	.05	1	20
Pyrene	1.1919	1.1784	.05	-1	20
Butyl benzyl phthalate	.51619	.53877	.05	4	20
Bis (2-ethylhexyl) adipate	50	43.121	.05	-14	20
Benzo(a)anthracene	1.2352	1.2126	.05	-2	20
3,3'-Dichlorobenzidine	50	47.611	.05	-5	20
Chrysene	1.2141	1.1266	.05	-7	20
Bis(2-ethylhexyl)phthalate	.80309	.80535	.05	0	20
Di-n-octylphthalate	1.3776	1.3772	.05	0	20
Benzo(b)fluoranthene	1.1738	1.2305	.05	5	20
Benzo(k)fluoranthene	1.2316	1.2888	.05	5	20
Benzo(a)pyrene	1.1337	1.2099	.05	7	20
Indeno(1,2,3-cd)pyrene	1.1007	1.1669	.05	6	20
Dibenzo(a,h)anthracene	1.0882	1.1901	.05	9	20

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.i Calibration Date: 15-MAR-2016 Time: 12:35

Lab File ID: ABNccv0315 Init. Calib. Date(s): 12-MAR-2016 13-MAR-2016

Sample No: ABN 50 LOT# 584 Init. Calib. Times : 11:36 01:09

Compound	RRF	RRF	MIN RRF	%D	MAX %D
Benzo(ghi)perylene	1.1392	1.1826	.05	4	20
2-Fluorophenol	1.3299	1.3531	.05	2	20
Phenol-d6	1.7205	1.7359	.05	1	20
Nitrobenzene-d5	1.5744	1.5638	.05	-1	20
2-Fluorobiphenyl	.70811	.70515	.05	0	20
2,4,6-Tribromophenol	.09998	.10564	.05	6	20
4-Terphenyl-d14	.70634	.73449	.05	4	20

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.i Calibration Date: 15-MAR-2016 Time: 11:44

Lab File ID: ADPLccv0315 Init. Calib. Date(s): 12-MAR-2016 13-MAR-2016

Sample No: ADP 50 LOT#5822 Init. Calib. Times : 11:36 01:09

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
Atrazine	.18838	.19168	.05	2	20	
Parathion	50	42.697	.05	-15	20	
Benzidine	.64317	.56891	.05	-12	20	
3,3'-Dimethylbenzidine	50	72.108	.05	44	20	F

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV112.i Calibration Date: 15-MAR-2016 Time: 12:10

Lab File ID: AP9Lccv0315 Init. Calib. Date(s): 12-MAR-2016 13-MAR-2016

Sample No: AP9 50 LOT#5838 Init. Calib. Times : 11:36 01:09

Compound	RRF	RRF	MIN RRF	%D	MAX %D
Benzaldehyde	1.0320	1.2072	.05	17	20
Acetophenone	2.0712	2.1388	.05	3	20
m-Toluidine	1.5274	1.7894	.05	17	20
2-Chloroaniline	1.7151	1.8273	.05	7	20
a-Terpineol	.29938	.2833	.05	-5	20
3-Chloroaniline	.15846	.16959	.05	7	20
2,6-Dichlorophenol	1.1593	1.1740	.05	1	20
1-chloro-2-nitrobenzene	.63347	.61465	.05	-3	20
Caprolactam	.17323	.18075	.05	4	20
1,2,4,5-Tetrachlorobenzene	.58909	.58926	.05	0	20
Biphenyl	1.4756	1.4854	.05	1	20
Dimethoate	.57599	.5549	.05	-4	20
Dichloran	50	45.617	.05	-9	20
Pentachloronitrobenzene	.1548	.17477	.05	13	20
Diphenamid	.46508	.4764	.05	2	20
Benzo(e)pyrene	1.1023	1.1433	.05	4	20
Perylene	1.1386	1.1435	.05	0	20

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.i Calibration Date: 14-MAR-2016 Time: 21:47

Lab File ID: ABN314n Init. Calib. Date(s): 08-MAR-2016 09-MAR-2016

Sample No: ABN ICV Lot#584 Init. Calib. Times : 20:12 19:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
n-Nitrosodimethylamine	.92348	.7665	.05	-17	20	
Pyridine	1.5743	1.2790	.05	-19	20	
Aniline	2.1953	1.8283	.05	-17	20	
Phenol	1.9205	1.5930	.05	-17	20	
Bis(2-chloroethyl)ether	1.4563	1.2313	.05	-15	20	
2-Chlorophenol	1.4500	1.3671	.05	-6	20	
1,3-Dichlorobenzene	1.6139	1.4858	.05	-8	20	
1,4-Dichlorobenzene	1.6691	1.5496	.05	-7	20	
1,2-Dichlorobenzene	1.5619	1.4763	.05	-5	20	
Benzyl alcohol	1.2278	1.1183	.05	-9	20	
2-Methylphenol	1.2774	1.1894	.05	-7	20	
Bis(2-chloroisopropyl)ether	2.4069	1.4446	.05	-40	20	F
n-Nitrosodi-n-propylamine	1.0699	.92532	.05	-14	20	
Hexachloroethane	.69218	.632	.05	-9	20	
3-Methylphenol/4-Methylphen	1.3462	1.2597	.05	-6	20	
Nitrobenzene	.38078	.31885	.05	-16	20	
Isophorone	2.8121	2.5193	.05	-10	20	
2-Nitrophenol	.78777	.81313	.05	3	20	
2,4-Dimethylphenol	1.4429	1.3514	.05	-6	20	
Bis(2-chloroethoxy)methane	1.7359	1.5587	.05	-10	20	
2,4-Dichlorophenol	.285	.28852	.05	1	20	
Benzoic acid	50	49.290	.05	-1	20	
1,2,4-Trichlorobenzene	.32589	.32755	.05	1	20	
Naphthalene	1.0042	.92987	.05	-7	20	
4-Chloroaniline	.1375	.11186	.05	-19	20	
Hexachlorobutadiene	.18954	.19891	.05	5	20	
p-Chloro-m-cresol	.29363	.29149	.05	-1	20	
2-Methylnaphthalene	.67727	.65648	.05	-3	20	
1-Methylnaphthalene	.23318	.225	.05	-4	20	
Hexachlorocyclopentadiene	.21222	.17273	.05	-19	20	
2,4,6-Trichlorophenol	.19925	.22594	.05	13	20	
2,4,5-Trichlorophenol	.21535	.2324	.05	8	20	
2-Chloronaphthalene	.63958	.64951	.05	2	20	
2-Nitroaniline	.21169	.23062	.05	9	20	
1,4-Dinitrobenzene	.20995	.21247	.05	1	20	
Dimethyl phthalate	1.3598	1.2882	.05	-5	20	
1,3-Dinitrobenzene	.23412	.23265	.05	-1	20	
2,6-Dinitrotoluene	.16979	.18549	.05	9	20	

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.i Calibration Date: 14-MAR-2016 Time: 21:47

Lab File ID: ABN314n Init. Calib. Date(s): 08-MAR-2016 09-MAR-2016

Sample No: ABN ICV Lot#584 Init. Calib. Times : 20:12 19:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
Acenaphthylene	1.0119	.99691	.05	-1	20
1,2-Dinitrobenzene	.15584	.1559	.05	0	20
3-Nitroaniline	.35861	.34096	.05	-5	20
Acenaphthene	1.1531	1.0682	.05	-7	20
2,4-Dinitrophenol	50	49.311	.05	-1	20
Dibenzofuran	1.6631	1.5813	.05	-5	20
4-Nitrophenol	.30016	.2492	.05	-17	20
2,4-Dinitrotoluene	.4168	.42686	.05	2	20
2,3,5,6-Tetrachlorophenol	.34206	.37959	.05	11	20
2,3,4,6-Tetrachlorophenol	.31963	.36359	.05	14	20
Diethyl phthalate	1.4027	1.3432	.05	-4	20
Fluorene	1.3609	1.3146	.05	-3	20
4-Chlorophenyl phenyl ether	.63723	.64045	.05	1	20
4-Nitroaniline	.35592	.34713	.05	-2	20
4,6-Dinitro-o-cresol	50	49.230	.05	-2	20
NDPA/DPA	1.1474	1.1121	.05	-3	20
Azobenzene	1.4339	1.1677	.05	-19	20
4-Bromophenyl phenyl ether	.36242	.38568	.05	6	20
Hexachlorobenzene	.38775	.42368	.05	9	20
Pentachlorophenol	50	52.565	.05	5	20
Phenanthrene	1.1380	1.0581	.05	-7	20
Anthracene	1.1195	1.0494	.05	-6	20
Carbazole	1.0461	.97709	.05	-7	20
Di-n-butylphthalate	1.3082	1.2347	.05	-6	20
Fluoranthene	1.1585	1.0979	.05	-5	20
Pyrene	1.2147	1.1526	.05	-5	20
Butyl benzyl phthalate	.58659	.54731	.05	-7	20
Bis (2-ethylhexyl) adipate	2.1533	2.0629	.05	-4	20
Benzo(a)anthracene	1.2157	1.1029	.05	-9	20
3,3'-Dichlorobenzidine	.42104	.44931	.05	7	20
Chrysene	1.1811	1.0959	.05	-7	20
Bis(2-ethylhexyl)phthalate	.88531	.80817	.05	-9	20
Di-n-octylphthalate	1.4585	1.3599	.05	-7	20
Benzo(b)fluoranthene	1.1655	1.1810	.05	1	20
Benzo(k)fluoranthene	1.2214	1.2082	.05	-1	20
Benzo(a)pyrene	1.1235	1.1527	.05	3	20
Indeno(1,2,3-cd)pyrene	1.0027	1.0326	.05	3	20
Dibenzo(a,h)anthracene	1.0453	1.0753	.05	3	20

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.i Calibration Date: 14-MAR-2016 Time: 21:47

Lab File ID: ABN314n Init. Calib. Date(s): 08-MAR-2016 09-MAR-2016

Sample No: ABN ICV Lot#584 Init. Calib. Times : 20:12 19:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
Benzo(ghi)perylene	1.0955	1.1426	.05	4	20
2-Fluorophenol	1.3321	1.2146	.05	-9	20
Phenol-d6	1.6792	1.5119	.05	-10	20
Nitrobenzene-d5	1.5110	1.3343	.05	-12	20
2-Fluorobiphenyl	.70903	.72267	.05	2	20
2,4,6-Tribromophenol	50	56.675	.05	13	20
4-Terphenyl-d14	.75811	.74797	.05	-1	20

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7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.i Calibration Date: 14-MAR-2016 Time: 20:57

Lab File ID: ADP314n Init. Calib. Date(s): 08-MAR-2016 09-MAR-2016

Sample No: ADP CCV Lot#582 Init. Calib. Times : 20:12 19:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
Benzidine	50	64.378	.05	29	20	F
Atrazine	.17681	.21622	.05	22	20	F
parathion	50	58.289	.05	17	20	

FORM VII NYTCL-8270

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: SV103.i Calibration Date: 14-MAR-2016 Time: 21:22

Lab File ID: AP9314n Init. Calib. Date(s): 08-MAR-2016 09-MAR-2016

Sample No: AP9 ICV Lot#583 Init. Calib. Times : 20:12 19:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
Benzaldehyde	1.1192	1.0585	.05	-5	20	
Acetophenone	1.8996	1.8362	.05	-3	20	
2-Chloroaniline	1.7487	1.7667	.05	1	20	
a-Terpineol	1.1868	.94883	.05	-20	20	F
3-Chloroaniline	.16719	.13838	.05	-17	20	
2,6-Dichlorophenol	1.1392	1.2580	.05	10	20	
1-chloro-2-nitrobenzene	.57398	.59922	.05	4	20	
Caprolactam	.17472	.14287	.05	-18	20	
1,2,4,5-Tetrachlorobenzene	.55854	.56801	.05	2	20	
Biphenyl	1.5083	1.4247	.05	-6	20	
Dimethoate	.53182	.50111	.05	-6	20	
Dichloran	.17135	.19167	.05	12	20	
Pentachloronitrobenzene	.1616	.19187	.05	19	20	
Diphenamid	.4653	.48548	.05	4	20	
Benzo(e)pyrene	1.0633	1.0684	.05	0	20	
Perylene	1.1310	1.0919	.05	-3	20	

FORM VII NYTCL-8270

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 14-MAR-2016 20:57
Lab File ID: ADP314n.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Benzidine	50.00000	64.37842	0.60733	0.050	28.75684	20.00000	Quadratic	<-
82 Atrazine	0.17681	0.21622	0.21622	0.050	22.29241	20.00000	Averaged	<-
91 parathion	50.00000	58.28900	0.63696	0.050	16.57799	20.00000	Quadratic	

Average %D / Drift Results.
Calculated Average %D/Drift = 22.54242
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\ADP314n.D
Lab Smp Id:
Inj Date : 14-MAR-2016 20:57
Operator : ps Inst ID: SV103.i
Smp Info : ADP CCV Lot#5822
Misc Info : ,ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 24-Mar-2016 09:17 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 142 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-44670

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.546	4.546	(1.000)	92167	40.0000		
94 Benzidine	184	10.242	10.242	(1.149)	311979	50.0000	64.4	
* 34 Naphthalene-d8	136	5.782	5.782	(1.000)	378956	40.0000		
* 61 Acenaphthene-d10	164	7.483	7.483	(1.000)	219355	40.0000		
82 Atrazine	200	8.697	8.697	(0.976)	111072	50.0000	61.1	
* 85 Phenanthrene-d10	188	8.911	8.911	(1.000)	410950	40.0000		
91 parathion	109	9.702	9.702	(2.134)	73383	50.0000	58.3	
* 102 Chrysene-d12	240	11.671	11.671	(1.000)	412195	40.0000		
* 110 Perylene-d12	264	13.724	13.724	(1.000)	401992	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ADP314n.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: ps
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: ,ICAL12135

Calibration Date: 14-MAR-2016
Calibration Time: 21:47
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	92167	-26.10
34 Naphthalene-d8	523308	261654	1046616	378956	-27.58
61 Acenaphthene-d10	282544	141272	565088	219355	-22.36
85 Phenanthrene-d10	487821	243911	975642	410950	-15.76
102 Chrysene-d12	460303	230152	920606	412195	-10.45
110 Perylene-d12	441116	220558	882232	401992	-8.87

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

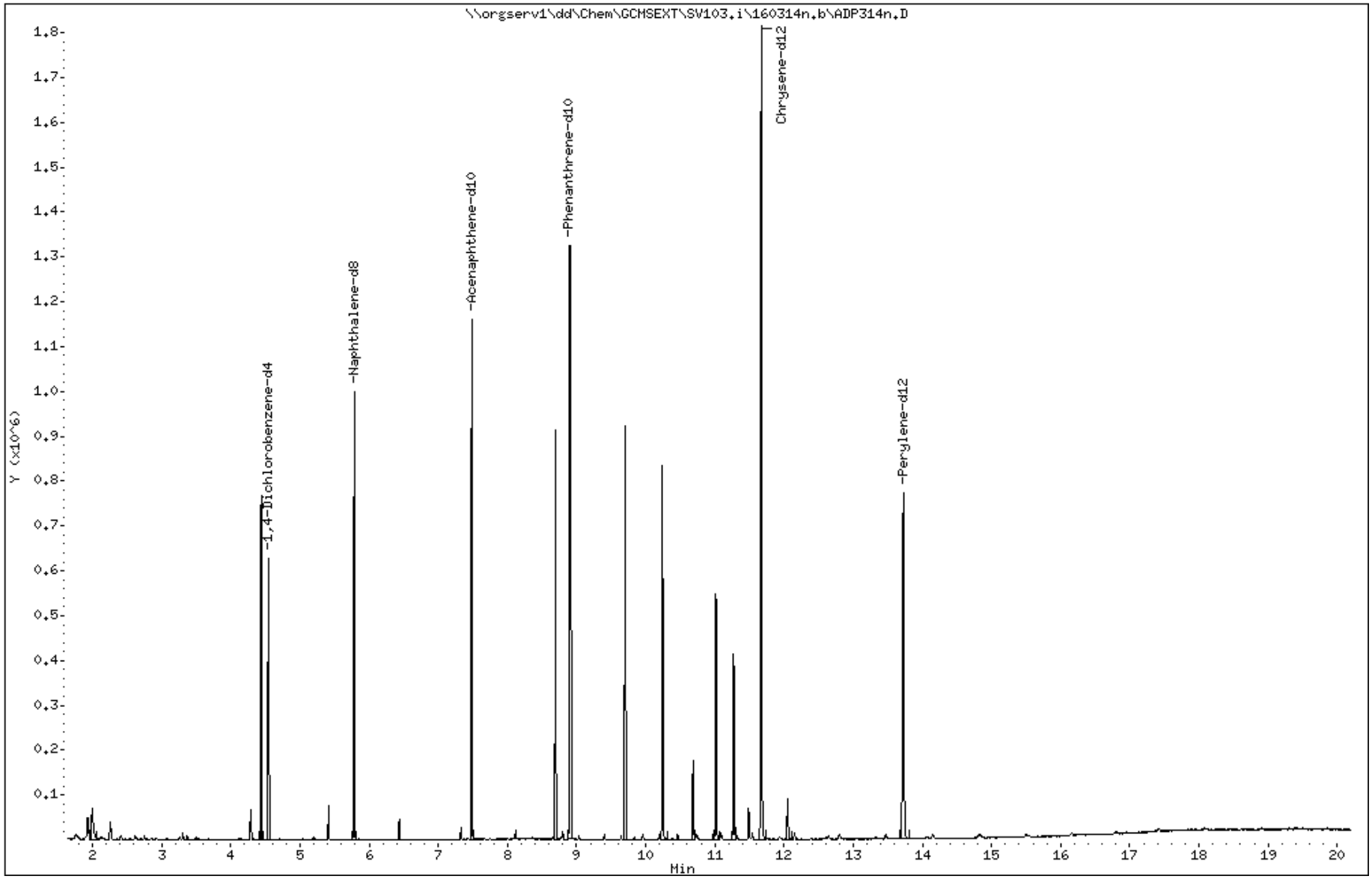
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\ADP314n.D
Date : 14-MAR-2016 20:57
Client ID:
Sample Info: ADP CCV Lot#5822

Column phase: RTx-5

Instrument: SV103.i

Operator: ps
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info	: ADP CCV Lot#5822 ,ICAL12135		
Instrument ID	: SV103.i		
Method	: HP2ABNv2.m		
File	: ADP314n.D		
Injection Date	: 14-MAR-2016 20:57		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CCALIB_7	

There are no manual integrations in this file.

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 14-MAR-2016 21:22
Lab File ID: AP9314n.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Benzaldehyde	1.11920	1.05851	1.05851	0.050	-5.42228	20.00000	Averaged	
17 Acetophenone	1.89967	1.83620	1.83620	0.050	-3.34100	20.00000	Averaged	
27 2-Chloroaniline	1.74876	1.76673	1.76673	0.050	1.02738	20.00000	Averaged	
36 a-Terpineol	1.18687	0.94883	0.94883	0.050	-20.05600	20.00000	Averaged	<-
37 3-Chloroaniline	0.16719	0.13838	0.13838	0.050	-17.23217	20.00000	Averaged	
39 2,6-Dichlorophenol	1.13921	1.25802	1.25802	0.050	10.42922	20.00000	Averaged	
41 1-chloro-2-nitrobenzene	0.57398	0.59922	0.59922	0.050	4.39741	20.00000	Averaged	
42 Caprolactam	0.17472	0.14287	0.14287	0.050	-18.22756	20.00000	Averaged	
46 1,2,4,5-Tetrachlorobenzene	0.55854	0.56801	0.56801	0.050	1.69508	20.00000	Averaged	
51 Biphenyl	1.50835	1.42474	1.42474	0.050	-5.54309	20.00000	Averaged	
80 Dimethoate	0.53182	0.50111	0.50111	0.050	-5.77462	20.00000	Averaged	
81 Dichloran	0.17135	0.19167	0.19167	0.050	11.85684	20.00000	Averaged	
84 Pentachloronitrobenzene	0.16160	0.19187	0.19187	0.050	18.72982	20.00000	Averaged	
92 Diphenamid	0.46530	0.48548	0.48548	0.050	4.33613	20.00000	Averaged	
108 Benzo(e)pyrene	1.06333	1.06849	1.06849	0.050	0.48505	20.00000	Averaged	
111 Perylene	1.13103	1.09190	1.09190	0.050	-3.45998	20.00000	Averaged	

Average %D / Drift Results.
Calculated Average %D/Drift = 8.25085
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\AP9314n.D
Lab Smp Id:
Inj Date : 14-MAR-2016 21:22
Operator : ps Inst ID: SV103.i
Smp Info : AP9 ICV Lot#5838
Misc Info : ,ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 24-Mar-2016 09:17 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 143 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-44670

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.107	4.107	(0.904)	121288	50.0000	47.3	
*	11 1,4-Dichlorobenzene-d4	152	4.546	4.546	(1.000)	91667	40.0000		
	17 Acetophenone	105	4.947	4.947	(1.088)	210399	50.0000	48.3	
	27 2-Chloroaniline	127	5.391	5.391	(1.186)	202438	50.0000	50.5	
*	34 Naphthalene-d8	136	5.781	5.781	(1.000)	382597	40.0000		
	36 a-Terpineol	59	5.846	5.846	(1.286)	108721	50.0000	40.0	
	37 3-Chloroaniline	65	5.856	5.856	(1.013)	66178	50.0000	41.4	
	39 2,6-Dichlorophenol	162	5.883	5.883	(1.294)	144149	50.0000	55.2	
	41 1-chloro-2-nitrobenzene	111	6.135	6.135	(1.349)	68661	50.0000	52.2	
	42 Caprolactam	55	6.183	6.183	(1.069)	68327	50.0000	40.9	
	46 1,2,4,5-Tetrachlorobenzene	216	6.648	6.648	(0.888)	159363	50.0000	50.8	
	51 Biphenyl	154	6.942	6.942	(0.928)	399730	50.0000	47.2	
*	61 Acenaphthene-d10	164	7.482	7.482	(1.000)	224450	40.0000		
	80 Dimethoate	87	8.600	8.600	(1.149)	140592	50.0000	47.1	
	81 Dichloran	206	8.611	8.611	(1.151)	53775	50.0000	55.9	
	84 Pentachloronitrobenzene	237	8.761	8.761	(1.171)	53831	50.0000	59.4	
*	85 Phenanthrene-d10	188	8.910	8.910	(1.000)	418394	40.0000		
	92 Diphenamid	167	9.820	9.820	(1.102)	253900	50.0000	52.2	
*	102 Chrysene-d12	240	11.670	11.670	(1.000)	389456	40.0000		
	108 Benzo(e)pyrene	252	13.564	13.564	(0.988)	516223	50.0000	50.2	
*	110 Perylene-d12	264	13.724	13.724	(1.000)	386507	40.0000		
	111 Perylene	252	13.767	13.767	(1.003)	527533	50.0000	48.3	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: AP9314n.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: ps
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: ,ICAL12135

Calibration Date: 14-MAR-2016
Calibration Time: 20:57
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	91667	-26.50
34 Naphthalene-d8	523308	261654	1046616	382597	-26.89
61 Acenaphthene-d10	282544	141272	565088	224450	-20.56
85 Phenanthrene-d10	487821	243911	975642	418394	-14.23
102 Chrysene-d12	460303	230152	920606	389456	-15.39
110 Perylene-d12	441116	220558	882232	386507	-12.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

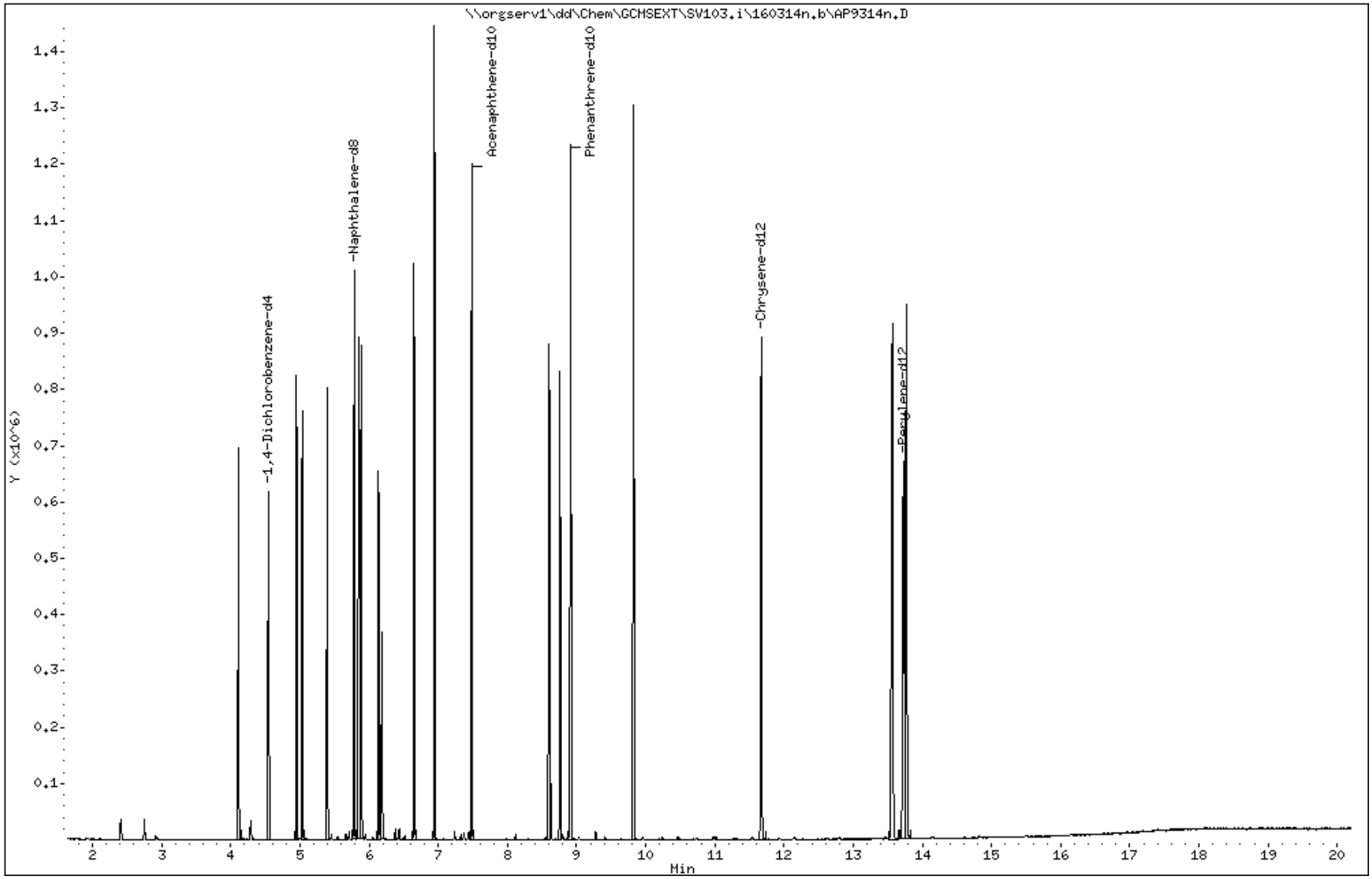
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\AP9314n.D
Date : 14-MAR-2016 21:22
Client ID:
Sample Info: AP9 ICV Lot#5838

Instrument: SV103.i

Operator: ps
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info	: AP9 ICV Lot#5838 ,ICAL12135		
Instrument ID	: SV103.i		
Method	: HP2ABNv2.m		
File	: AP9314n.D		
Injection Date	: 14-MAR-2016 21:22		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CCALIB_7	

There are no manual integrations in this file.

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 14-MAR-2016 21:47
Lab File ID: ABN314n.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 n-Nitrosodimethylamine	0.92348	0.76650	0.76650	0.050	-16.99865	20.00000	Averaged	
2 Pyridine	1.57434	1.27909	1.27909	0.050	-18.75372	20.00000	Averaged	
$ 3 2-Fluorophenol	1.33210	1.21468	1.21468	0.050	-8.81483	20.00000	Averaged	
5 Aniline	2.19534	1.82834	1.82834	0.050	-16.71721	20.00000	Averaged	
$ 6 Phenol-d6	1.67927	1.51196	1.51196	0.050	-9.96308	20.00000	Averaged	
7 Phenol	1.92058	1.59309	1.59309	0.050	-17.05184	20.00000	Averaged	
8 Bis(2-chloroethyl)ether	1.45630	1.23132	1.23132	0.050	-15.44896	20.00000	Averaged	
9 2-Chlorophenol	1.45002	1.36713	1.36713	0.050	-5.71664	20.00000	Averaged	
10 1,3-Dichlorobenzene	1.61399	1.48584	1.48584	0.050	-7.94024	20.00000	Averaged	
12 1,4-Dichlorobenzene	1.66913	1.54962	1.54962	0.050	-7.16031	20.00000	Averaged	
14 1,2-Dichlorobenzene	1.56193	1.47635	1.47635	0.050	-5.47931	20.00000	Averaged	
13 Benzyl alcohol	1.22784	1.11834	1.11834	0.050	-8.91860	20.00000	Averaged	
15 2-Methylphenol	1.27749	1.18940	1.18940	0.050	-6.89541	20.00000	Averaged	
16 Bis(2-chloroisopropyl)ether	2.40692	1.44468	1.44468	0.050	-39.97795	20.00000	Averaged	<-
18 n-Nitrosodi-n-propylamine	1.06999	0.92532	0.92532	0.050	-13.52051	20.00000	Averaged	
21 Hexachloroethane	0.69218	0.63200	0.63200	0.050	-8.69408	20.00000	Averaged	
19 3-Methylphenol/4-Methylphen	1.34624	1.25970	1.25970	0.050	-6.42781	20.00000	Averaged	
$ 22 Nitrobenzene-d5	1.51104	1.33433	1.33433	0.050	-11.69475	20.00000	Averaged	
23 Nitrobenzene	0.38078	0.31885	0.31885	0.050	-16.26575	20.00000	Averaged	
26 Isophorone	2.81213	2.51935	2.51935	0.050	-10.41127	20.00000	Averaged	
28 2-Nitrophenol	0.78777	0.81313	0.81313	0.050	3.21983	20.00000	Averaged	
29 2,4-Dimethylphenol	1.44298	1.35146	1.35146	0.050	-6.34239	20.00000	Averaged	
30 Bis(2-chloroethoxy)methane	1.73596	1.55873	1.55873	0.050	-10.20960	20.00000	Averaged	
32 2,4-Dichlorophenol	0.28500	0.28852	0.28852	0.050	1.23604	20.00000	Averaged	
31 Benzoic acid	50.00000	49.29027	0.26599	0.050	-1.41946	20.00000	Linear	
33 1,2,4-Trichlorobenzene	0.32589	0.32755	0.32755	0.050	0.50772	20.00000	Averaged	
35 Naphthalene	1.00423	0.92987	0.92987	0.050	-7.40504	20.00000	Averaged	
38 4-Chloroaniline	0.13750	0.11186	0.11186	0.050	-18.64862	20.00000	Averaged	
40 Hexachlorobutadiene	0.18954	0.19891	0.19891	0.050	4.93846	20.00000	Averaged	
43 p-Chloro-m-cresol	0.29363	0.29149	0.29149	0.050	-0.73008	20.00000	Averaged	
44 2-Methylnaphthalene	0.67727	0.65648	0.65648	0.050	-3.06909	20.00000	Averaged	
45 1-Methylnaphthalene	0.23318	0.22500	0.22500	0.050	-3.50875	20.00000	Averaged	
47 Hexachlorocyclopentadiene	0.21222	0.17273	0.17273	0.050	-18.60723	20.00000	Averaged	
48 2,4,6-Trichlorophenol	0.19925	0.22594	0.22594	0.050	13.39621	20.00000	Averaged	
49 2,4,5-Trichlorophenol	0.21535	0.23240	0.23240	0.050	7.91577	20.00000	Averaged	
$ 50 2-Fluorobiphenyl	0.70903	0.72267	0.72267	0.050	1.92357	20.00000	Averaged	
52 2-Chloronaphthalene	0.63958	0.64951	0.64951	0.050	1.55278	20.00000	Averaged	
53 2-Nitroaniline	0.21169	0.23062	0.23062	0.050	8.94615	20.00000	Averaged	
54 1,4-Dinitrobenzene	0.20995	0.21247	0.21247	0.050	1.19916	20.00000	Averaged	
55 Dimethyl phthalate	1.35981	1.28822	1.28822	0.050	-5.26437	20.00000	Averaged	
56 1,3-Dinitrobenzene	0.23412	0.23265	0.23265	0.050	-0.62585	20.00000	Averaged	
57 2,6-Dinitrotoluene	0.16979	0.18549	0.18549	0.050	9.24135	20.00000	Averaged	

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 14-MAR-2016 21:47
Lab File ID: ABN314n.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
58 Acenaphthylene	1.01198	0.99691	0.99691	0.050	-1.48891	20.00000	Averaged
59 1,2-Dinitrobenzene	0.15584	0.15590	0.15590	0.050	0.03705	20.00000	Averaged
60 3-Nitroaniline	0.35861	0.34096	0.34096	0.050	-4.92277	20.00000	Averaged
62 Acenaphthene	1.15319	1.06820	1.06820	0.050	-7.36993	20.00000	Averaged
63 2,4-Dinitrophenol	50.00000	49.31183	0.23589	0.050	-1.37634	20.00000	Wt Linear
65 Dibenzofuran	1.66315	1.58134	1.58134	0.050	-4.91869	20.00000	Averaged
64 4-Nitrophenol	0.30016	0.24920	0.24920	0.050	-16.97668	20.00000	Averaged
66 2,4-Dinitrotoluene	0.41680	0.42686	0.42686	0.050	2.41424	20.00000	Averaged
67 2,3,5,6-Tetrachlorophenol	0.34206	0.37959	0.37959	0.050	10.97006	20.00000	Averaged
68 2,3,4,6-Tetrachlorophenol	0.31963	0.36359	0.36359	0.050	13.75376	20.00000	Averaged
69 Diethyl phthalate	1.40275	1.34326	1.34326	0.050	-4.24128	20.00000	Averaged
70 Fluorene	1.36099	1.31464	1.31464	0.050	-3.40554	20.00000	Averaged
71 4-Chlorophenyl phenyl ether	0.63723	0.64045	0.64045	0.050	0.50559	20.00000	Averaged
72 4-Nitroaniline	0.35592	0.34713	0.34713	0.050	-2.46941	20.00000	Averaged
73 4,6-Dinitro-o-cresol	50.00000	49.23062	0.29002	0.050	-1.53876	20.00000	Wt Linear
74 NDPA/DPA	1.14745	1.11212	1.11212	0.050	-3.07866	20.00000	Averaged
75 Azobenzene	1.43396	1.16775	1.16775	0.050	-18.56424	20.00000	Averaged
$ 76 2,4,6-Tribromophenol	50.00000	56.67586	0.12769	0.050	13.35172	20.00000	Wt Linear
78 4-Bromophenyl phenyl ether	0.36242	0.38568	0.38568	0.050	6.41749	20.00000	Averaged
79 Hexachlorobenzene	0.38775	0.42368	0.42368	0.050	9.26549	20.00000	Averaged
83 Pentachlorophenol	50.00000	52.56553	0.15791	0.050	5.13106	20.00000	Wt Linear
86 Phenanthrene	1.13809	1.05810	1.05810	0.050	-7.02848	20.00000	Averaged
87 Anthracene	1.11952	1.04946	1.04946	0.050	-6.25734	20.00000	Averaged
89 Carbazole	1.04616	0.97709	0.97709	0.050	-6.60205	20.00000	Averaged
90 Di-n-butylphthalate	1.30827	1.23472	1.23472	0.050	-5.62152	20.00000	Averaged
93 Fluoranthene	1.15853	1.09799	1.09799	0.050	-5.22601	20.00000	Averaged
95 Pyrene	1.21479	1.15266	1.15266	0.050	-5.11471	20.00000	Averaged
$ 96 4-Terphenyl-d14	0.75811	0.74797	0.74797	0.050	-1.33754	20.00000	Averaged
98 Butyl benzyl phthalate	0.58659	0.54731	0.54731	0.050	-6.69513	20.00000	Averaged
99 Bis (2-ethylhexyl) adipate	2.15331	2.06292	2.06292	0.050	-4.19748	20.00000	Averaged
100 Benzo(a)anthracene	1.21575	1.10294	1.10294	0.050	-9.27907	20.00000	Averaged
101 3,3'-Dichlorobenzidine	0.42104	0.44931	0.44931	0.050	6.71559	20.00000	Averaged
103 Chrysene	1.18112	1.09599	1.09599	0.050	-7.20759	20.00000	Averaged
104 Bis(2-ethylhexyl)phthalate	0.88531	0.80817	0.80817	0.050	-8.71358	20.00000	Averaged
105 Di-n-octylphthalate	1.45852	1.35994	1.35994	0.050	-6.75914	20.00000	Averaged
106 Benzo(b)fluoranthene	1.16552	1.18107	1.18107	0.050	1.33359	20.00000	Averaged
107 Benzo(k)fluoranthene	1.22148	1.20823	1.20823	0.050	-1.08504	20.00000	Averaged
109 Benzo(a)pyrene	1.12359	1.15270	1.15270	0.050	2.59038	20.00000	Averaged
112 Indeno(1,2,3-cd)pyrene	1.00271	1.03264	1.03264	0.050	2.98553	20.00000	Averaged
113 Dibenzo(a,h)anthracene	1.04536	1.07535	1.07535	0.050	2.86884	20.00000	Averaged
114 Benzo(ghi)perylene	1.09552	1.14261	1.14261	0.050	4.29837	20.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV103.i Injection Date: 14-MAR-2016 21:47
Lab File ID: ABN314n.D Init. Cal. Date(s): 08-MAR-2016 09-MAR-2016
Analysis Type: Init. Cal. Times: 20:12 19:55
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m

Average %D / Drift Results.
Calculated Average %D/Drift = 7.43221
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\ABN314n.D
Lab Smp Id:
Inj Date : 14-MAR-2016 21:47
Operator : ps Inst ID: SV103.i
Smp Info : ABN ICV Lot#5842
Misc Info : ,ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 24-Mar-2016 09:23 SV103.i Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 144 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-44670

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.829	1.829	(0.402)	92116	50.0000	41.5	
	2 Pyridine	79	1.856	1.856	(0.408)	153718	50.0000	40.6	
$	3 2-Fluorophenol	112	3.257	3.257	(0.716)	145977	50.0000	45.6	
	5 Aniline	93	4.225	4.225	(0.929)	219725	50.0000	41.6	
$	6 Phenol-d6	99	4.230	4.230	(0.931)	181704	50.0000	45.0	
	7 Phenol	94	4.246	4.246	(0.934)	191453	50.0000	41.5	
	8 Bis(2-chloroethyl)ether	93	4.311	4.311	(0.948)	147977	50.0000	42.3	
	9 2-Chlorophenol	128	4.337	4.337	(0.954)	164298	50.0000	47.1	
	10 1,3-Dichlorobenzene	146	4.487	4.487	(0.987)	178564	50.0000	46.0	
*	11 1,4-Dichlorobenzene-d4	152	4.546	4.546	(1.000)	96142	40.0000		
	12 1,4-Dichlorobenzene	146	4.562	4.562	(1.004)	186229	50.0000	46.4	
	14 1,2-Dichlorobenzene	146	4.706	4.706	(1.035)	177424	50.0000	47.3	
	13 Benzyl alcohol	79	4.701	4.701	(1.034)	134399	50.0000	45.5	
	15 2-Methylphenol	108	4.835	4.835	(1.064)	142939	50.0000	46.6	
	16 Bis(2-chloroisopropyl)ether	45	4.851	4.851	(1.067)	173618	50.0000	30.0	
	18 n-Nitrosodi-n-propylamine	70	4.974	4.974	(1.094)	111203	50.0000	43.2	
	21 Hexachloroethane	117	5.033	5.033	(1.107)	75952	50.0000	45.6	
	19 3-Methylphenol/4-Methylphenol	108	4.995	4.995	(1.099)	151388	50.0000	46.8	
$	22 Nitrobenzene-d5	82	5.091	5.091	(1.120)	160356	50.0000	44.2	
	23 Nitrobenzene	77	5.108	5.108	(0.883)	162464	50.0000	41.9	
	26 Isophorone	82	5.354	5.354	(1.178)	302769	50.0000	44.8	
	28 2-Nitrophenol	139	5.423	5.423	(1.193)	97720	50.0000	51.6	
	29 2,4-Dimethylphenol	107	5.503	5.503	(1.211)	162415	50.0000	46.8	
	30 Bis(2-chloroethoxy)methane	93	5.589	5.589	(1.229)	187324	50.0000	44.9	
	32 2,4-Dichlorophenol	162	5.664	5.664	(0.980)	147012	50.0000	50.6	
	31 Benzoic acid	105	5.621	5.621	(0.972)	135530	50.0000	49.3	
	33 1,2,4-Trichlorobenzene	180	5.739	5.739	(0.993)	166898	50.0000	50.2	
*	34 Naphthalene-d8	136	5.781	5.781	(1.000)	407631	40.0000		
	35 Naphthalene	128	5.803	5.803	(1.004)	473803	50.0000	46.3	
	38 4-Chloroaniline	65	5.878	5.878	(1.017)	56997	50.0000	40.7	
	40 Hexachlorobutadiene	225	5.953	5.953	(1.030)	101350	50.0000	52.5	
	43 p-Chloro-m-cresol	107	6.375	6.375	(1.103)	148524	50.0000	49.6	
	44 2-Methylnaphthalene	142	6.482	6.482	(1.121)	334503	50.0000	48.5	

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	45	1-Methylnaphthalene	115	6.573	6.573	(1.137)	114647	50.0000	48.2	
	47	Hexachlorocyclopentadiene	237	6.653	6.653	(1.151)	88012	50.0000	40.7	
	48	2,4,6-Trichlorophenol	196	6.771	6.771	(1.171)	115124	50.0000	56.7	
	49	2,4,5-Trichlorophenol	196	6.798	6.798	(1.176)	118417	50.0000	54.0	
$	50	2-Fluorobiphenyl	172	6.857	6.857	(1.186)	368228	50.0000	51.0	
	52	2-Chloronaphthalene	162	6.947	6.947	(1.202)	330952	50.0000	50.8	
	53	2-Nitroaniline	138	7.060	7.060	(1.221)	117512	50.0000	54.5	
	54	1,4-Dinitrobenzene	168	7.199	7.199	(0.961)	64080	50.0000	50.6	
	55	Dimethyl phthalate	163	7.268	7.268	(0.971)	388518	50.0000	47.4	
	56	1,3-Dinitrobenzene	168	7.274	7.274	(0.971)	70167	50.0000	49.7	
	57	2,6-Dinitrotoluene	165	7.311	7.311	(1.265)	94512	50.0000	54.6	
	58	Acenaphthylene	152	7.343	7.343	(1.270)	507965	50.0000	49.2	
	59	1,2-Dinitrobenzene	168	7.349	7.349	(0.981)	47017	50.0000	50.0	
	60	3-Nitroaniline	138	7.461	7.461	(0.996)	102831	50.0000	47.5	
*	61	Acenaphthene-d10	164	7.488	7.488	(1.000)	241274	40.0000		
	62	Acenaphthene	154	7.514	7.514	(1.004)	322162	50.0000	46.3	
	63	2,4-Dinitrophenol	184	7.563	7.563	(1.010)	71142	50.0000	49.3	
	65	Dibenzofuran	168	7.686	7.686	(1.026)	476921	50.0000	47.5	
	64	4-Nitrophenol	65	7.653	7.653	(1.022)	75157	50.0000	41.5	
	66	2,4-Dinitrotoluene	165	7.696	7.696	(1.028)	128738	50.0000	51.2	
	67	2,3,5,6-Tetrachlorophenol	232	7.776	7.776	(1.039)	114481	50.0000	55.5	
	68	2,3,4,6-Tetrachlorophenol	232	7.814	7.814	(1.044)	109656	50.0000	56.9	
	69	Diethyl phthalate	149	7.958	7.958	(1.063)	405117	50.0000	47.9	
	70	Fluorene	166	8.017	8.017	(1.071)	396486	50.0000	48.3	
	71	4-Chlorophenyl phenyl ether	204	8.039	8.039	(1.074)	193154	50.0000	50.2	
	72	4-Nitroaniline	138	8.049	8.049	(1.075)	104692	50.0000	48.8	
	73	4,6-Dinitro-o-cresol	198	8.087	8.087	(1.080)	87467	50.0000	49.2(M)	M7
	74	NDPA/DPA	169	8.151	8.151	(1.089)	335407	50.0000	48.5	
	75	Azobenzene	77	8.188	8.188	(1.094)	352186	50.0000	40.7	
$	76	2,4,6-Tribromophenol	330	8.247	8.247	(0.926)	70221	50.0000	56.7	
	78	4-Bromophenyl phenyl ether	248	8.504	8.504	(1.136)	116319	50.0000	53.2	
	79	Hexachlorobenzene	284	8.552	8.552	(1.142)	127779	50.0000	54.6	
	83	Pentachlorophenol	266	8.745	8.745	(0.981)	86845	50.0000	52.6	
*	85	Phenanthrene-d10	188	8.910	8.910	(1.000)	439963	40.0000		
	86	Phenanthrene	178	8.937	8.937	(1.003)	581904	50.0000	46.5	
	87	Anthracene	178	8.985	8.985	(1.008)	577157	50.0000	46.9	
	89	Carbazole	167	9.156	9.156	(1.028)	537357	50.0000	46.7	
	90	Di-n-butylphthalate	149	9.547	9.547	(1.071)	679040	50.0000	47.2	
	93	Fluoranthene	202	10.087	10.087	(1.132)	603841	50.0000	47.4	
	95	Pyrene	202	10.301	10.301	(1.156)	633909	50.0000	47.4	
$	96	4-Terphenyl-d14	244	10.499	10.499	(1.178)	411350	50.0000	49.3	
	98	Butyl benzyl phthalate	149	11.066	11.066	(1.242)	300997	50.0000	46.6	
	99	Bis (2-ethylhexyl) adipate	129	11.210	11.210	(2.466)	247917	50.0000	47.9	
	100	Benzo(a)anthracene	228	11.665	11.665	(0.999)	590017	50.0000	45.4	
*	102	Chrysene-d12	240	11.676	11.676	(1.000)	427960	40.0000		
	101	3,3'-Dichlorobenzidine	252	11.670	11.670	(1.000)	240360	50.0000	53.4	
	103	Chrysene	228	11.708	11.708	(1.003)	586298	50.0000	46.4	
	104	Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.015)	432331	50.0000	45.6	
	105	Di-n-octylphthalate	149	12.794	12.794	(1.096)	727499	50.0000	46.6	
	106	Benzo(b)fluoranthene	252	13.168	13.168	(0.959)	579678	50.0000	50.7(H)	
	107	Benzo(k)fluoranthene	252	13.211	13.211	(0.963)	593010	50.0000	49.4	
	109	Benzo(a)pyrene	252	13.639	13.639	(0.994)	565754	50.0000	51.3	
*	110	Perylene-d12	264	13.724	13.724	(1.000)	392647	40.0000		
	112	Indeno(1,2,3-cd)pyrene	276	15.302	15.302	(1.115)	506831	50.0000	51.5	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
113 Dibenzo(a,h)anthracene	278	15.356	15.356	(1.119)	527793	50.0000	51.4	
114 Benzo(ghi)perylene	276	15.671	15.671	(1.142)	560805	50.0000	52.1	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: ABN314n.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: ps
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: ,ICAL12135

Calibration Date: 14-MAR-2016
Calibration Time: 21:22
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

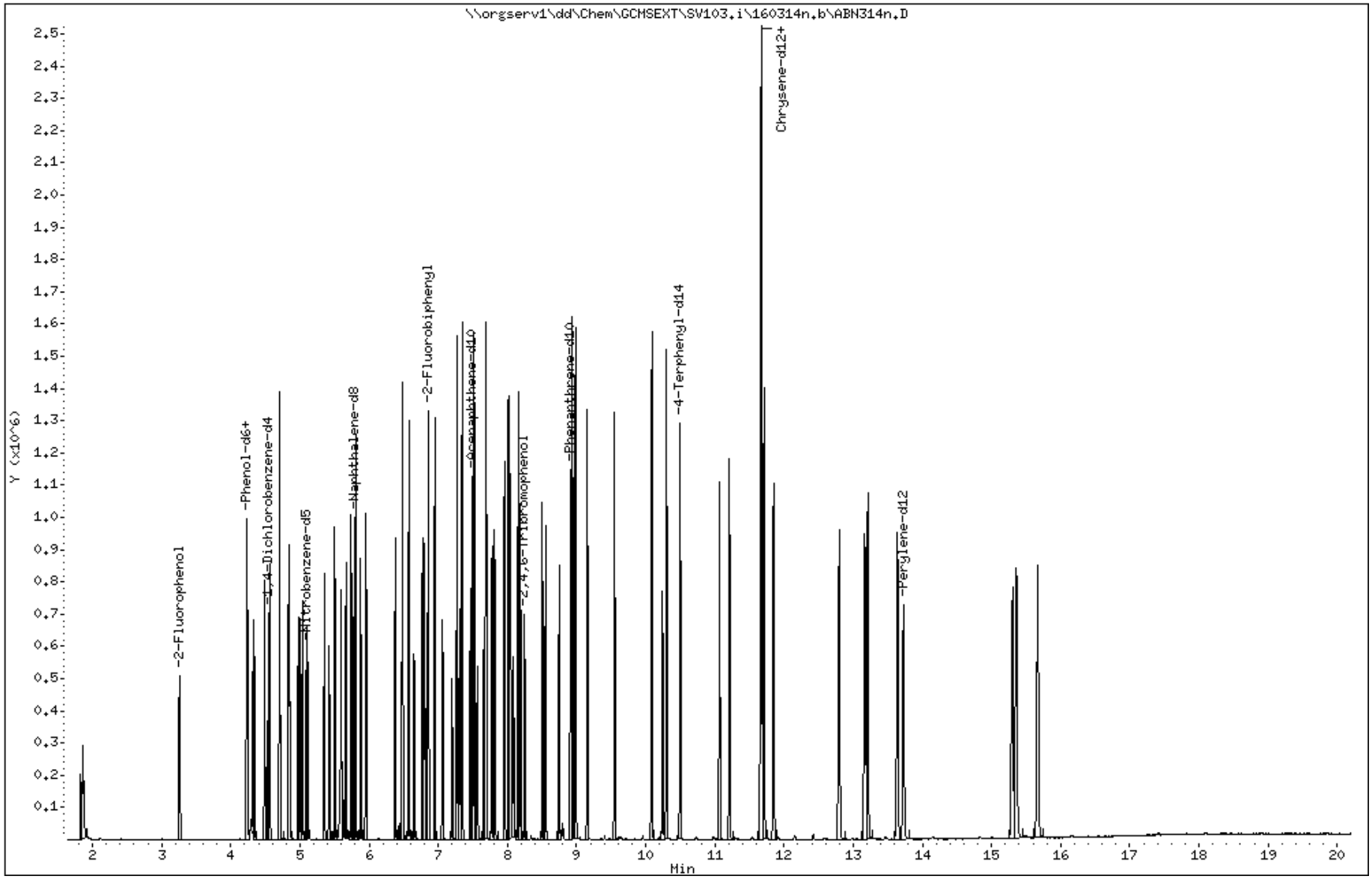
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	124718	62359	249436	96142	-22.91
34 Naphthalene-d8	523308	261654	1046616	407631	-22.10
61 Acenaphthene-d10	282544	141272	565088	241274	-14.61
85 Phenanthrene-d10	487821	243911	975642	439963	-9.81
102 Chrysene-d12	460303	230152	920606	427960	-7.03
110 Perylene-d12	441116	220558	882232	392647	-10.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

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: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\ABN314n.D
Date : 14-MAR-2016 21:47
Client ID:
Sample Info: ABN ICV Lot#5842

Instrument: SV103.i
Operator: ps
Column phase: RTx-5
Column diameter: 0.32



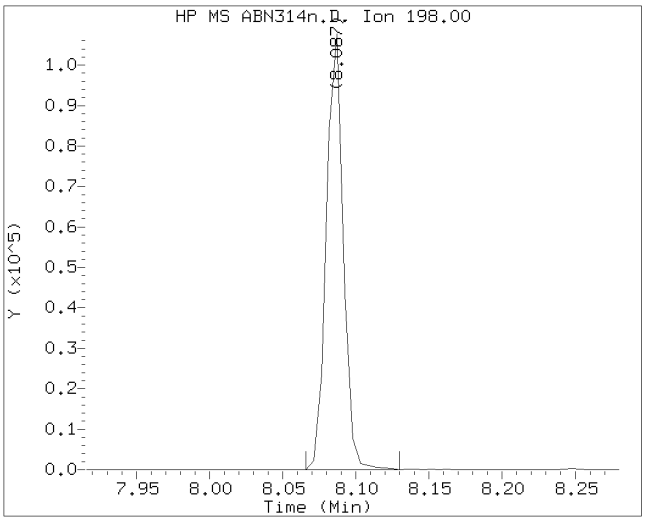
Alpha Analytical Labs

Manual Integration

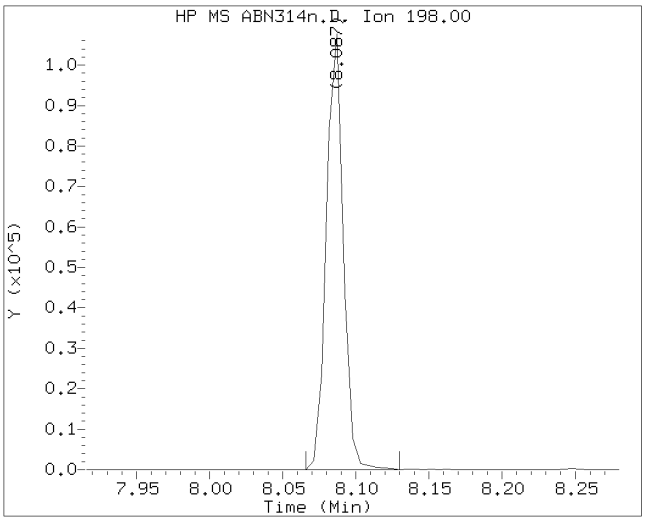
Sample Info : ABN ICV Lot#5842
,ICAL12135

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : ABN314n.D
Injection Date : 14-MAR-2016 21:47
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

Compound # 73: 4,6-Dinitro-o-cresol



Original Peak Response = 87467



Manual Peak Response = 87467 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\deg314nb.D
Lab Smp Id:
Inj Date : 14-MAR-2016 20:31
Operator : as Inst ID: SV103.i
Smp Info : deg0314
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\DDT.m
Meth Date : 13-Mar-2016 13:17 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: degradation
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUALXP-52160

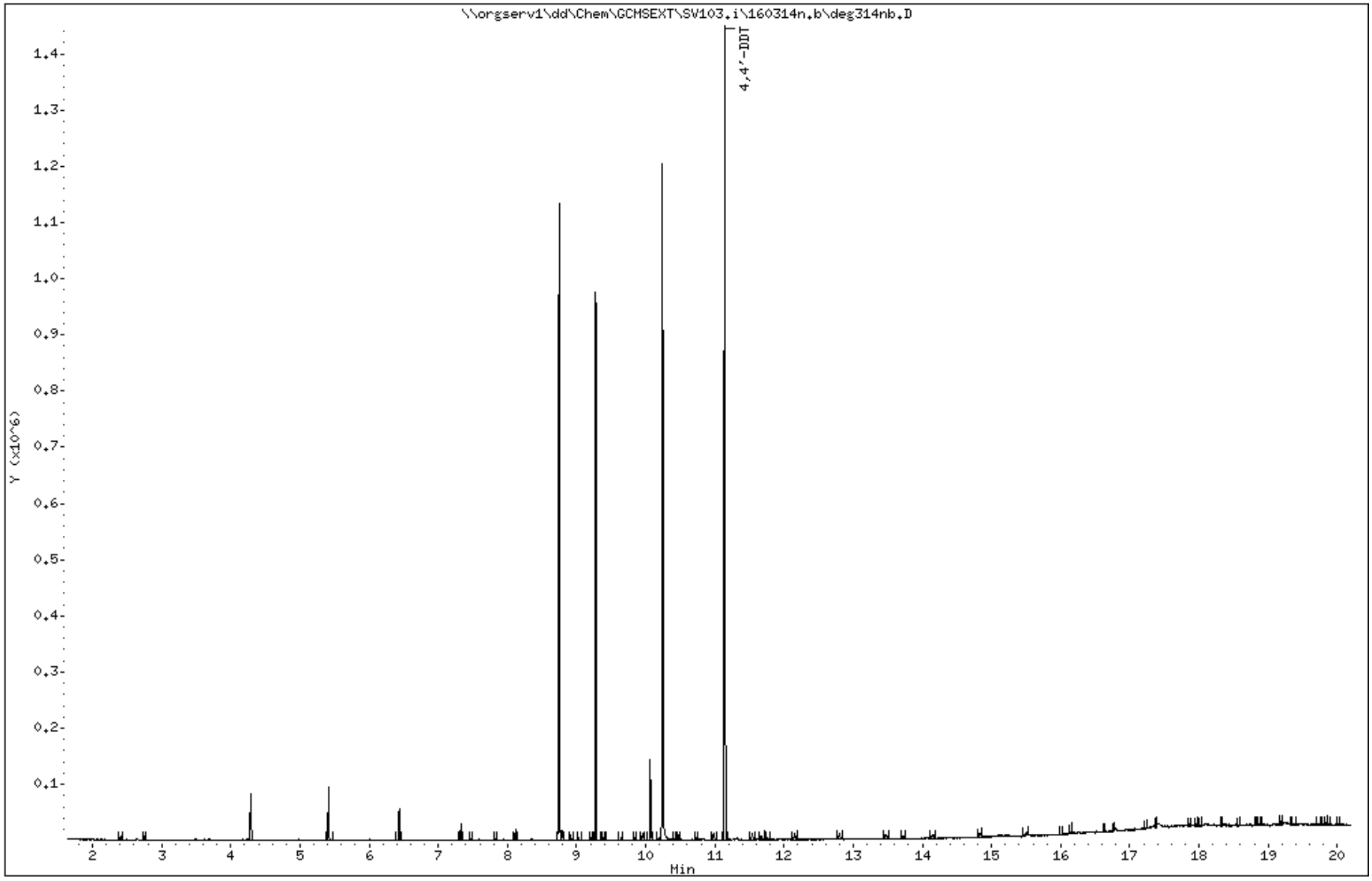
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	Compound Not Detected.						
6 4,4'-DDT	235	11.141	11.270	-0.129	294602			

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\deg314nb.D
Date : 14-MAR-2016 20:31
Client ID:
Sample Info: deg0314

Instrument: SV103.i

Operator: as
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : deg0314

Instrument ID : SV103.i
Method : DDT.m
File : deg314nb.D
Injection Date : 14-MAR-2016 20:31
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: degradation

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\dft314nb.D
Lab Smp Id:
Inj Date : 14-MAR-2016 20:31
Operator : ps Inst ID: SV103.i
Smp Info : deg0314
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\dftpp.m
Meth Date : 05-Mar-2016 10:30 hlac Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUALXP-44670

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.274	9.507	-0.233	198	89768			0.00- 100.00	100.00
9.274	9.507	-0.233	51	30632			30.00- 60.00	34.12
9.274	9.507	-0.233	68	409			0.00- 2.00	1.14
9.274	9.507	-0.233	69	35856			0.00- 0.00	39.94
9.274	9.507	-0.233	70	170			0.00- 2.00	0.47
9.274	9.507	-0.233	127	44224			40.00- 60.00	49.26
9.274	9.507	-0.233	197	136			0.00- 1.00	0.15
9.274	9.507	-0.233	199	6374			5.00- 9.00	7.10
9.274	9.507	-0.233	275	22640			10.00- 30.00	25.22
9.274	9.507	-0.233	365	3135			1.00- 0.00	3.49
9.274	9.507	-0.233	441	9909			0.01- 99.99	79.31
9.274	9.507	-0.233	442	62368			40.00- 99.99	69.48
9.274	9.507	-0.233	443	12494			17.00- 23.00	20.03

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\dft314nb.D

Date : 14-MAR-2016 20:31

Client ID:

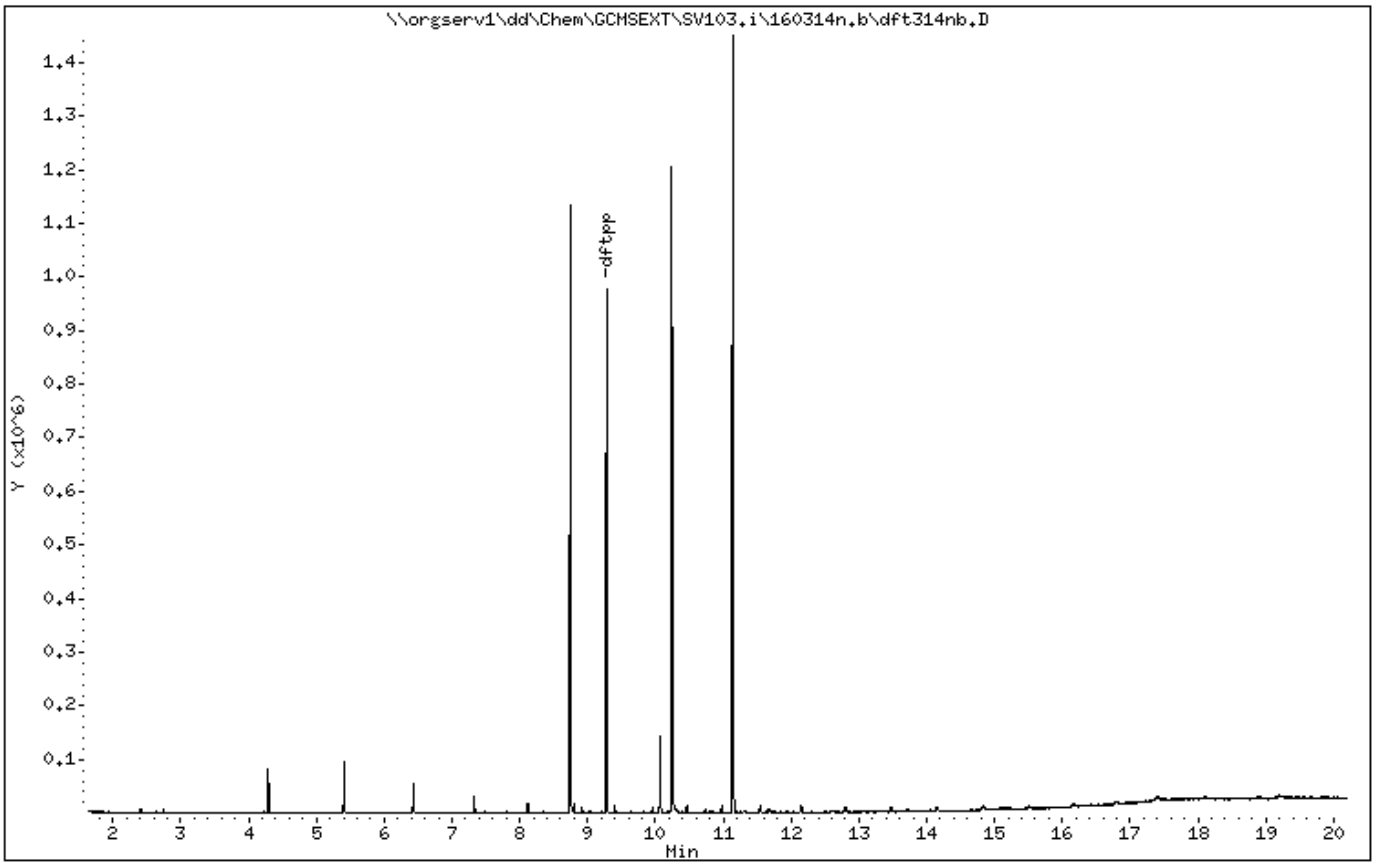
Instrument: SV103.i

Sample Info: deg0314

Operator: ps

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\dft314nb.D

Date : 14-MAR-2016 20:31

Client ID:

Instrument: SV103.i

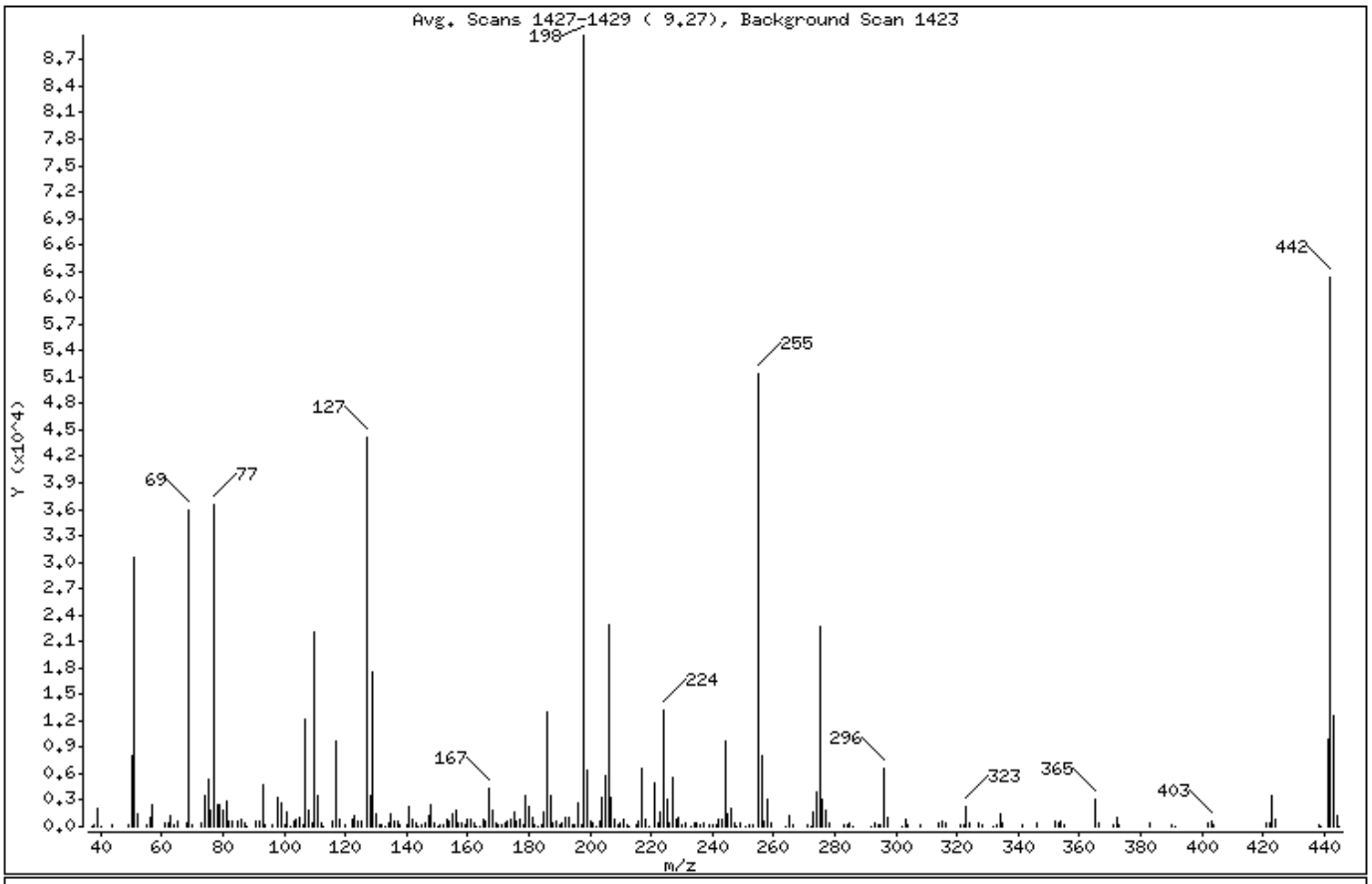
Sample Info: deg0314

Operator: ps

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.12
68	Less than 2.00% of mass 69	0.46 (1.14)
69	Mass 69 relative abundance	39.94
70	Less than 2.00% of mass 69	0.19 (0.47)
127	40.00 - 60.00% of mass 198	49.26
197	Less than 1.00% of mass 198	0.15
199	5.00 - 9.00% of mass 198	7.10
275	10.00 - 30.00% of mass 198	25.22
365	Greater than 1.00% of mass 198	3.49
441	Present, but less than mass 443	11.04
442	40.00 - 99.99% of mass 198	69.48
443	17.00 - 23.00% of mass 442	13.92 (20.03)

Date : 14-MAR-2016 20:31

Client ID: Instrument: SV103.i

Sample Info: deg0314

Operator: ps

Column phase: Column diameter: 2.00

Data File: dft314nb.D
Spectrum: Avg. Scans 1427-1429 (9.27), Background Scan 1423
Location of Maximum: 198.00
Number of points: 256

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	51	128.00	3453	194.00	220	273.00	1634
38.00	297	129.00	17616	195.00	205	274.00	3951
39.00	1995	130.00	1493	196.00	2678	275.00	22640
40.00	17	131.00	252	197.00	136	276.00	3113
44.00	171	132.00	159	198.00	89768	277.00	1914
49.00	240	133.00	59	199.00	6374	278.00	378
50.00	7997	134.00	489	200.00	537	283.00	179
51.00	30632	135.00	1442	201.00	456	284.00	124
52.00	1520	136.00	632	202.00	63	285.00	371
55.00	200	137.00	615	203.00	641	286.00	50
56.00	943	138.00	155	204.00	3381	292.00	55
57.00	2375	140.00	154	205.00	5708	293.00	421
61.00	394	141.00	2230	206.00	22880	294.00	133
62.00	479	142.00	769	207.00	3320	295.00	113
63.00	1284	143.00	451	208.00	825	296.00	6563
64.00	191	144.00	71	209.00	221	297.00	955
65.00	660	145.00	118	210.00	438	302.00	60
68.00	409	146.00	366	211.00	859	303.00	763
69.00	35856	147.00	1212	212.00	155	304.00	161
70.00	170	148.00	2418	213.00	54	308.00	116
73.00	409	149.00	485	215.00	230	314.00	340
74.00	3439	150.00	52	216.00	535	315.00	710
75.00	5336	151.00	256	217.00	6636	316.00	408
76.00	1941	152.00	163	218.00	799	321.00	178
77.00	36488	153.00	780	219.00	51	322.00	129
78.00	2563	154.00	532	221.00	4873	323.00	2178
79.00	2505	155.00	1371	222.00	322	324.00	318
80.00	1890	156.00	1817	223.00	1589	327.00	384
81.00	2803	157.00	393	224.00	13136	328.00	231
82.00	657	158.00	360	225.00	3142	332.00	55
83.00	713	159.00	308	226.00	348	333.00	179
85.00	522	160.00	771	227.00	5581	334.00	1353
86.00	764	161.00	916	228.00	823	335.00	339
87.00	368	162.00	314	229.00	1118	341.00	163
88.00	54	163.00	61	230.00	175	346.00	428

Date : 14-MAR-2016 20:31

Client ID: Instrument: SV103.i

Sample Info: deg0314

Operator: ps

Column phase: Column diameter: 2.00

Data File: dft314nb.D
Spectrum: Avg. Scans 1427-1429 (9.27), Background Scan 1423
Location of Maximum: 198.00
Number of points: 256

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	649	164.00	59	231.00	356	352.00	591
92.00	637	165.00	817	233.00	55	353.00	377
93.00	4707	166.00	628	234.00	312	354.00	581
94.00	281	167.00	4414	235.00	389	355.00	134
96.00	166	168.00	1905	236.00	269	365.00	3135
98.00	3355	169.00	406	237.00	349	366.00	372
99.00	2604	170.00	152	239.00	221	371.00	182
100.00	202	171.00	239	240.00	171	372.00	1133
101.00	1565	172.00	416	241.00	258	373.00	242
102.00	57	173.00	539	242.00	737	383.00	329
103.00	591	174.00	899	243.00	752	390.00	140
104.00	888	175.00	1699	244.00	9683	391.00	59
105.00	970	176.00	546	245.00	1348	402.00	369
106.00	261	177.00	859	246.00	2160	403.00	581
107.00	12193	178.00	267	247.00	380	404.00	197
108.00	1912	179.00	3491	248.00	54	421.00	500
109.00	335	180.00	2278	249.00	383	422.00	438
110.00	22136	181.00	977	251.00	52	423.00	3566
111.00	3605	182.00	124	252.00	110	424.00	767
112.00	476	183.00	51	253.00	283	438.00	146
113.00	88	184.00	251	255.00	51360	439.00	84
116.00	680	185.00	1575	256.00	7976	441.00	9909
117.00	9718	186.00	12981	257.00	654	442.00	62368
118.00	765	187.00	3485	258.00	3017	443.00	12494
120.00	164	188.00	344	259.00	509	444.00	1197
122.00	830	189.00	645	264.00	57	445.00	52
123.00	1140	190.00	118	265.00	1165		
124.00	626	191.00	355	266.00	206		
125.00	589	192.00	1125	271.00	140		
127.00	44224	193.00	1081	272.00	54		

Alpha Analytical Labs

Manual Integration

Sample Info : deg0314

Instrument ID : SV103.i
Method : dftpp.m
File : dft314nb.D
Injection Date : 14-MAR-2016 20:31
Quantitation : ESTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: DFTPP

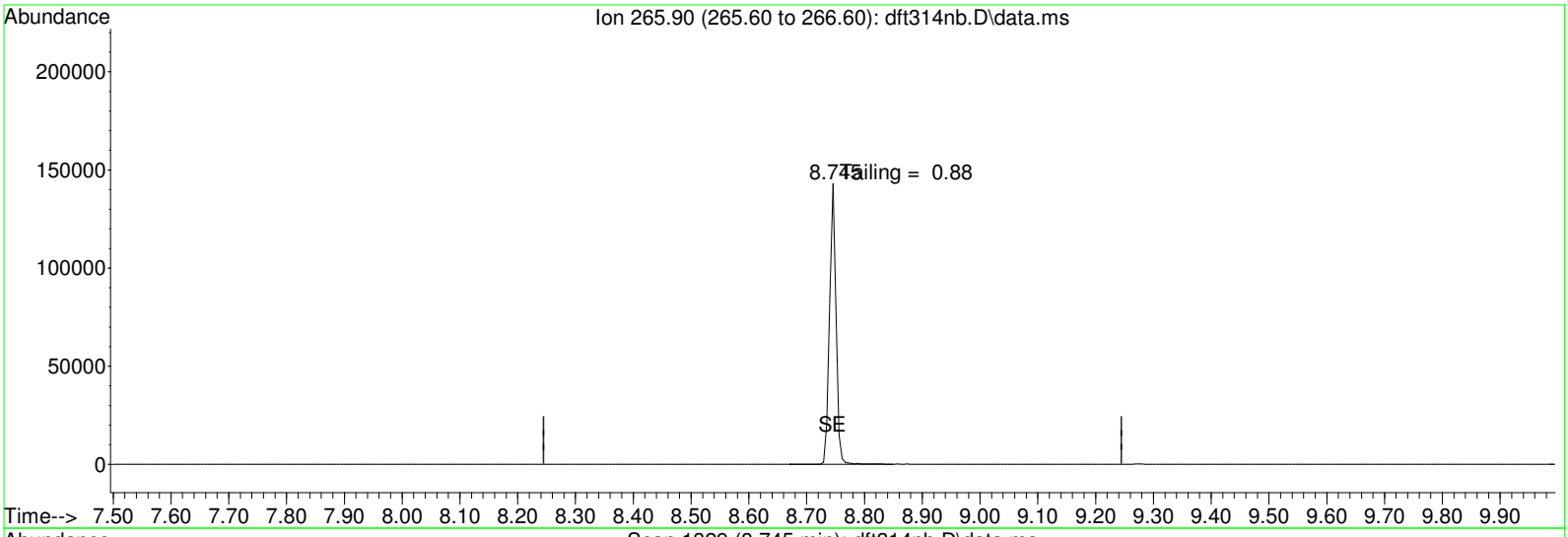
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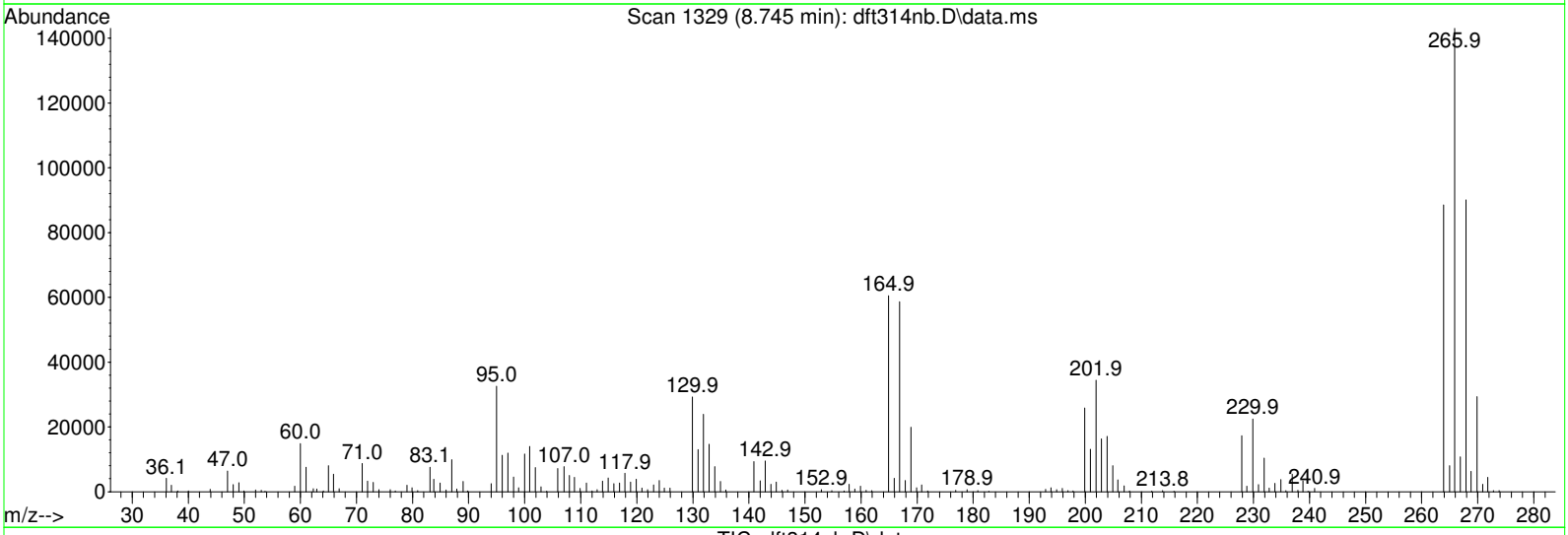
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Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160314n.b\
Data File : dft314nb.D
Acq On : 14 Mar 2016 8:31 pm
Operator : als
Sample : deg0314
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 16 11:17:13 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Wed Mar 16 07:16:57 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dft314nb.D\data.ms

(1) pentachlorophenol (T)

8.745min 0.00 d

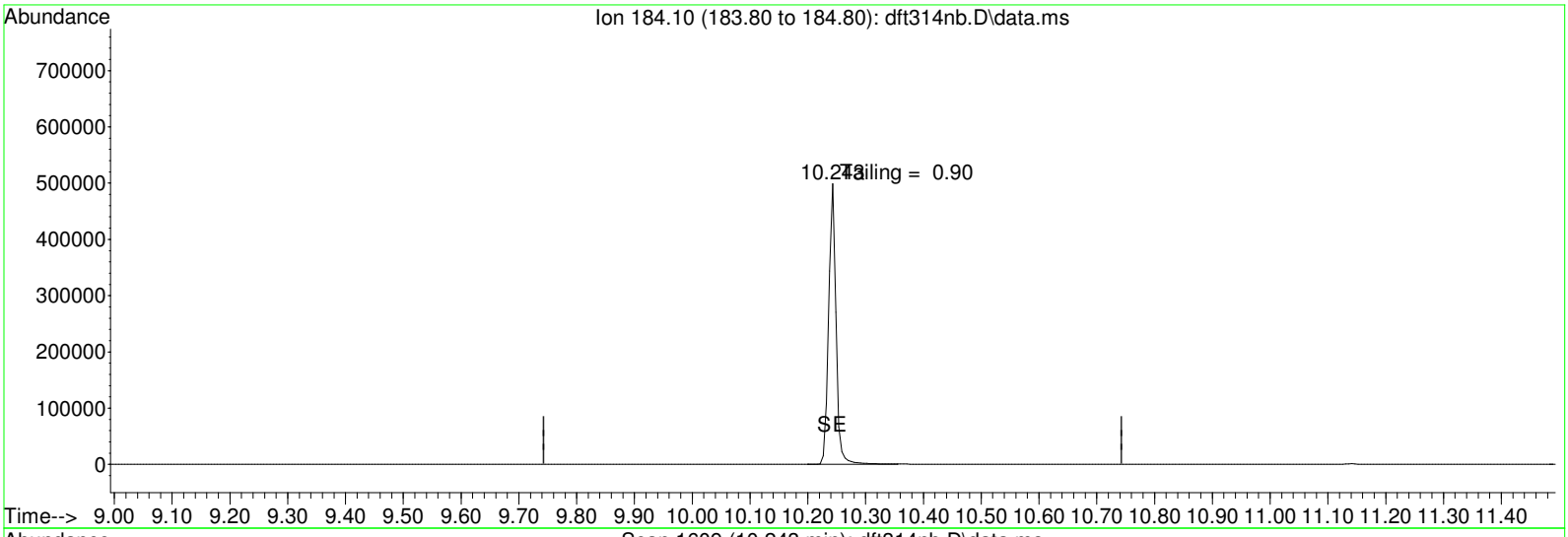
response 0

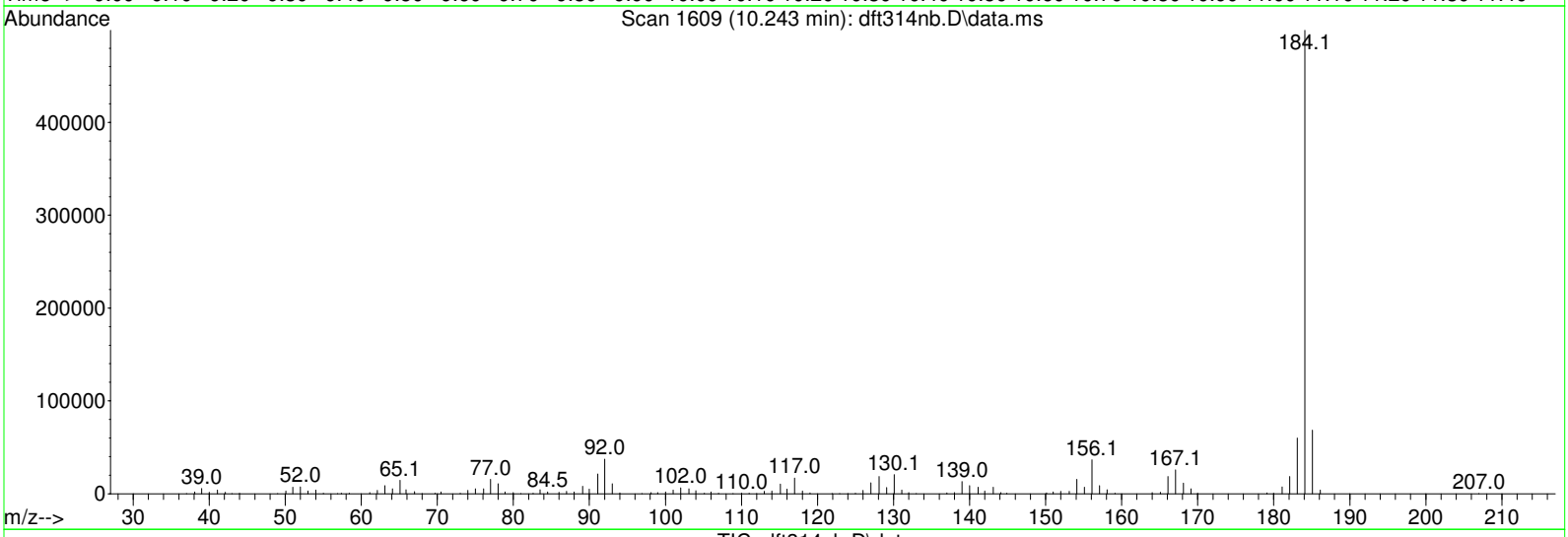
Ion	Exp%	Act%
265.90	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV103.i\160314n.b\
Data File : dft314nb.D
Acq On : 14 Mar 2016 8:31 pm
Operator : als
Sample : deg0314
Misc :
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 16 11:17:13 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Wed Mar 16 07:16:57 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dft314nb.D\data.ms

(3) benzidine (T)

10.243min 0.00 d

response 0

Ion	Exp%	Act%
184.10	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 15-MAR-2016 11:44
Lab File ID: ADPLccv0315.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
79 Atrazine	0.18838	0.19168	0.19168	0.050	1.75347	20.00000	Averaged	
87 Parathion	50.00000	42.69755	0.11406	0.050	-14.60490	20.00000	Quadratic	
90 Benzidine	0.64317	0.56891	0.56891	0.050	-11.54677	20.00000	Averaged	
93 3,3'-Dimethylbenzidine	50.00000	72.10810	1.57432	0.050	44.21620	20.00000	Quadratic	<-

Average %D / Drift Results.	
Calculated Average %D/Drift =	18.03034
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\ADPLccv0315.D
Lab Smp Id:
Inj Date : 15-MAR-2016 11:44
Operator : as Inst ID: SV112.i
Smp Info : ADP 50 LOT#5822
Misc Info : ,ICAL12150
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Meth Date : 24-Mar-2016 09:37 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 142 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: adp.sub
Target Version: 4.12
Processing Host: VIRTUALXP-44670

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
* 11 1,4-Dichlorobenzene-d4	152	4.667	4.667	(1.000)	225508	40.0000		
* 32 Naphthalene-d8	136	5.913	5.913	(1.000)	936303	40.0000		
* 59 Acenaphthene-d10	164	7.629	7.629	(1.000)	504830	40.0000		
79 Atrazine	200	8.847	8.847	(0.975)	229216	20.0000	50.9	
* 82 Phenanthrene-d10	188	9.074	9.074	(1.000)	956668	40.0000		
87 Parathion	109	9.867	9.867	(1.087)	136399	20.0000	42.7	
90 Benzidine	184	10.417	10.417	(1.148)	680318	20.0000	44.2	
93 3,3'-Dimethylbenzidine	212	11.163	11.163	(2.392)	443777	20.0000	72.1	
* 96 Chrysene-d12	240	11.735	11.735	(1.000)	896396	40.0000		
* 106 Perylene-d12	264	13.214	13.214	(1.000)	842669	40.0000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 15-MAR-2016
Lab File ID: ADPLccv0315.D Calibration Time: 12:35
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Misc Info: ,ICAL12150

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

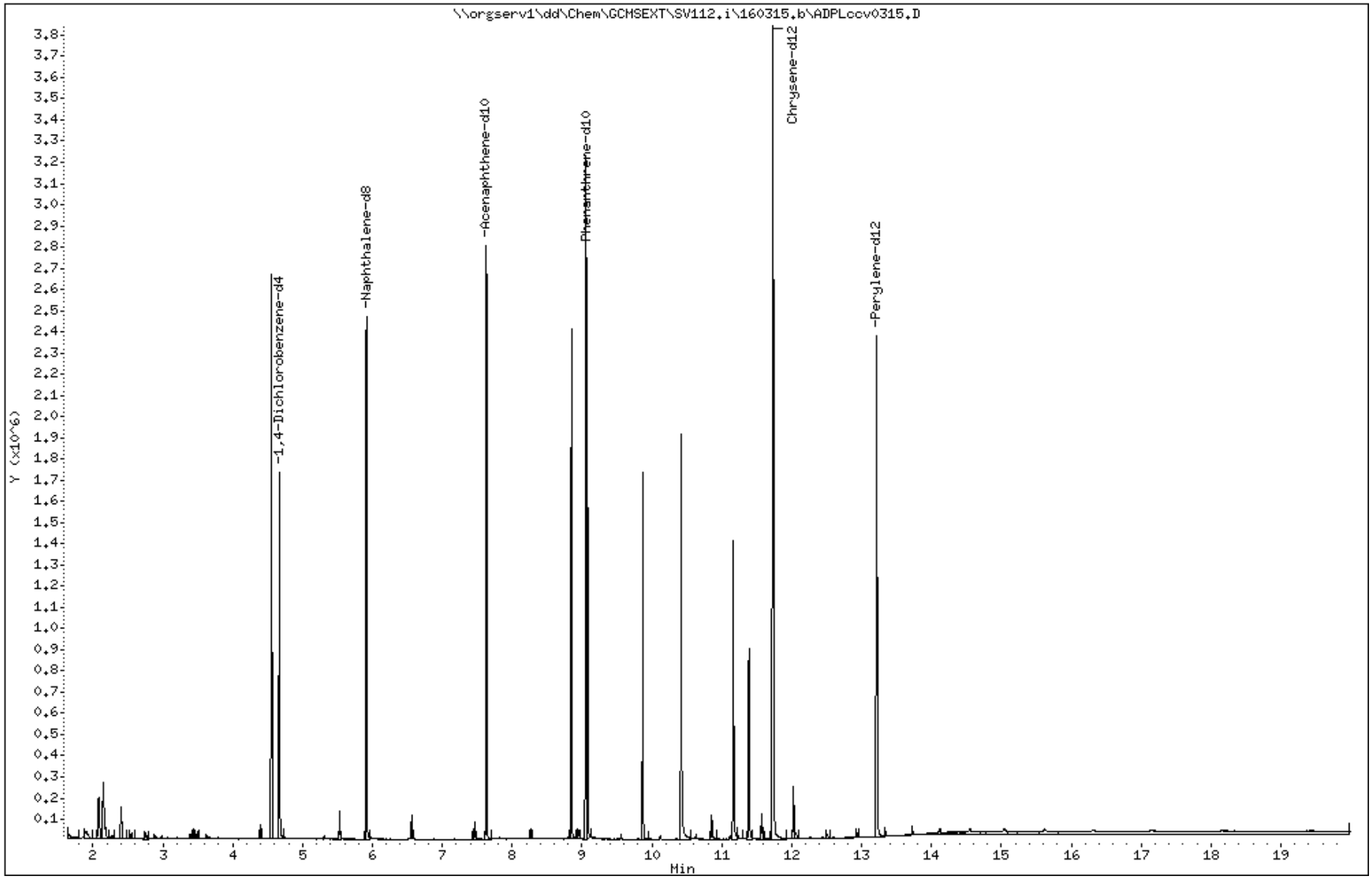
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	199733	99867	399466	225508	12.90
32 Naphthalene-d8	838586	419293	1677172	936303	11.65
59 Acenaphthene-d10	452272	226136	904544	504830	11.62
82 Phenanthrene-d10	867809	433905	1735618	956668	10.24
96 Chrysene-d12	812854	406427	1625708	896396	10.28
106 Perylene-d12	773841	386921	1547682	842669	8.89

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\ADPLccv0315.D
Date : 15-MAR-2016 11:44
Client ID:
Sample Info: ADP 50 LOT#5822

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info	: ADP 50 LOT#5822 ,ICAL12150		
Instrument ID	: SV112.i		
Method	: SV112ABN.m		
File	: ADPLccv0315.D		
Injection Date	: 15-MAR-2016 11:44		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CCALIB_7	

There are no manual integrations in this file.

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 15-MAR-2016 12:10
Lab File ID: AP9Lccv0315.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Benzaldehyde	1.03209	1.20725	1.20725	0.050	16.97197	20.00000	Averaged
17 Acetophenone	2.07128	2.13885	2.13885	0.050	3.26215	20.00000	Averaged
21 m-Toluidine	1.52741	1.78944	1.78944	0.050	17.15545	20.00000	Averaged
25 2-Chloroaniline	1.71518	1.82736	1.82736	0.050	6.54035	20.00000	Averaged
34 a-Terpineol	0.29938	0.28330	0.28330	0.050	-5.37138	20.00000	Averaged
35 3-Chloroaniline	0.15846	0.16959	0.16959	0.050	7.02550	20.00000	Averaged
37 2,6-Dichlorophenol	1.15939	1.17405	1.17405	0.050	1.26455	20.00000	Averaged
39 1-chloro-2-nitrobenzene	0.63347	0.61465	0.61465	0.050	-2.97103	20.00000	Averaged
40 Caprolactam	0.17323	0.18075	0.18075	0.050	4.34192	20.00000	Averaged
44 1,2,4,5-Tetrachlorobenzene	0.58909	0.58926	0.58926	0.050	0.02974	20.00000	Averaged
49 Biphenyl	1.47563	1.48549	1.48549	0.050	0.66760	20.00000	Averaged
77 Dimethoate	0.57599	0.55490	0.55490	0.050	-3.66192	20.00000	Averaged
78 Dichloran	50.00000	45.61793	0.16028	0.050	-8.76414	20.00000	Wt Linear
81 Pentachloronitrobenzene	0.15480	0.17477	0.17477	0.050	12.90338	20.00000	Averaged
88 Diphenamid	0.46508	0.47640	0.47640	0.050	2.43497	20.00000	Averaged
104 Benzo(e)pyrene	1.10232	1.14333	1.14333	0.050	3.72059	20.00000	Averaged
107 Perylene	1.13869	1.14353	1.14353	0.050	0.42457	20.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.73595
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\AP9Lccv0315.D
Lab Smp Id:
Inj Date : 15-MAR-2016 12:10
Operator : as Inst ID: SV112.i
Smp Info : AP9 50 LOT#5838
Misc Info : ,ICAL12150
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Meth Date : 24-Mar-2016 09:37 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 143 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9.sub
Target Version: 4.12
Processing Host: VIRTUALXP-44670

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	4 Benzaldehyde	105	4.225	4.225	(0.906)	328182	20.0000	58.5	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	217474	40.0000		
	17 Acetophenone	105	5.068	5.068	(1.087)	581429	20.0000	51.6	
	21 m-Toluidine	106	5.149	5.149	(1.104)	486446	20.0000	58.6	
	25 2-Chloroaniline	127	5.512	5.512	(1.182)	496753	20.0000	53.3	
*	32 Naphthalene-d8	136	5.907	5.907	(1.000)	909831	40.0000		
	34 a-Terpineol	59	5.966	5.966	(1.010)	322196	20.0000	47.3	
	35 3-Chloroaniline	65	5.982	5.982	(1.013)	192877	20.0000	53.5	
	37 2,6-Dichlorophenol	162	6.006	6.006	(1.288)	319158	20.0000	50.6	
	39 1-chloro-2-nitrobenzene	111	6.264	6.264	(1.343)	167088	20.0000	48.5	
	40 Caprolactam	55	6.314	6.314	(1.069)	205570	20.0000	52.2	
	44 1,2,4,5-Tetrachlorobenzene	216	6.783	6.783	(0.890)	365668	20.0000	50.0	
	49 Biphenyl	154	7.079	7.079	(0.928)	921820	20.0000	50.3	
*	59 Acenaphthene-d10	164	7.626	7.626	(1.000)	496441	40.0000		
	77 Dimethoate	87	8.748	8.748	(1.147)	344344	20.0000	48.2	
	78 Dichloran	206	8.766	8.766	(1.150)	99463	20.0000	45.6	
	81 Pentachloronitrobenzene	237	8.916	8.916	(1.169)	108453	20.0000	56.4	
*	82 Phenanthrene-d10	188	9.071	9.071	(1.000)	958931	40.0000		
	88 Diphenamid	167	9.985	9.985	(1.101)	571043	20.0000	51.2	
*	96 Chrysene-d12	240	11.729	11.729	(1.000)	855842	40.0000		
	104 Benzo(e)pyrene	252	13.109	13.109	(0.992)	1252705	20.0000	51.9	
*	106 Perylene-d12	264	13.214	13.214	(1.000)	876528	40.0000		
	107 Perylene	252	13.239	13.239	(1.002)	1252917	20.0000	50.2	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 15-MAR-2016
Lab File ID: AP9Lccv0315.D Calibration Time: 11:44
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Misc Info: ,ICAL12150

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

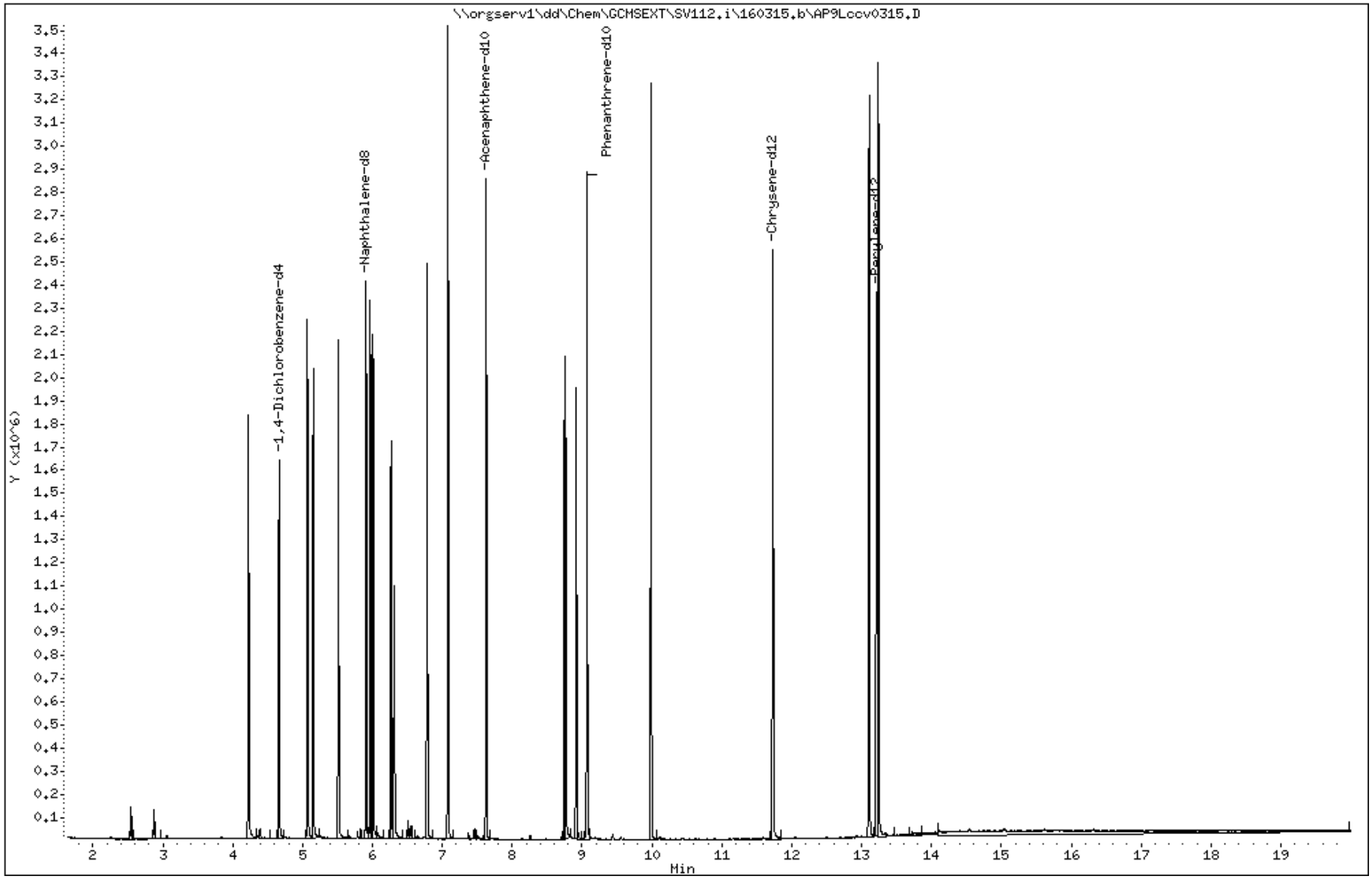
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	199733	99867	399466	217474	8.88
32 Naphthalene-d8	838586	419293	1677172	909831	8.50
59 Acenaphthene-d10	452272	226136	904544	496441	9.77
82 Phenanthrene-d10	867809	433905	1735618	958931	10.50
96 Chrysene-d12	812854	406427	1625708	855842	5.29
106 Perylene-d12	773841	386921	1547682	876528	13.27

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\AP9Lccv0315.D
Date : 15-MAR-2016 12:10
Client ID:
Sample Info: AP9 50 LOT#5838

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : AP9 50 LOT#5838
,ICAL12150

Instrument ID : SV112.i
Method : SV112ABN.m
File : AP9Lccv0315.D
Injection Date : 15-MAR-2016 12:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 15-MAR-2016 12:35
Lab File ID: ABNccv0315.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 n-Nitrosodimethylamine	0.95051	0.95592	0.95592	0.050	0.56926	20.00000	Averaged
2 Pyridine	1.66913	1.65918	1.65918	0.050	-0.59565	20.00000	Averaged
$ 3 2-Fluorophenol	1.32994	1.35314	1.35314	0.050	1.74443	20.00000	Averaged
5 Aniline	50.00000	38.13240	2.15486	0.050	-23.73520	20.00000	Quadratic<-
$ 6 Phenol-d6	1.72051	1.73596	1.73596	0.050	0.89778	20.00000	Averaged
7 Phenol	1.99077	1.98535	1.98535	0.050	-0.27228	20.00000	Averaged
8 Bis(2-chloroethyl)ether	1.41037	1.40792	1.40792	0.050	-0.17374	20.00000	Averaged
9 2-Chlorophenol	1.43121	1.41022	1.41022	0.050	-1.46631	20.00000	Averaged
10 1,3-Dichlorobenzene	1.58891	1.51839	1.51839	0.050	-4.43811	20.00000	Averaged
12 1,4-Dichlorobenzene	1.62167	1.54791	1.54791	0.050	-4.54843	20.00000	Averaged
14 Benzyl alcohol	1.26141	1.29625	1.29625	0.050	2.76183	20.00000	Averaged
13 1,2-Dichlorobenzene	1.52031	1.44411	1.44411	0.050	-5.01181	20.00000	Averaged
15 2-Methylphenol	1.31568	1.28931	1.28931	0.050	-2.00418	20.00000	Averaged
16 Bis(2-chloroisopropyl)ether	2.26574	1.97251	1.97251	0.050	-12.94171	20.00000	Averaged
18 n-Nitrosodi-n-propylamine	1.19178	1.10364	1.10364	0.050	-7.39587	20.00000	Averaged
19 3-Methylphenol/4-Methylphen	1.38217	1.36154	1.36154	0.050	-1.49290	20.00000	Averaged
20 Hexachloroethane	0.65793	0.62523	0.62523	0.050	-4.96977	20.00000	Averaged
$ 22 Nitrobenzene-d5	1.57449	1.56380	1.56380	0.050	-0.67887	20.00000	Averaged
23 Nitrobenzene	0.39751	0.41077	0.41077	0.050	3.33636	20.00000	Averaged
24 Isophorone	3.16466	2.93708	2.93708	0.050	-7.19113	20.00000	Averaged
26 2-Nitrophenol	0.70783	0.69848	0.69848	0.050	-1.32033	20.00000	Averaged
27 2,4-Dimethylphenol	1.45424	1.39694	1.39694	0.050	-3.94000	20.00000	Averaged
28 Bis(2-chloroethoxy)methane	1.86496	1.78830	1.78830	0.050	-4.11046	20.00000	Averaged
30 Benzoic acid	50.00000	45.58008	0.26051	0.050	-8.83984	20.00000	Wt Linear
29 2,4-Dichlorophenol	0.27661	0.28877	0.28877	0.050	4.39643	20.00000	Averaged
31 1,2,4-Trichlorobenzene	0.32211	0.32079	0.32079	0.050	-0.41074	20.00000	Averaged
33 Naphthalene	1.00845	0.96007	0.96007	0.050	-4.79746	20.00000	Averaged
36 4-Chloroaniline	0.15223	0.14672	0.14672	0.050	-3.61674	20.00000	Averaged
38 Hexachlorobutadiene	0.18035	0.18166	0.18166	0.050	0.72826	20.00000	Averaged
41 p-Chloro-m-cresol	0.29911	0.31061	0.31061	0.050	3.84381	20.00000	Averaged
42 2-Methylnaphthalene	0.65774	0.64007	0.64007	0.050	-2.68707	20.00000	Averaged
43 1-Methylnaphthalene	0.24165	0.23440	0.23440	0.050	-2.99874	20.00000	Averaged
45 Hexachlorocyclopentadiene	0.16324	0.13272	0.13272	0.050	-18.69657	20.00000	Averaged
46 2,4,6-Trichlorophenol	0.20357	0.20877	0.20877	0.050	2.55075	20.00000	Averaged
47 2,4,5-Trichlorophenol	0.21369	0.22178	0.22178	0.050	3.78680	20.00000	Averaged
$ 48 2-Fluorobiphenyl	0.70811	0.70515	0.70515	0.050	-0.41892	20.00000	Averaged
50 2-Chloronaphthalene	0.63795	0.62865	0.62865	0.050	-1.45697	20.00000	Averaged
51 2-Nitroaniline	0.20190	0.20272	0.20272	0.050	0.40633	20.00000	Averaged
52 1,4-Dinitrobenzene	0.17850	0.17631	0.17631	0.050	-1.22231	20.00000	Averaged
53 Dimethyl phthalate	1.36905	1.33066	1.33066	0.050	-2.80450	20.00000	Averaged
54 1,3-Dinitrobenzene	0.18852	0.19787	0.19787	0.050	4.96200	20.00000	Averaged
55 2,6-Dinitrotoluene	0.15220	0.16144	0.16144	0.050	6.07516	20.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 15-MAR-2016 12:35
Lab File ID: ABNccv0315.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
56 Acenaphthylene	1.02071	0.98197	0.98197	0.050	-3.79545	20.00000	Averaged
57 1,2-Dinitrobenzene	0.12584	0.13146	0.13146	0.050	4.45992	20.00000	Averaged
58 3-Nitroaniline	0.34175	0.33680	0.33680	0.050	-1.44958	20.00000	Averaged
60 Acenaphthene	1.10652	1.04350	1.04350	0.050	-5.69564	20.00000	Averaged
61 2,4-Dinitrophenol	50.00000	45.47330	0.16981	0.050	-9.05340	20.00000	Wt Linear
62 4-Nitrophenol	0.29821	0.31215	0.31215	0.050	4.67452	20.00000	Averaged
63 Dibenzofuran	1.67223	1.61645	1.61645	0.050	-3.33560	20.00000	Averaged
64 2,4-Dinitrotoluene	0.36112	0.39318	0.39318	0.050	8.87582	20.00000	Averaged
65 2,3,5,6-Tetrachlorophenol	0.32045	0.34989	0.34989	0.050	9.18521	20.00000	Averaged
66 2,3,4,6-Tetrachlorophenol	0.31818	0.33278	0.33278	0.050	4.58799	20.00000	Averaged
67 Diethyl phthalate	1.43153	1.38476	1.38476	0.050	-3.26686	20.00000	Averaged
68 Fluorene	1.32344	1.29641	1.29641	0.050	-2.04290	20.00000	Averaged
69 4-Chlorophenyl phenyl ether	0.62236	0.62081	0.62081	0.050	-0.24834	20.00000	Averaged
70 4-Nitroaniline	0.32064	0.32283	0.32283	0.050	0.68220	20.00000	Averaged
71 4,6-Dinitro-o-cresol	50.00000	47.46796	0.22937	0.050	-5.06409	20.00000	Wt Linear
72 NDPA/DPA	1.09650	1.11271	1.11271	0.050	1.47834	20.00000	Averaged
73 Azobenzene	1.51748	1.49008	1.49008	0.050	-1.80521	20.00000	Averaged
$ 74 2,4,6-Tribromophenol	0.09998	0.10564	0.10564	0.050	5.65821	20.00000	Averaged
75 4-Bromophenyl phenyl ether	0.35325	0.36522	0.36522	0.050	3.39074	20.00000	Averaged
76 Hexachlorobenzene	0.41644	0.41859	0.41859	0.050	0.51493	20.00000	Averaged
80 Pentachlorophenol	50.00000	48.56063	0.13316	0.050	-2.87873	20.00000	Wt Linear
83 Phenanthrene	1.08563	1.02374	1.02374	0.050	-5.70046	20.00000	Averaged
84 Anthracene	1.04259	1.02715	1.02715	0.050	-1.48150	20.00000	Averaged
85 Carbazole	0.98317	0.98198	0.98198	0.050	-0.12076	20.00000	Averaged
86 Di-n-butylphthalate	1.15058	1.18284	1.18284	0.050	2.80325	20.00000	Averaged
89 Fluoranthene	1.12837	1.13659	1.13659	0.050	0.72886	20.00000	Averaged
91 Pyrene	1.19199	1.17846	1.17846	0.050	-1.13485	20.00000	Averaged
$ 92 4-Terphenyl-d14	0.70634	0.73449	0.73449	0.050	3.98525	20.00000	Averaged
94 Butyl benzyl phthalate	0.51619	0.53877	0.53877	0.050	4.37431	20.00000	Averaged
95 Bis (2-ethylhexyl) adipate	50.00000	43.12102	0.46102	0.050	-13.75795	20.00000	Quadratic
97 Benzo(a)anthracene	1.23523	1.21268	1.21268	0.050	-1.82576	20.00000	Averaged
98 3,3'-Dichlorobenzidine	50.00000	47.61151	0.44651	0.050	-4.77699	20.00000	Wt Linear
99 Chrysene	1.21415	1.12660	1.12660	0.050	-7.21027	20.00000	Averaged
100 Bis(2-ethylhexyl)phthalate	0.80309	0.80535	0.80535	0.050	0.28160	20.00000	Averaged
101 Di-n-octylphthalate	1.37766	1.37722	1.37722	0.050	-0.03183	20.00000	Averaged
102 Benzo(b)fluoranthene	1.17387	1.23056	1.23056	0.050	4.82875	20.00000	Averaged
103 Benzo(k)fluoranthene	1.23169	1.28885	1.28885	0.050	4.64092	20.00000	Averaged
105 Benzo(a)pyrene	1.13371	1.20998	1.20998	0.050	6.72811	20.00000	Averaged
108 Indeno(1,2,3-cd)pyrene	1.10071	1.16696	1.16696	0.050	6.01918	20.00000	Averaged
109 Dibenzo(a,h)anthracene	1.08828	1.19016	1.19016	0.050	9.36129	20.00000	Averaged
110 Benzo(ghi)perylene	1.13925	1.18262	1.18262	0.050	3.80676	20.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: SV112.i Injection Date: 15-MAR-2016 12:35
Lab File ID: ABNccv0315.D Init. Cal. Date(s): 12-MAR-2016 13-MAR-2016
Analysis Type: Init. Cal. Times: 11:36 01:09
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m

Average %D / Drift Results.
Calculated Average %D/Drift = 4.04865
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\ABNccv0315.D
Lab Smp Id:
Inj Date : 15-MAR-2016 12:35
Operator : as Inst ID: SV112.i
Smp Info : ABN 50 LOT# 5842
Misc Info : ,ICAL12150
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Meth Date : 24-Mar-2016 09:37 SV112.i Quant Type: ISTD
Cal Date : 13-MAR-2016 01:09 Cal File: ADPL10.D
Als bottle: 144 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abn.sub
Target Version: 4.12
Processing Host: VIRTUALXP-44670

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	1.969	1.969	(0.422)	394000	20.0000	50.3	
	2 Pyridine	79	2.000	2.000	(0.429)	683866	20.0000	49.7	
$	3 2-Fluorophenol	112	3.377	3.377	(0.724)	557724	20.0000	50.9	
	5 Aniline	93	4.343	4.343	(0.931)	888170	20.0000	38.1	
$	6 Phenol-d6	99	4.343	4.343	(0.931)	715510	20.0000	50.4	
	7 Phenol	94	4.356	4.356	(0.934)	818303	20.0000	49.9	
	8 Bis(2-chloroethyl)ether	93	4.424	4.424	(0.949)	580303	20.0000	49.9	
	9 2-Chlorophenol	128	4.455	4.455	(0.955)	581250	20.0000	49.3	
	10 1,3-Dichlorobenzene	146	4.605	4.605	(0.987)	625834	20.0000	47.8	
*	11 1,4-Dichlorobenzene-d4	152	4.664	4.664	(1.000)	329736	40.0000		
	12 1,4-Dichlorobenzene	146	4.679	4.679	(1.003)	638001	20.0000	47.7	
	14 Benzyl alcohol	79	4.819	4.819	(1.033)	534275	20.0000	51.4	
	13 1,2-Dichlorobenzene	146	4.825	4.825	(1.035)	595219	20.0000	47.5	
	15 2-Methylphenol	108	4.946	4.946	(1.061)	531416	20.0000	49.0	
	16 Bis(2-chloroisopropyl)ether	45	4.968	4.968	(1.065)	813011	20.0000	43.5	
	18 n-Nitrosodi-n-propylamine	70	5.089	5.089	(1.091)	454888	20.0000	46.3	
	19 3-Methylphenol/4-Methylphenol	108	5.108	5.108	(1.095)	561185	20.0000	49.2	
	20 Hexachloroethane	117	5.158	5.158	(1.106)	257703	20.0000	47.5	
$	22 Nitrobenzene-d5	82	5.211	5.211	(1.117)	644553	20.0000	49.7	
	23 Nitrobenzene	77	5.229	5.229	(0.885)	683569	20.0000	51.7	
	24 Isophorone	82	5.472	5.472	(1.173)	1210578	20.0000	46.4	
	26 2-Nitrophenol	139	5.546	5.546	(1.189)	287893	20.0000	49.3	
	27 2,4-Dimethylphenol	107	5.621	5.621	(1.205)	575778	20.0000	48.0	
	28 Bis(2-chloroethoxy)methane	93	5.711	5.711	(1.225)	737083	20.0000	47.9	
	30 Benzoic acid	105	5.745	5.745	(0.972)	433515	20.0000	45.6	
	29 2,4-Dichlorophenol	162	5.786	5.786	(0.979)	480539	20.0000	52.2	
	31 1,2,4-Trichlorobenzene	180	5.863	5.863	(0.992)	533824	20.0000	49.8	
*	32 Naphthalene-d8	136	5.910	5.910	(1.000)	1331284	40.0000		
	33 Naphthalene	128	5.932	5.932	(1.004)	1597658	20.0000	47.6	
	36 4-Chloroaniline	65	6.000	6.000	(1.015)	244160	20.0000	48.2	
	38 Hexachlorobutadiene	225	6.078	6.078	(1.028)	302301	20.0000	50.4	
	41 p-Chloro-m-cresol	107	6.501	6.501	(1.100)	516882	20.0000	51.9	
	42 2-Methylnaphthalene	142	6.612	6.612	(1.119)	1065141	20.0000	48.6	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
	43	1-Methylnaphthalene	115	6.709	6.709	(1.135)	390070	20.0000	48.5	
	45	Hexachlorocyclopentadiene	237	6.783	6.783	(1.148)	220858	20.0000	40.6	
	46	2,4,6-Trichlorophenol	196	6.901	6.901	(1.168)	347409	20.0000	51.3	
	47	2,4,5-Trichlorophenol	196	6.933	6.933	(1.173)	369065	20.0000	51.9	
$	48	2-Fluorobiphenyl	172	6.989	6.989	(1.182)	1173438	20.0000	49.8	
	50	2-Chloronaphthalene	162	7.085	7.085	(1.199)	1046145	20.0000	49.3	
	51	2-Nitroaniline	138	7.197	7.197	(1.218)	337355	20.0000	50.2	
	52	1,4-Dinitrobenzene	168	7.334	7.334	(0.961)	160448	20.0000	49.4	
	53	Dimethyl phthalate	163	7.405	7.405	(0.971)	1210912	20.0000	48.6	
	54	1,3-Dinitrobenzene	168	7.408	7.408	(0.971)	180067	20.0000	52.5	
	55	2,6-Dinitrotoluene	165	7.445	7.445	(1.260)	268655	20.0000	53.0	
	56	Acenaphthylene	152	7.486	7.486	(1.267)	1634101	20.0000	48.1	
	57	1,2-Dinitrobenzene	168	7.489	7.489	(0.982)	119626	20.0000	52.2	
	58	3-Nitroaniline	138	7.601	7.601	(0.996)	306492	20.0000	49.3	
*	59	Acenaphthene-d10	164	7.629	7.629	(1.000)	728009	40.0000		
	60	Acenaphthene	154	7.660	7.660	(1.004)	949597	20.0000	47.2	
	61	2,4-Dinitrophenol	184	7.703	7.703	(1.010)	154527	20.0000	45.5	
	62	4-Nitrophenol	65	7.794	7.794	(1.022)	284059	20.0000	52.3	
	63	Dibenzofuran	168	7.831	7.831	(1.026)	1470992	20.0000	48.3	
	64	2,4-Dinitrotoluene	165	7.834	7.834	(1.027)	357794	20.0000	54.4	
	65	2,3,5,6-Tetrachlorophenol	232	7.918	7.918	(1.038)	318400	20.0000	54.6	
	66	2,3,4,6-Tetrachlorophenol	232	7.961	7.961	(1.044)	302829	20.0000	52.3	
	67	Diethyl phthalate	149	8.098	8.098	(1.062)	1260151	20.0000	48.4	
	68	Fluorene	166	8.163	8.163	(1.070)	1179746	20.0000	49.0	
	69	4-Chlorophenyl phenyl ether	204	8.182	8.182	(1.073)	564944	20.0000	49.9	
	70	4-Nitroaniline	138	8.198	8.198	(1.075)	293777	20.0000	50.3	
	71	4,6-Dinitro-o-cresol	198	8.232	8.232	(1.079)	208731	20.0000	47.5	
	72	NDPA/DPA	169	8.300	8.300	(1.088)	1012578	20.0000	50.7	
	73	Azobenzene	77	8.334	8.334	(1.092)	1355994	20.0000	49.1	
$	74	2,4,6-Tribromophenol	330	8.400	8.400	(0.926)	185281	20.0000	52.8	
	75	4-Bromophenyl phenyl ether	248	8.654	8.654	(1.134)	332358	20.0000	51.7	
	76	Hexachlorobenzene	284	8.704	8.704	(1.141)	380918	20.0000	50.2	
	80	Pentachlorophenol	266	8.900	8.900	(0.981)	233549	20.0000	48.6	
*	82	Phenanthrene-d10	188	9.071	9.071	(1.000)	1403129	40.0000		
	83	Phenanthrene	178	9.093	9.093	(1.002)	1795557	20.0000	47.1	
	84	Anthracene	178	9.142	9.142	(1.008)	1801525	20.0000	49.2	
	85	Carbazole	167	9.313	9.313	(1.027)	1722314	20.0000	49.9	
	86	Di-n-butylphthalate	149	9.705	9.705	(1.070)	2074593	20.0000	51.4	
	89	Fluoranthene	202	10.258	10.258	(1.131)	1993483	20.0000	50.4	
	91	Pyrene	202	10.476	10.476	(1.155)	2066920	20.0000	49.4	
$	92	4-Terphenyl-d14	244	10.669	10.669	(1.176)	1288229	20.0000	52.0	
	94	Butyl benzyl phthalate	149	11.200	11.200	(1.235)	944955	20.0000	52.2	
	95	Bis (2-ethylhexyl) adipate	129	11.321	11.321	(1.248)	808596	20.0000	43.1	
	97	Benzo(a)anthracene	228	11.722	11.722	(0.999)	2025041	20.0000	49.1	
	98	3,3'-Dichlorobenzidine	252	11.725	11.725	(0.999)	745630	20.0000	47.6	
*	96	Chrysene-d12	240	11.735	11.735	(1.000)	1335911	40.0000		
	99	Chrysene	228	11.763	11.763	(1.002)	1881302	20.0000	46.4	
	100	Bis(2-ethylhexyl)phthalate	149	11.843	11.843	(1.009)	1344850	20.0000	50.1	
	101	Di-n-octylphthalate	149	12.530	12.530	(1.068)	2299800	20.0000	50.0	
	102	Benzo(b)fluoranthene	252	12.841	12.841	(0.972)	1908003	20.0000	52.4	
	103	Benzo(k)fluoranthene	252	12.869	12.869	(0.974)	1998393	20.0000	52.3	
	105	Benzo(a)pyrene	252	13.158	13.158	(0.996)	1876107	20.0000	53.4	
*	106	Perylene-d12	264	13.214	13.214	(1.000)	1240417	40.0000		
	108	Indeno(1,2,3-cd)pyrene	276	14.212	14.212	(1.076)	1809398	20.0000	53.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
109 Dibenzo(a,h)anthracene	278	14.237	14.237	(1.077)	1845367	20.0000	54.7	
110 Benzo(ghi)perylene	276	14.473	14.473	(1.095)	1833678	20.0000	51.9	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV112.i Calibration Date: 15-MAR-2016
Lab File ID: ABNccv0315.D Calibration Time: 12:10
Lab Smp Id:
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: as
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\SV112ABN.m
Misc Info: ,ICAL12150

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

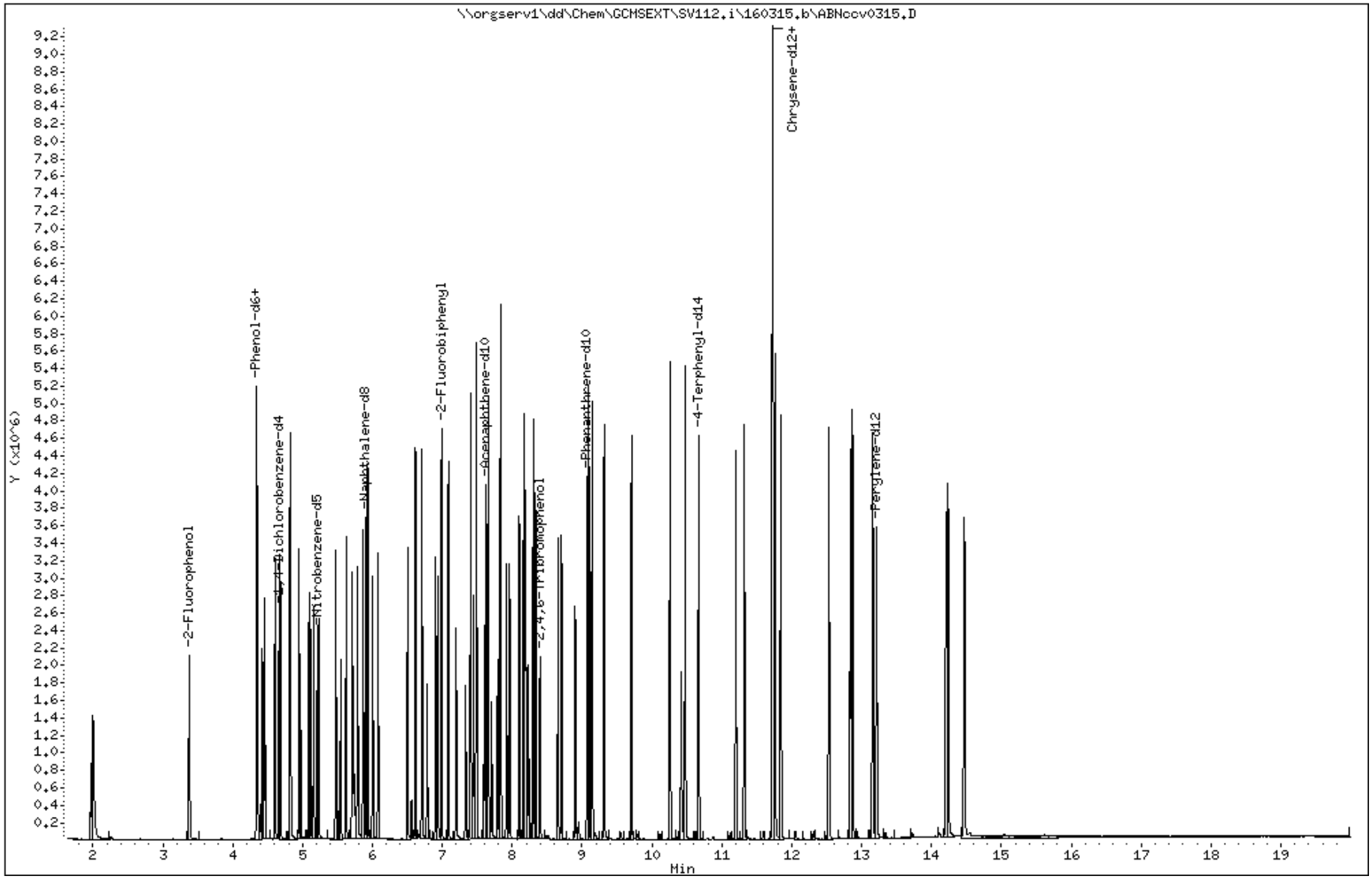
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	199733	99867	399466	329736	65.09
32 Naphthalene-d8	838586	419293	1677172	1331284	58.75
59 Acenaphthene-d10	452272	226136	904544	728009	60.97
82 Phenanthrene-d10	867809	433905	1735618	1403129	61.69
96 Chrysene-d12	812854	406427	1625708	1335911	64.35
106 Perylene-d12	773841	386921	1547682	1240417	60.29

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF

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: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\ABNccv0315.D
Date : 15-MAR-2016 12:35
Client ID:
Sample Info: ABN 50 LOT# 5842

Instrument: SV112.i
Operator: as
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info	: ABN 50 LOT# 5842 ,ICAL12150		
Instrument ID	: SV112.i		
Method	: SV112ABN.m		
File	: ABNccv0315.D		
Injection Date	: 15-MAR-2016 12:35		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CCALIB_7	

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\deg.D
Lab Smp Id:
Inj Date : 15-MAR-2016 11:13
Operator : ps Inst ID: SV112.i
Smp Info : degdft0315
Misc Info : sv112
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\DDT.m
Meth Date : 15-Mar-2016 11:48 psanchioni Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: degradation
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUAL-PAUL-S

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)		REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.							
5 4,4'-DDD	235	10.986	11.200	-0.214	1533			(M)	M3
6 4,4'-DDT	235	11.266	11.440	-0.174	359543				

QC Flag Legend

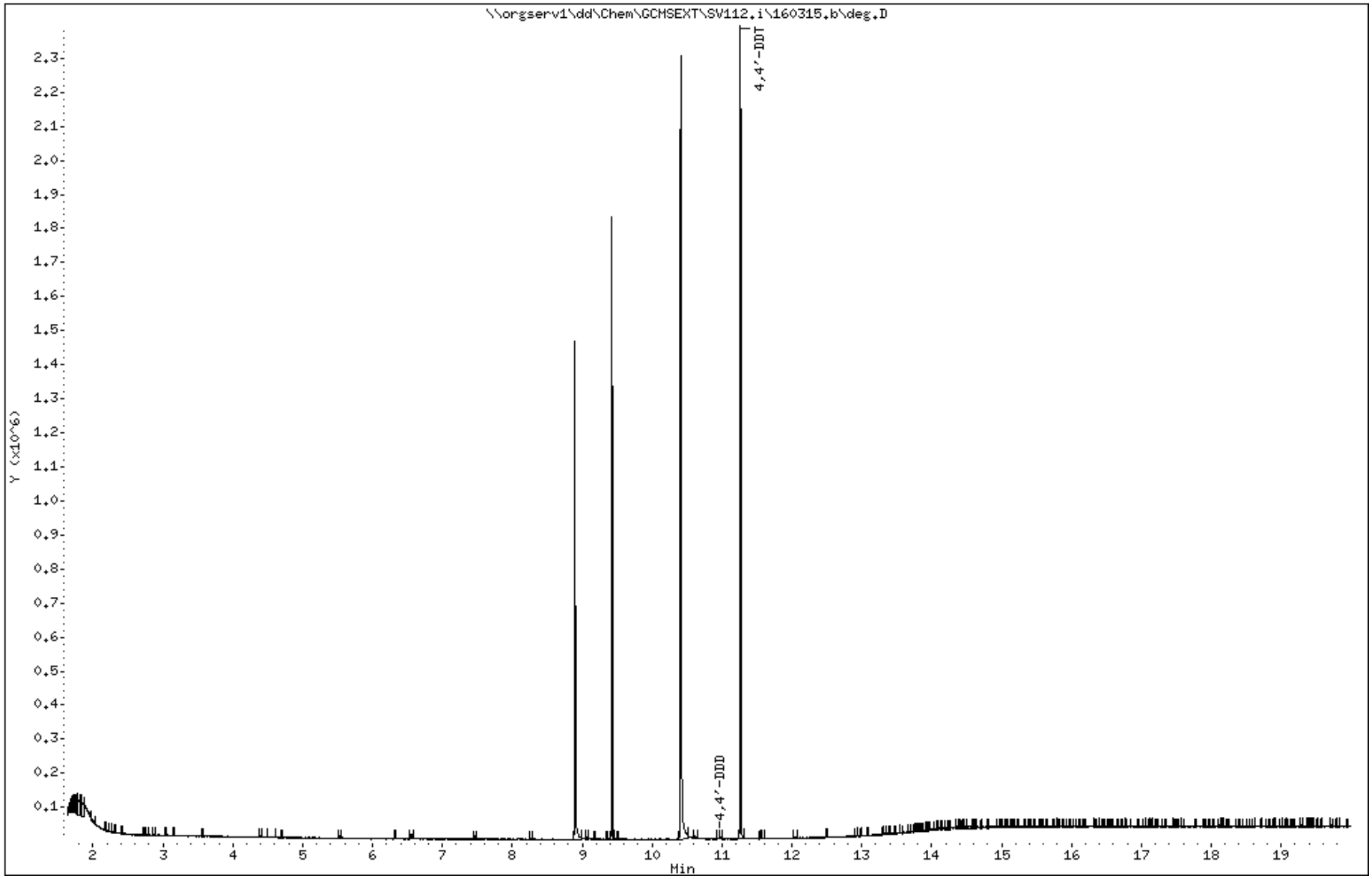
M - Compound response manually integrated.

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\deg.D
Date : 15-MAR-2016 11:13
Client ID:
Sample Info: degdft0315

Instrument: SV112.i

Operator: ps
Column diameter: 0.32

Column phase: RTx-5



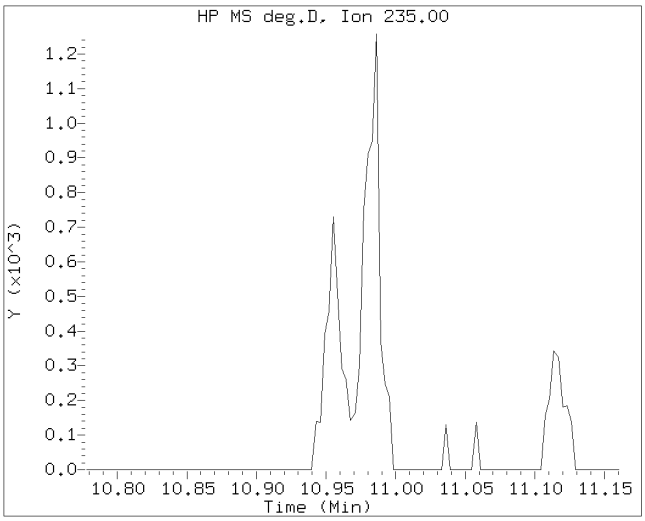
Alpha Analytical Labs

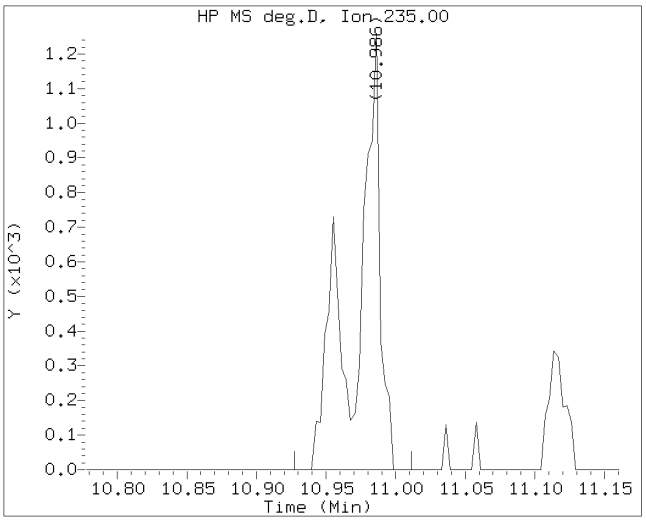
Manual Integration

Sample Info : degdft0315
sv112

Instrument ID : SV112.i
Method : DDT.m
File : deg.D
Injection Date : 15-MAR-2016 11:13
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: degradation

Compound # 5: 4,4'-DDD





Original Peak Response = 359549 Manual Peak Response = 1533 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\dft.D
Lab Smp Id:
Inj Date : 15-MAR-2016 11:13
Operator : as Inst ID: SV112.i
Smp Info : degdft0315
Misc Info : sv112
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\dftpp.m
Meth Date : 06-Mar-2016 19:12 asus Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 141 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUAL-PAUL-S

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
9.425	9.600	-0.175	198	182208			0.00- 100.00	100.00
9.425	9.600	-0.175	51	82416			30.00- 60.00	45.23
9.425	9.600	-0.175	68	1407			0.00- 2.00	1.55
9.425	9.600	-0.175	69	90536			0.00- 0.00	49.69
9.425	9.600	-0.175	70	439			0.00- 2.00	0.48
9.425	9.600	-0.175	127	97760			40.00- 60.00	53.65
9.425	9.600	-0.175	197	320			0.00- 1.00	0.18
9.425	9.600	-0.175	199	12019			5.00- 9.00	6.60
9.425	9.600	-0.175	275	42176			10.00- 30.00	23.15
9.425	9.600	-0.175	365	5579			1.00- 0.00	3.06
9.425	9.600	-0.175	441	20728			0.01- 99.99	81.55
9.425	9.600	-0.175	442	131648			40.00- 99.99	72.25
9.425	9.600	-0.175	443	25416			17.00- 23.00	19.31

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\dft.D

Date : 15-MAR-2016 11:13

Client ID:

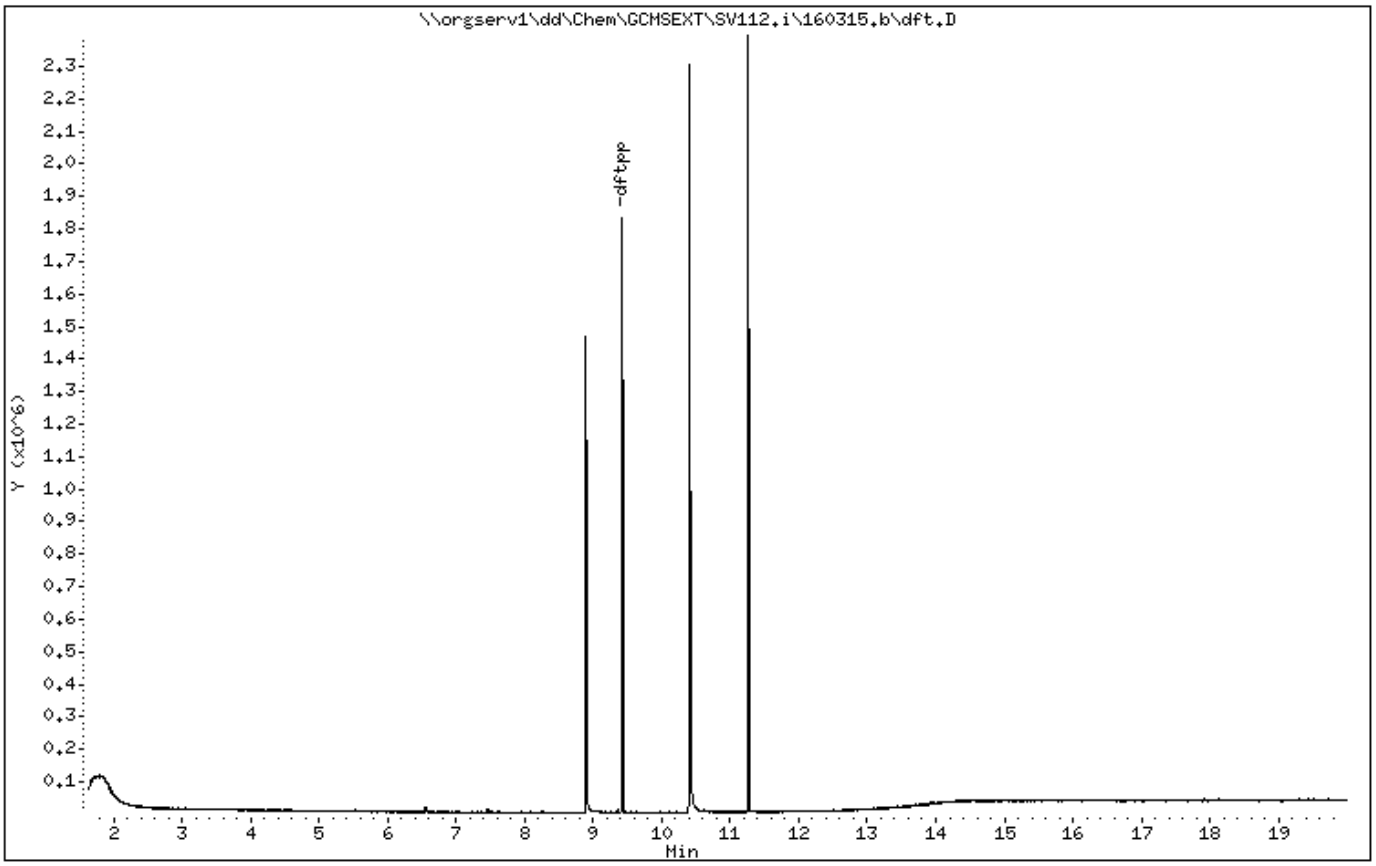
Instrument: SV112.i

Sample Info: degdft0315

Operator: as

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV112.i\160315.b\dft.D

Date : 15-MAR-2016 11:13

Client ID:

Instrument: SV112.i

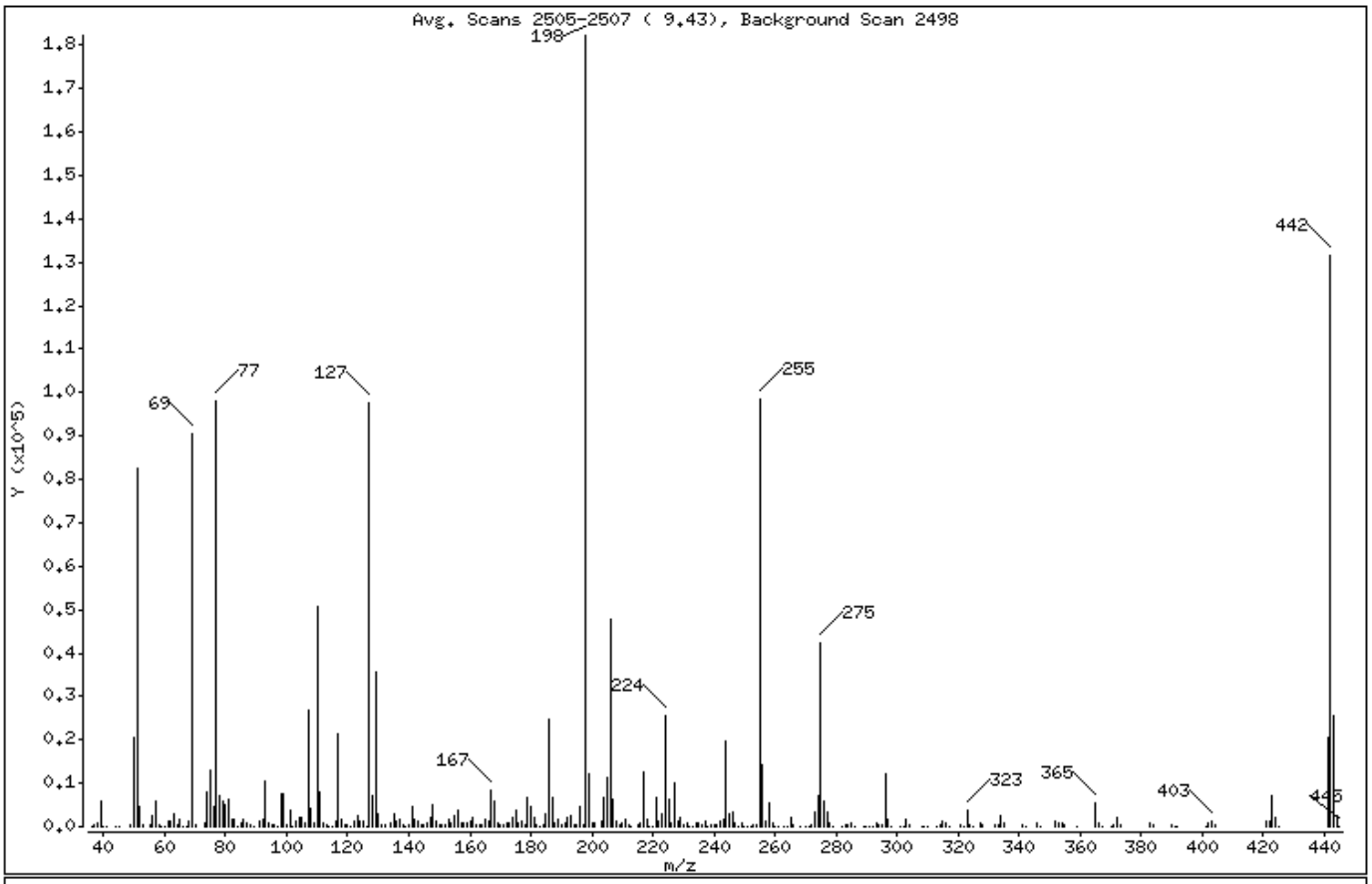
Sample Info: degdft0315

Operator: as

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.23
68	Less than 2.00% of mass 69	0.77 (1.55)
69	Mass 69 relative abundance	49.69
70	Less than 2.00% of mass 69	0.24 (0.48)
127	40.00 - 60.00% of mass 198	53.65
197	Less than 1.00% of mass 198	0.18
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	23.15
365	Greater than 1.00% of mass 198	3.06
441	Present, but less than mass 443	11.38
442	40.00 - 99.99% of mass 198	72.25
443	17.00 - 23.00% of mass 442	13.95 (19.31)

Date : 15-MAR-2016 11:13

Client ID: Instrument: SV112.i

Sample Info: degdft0315

Operator: as

Column phase: Column diameter: 2.00

Data File: dft.D
Spectrum: Avg. Scans 2505-2507 (9.43), Background Scan 2498
Location of Maximum: 198.00
Number of points: 302

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1	121.00	112	198.00	182208	279.00	142
37.00	257	122.00	1455	199.00	12019	282.00	137
38.00	822	123.00	2611	200.00	808	283.00	419
39.00	5907	124.00	1404	201.00	838	284.00	246
40.00	30	125.00	1128	203.00	1334	285.00	669
41.00	198	126.00	129	204.00	6715	286.00	56
44.00	160	127.00	97760	205.00	11286	289.00	103
45.00	205	128.00	7227	206.00	47848	290.00	68
49.00	579	129.00	35640	207.00	6115	291.00	42
50.00	20608	130.00	2916	208.00	1431	292.00	198
51.00	82416	131.00	596	209.00	617	293.00	1002
52.00	4459	132.00	349	210.00	745	294.00	241
53.00	256	134.00	987	211.00	1860	295.00	346
55.00	342	135.00	2998	212.00	230	296.00	12019
56.00	2617	136.00	1102	213.00	108	297.00	1755
57.00	6039	137.00	1757	215.00	448	298.00	42
58.00	246	138.00	373	216.00	999	301.00	88
59.00	137	139.00	176	217.00	12600	302.00	190
60.00	88	140.00	504	218.00	1764	303.00	1517
61.00	1122	141.00	4492	219.00	202	304.00	393
62.00	1056	142.00	1475	220.00	195	308.00	48
63.00	3106	143.00	1061	221.00	6873	309.00	112
64.00	512	144.00	241	222.00	1275	310.00	196
65.00	1696	145.00	250	223.00	2911	313.00	123
66.00	183	146.00	868	224.00	25568	314.00	558
67.00	45	147.00	2181	225.00	6162	315.00	1328
68.00	1407	148.00	5181	226.00	822	316.00	777
69.00	90536	149.00	1240	227.00	10175	317.00	118
70.00	439	150.00	251	228.00	1370	321.00	384
73.00	630	151.00	543	229.00	2091	322.00	178
74.00	8083	152.00	360	230.00	292	323.00	3709
75.00	13039	153.00	1480	231.00	896	324.00	616
76.00	4679	154.00	1036	232.00	148	325.00	81
77.00	98208	155.00	2468	233.00	196	327.00	731
78.00	7094	156.00	3666	234.00	681	328.00	370

Date : 15-MAR-2016 11:13

Client ID: Instrument: SV112.i

Sample Info: degdft0315

Operator: as

Column phase: Column diameter: 2.00

Data File: dft.D
Spectrum: Avg. Scans 2505-2507 (9.43), Background Scan 2498
Location of Maximum: 198.00
Number of points: 302

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5824	157.00	846	235.00	884	332.00	237
80.00	5025	158.00	774	236.00	519	333.00	462
81.00	6404	159.00	679	237.00	1051	334.00	2442
82.00	1629	160.00	1317	238.00	207	335.00	686
83.00	1598	161.00	2301	239.00	464	341.00	537
84.00	169	162.00	539	240.00	292	342.00	123
85.00	1047	163.00	247	241.00	544	346.00	888
86.00	1789	164.00	272	242.00	1336	347.00	122
87.00	822	165.00	1669	243.00	1501	352.00	1068
88.00	343	166.00	1264	244.00	19728	353.00	631
89.00	124	167.00	8396	245.00	2880	354.00	962
91.00	1450	168.00	5728	246.00	3495	355.00	256
92.00	1856	169.00	1041	247.00	783	359.00	74
93.00	10268	170.00	320	248.00	135	365.00	5579
94.00	780	171.00	458	249.00	634	366.00	945
95.00	236	172.00	663	250.00	108	367.00	33
96.00	570	173.00	961	251.00	189	370.00	122
97.00	181	174.00	2004	252.00	143	371.00	337
98.00	7435	175.00	3677	253.00	364	372.00	1974
99.00	7358	176.00	938	254.00	231	373.00	443
100.00	520	177.00	1433	255.00	98392	383.00	629
101.00	3826	178.00	540	256.00	14287	384.00	218
102.00	159	179.00	6768	257.00	1426	390.00	235
103.00	1110	180.00	4712	258.00	5482	391.00	163
104.00	2091	181.00	2294	259.00	857	392.00	199
105.00	2042	182.00	449	260.00	152	401.00	146
106.00	750	183.00	133	261.00	118	402.00	894
107.00	26896	184.00	360	263.00	45	403.00	1162
108.00	4324	185.00	3063	264.00	127	404.00	462
109.00	858	186.00	24672	265.00	1902	421.00	1196
110.00	50520	187.00	6682	266.00	336	422.00	1223
111.00	7989	188.00	839	268.00	108	423.00	7228
112.00	1034	189.00	1481	270.00	104	424.00	2200
113.00	257	190.00	237	271.00	186	425.00	209
114.00	33	191.00	699	272.00	265	441.00	20728

Date : 15-MAR-2016 11:13

Client ID: Instrument: SV112.i

Sample Info: degdft0315

Operator: as

Column phase: Column diameter: 2.00

Data File: dft.D
Spectrum: Avg. Scans 2505-2507 (9.43), Background Scan 2498
Location of Maximum: 198.00
Number of points: 302

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	54	192.00	2036	273.00	3175	442.00	131648
116.00	1428	193.00	2453	274.00	7112	443.00	25416
117.00	21320	194.00	586	275.00	42176	444.00	2322
118.00	1539	195.00	288	276.00	5856	445.00	108
119.00	211	196.00	4484	277.00	3475		
120.00	354	197.00	320	278.00	630		

Alpha Analytical Labs

Manual Integration

Sample Info	: degdft0315 sv112		
Instrument ID	: SV112.i		
Method	: dftpp.m		
File	: dft.D		
Injection Date	: 15-MAR-2016 11:13		
Quantitation	: ESTD	Integrator :	HP RTE
Dilution Factor	: 1.00	Sample Type:	DFTPP

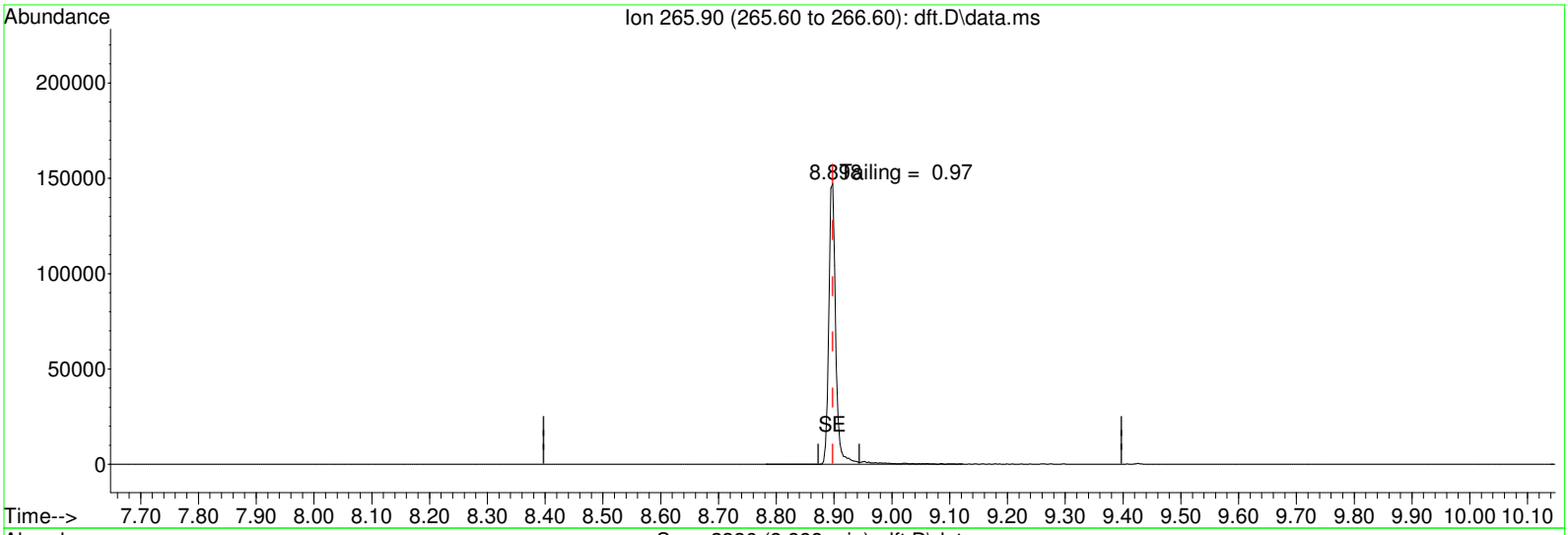
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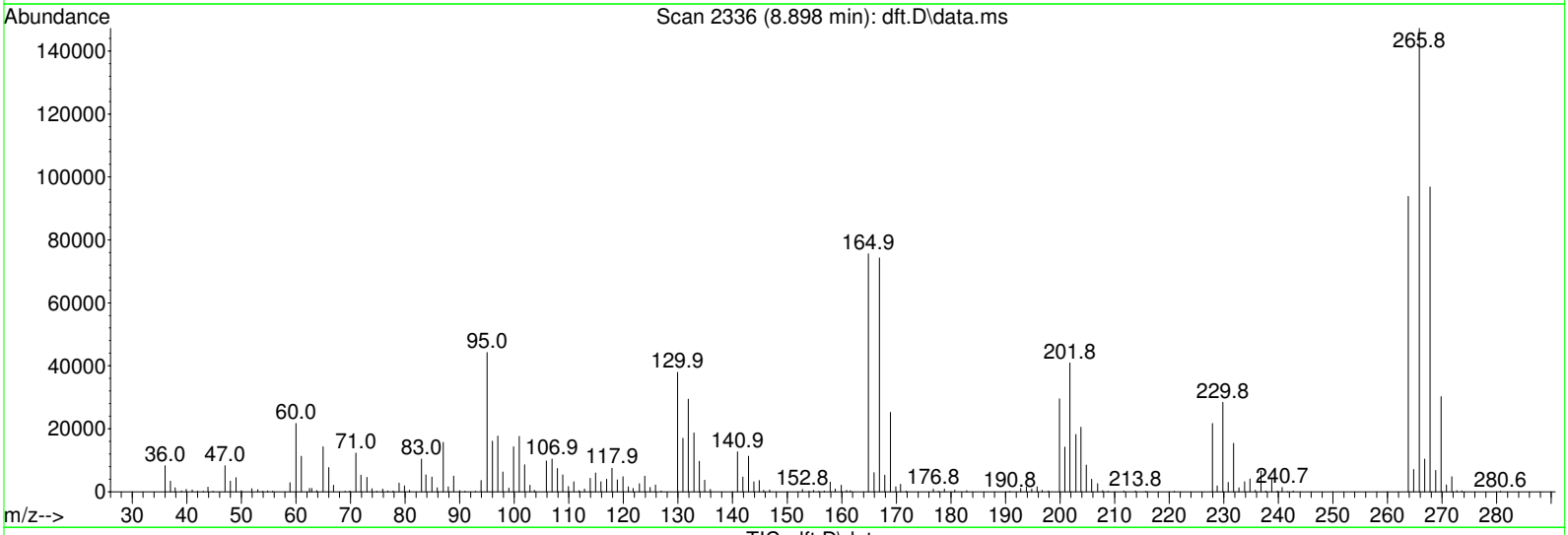
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Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV112.i\160315.b\
Data File : dft.D
Acq On : 15 Mar 2016 11:13 am
Operator : as
Sample : degdft0315
Misc : sv112
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 15 10:55:22 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 10:40:27 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dft.D\data.ms

(1) pentachlorophenol (T)

8.898min (0.000) 58.06

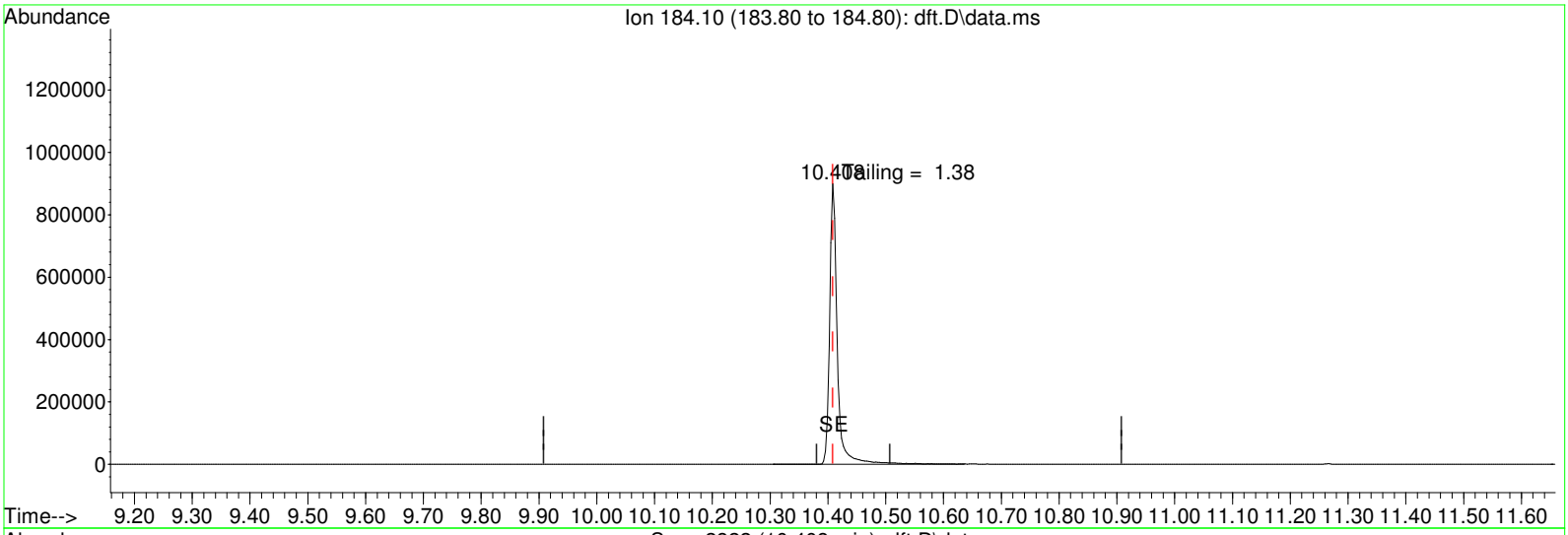
response 121938

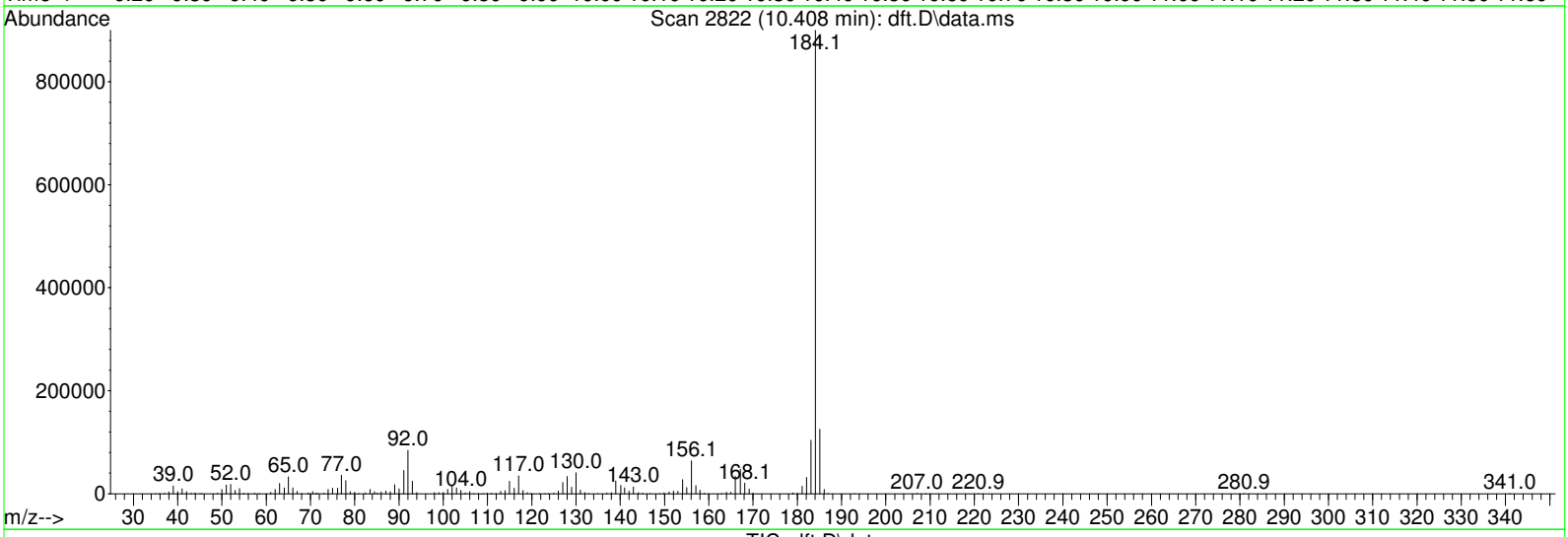
Ion	Exp%	Act%
265.90	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\SV112.i\160315.b\
Data File : dft.D
Acq On : 15 Mar 2016 11:13 am
Operator : as
Sample : degdft0315
Misc : sv112
ALS Vial : 141 Sample Multiplier: 1

Quant Time: Mar 15 10:55:22 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 10:40:27 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: dft.D\data.ms

(3) benzidine (T)

10.408min (0.000) 80.96

response 824216

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Semivolatiles Raw QC Data

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-1.D
Lab Smp Id:
Inj Date : 14-MAR-2016 23:29
Operator : als Inst ID: SV103.i
Smp Info : wg873638-1,32,nytcl,als
Misc Info : wg874362,wg873638, ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 15-Mar-2016 17:06 hlac Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270TCL+6.sub
Target Version: 4.12
Processing Host: A1-001720

Concentration Formula: Amt * DF * 1000 * 1/Vo*vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Sample Volume Extracted (mL)
vf	1.000	Extract Final Volume (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
	1 n-Nitrosodimethylamine	74	Compound Not Detected.						
	68 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
	91 Parathion	109	Compound Not Detected.						
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol	112	3.257	3.257	(0.716)	47714	20.1986	20.2	
	4 Benzaldehyde	105	Compound Not Detected.						
	5 Aniline	93	Compound Not Detected.						
$	6 Phenol-d6	99	4.230	4.230	(0.931)	38501	12.9289	12.9	
	7 Phenol	94	Compound Not Detected.						
	8 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
	9 2-Chlorophenol	128	Compound Not Detected.						
	10 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	11 1,4-Dichlorobenzene-d4	152	4.546	4.546	(1.000)	70933	40.0000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	13 Benzyl alcohol	79	Compound Not Detected.						
	14 1,2-Dichlorobenzene	146	Compound Not Detected.						
	16 Bis(2-chloroisopropyl)ether	45	Compound Not Detected.						
	15 2-Methylphenol	108	Compound Not Detected.						
	17 Acetophenone	105	Compound Not Detected.						
	18 n-Nitrosodi-n-propylamine	70	Compound Not Detected.						
	19 3-Methylphenol/4-Methylphenol	108	Compound Not Detected.						
	21 Hexachloroethane	117	Compound Not Detected.						

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$	22	Nitrobenzene-d5	82	5.092	5.091	(1.120)	39350	14.6852	14.7	
	23	Nitrobenzene	77	Compound Not Detected.						
	26	Isophorone	82	Compound Not Detected.						
	28	2-Nitrophenol	139	Compound Not Detected.						
	29	2,4-Dimethylphenol	107	Compound Not Detected.						
	30	Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
	31	Benzoic acid	105	Compound Not Detected.						
	32	2,4-Dichlorophenol	162	Compound Not Detected.						
	33	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	34	Naphthalene-d8	136	5.782	5.781	(1.000)	312163	40.0000		
	35	Naphthalene	128	Compound Not Detected.						
	38	4-Chloroaniline	65	Compound Not Detected.						
	40	Hexachlorobutadiene	225	Compound Not Detected.						
	42	Caprolactam	55	Compound Not Detected.						
	43	p-Chloro-m-cresol	107	Compound Not Detected.						
	44	2-Methylnaphthalene	142	Compound Not Detected.						
	45	1-Methylnaphthalene	115	Compound Not Detected.						
	47	Hexachlorocyclopentadiene	237	Compound Not Detected.						
	48	2,4,6-Trichlorophenol	196	Compound Not Detected.						
	49	2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	50	2-Fluorobiphenyl	172	6.857	6.857	(1.186)	92181	16.6592	16.6	
	51	Biphenyl	154	Compound Not Detected.						
	52	2-Chloronaphthalene	162	Compound Not Detected.						
	53	2-Nitroaniline	138	Compound Not Detected.						
	55	Dimethyl phthalate	163	Compound Not Detected.						
	57	2,6-Dinitrotoluene	165	Compound Not Detected.						
	58	Acenaphthylene	152	Compound Not Detected.						
	60	3-Nitroaniline	138	Compound Not Detected.						
*	61	Acenaphthene-d10	164	7.482	7.488	(1.000)	201251	40.0000		
	62	Acenaphthene	154	Compound Not Detected.						
	63	2,4-Dinitrophenol	184	Compound Not Detected.						
	65	Dibenzofuran	168	Compound Not Detected.						
	64	4-Nitrophenol	65	Compound Not Detected.						
	66	2,4-Dinitrotoluene	165	Compound Not Detected.						
	69	Diethyl phthalate	149	Compound Not Detected.						
	70	Fluorene	166	Compound Not Detected.						
	71	4-Chlorophenyl phenyl ether	204	Compound Not Detected.						
	72	4-Nitroaniline	138	Compound Not Detected.						
	73	4,6-Dinitro-o-cresol	198	Compound Not Detected.						
	74	NDPA/DPA	169	Compound Not Detected.						
	75	Azobenzene	77	Compound Not Detected.						
$	76	2,4,6-Tribromophenol	330	8.247	8.247	(0.926)	36853	33.4087	33.4	
	78	4-Bromophenyl phenyl ether	248	Compound Not Detected.						
	79	Hexachlorobenzene	284	Compound Not Detected.						
	82	Atrazine	200	Compound Not Detected.						
	83	Pentachlorophenol	266	Compound Not Detected.						
*	85	Phenanthrene-d10	188	8.911	8.910	(1.000)	395124	40.0000		
	86	Phenanthrene	178	Compound Not Detected.						
	87	Anthracene	178	Compound Not Detected.						
	89	Carbazole	167	Compound Not Detected.						
	90	Di-n-butylphthalate	149	Compound Not Detected.						
	93	Fluoranthene	202	Compound Not Detected.						
	94	Benzidine	184	Compound Not Detected.						
	95	Pyrene	202	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 96 4-Terphenyl-d14	244	10.494	10.499	(1.178)	128196	17.1186	17.1	
98 Butyl benzyl phthalate	149	Compound Not Detected.						
101 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
100 Benzo(a)anthracene	228	Compound Not Detected.						
* 102 Chrysene-d12	240	11.670	11.676	(1.000)	409188	40.0000		
103 Chrysene	228	Compound Not Detected.						
104 Bis(2-ethylhexyl)phthalate	149	Compound Not Detected.						
105 Di-n-octylphthalate	149	Compound Not Detected.						
106 Benzo(b)fluoranthene	252	Compound Not Detected.						
107 Benzo(k)fluoranthene	252	Compound Not Detected.						
109 Benzo(a)pyrene	252	Compound Not Detected.						
* 110 Perylene-d12	264	13.724	13.724	(1.000)	428887	40.0000		
112 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
113 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
114 Benzo(ghi)perylene	276	Compound Not Detected.						
46 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-1.D
Lab Smp Id:
Inj Date : 14-MAR-2016 23:29
Operator : als Inst ID: SV103.i
Smp Info : wg873638-1,32,nytcl,als
Misc Info : wg874362,wg873638, ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 15-Mar-2016 17:06 hlac Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270TCL+6.sub
Target Version: 4.12
Processing Host: A1-001720

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: 873638-1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: als
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: wg874362,wg873638, ICAL12135

Calibration Date: 14-MAR-2016
Calibration Time: 21:47
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	96142	48071	192284	70933	-26.22
34 Naphthalene-d8	407631	203816	815262	312163	-23.42
61 Acenaphthene-d10	241274	120637	482548	201251	-16.59
85 Phenanthrene-d10	439963	219982	879926	395124	-10.19
102 Chrysene-d12	427960	213980	855920	409188	-4.39
110 Perylene-d12	392647	196324	785294	428887	9.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.55	4.05	5.05	4.55	0.00
34 Naphthalene-d8	5.78	5.28	6.28	5.78	0.00
61 Acenaphthene-d10	7.49	6.99	7.99	7.48	-0.07
85 Phenanthrene-d10	8.91	8.41	9.41	8.91	0.00
102 Chrysene-d12	11.68	11.18	12.18	11.67	-0.04
110 Perylene-d12	13.72	13.22	14.22	13.72	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.

Alpha Analytical Labs

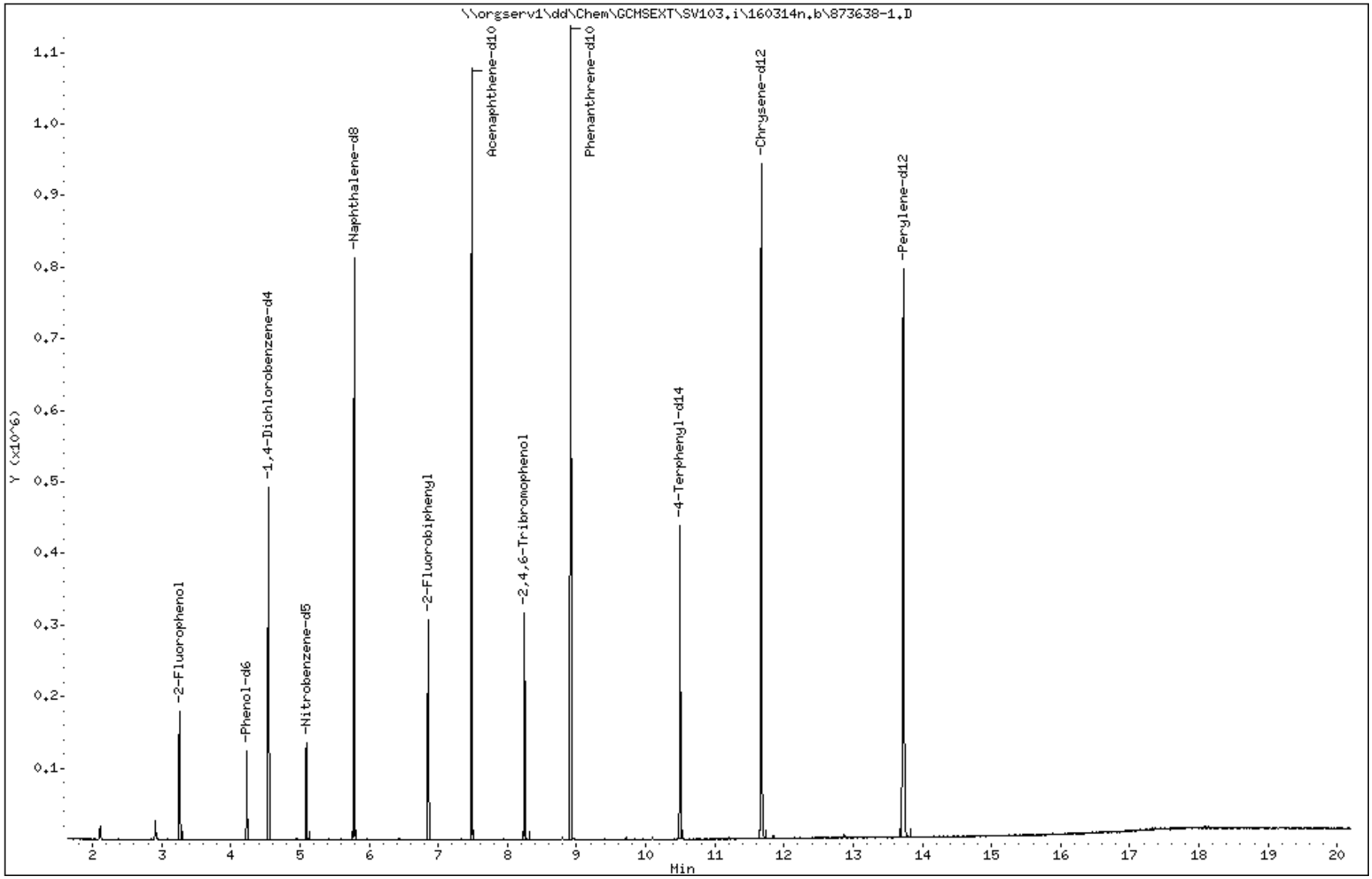
RECOVERY REPORT

Client Name: Client SDG: 160314n.b
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: als
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: mcp8270spk.spk Quant Type: ISTD
Sublist File: 8270TCL+6.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: wg874362,wg873638, ICAL12135

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorophenol	50.0	20.2	40.40	21-120
$ 6 Phenol-d6	50.0	12.9	25.86	10-120
$ 22 Nitrobenzene-d5	25.0	14.7	58.74	23-120
$ 50 2-Fluorobiphenyl	25.0	16.6	66.64	15-120
$ 76 2,4,6-Tribromophen	50.0	33.4	66.82	10-120
$ 96 4-Terphenyl-d14	25.0	17.1	68.47	33-120

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-1.D
Date : 14-MAR-2016 23:29
Client ID:
Sample Info: wg873638-1,32,nytcl,als
Purge Volume: 1000.0
Column phase: RTx-5

Instrument: SV103.i
Operator: als
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info	:	wg873638-1,32,nytcl,als wg874362,wg873638, ICAL12135	
Instrument ID	:	SV103.i	
Method	:	HP2ABNv2.m	
File	:	873638-1.D	
Injection Date	:	14-MAR-2016 23:29	
Quantitation	:	ISTD	Integrator : HP RTE
Dilution Factor	:	1.00	Sample Type: SAMPLE

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D
Lab Smp Id:
Inj Date : 14-MAR-2016 23:55
Operator : als Inst ID: SV103.i
Smp Info : wg873638-2,32,nytcl,als
Misc Info : wg874362,wg873638, ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 15-Mar-2016 17:06 hlac Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270TCL+6.sub
Target Version: 4.12
Processing Host: A1-001720

Concentration Formula: Amt * DF * 1000 * 1/Vo*vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Sample Volume Extracted (mL)
vf	1.000	Extract Final Volume (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)	REVIEW CODE
1	n-Nitrosodimethylamine	74	1.829	1.829	(0.402)	25257	12.6141	12.6	
68	2,3,4,6-Tetrachlorophenol	232	7.814	7.814	(1.044)	58292	31.6814	31.7	
91	Parathion	109	9.702	9.702	(2.134)	45623	39.8768	39.9	
2	Pyridine	79	1.861	1.856	(0.409)	23874	6.99403	6.99	
$ 3	2-Fluorophenol	112	3.257	3.257	(0.716)	58496	20.2530	20.2	
4	Benzaldehyde	105	4.107	4.107	(0.904)	58211	23.9883	24.0	
5	Aniline	93	4.225	4.225	(0.929)	48749	10.2415	10.2(RM)	M2
$ 6	Phenol-d6	99	4.230	4.230	(0.931)	51009	14.0096	14.0	
7	Phenol	94	4.241	4.246	(0.933)	47252	11.3472	11.3(R)	
8	Bis(2-chloroethyl)ether	93	4.311	4.311	(0.948)	70415	22.3005	22.3	
9	2-Chlorophenol	128	4.337	4.337	(0.954)	77183	24.5498	24.5	
10	1,3-Dichlorobenzene	146	4.487	4.487	(0.987)	74000	21.1462	21.1	
* 11	1,4-Dichlorobenzene-d4	152	4.546	4.546	(1.000)	86728	40.0000		
12	1,4-Dichlorobenzene	146	4.562	4.562	(1.004)	77506	21.4164	21.4	
13	Benzyl alcohol	79	4.701	4.701	(1.034)	55838	20.9743	21.0(M)	M2
14	1,2-Dichlorobenzene	146	4.706	4.706	(1.035)	75310	22.2378	22.2	
16	Bis(2-chloroisopropyl)ether	45	4.851	4.851	(1.067)	82953	15.8954	15.9(R)	
15	2-Methylphenol	108	4.835	4.835	(1.064)	62646	22.6171	22.6	
17	Acetophenone	105	4.952	4.947	(1.089)	108704	26.3917	26.4(R)	
18	n-Nitrosodi-n-propylamine	70	4.968	4.974	(1.093)	56523	24.3638	24.4	
19	3-Methylphenol/4-Methylphenol	108	4.990	4.995	(1.098)	64694	22.1637	22.2	
21	Hexachloroethane	117	5.033	5.033	(1.107)	30933	20.6113	20.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$	22 Nitrobenzene-d5	82	5.092	5.091	(1.120)	50181	15.3167	15.3	
	23 Nitrobenzene	77	5.108	5.108	(0.883)	78087	22.2103	22.2	
	26 Isophorone	82	5.348	5.354	(1.176)	152968	25.0880	25.1	
	28 2-Nitrophenol	139	5.423	5.423	(1.193)	47117	27.5855	27.6	
	29 2,4-Dimethylphenol	107	5.503	5.503	(1.211)	83487	26.6845	26.7	
	30 Bis(2-chloroethoxy)methane	93	5.589	5.589	(1.229)	94311	25.0566	25.0	
	31 Benzoic acid	105	5.578	5.621	(0.965)	21187	14.6366	14.6	
	32 2,4-Dichlorophenol	162	5.664	5.664	(0.980)	73663	27.9938	28.0	
	33 1,2,4-Trichlorobenzene	180	5.739	5.739	(0.993)	73841	24.5401	24.5	
*	34 Naphthalene-d8	136	5.781	5.781	(1.000)	369324	40.0000		
	35 Naphthalene	128	5.803	5.803	(1.004)	223993	24.1576	24.2	
	38 4-Chloroaniline	65	5.878	5.878	(1.017)	25087	19.7602	19.8	
	40 Hexachlorobutadiene	225	5.953	5.953	(1.030)	43493	24.8519	24.8	
	42 Caprolactam	55	6.183	6.183	(1.069)	10418	6.45807	6.46	
	43 p-Chloro-m-cresol	107	6.375	6.375	(1.103)	76767	28.3156	28.3	
	44 2-Methylnaphthalene	142	6.482	6.482	(1.121)	164438	26.2963	26.3	
	45 1-Methylnaphthalene	115	6.573	6.573	(1.137)	56513	26.2484	26.2	
	47 Hexachlorocyclopentadiene	237	6.653	6.653	(1.151)	47759	24.3741	24.4	
	48 2,4,6-Trichlorophenol	196	6.771	6.771	(1.171)	59630	32.4136	32.4	
	49 2,4,5-Trichlorophenol	196	6.798	6.798	(1.176)	61908	31.1349	31.1	
$	50 2-Fluorobiphenyl	172	6.857	6.857	(1.186)	121849	18.6127	18.6	
	51 Biphenyl	154	6.942	6.942	(0.928)	214929	24.7533	24.8	
	52 2-Chloronaphthalene	162	6.947	6.947	(1.202)	166825	28.2499	28.2	
	53 2-Nitroaniline	138	7.060	7.060	(1.221)	63495	32.4862	32.5	
	55 Dimethyl phthalate	163	7.263	7.268	(0.971)	211570	27.0283	27.0	
	57 2,6-Dinitrotoluene	165	7.306	7.311	(1.264)	51483	32.8393	32.8	
	58 Acenaphthylene	152	7.343	7.343	(1.270)	264497	28.3075	28.3	
	60 3-Nitroaniline	138	7.461	7.461	(0.997)	47225	22.8763	22.9	
*	61 Acenaphthene-d10	164	7.482	7.488	(1.000)	230260	40.0000		
	62 Acenaphthene	154	7.514	7.514	(1.004)	168900	25.4431	25.4	
	63 2,4-Dinitrophenol	184	7.563	7.563	(1.011)	35108	27.0454	27.0	
	65 Dibenzofuran	168	7.686	7.686	(1.027)	253583	26.4869	26.5	
	64 4-Nitrophenol	65	7.654	7.653	(1.023)	23978	13.8773	13.9	
	66 2,4-Dinitrotoluene	165	7.691	7.696	(1.028)	70423	29.3515	29.4	
	69 Diethyl phthalate	149	7.953	7.958	(1.063)	221437	27.4227	27.4	
	70 Fluorene	166	8.012	8.017	(1.071)	208118	26.5642	26.6	
	71 4-Chlorophenyl phenyl ether	204	8.033	8.039	(1.074)	102910	28.0547	28.0	
	72 4-Nitroaniline	138	8.044	8.049	(1.075)	54668	26.6823	26.7	
	73 4,6-Dinitro-o-cresol	198	8.081	8.087	(1.080)	45808	28.0594	28.0(M)	M2
	74 NDPA/DPA	169	8.151	8.151	(1.089)	178042	26.9545	27.0	
	75 Azobenzene	77	8.183	8.188	(1.094)	190598	23.0900	23.1	
$	76 2,4,6-Tribromophenol	330	8.247	8.247	(0.926)	47617	39.3567	39.4	
	78 4-Bromophenyl phenyl ether	248	8.504	8.504	(1.137)	64057	30.7037	30.7	
	79 Hexachlorobenzene	284	8.547	8.552	(1.142)	68917	30.8754	30.9	
	82 Atrazine	200	8.696	8.697	(0.976)	67048	35.1131	35.1	
	83 Pentachlorophenol	266	8.745	8.745	(0.981)	45922	29.4959	29.5	
*	85 Phenanthrene-d10	188	8.910	8.910	(1.000)	431987	40.0000		
	86 Phenanthrene	178	8.932	8.937	(1.002)	323171	26.2934	26.3	
	87 Anthracene	178	8.985	8.985	(1.008)	320419	26.5019	26.5	
	89 Carbazole	167	9.151	9.156	(1.027)	299592	26.5167	26.5	
	90 Di-n-butylphthalate	149	9.547	9.547	(1.071)	377372	26.7093	26.7	
	93 Fluoranthene	202	10.082	10.087	(1.131)	343398	27.4460	27.4	
	94 Benzidine	184	10.242	10.242	(1.149)	45634	6.61352	6.61	
	95 Pyrene	202	10.296	10.301	(1.155)	350925	26.7486	26.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 96 4-Terphenyl-d14	244	10.494	10.499	(1.178)	148059	18.0838	18.1	
98 Butyl benzyl phthalate	149	11.066	11.066	(1.242)	172124	27.1706	27.2	
101 3,3'-Dichlorobenzidine	252	11.670	11.670	(1.000)	126849	27.8307	27.8(R)	
100 Benzo(a)anthracene	228	11.660	11.665	(0.999)	340299	25.8568	25.8	
* 102 Chrysene-d12	240	11.676	11.676	(1.000)	433014	40.0000		
103 Chrysene	228	11.708	11.708	(1.003)	332558	26.0095	26.0	
104 Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.015)	248934	25.9744	26.0	
105 Di-n-octylphthalate	149	12.794	12.794	(1.096)	410703	26.0120	26.0	
106 Benzo(b)fluoranthene	252	13.168	13.168	(0.959)	321518	25.5764	25.6	
107 Benzo(k)fluoranthene	252	13.205	13.211	(0.962)	338340	25.6816	25.7	
109 Benzo(a)pyrene	252	13.639	13.639	(0.993)	329947	27.2265	27.2	
* 110 Perylene-d12	264	13.730	13.724	(1.000)	431424	40.0000		
112 Indeno(1,2,3-cd)pyrene	276	15.297	15.302	(1.114)	284363	26.2938	26.3	
113 Dibenzo(a,h)anthracene	278	15.356	15.356	(1.118)	293092	25.9951	26.0	
114 Benzo(ghi)perylene	276	15.666	15.671	(1.141)	308754	26.1304	26.1	
46 1,2,4,5-Tetrachlorobenzene	216	6.648	6.648	(0.888)	80022	24.8882	24.9	

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: 873638-2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: als
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: wg874362,wg873638, ICAL12135

Calibration Date: 14-MAR-2016
Calibration Time: 21:47
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	96142	48071	192284	86728	-9.79
34 Naphthalene-d8	407631	203816	815262	369324	-9.40
61 Acenaphthene-d10	241274	120637	482548	230260	-4.56
85 Phenanthrene-d10	439963	219982	879926	431987	-1.81
102 Chrysene-d12	427960	213980	855920	433014	1.18
110 Perylene-d12	392647	196324	785294	431424	9.88

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.55	4.05	5.05	4.55	0.00
34 Naphthalene-d8	5.78	5.28	6.28	5.78	0.00
61 Acenaphthene-d10	7.49	6.99	7.99	7.48	-0.07
85 Phenanthrene-d10	8.91	8.41	9.41	8.91	0.00
102 Chrysene-d12	11.68	11.18	12.18	11.68	0.00
110 Perylene-d12	13.72	13.22	14.22	13.73	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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: 160314n.b
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: als
Data Type: MS DATA SampleType: LCS
SpikeList File: mcp8270spk.spk Quant Type: ISTD
Sublist File: 8270TCL+6.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: wg874362,wg873638, ICAL12135

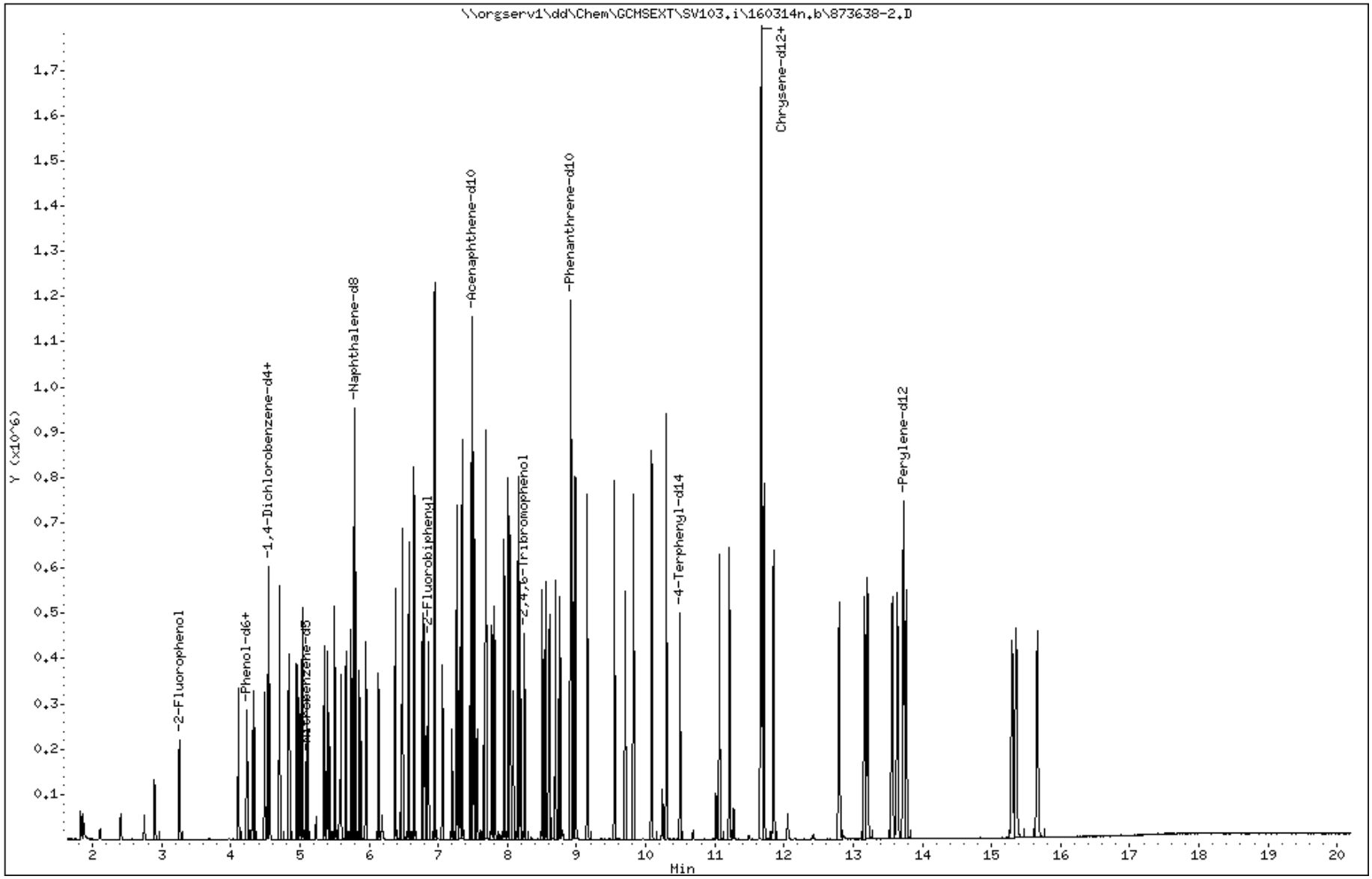
SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5	Aniline	40.0	10.2	25.60*	40-140
7	Phenol	40.0	11.3	28.37*	30-130
8	Bis(2-chloroethyl)	40.0	22.3	55.75	40-140
9	2-Chlorophenol	40.0	24.5	61.37	30-130
10	1,3-Dichlorobenzen	40.0	21.1	52.87	40-140
12	1,4-Dichlorobenzen	40.0	21.4	53.54	40-140
14	1,2-Dichlorobenzen	40.0	22.2	55.59	40-140
16	Bis(2-chloroisopro	40.0	15.9	39.74*	40-140
15	2-Methylphenol	40.0	22.6	56.54	30-130
17	Acetophenone	80.0	26.4	32.99*	40-140
19	3-Methylphenol/4-M	40.0	22.2	55.41	30-130
21	Hexachloroethane	40.0	20.6	51.53	40-140
23	Nitrobenzene	40.0	22.2	55.53	40-140
26	Isophorone	40.0	25.1	62.72	40-140
28	2-Nitrophenol	40.0	27.6	68.96	30-130
29	2,4-Dimethylphenol	40.0	26.7	66.71	30-130
30	Bis(2-chloroethoxy	40.0	25.0	62.64	40-140
32	2,4-Dichlorophenol	40.0	28.0	69.98	30-130
33	1,2,4-Trichloroben	40.0	24.5	61.35	40-140
35	Naphthalene	40.0	24.2	60.39	40-140
38	4-Chloroaniline	40.0	19.8	49.40	40-140
40	Hexachlorobutadien	40.0	24.8	62.13	40-140
44	2-Methylnaphthalen	40.0	26.3	65.74	40-140
48	2,4,6-Trichlorophe	40.0	32.4	81.03	30-130
49	2,4,5-Trichlorophe	40.0	31.1	77.84	30-130
52	2-Chloronaphthalen	40.0	28.2	70.62	40-140
55	Dimethyl phthalate	40.0	27.0	67.57	40-140
58	Acenaphthylene	40.0	28.3	70.77	40-140
57	2,6-Dinitrotoluene	40.0	32.8	82.10	40-140
62	Acenaphthene	40.0	25.4	63.61	40-140
63	2,4-Dinitrophenol	40.0	27.0	67.61	30-130
65	Dibenzofuran	40.0	26.5	66.22	40-140
64	4-Nitrophenol	40.0	13.9	34.69	30-130
66	2,4-Dinitrotoluene	40.0	29.4	73.38	40-140
69	Diethyl phthalate	40.0	27.4	68.56	40-140
70	Fluorene	40.0	26.6	66.41	40-140
75	Azobenzene	40.0	23.1	57.72	40-140
78	4-Bromophenyl phen	40.0	30.7	76.76	40-140
79	Hexachlorobenzene	40.0	30.9	77.19	40-140
83	Pentachlorophenol	40.0	29.5	73.74	30-130

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
86 Phenanthrene	40.0	26.3	65.73	40-140
87 Anthracene	40.0	26.5	66.25	40-140
90 Di-n-butylphthalat	40.0	26.7	66.77	40-140
93 Fluoranthene	40.0	27.4	68.62	40-140
95 Pyrene	40.0	26.7	66.87	40-140
98 Butyl benzyl phtha	40.0	27.2	67.93	40-140
100 Benzo(a)anthracene	40.0	25.8	64.64	40-140
101 3,3'-Dichlorobenzi	80.0	27.8	34.79*	40-140
103 Chrysene	40.0	26.0	65.02	40-140
104 Bis(2-ethylhexyl)p	40.0	26.0	64.94	40-140
105 Di-n-octylphthalat	40.0	26.0	65.03	40-140
106 Benzo(b)fluoranthe	40.0	25.6	63.94	40-140
107 Benzo(k)fluoranthe	40.0	25.7	64.20	40-140
109 Benzo(a)pyrene	40.0	27.2	68.07	40-140
112 Indeno(1,2,3-cd)py	40.0	26.3	65.73	40-140
113 Dibenzo(a,h)anthra	40.0	26.0	64.99	40-140
114 Benzo(ghi)perylene	40.0	26.1	65.33	40-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorophenol	50.0	20.2	40.51	21-120
$ 6 Phenol-d6	50.0	14.0	28.02	10-120
$ 22 Nitrobenzene-d5	25.0	15.3	61.27	23-120
$ 50 2-Fluorobiphenyl	25.0	18.6	74.45	15-120
$ 76 2,4,6-Tribromophen	50.0	39.4	78.71	10-120
$ 96 4-Terphenyl-d14	25.0	18.1	72.34	33-120

Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D
Date : 14-MAR-2016 23:55
Client ID:
Sample Info: wg873638-2,32,nytcl,als
Purge Volume: 1000.0
Column phase: RTx-5

Instrument: SV103.i
Operator: als
Column diameter: 0.32



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

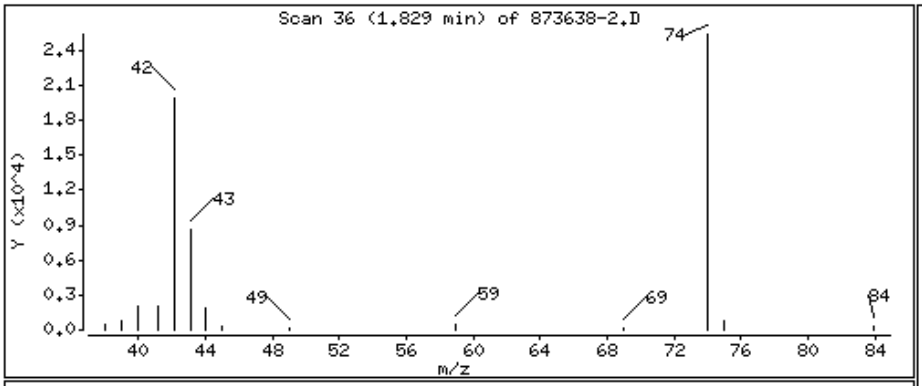
Operator: als

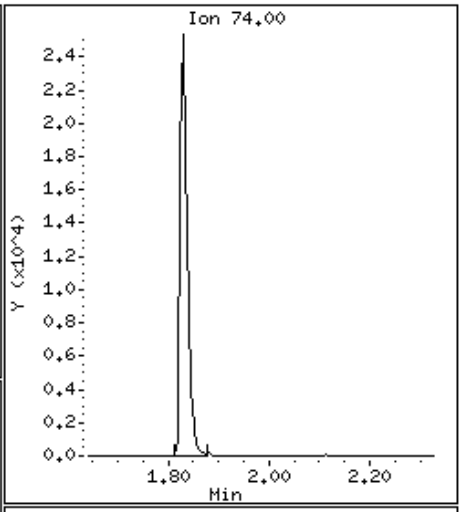
Column phase: RTx-5

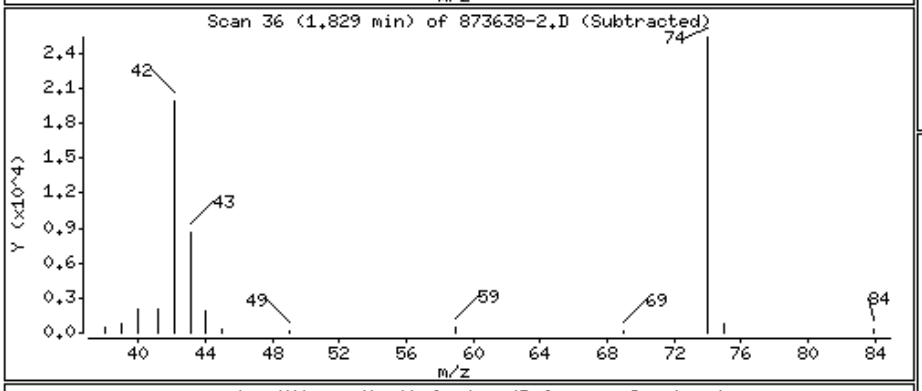
Column diameter: 0.32

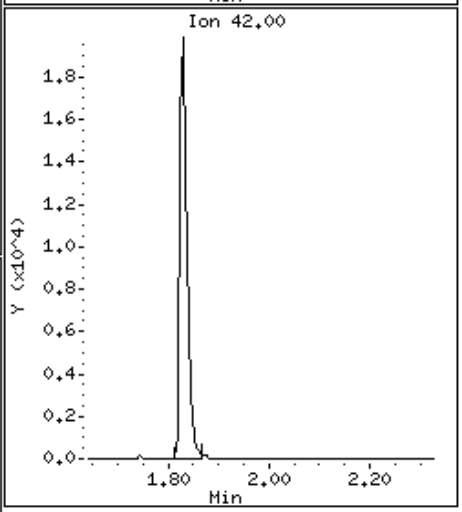
1 n-Nitrosodimethylamine

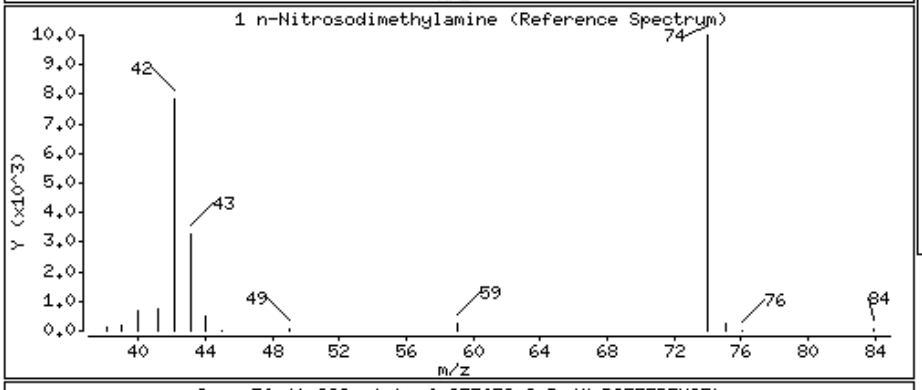
Concentration: 12.6 ug/L

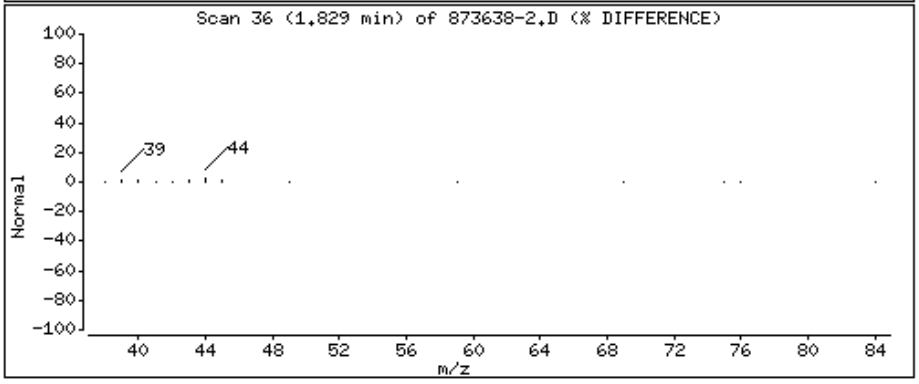












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

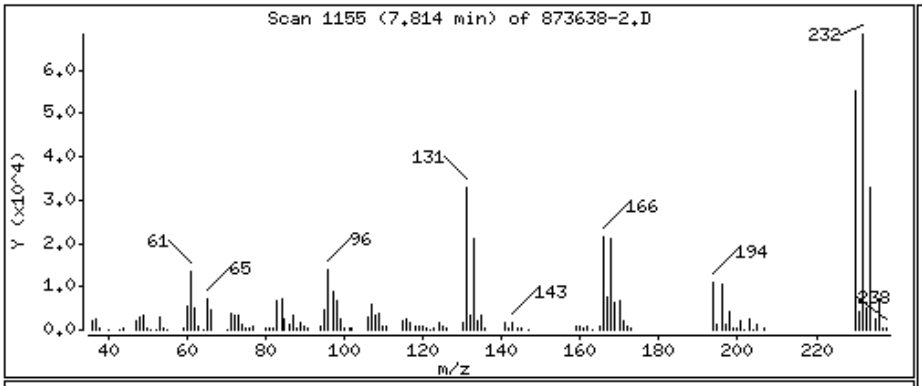
Operator: als

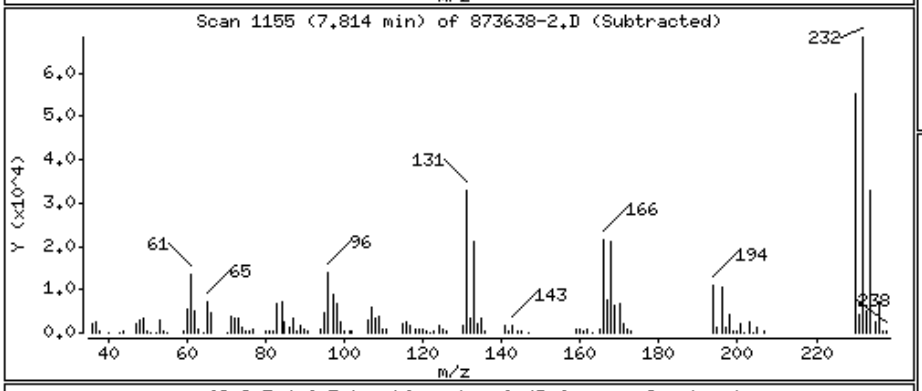
Column phase: RTx-5

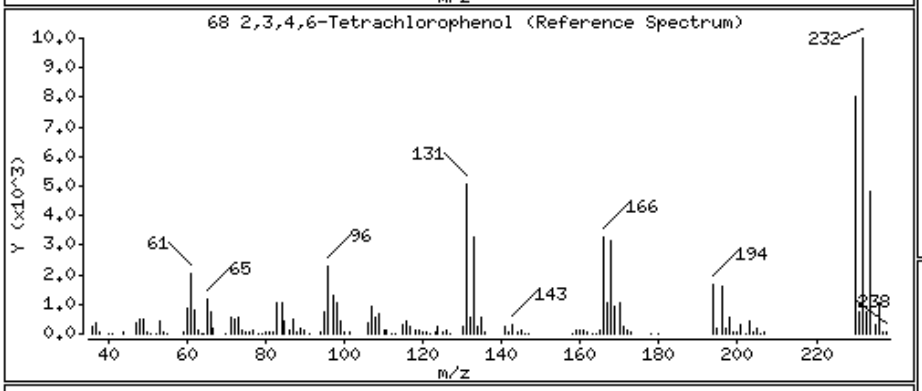
Column diameter: 0.32

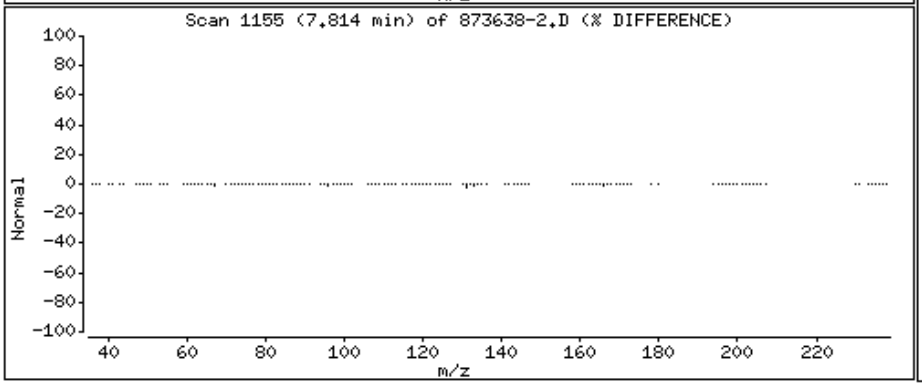
68 2,3,4,6-Tetrachlorophenol

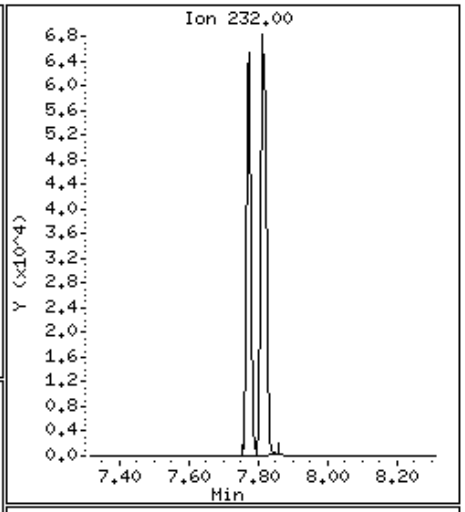
Concentration: 31.7 ug/L

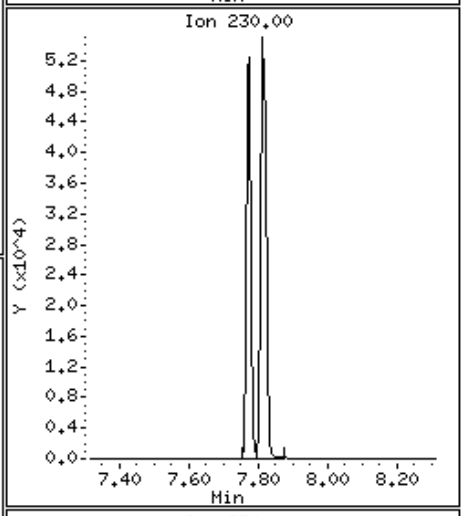


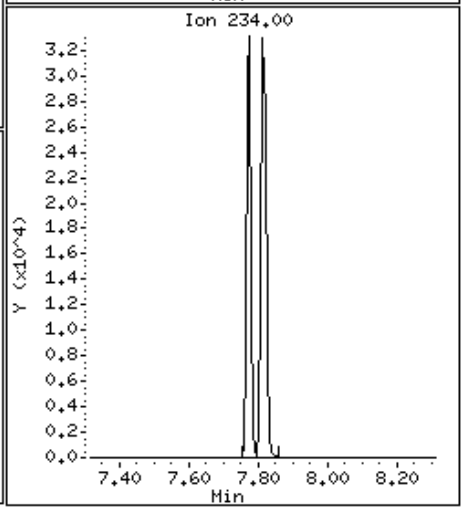












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

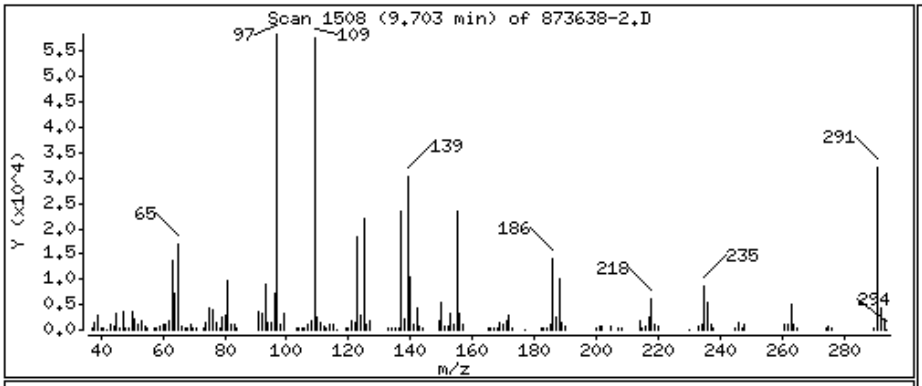
Operator: als

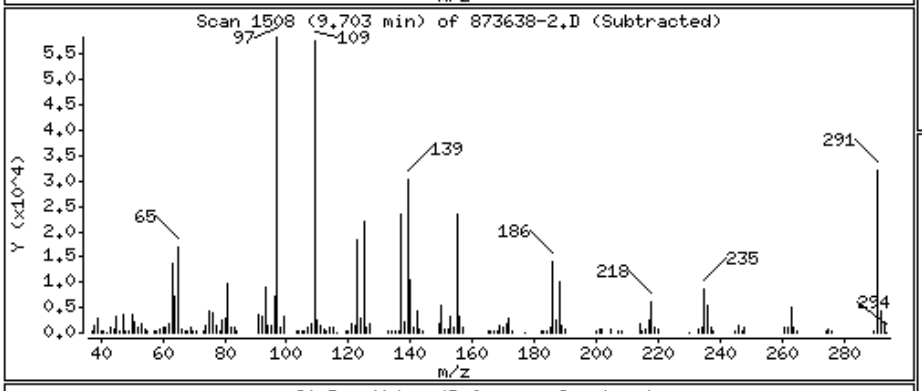
Column phase: RTx-5

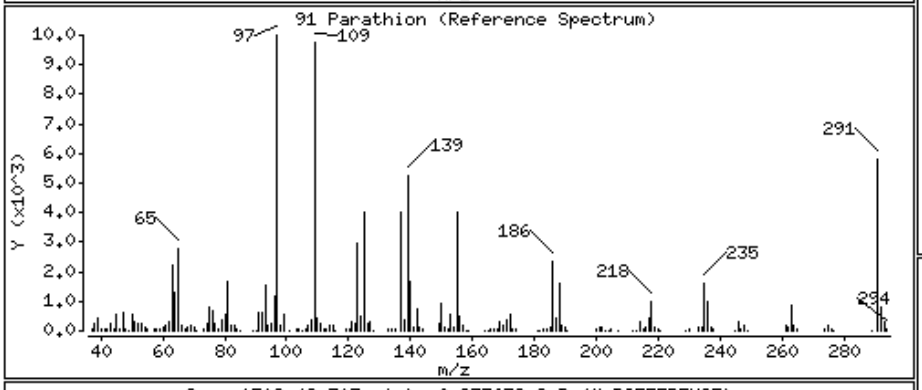
Column diameter: 0.32

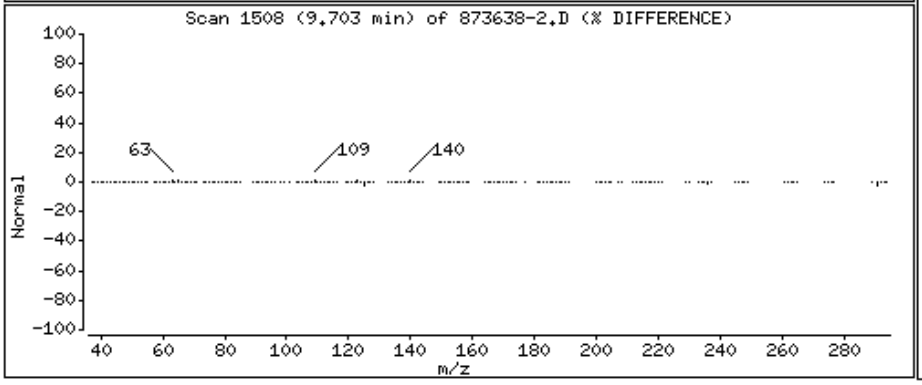
91 Parathion

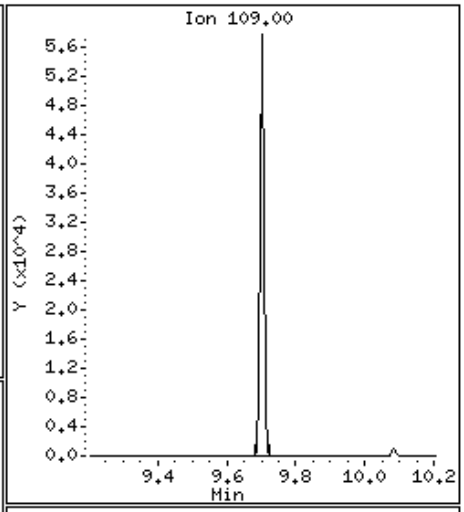
Concentration: 39.9 ug/L

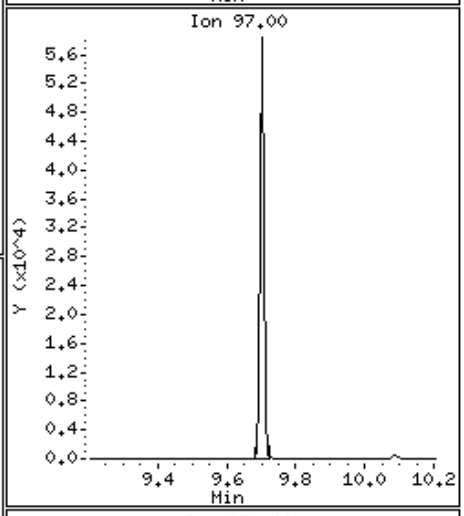


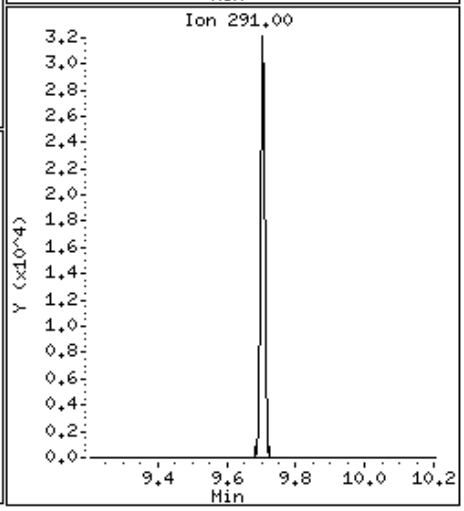












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

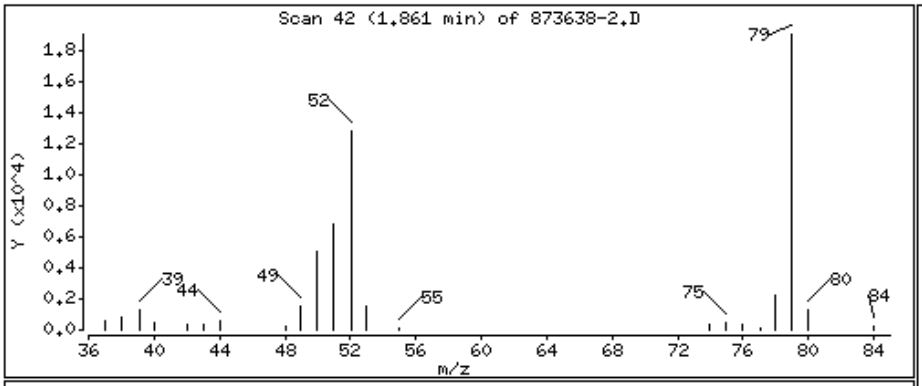
Operator: als

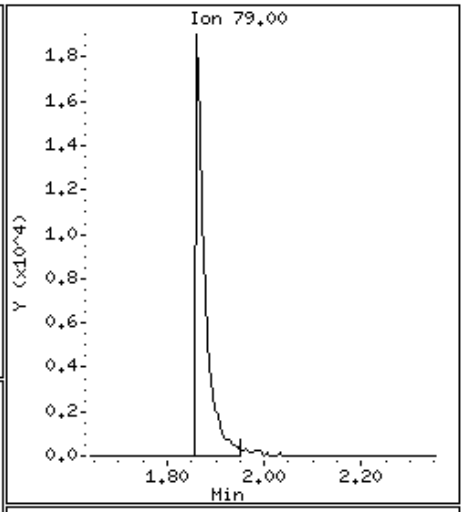
Column phase: RTx-5

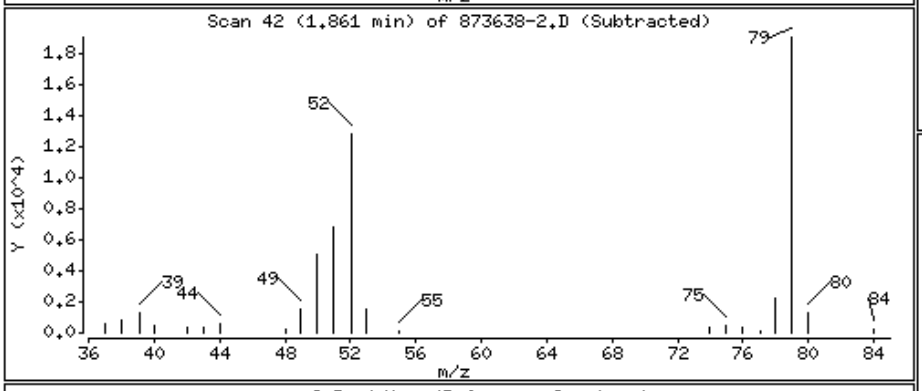
Column diameter: 0.32

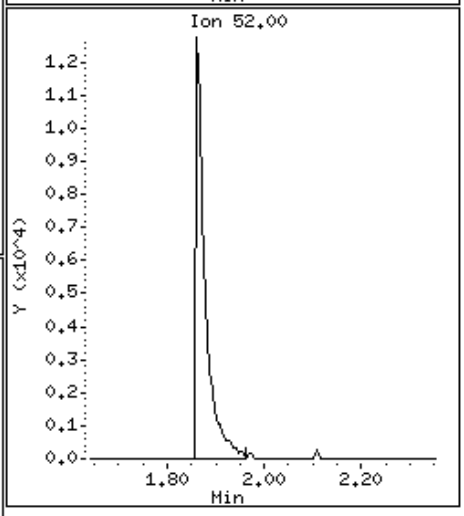
2 Pyridine

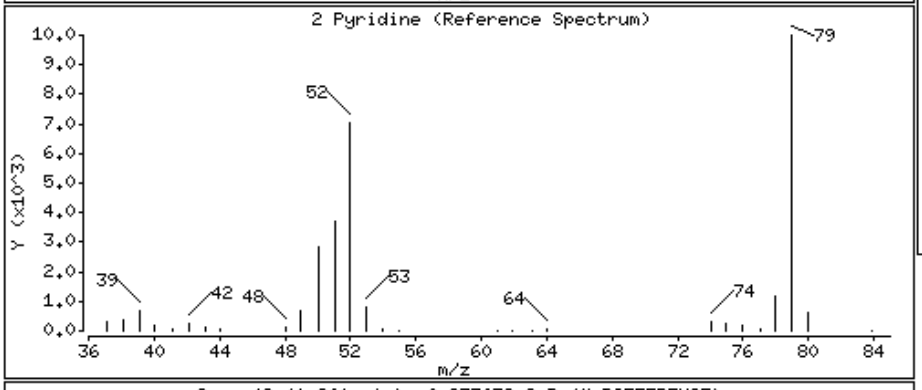
Concentration: 6.99 ug/L

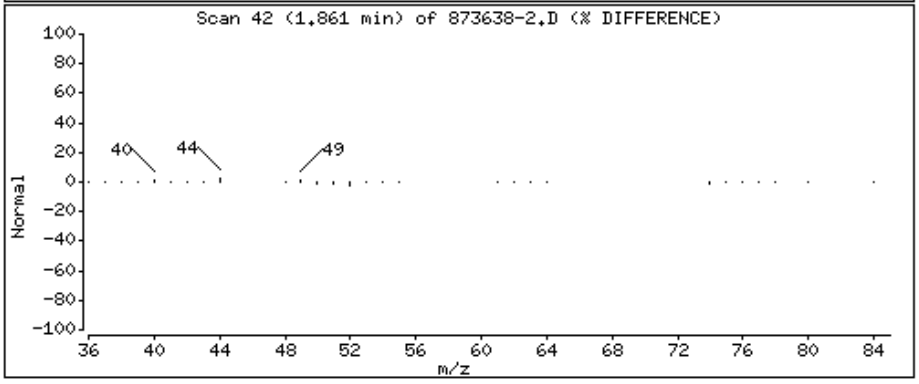












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

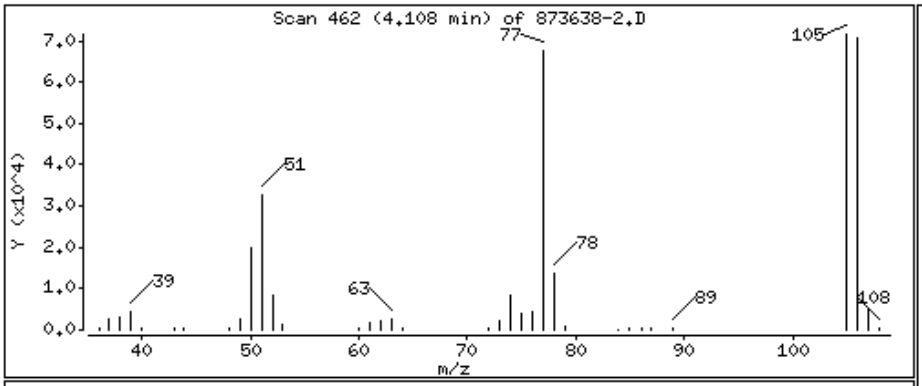
Operator: als

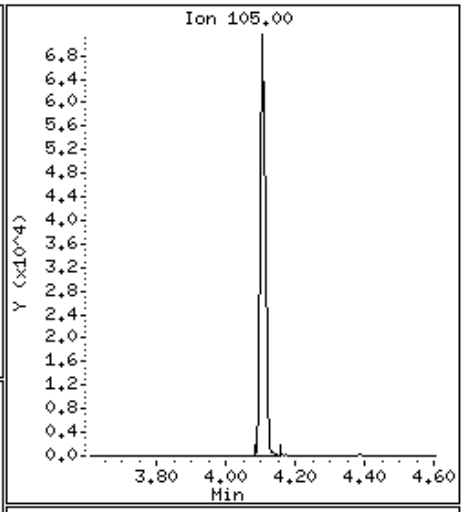
Column phase: RTx-5

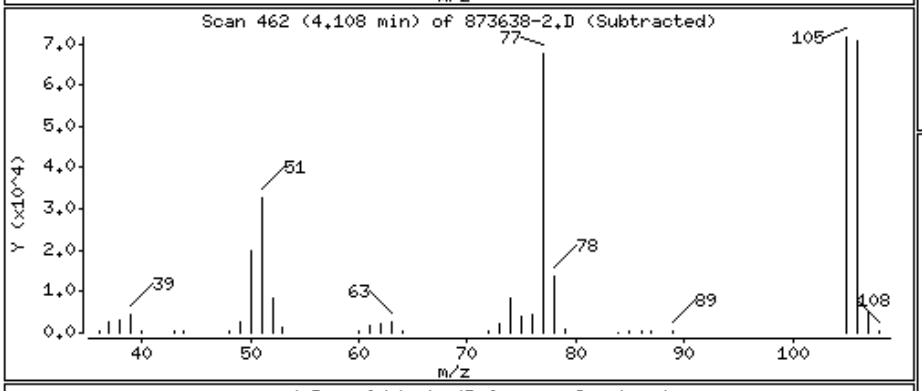
Column diameter: 0.32

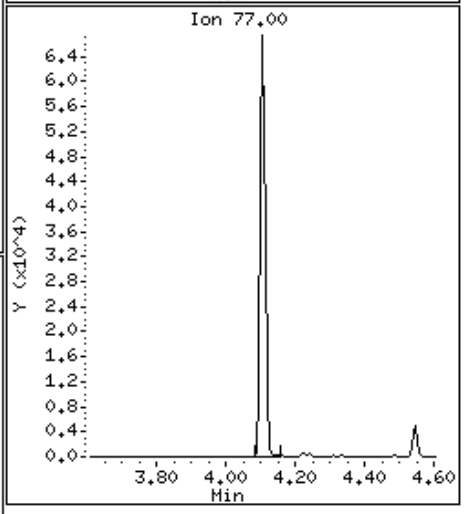
4 Benzaldehyde

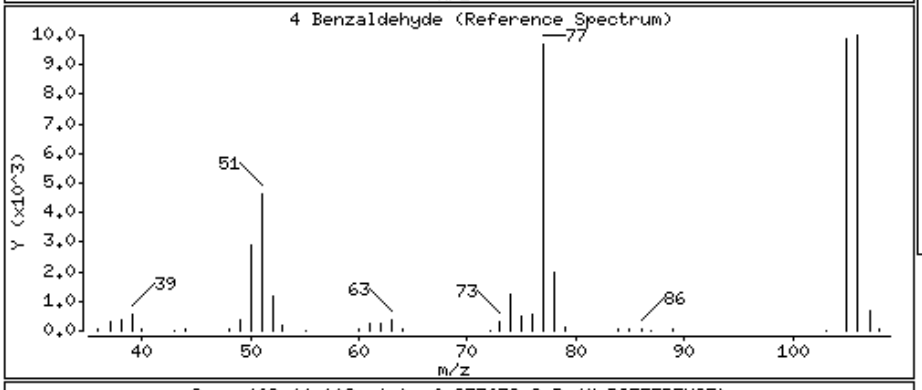
Concentration: 24.0 ug/L

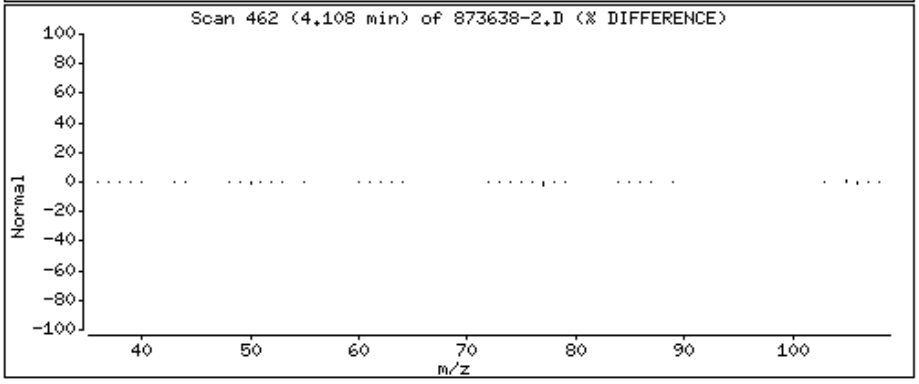












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

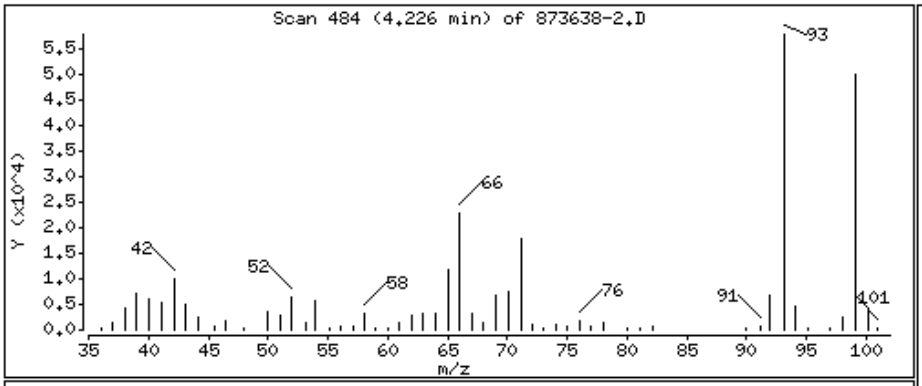
Operator: als

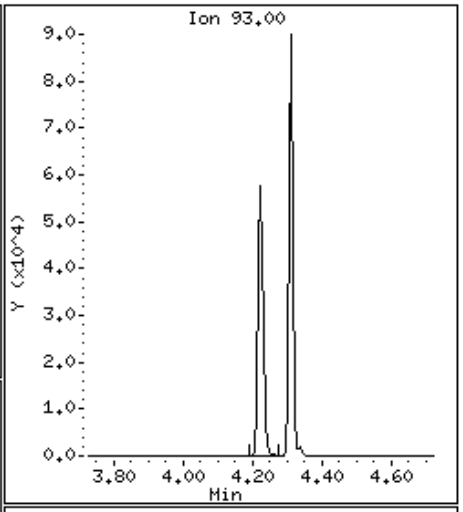
Column phase: RTx-5

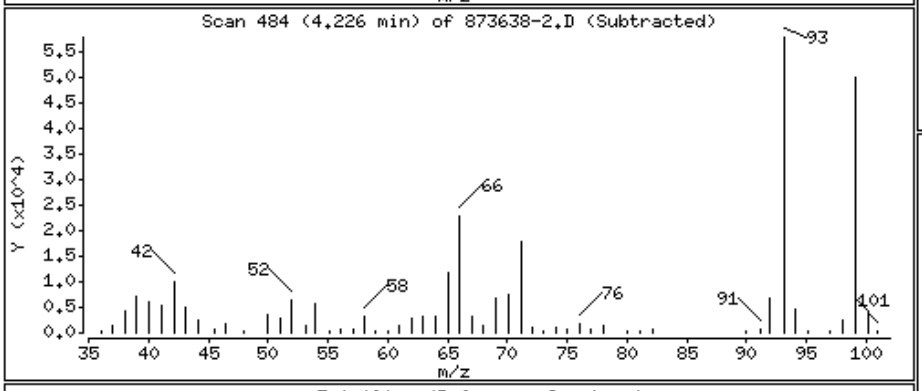
Column diameter: 0.32

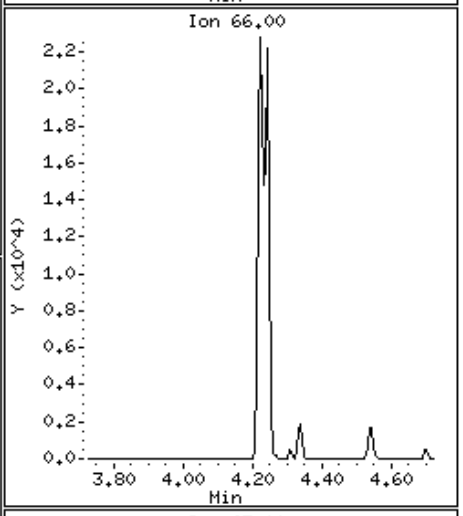
5 Aniline

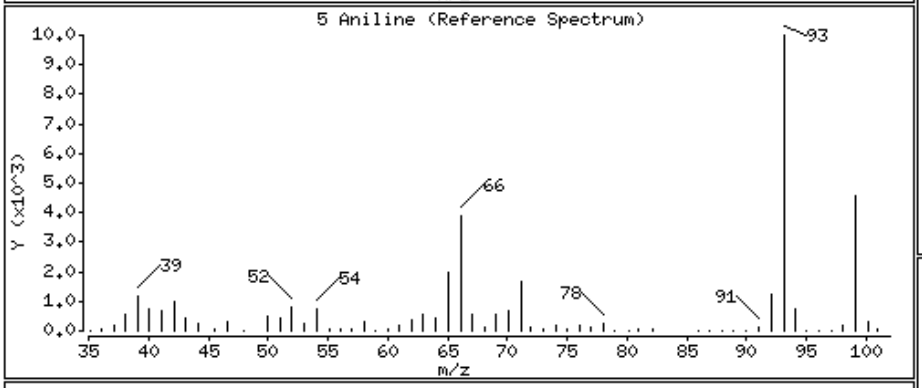
Concentration: 10.2 ug/L

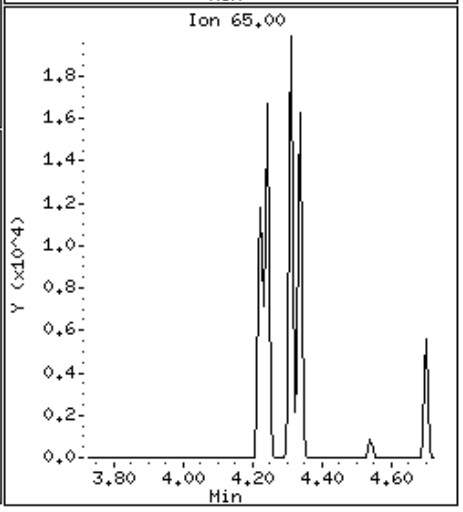


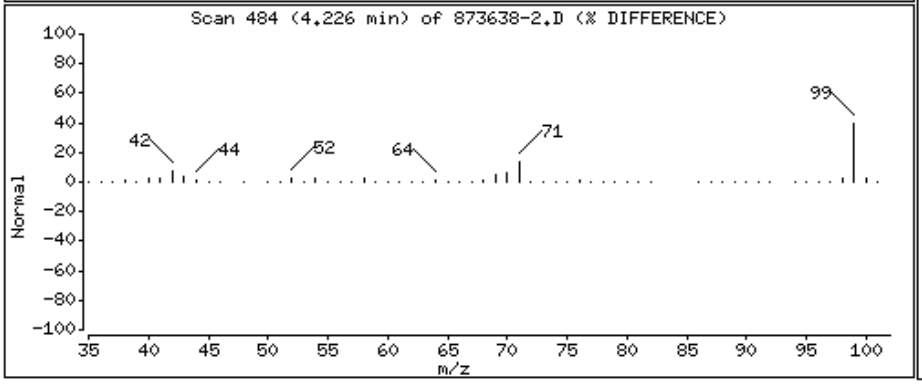












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

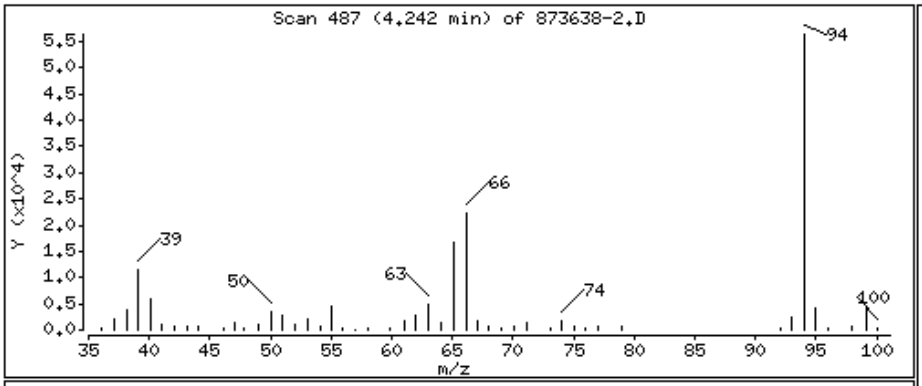
Operator: als

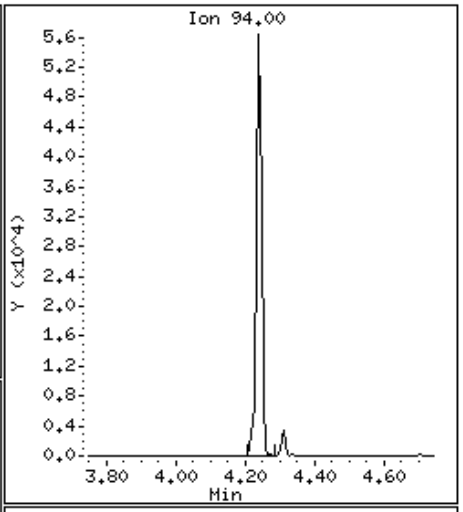
Column phase: RTx-5

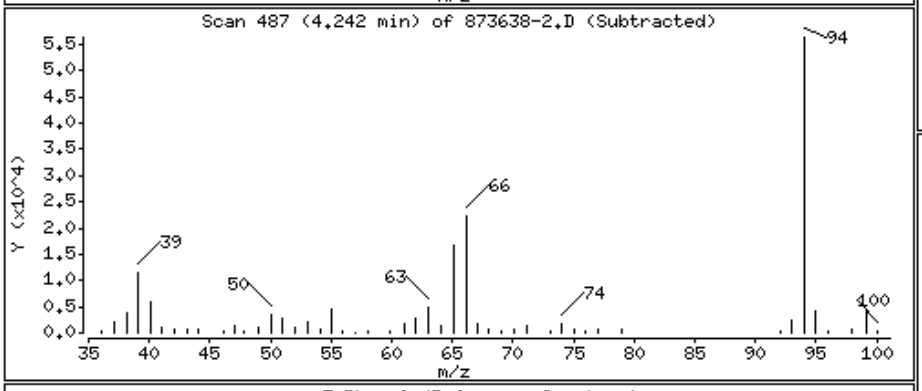
Column diameter: 0.32

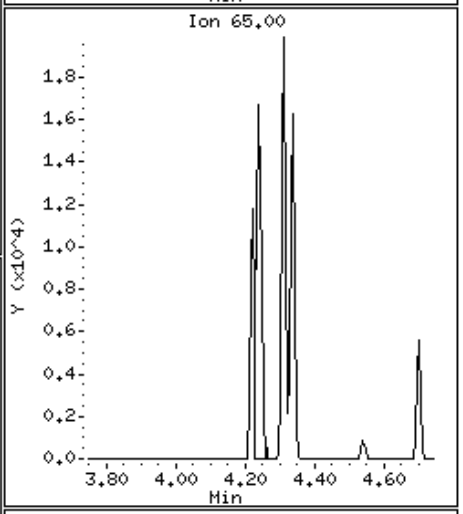
7 Phenol

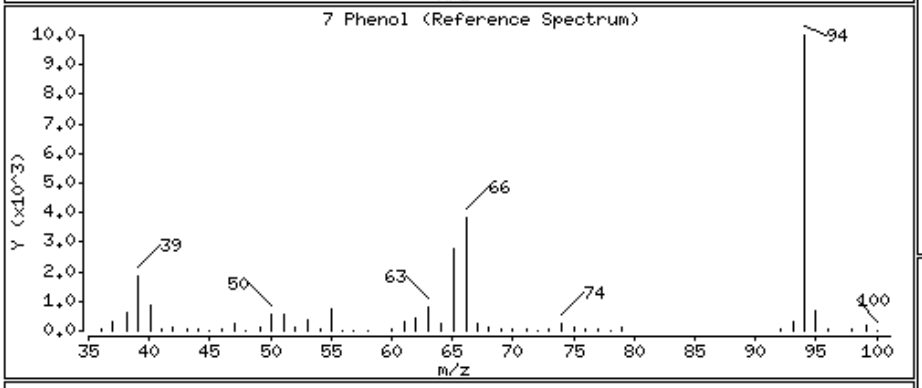
Concentration: 11.3 ug/L

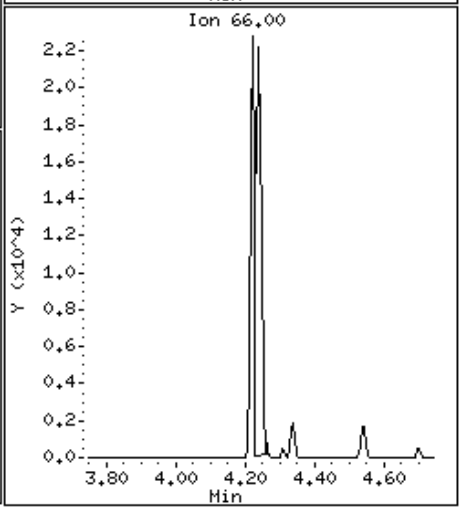


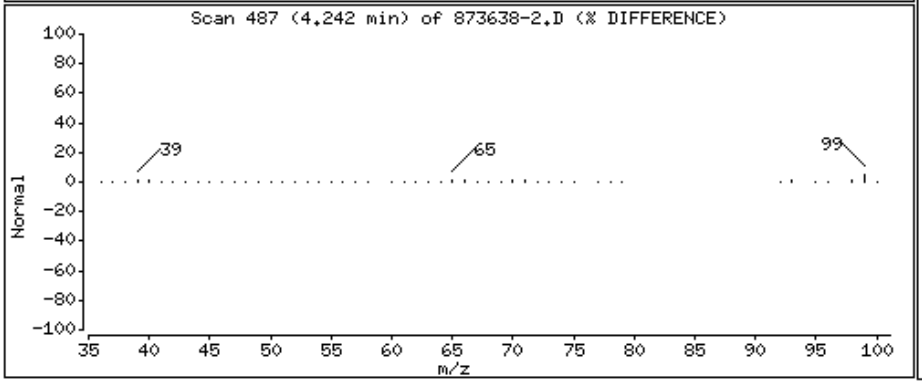












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

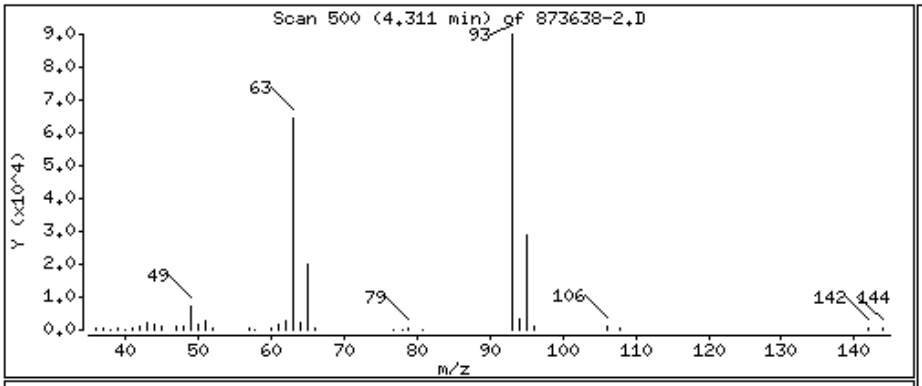
Operator: als

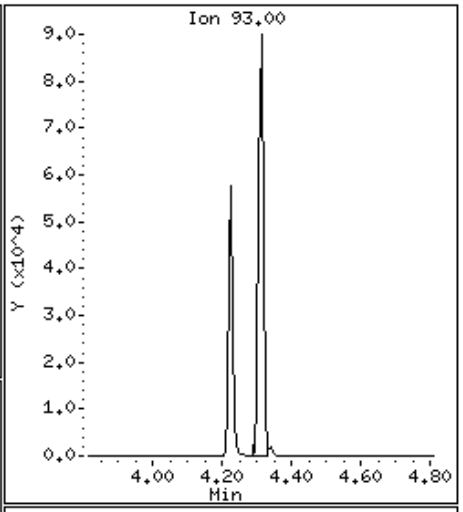
Column phase: RTx-5

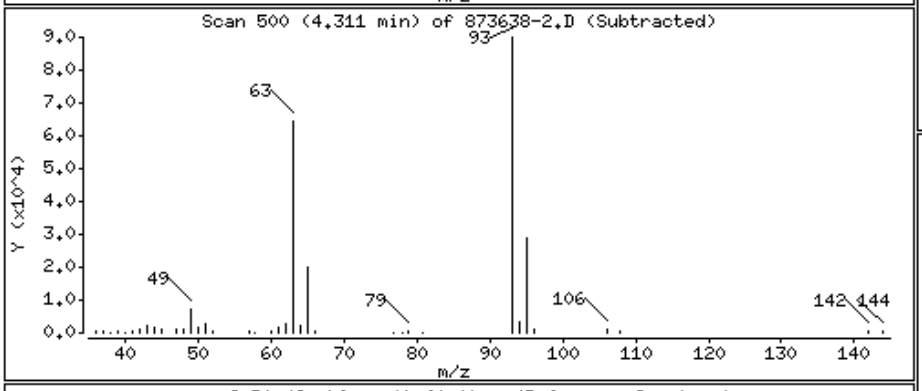
Column diameter: 0.32

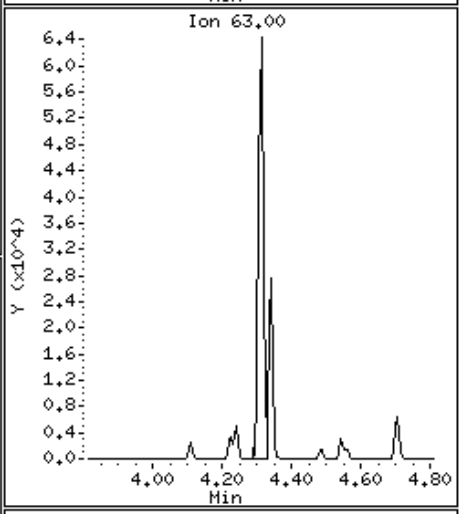
8 Bis(2-chloroethyl)ether

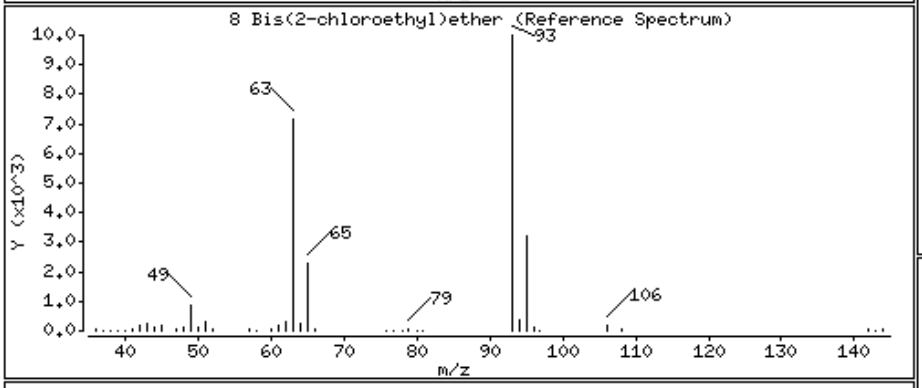
Concentration: 22.3 ug/L

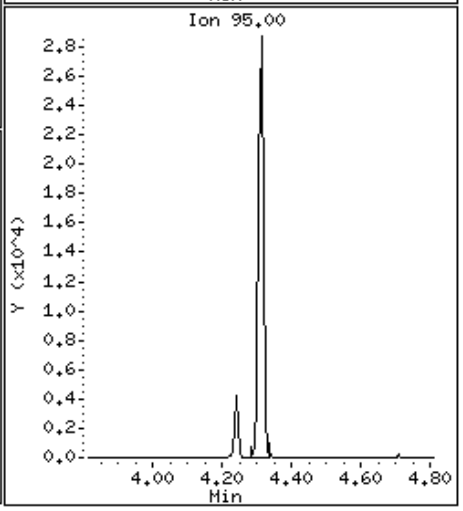


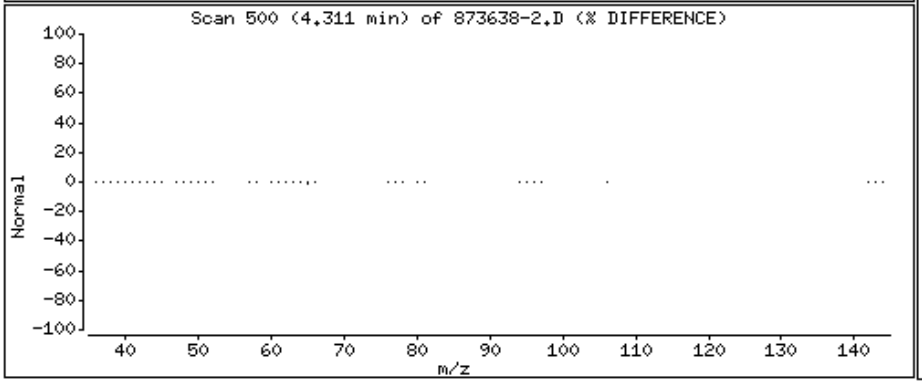












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

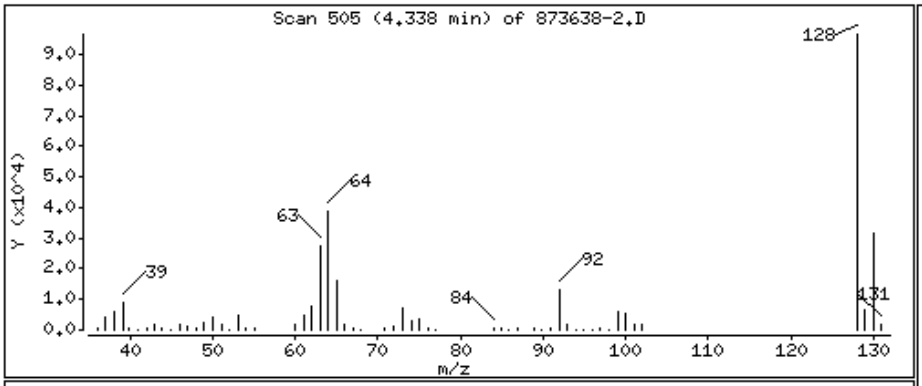
Operator: als

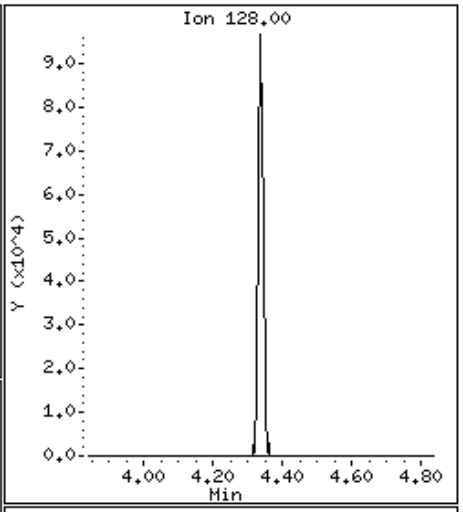
Column phase: RTx-5

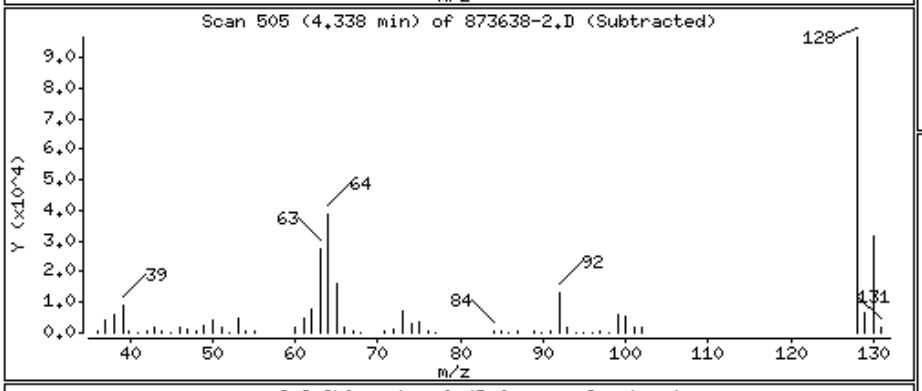
Column diameter: 0.32

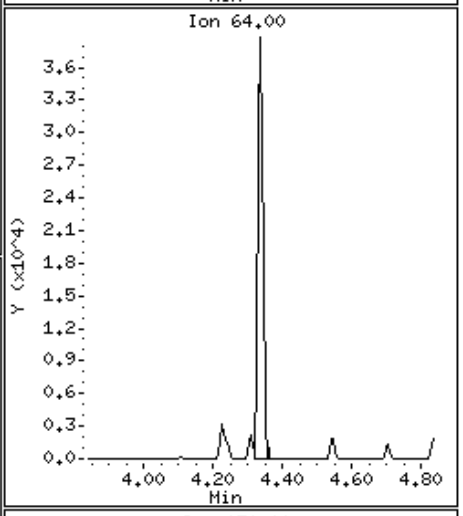
9 2-Chlorophenol

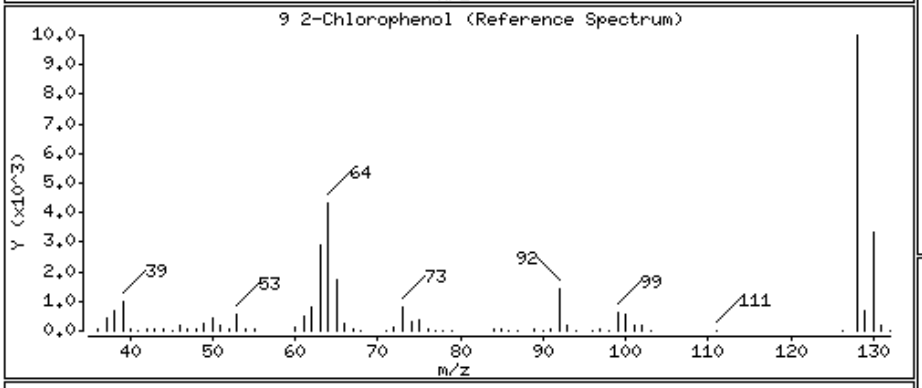
Concentration: 24.5 ug/L

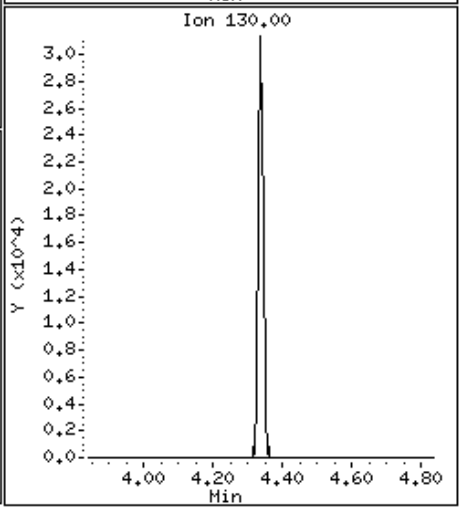


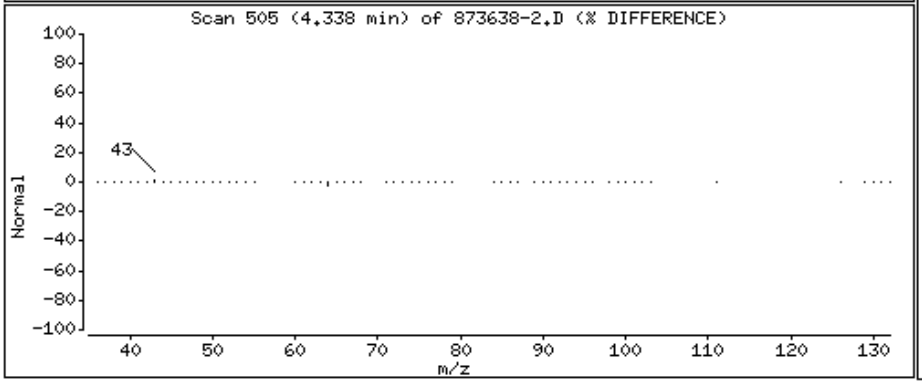












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

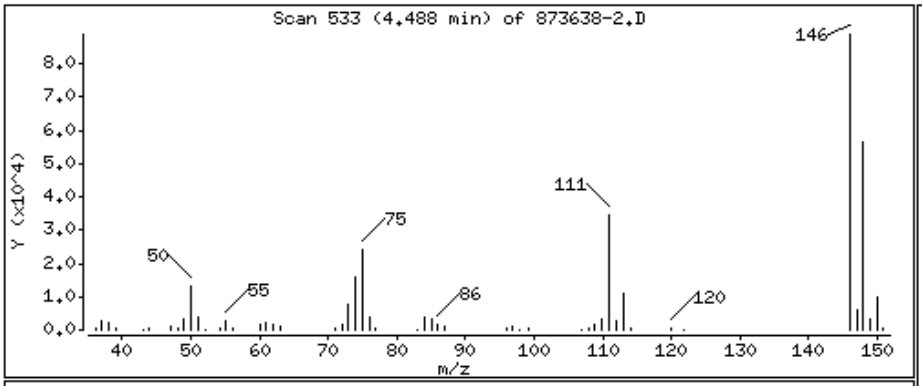
Operator: als

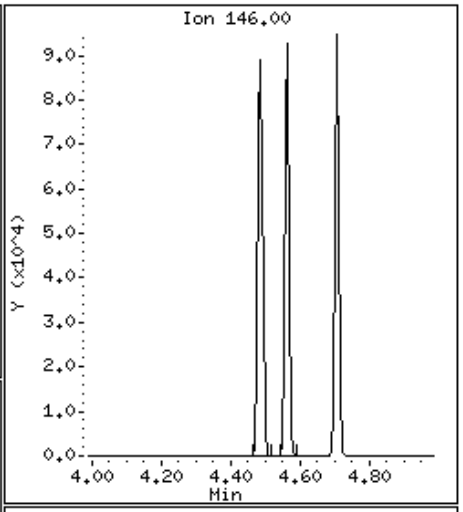
Column phase: RTx-5

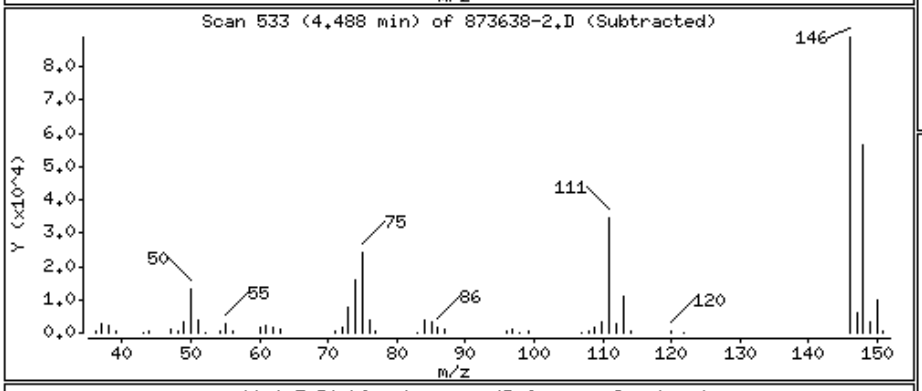
Column diameter: 0.32

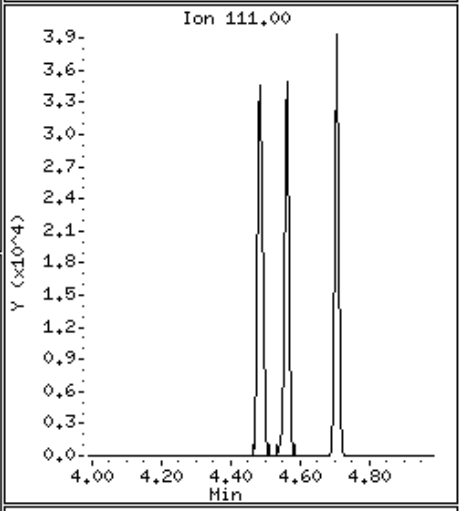
10 1,3-Dichlorobenzene

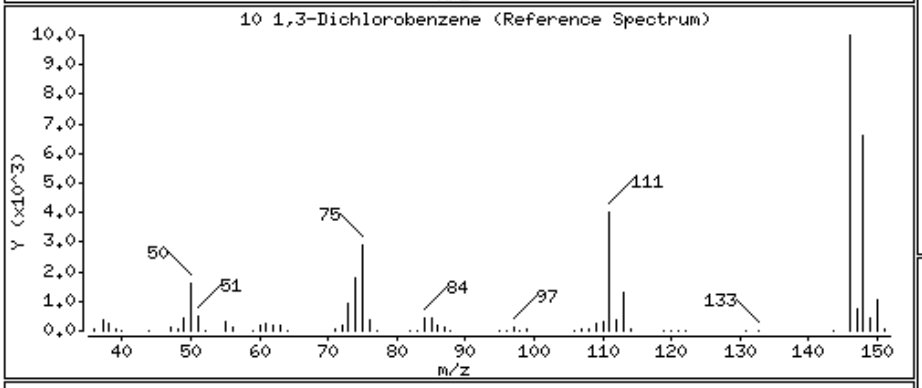
Concentration: 21.1 ug/L

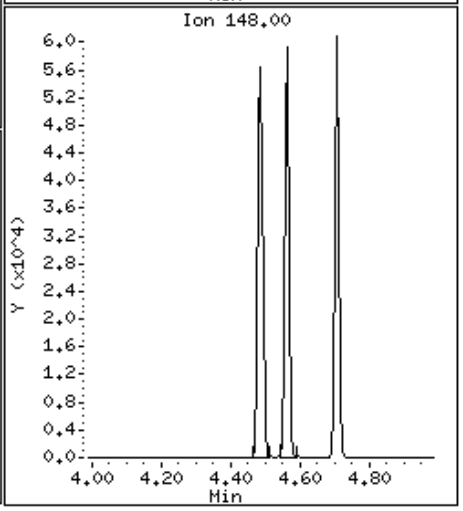


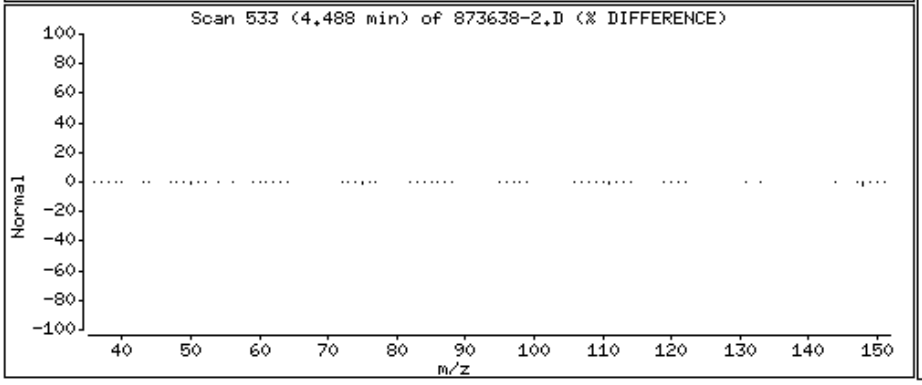












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

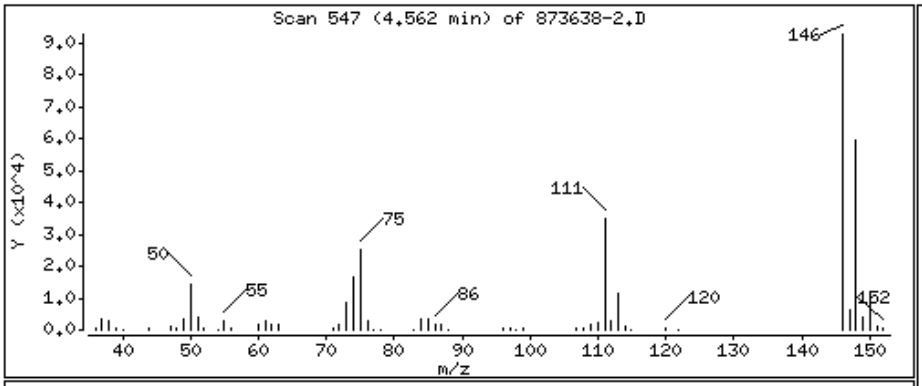
Operator: als

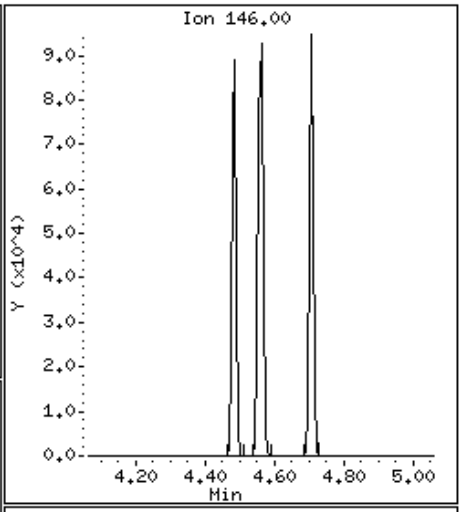
Column phase: RTx-5

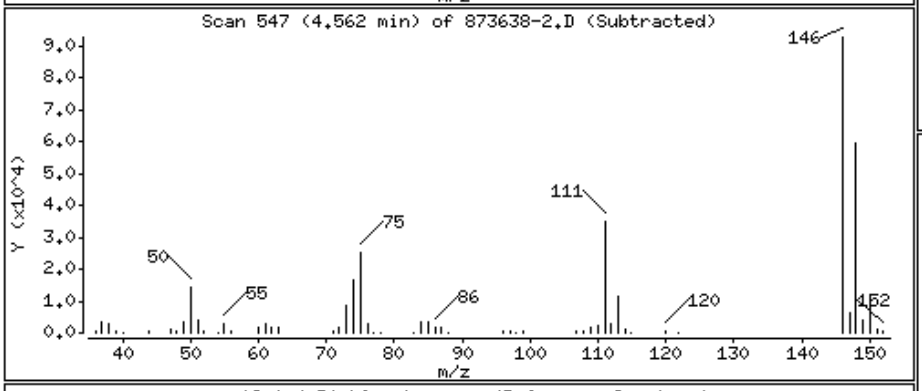
Column diameter: 0.32

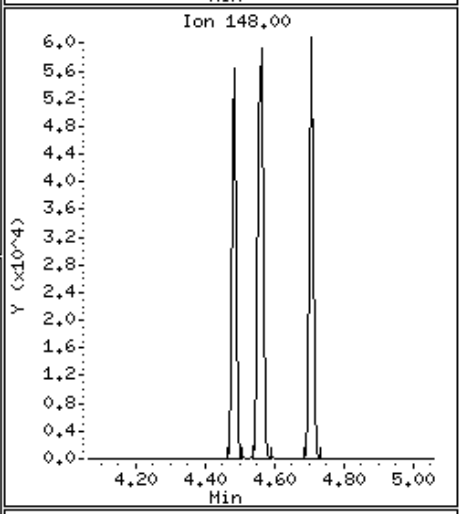
12 1,4-Dichlorobenzene

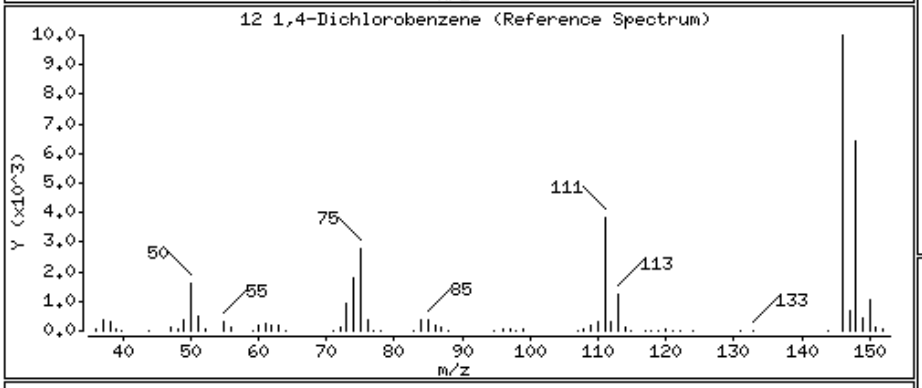
Concentration: 21.4 ug/L

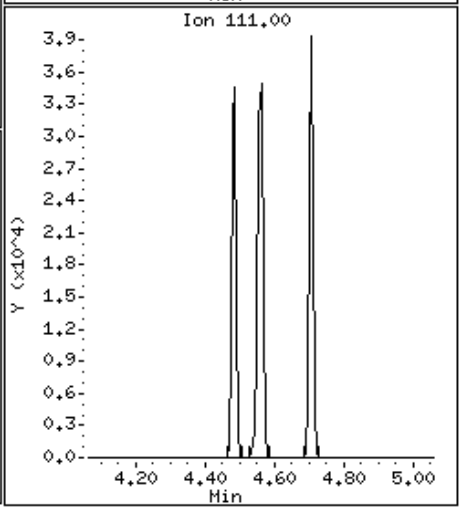


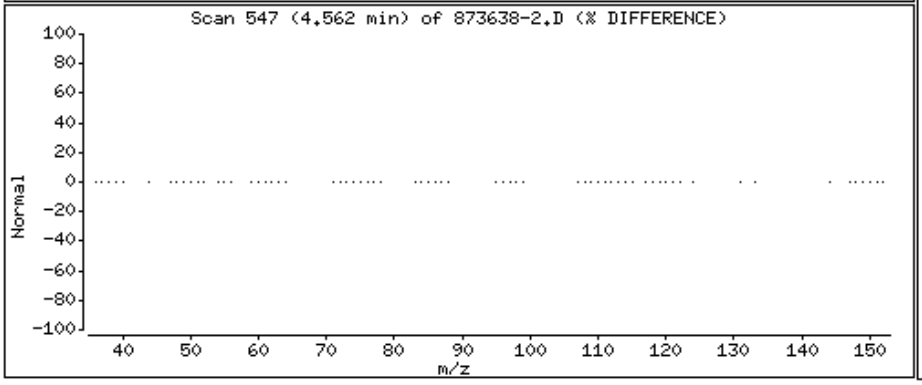












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

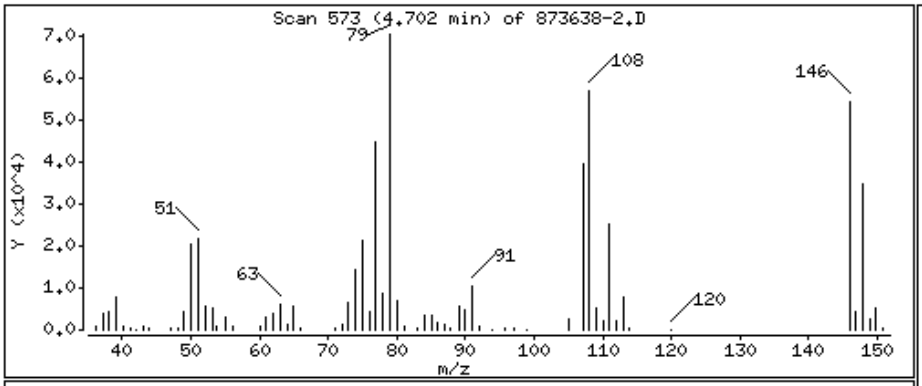
Operator: als

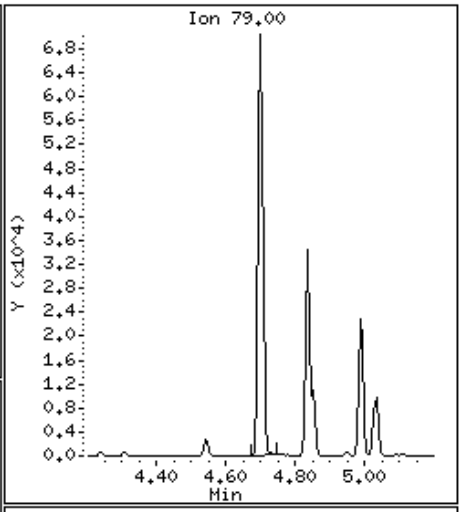
Column phase: RTx-5

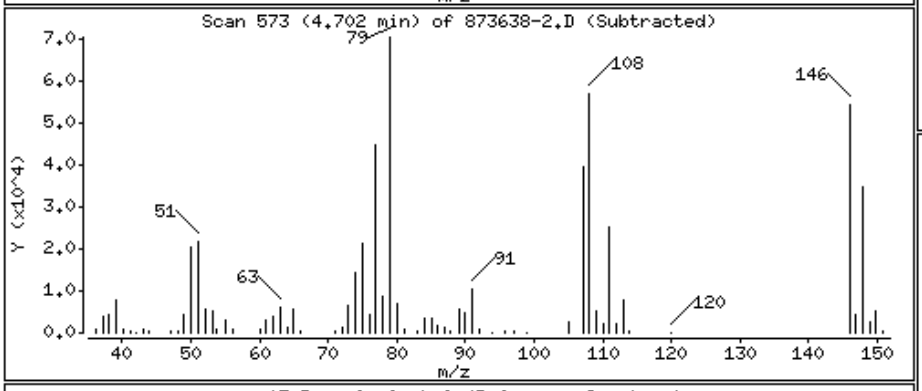
Column diameter: 0.32

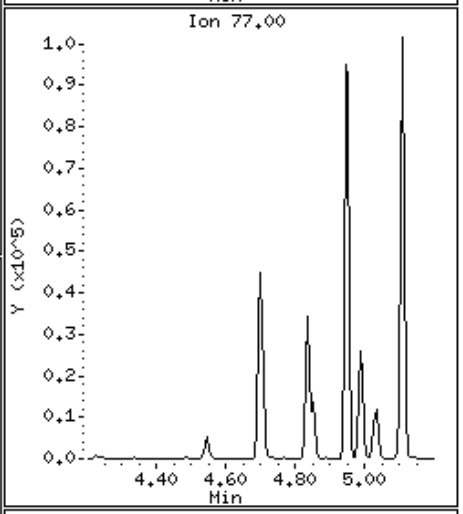
13 Benzyl alcohol

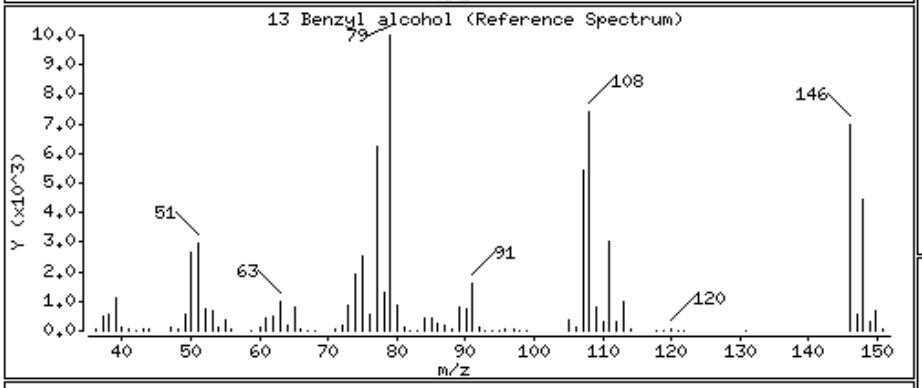
Concentration: 21.0 ug/L

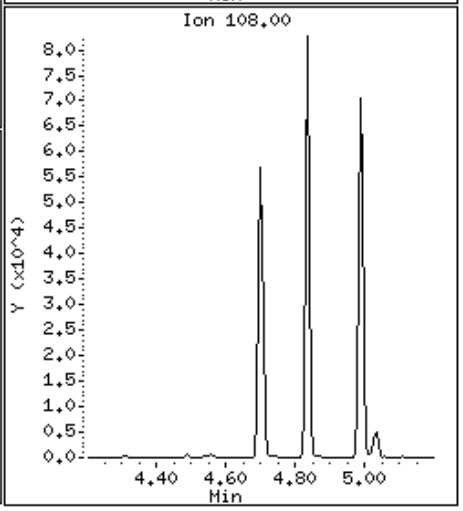


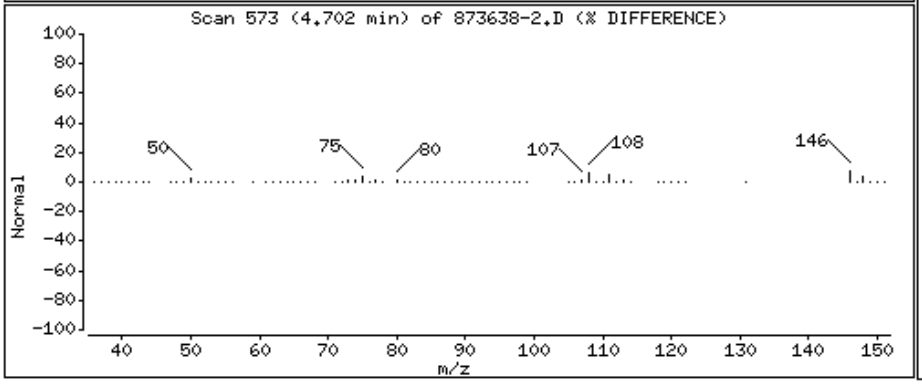












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

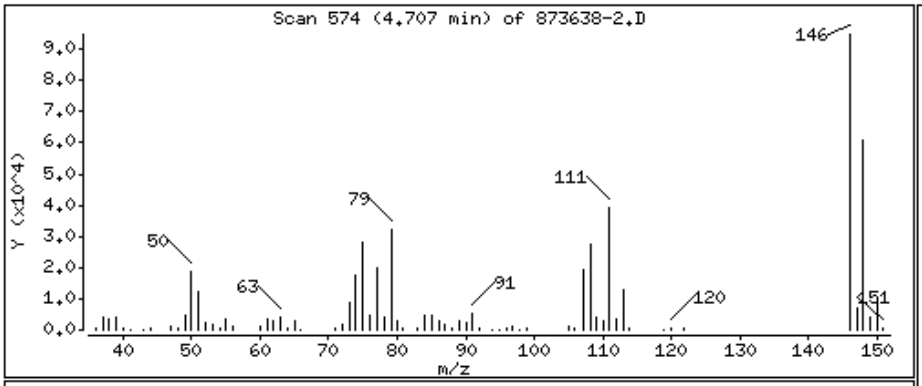
Operator: als

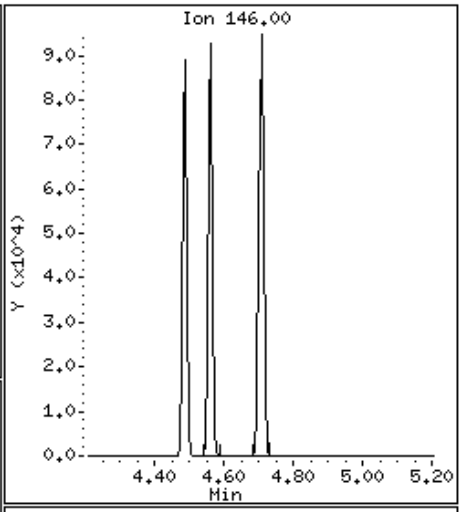
Column phase: RTx-5

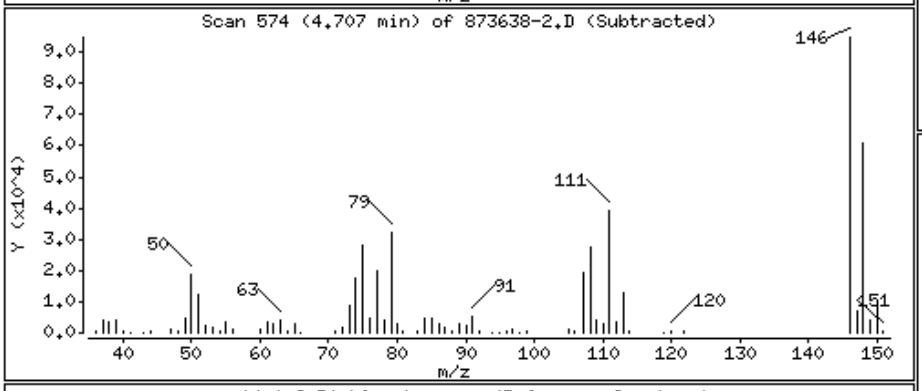
Column diameter: 0.32

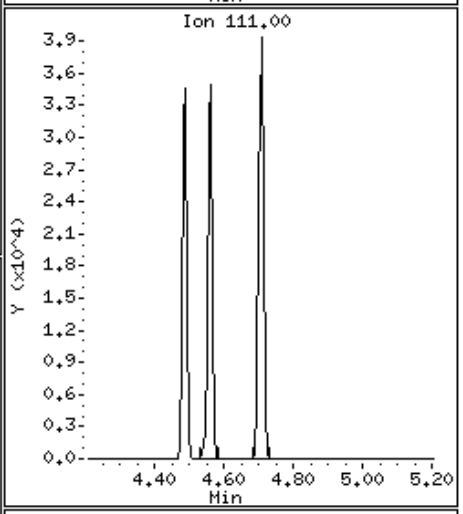
14 1,2-Dichlorobenzene

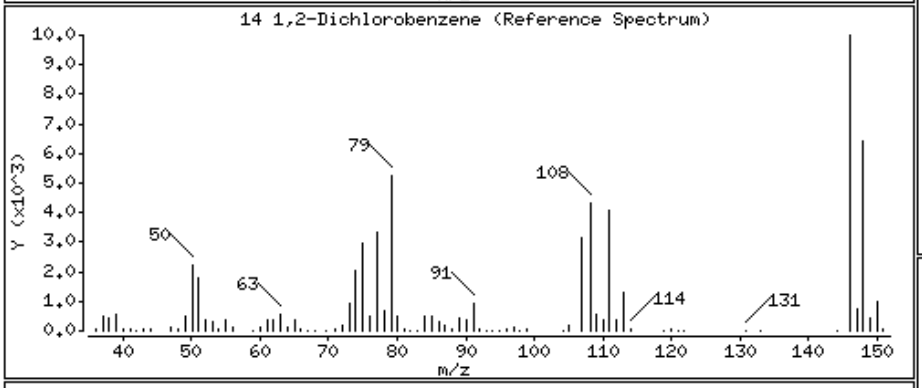
Concentration: 22.2 ug/L

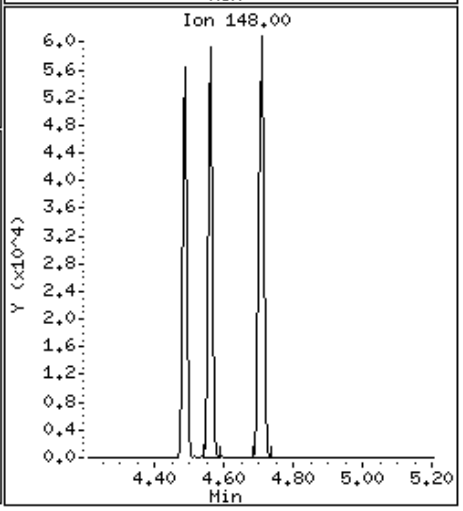


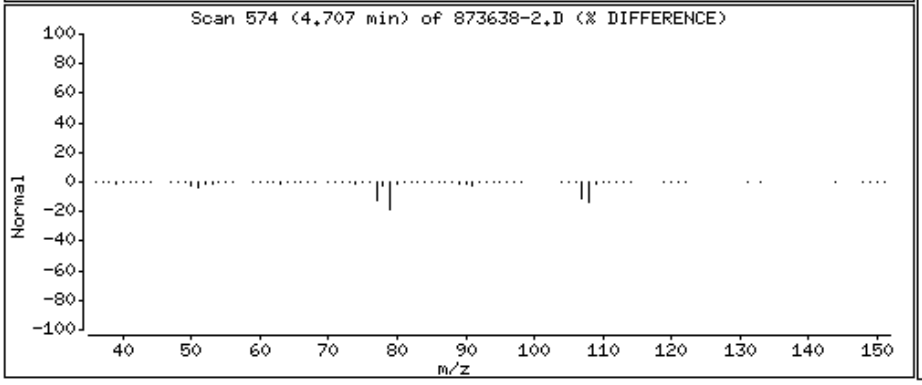












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

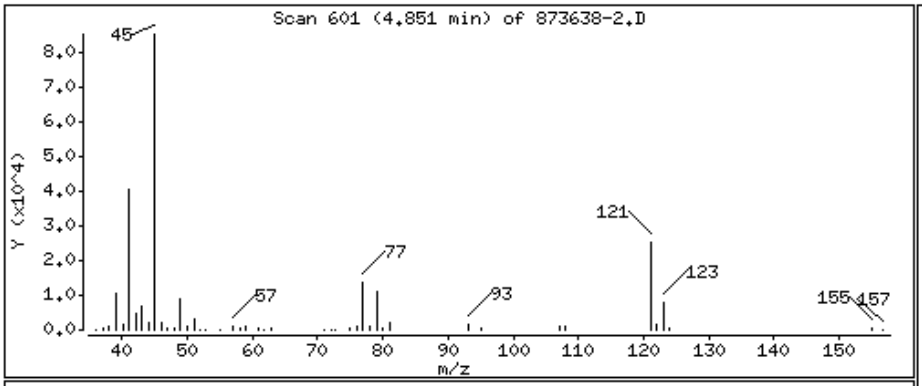
Operator: als

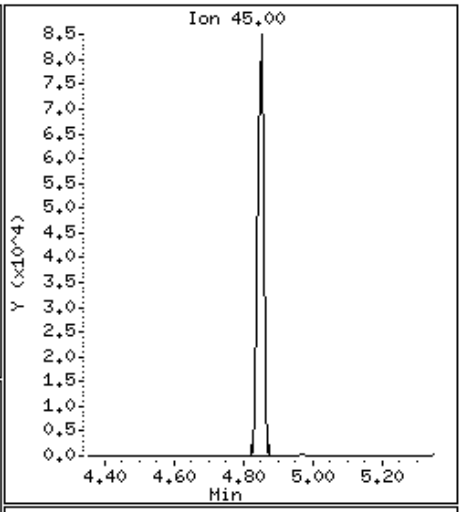
Column phase: RTx-5

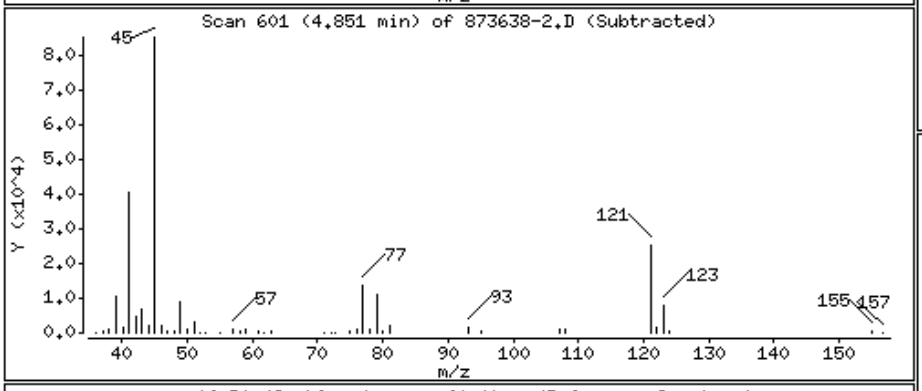
Column diameter: 0.32

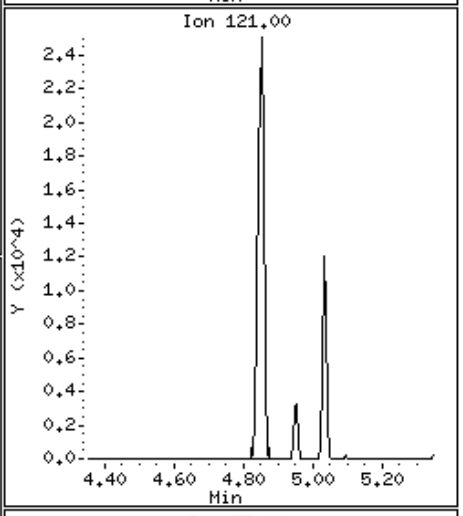
16 Bis(2-chloroisopropyl)ether

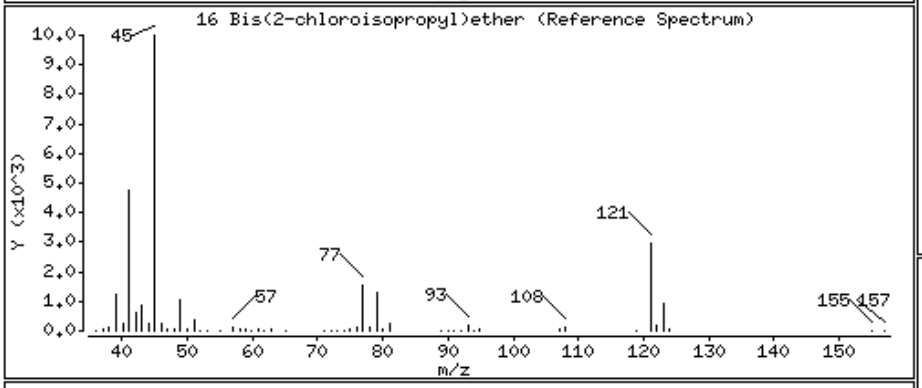
Concentration: 15.9 ug/L

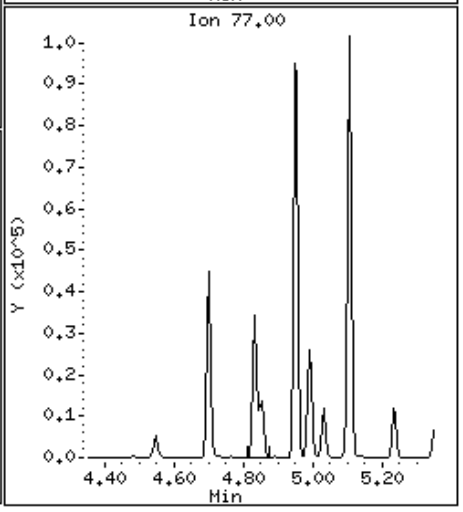


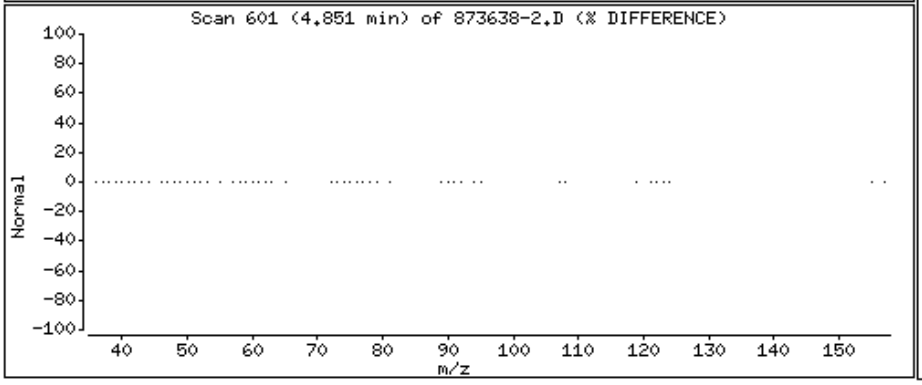












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

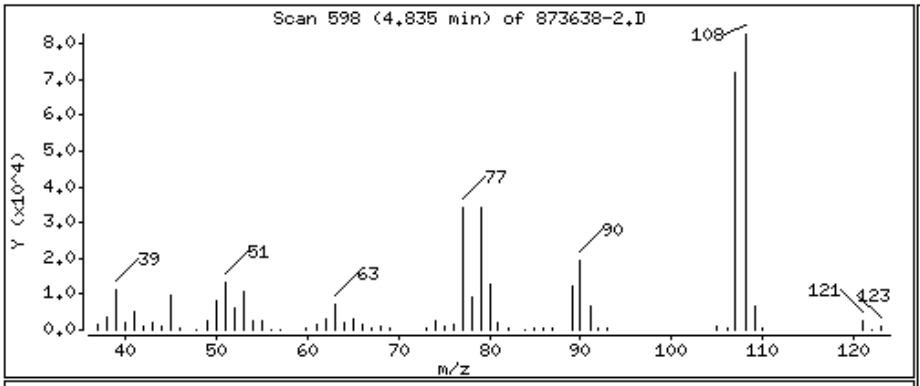
Operator: als

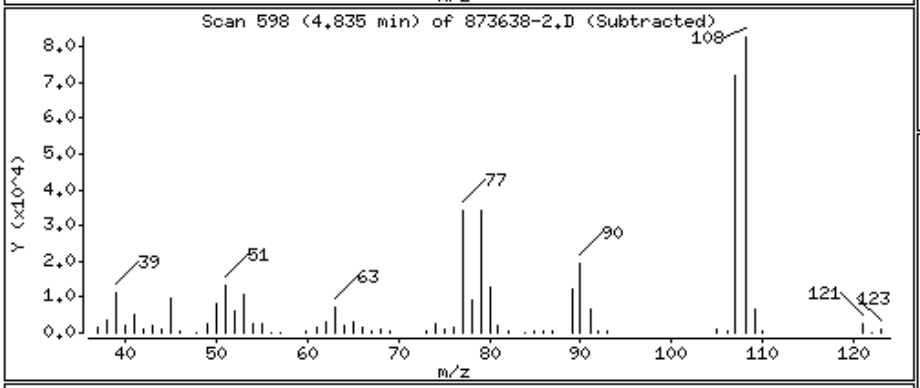
Column phase: RTx-5

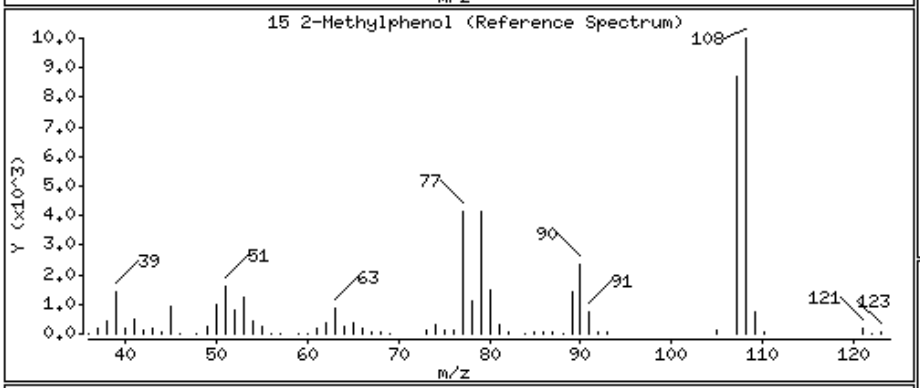
Column diameter: 0.32

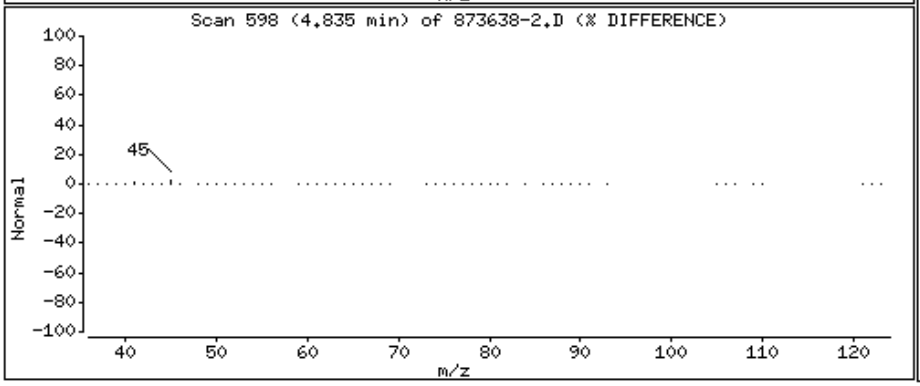
15 2-Methylphenol

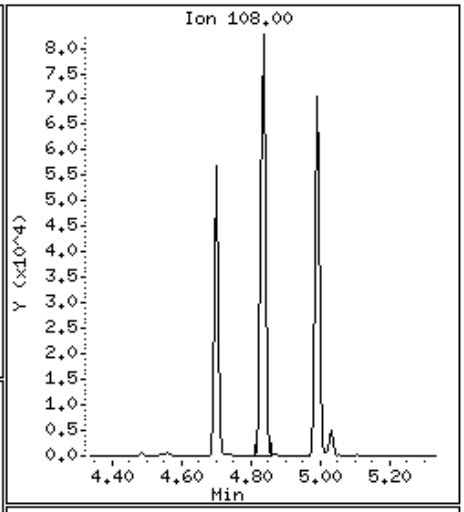
Concentration: 22.6 ug/L

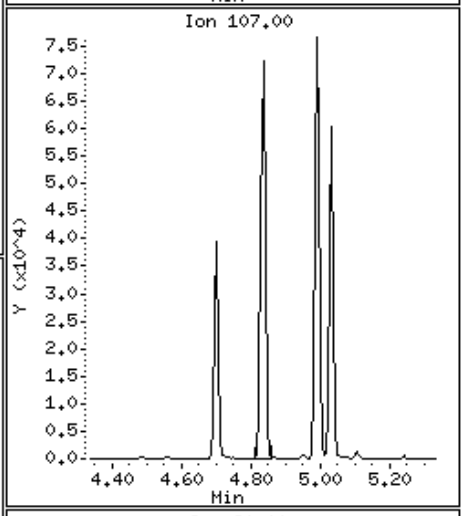


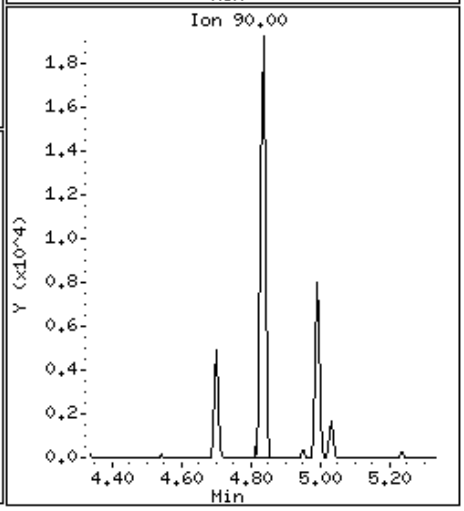












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

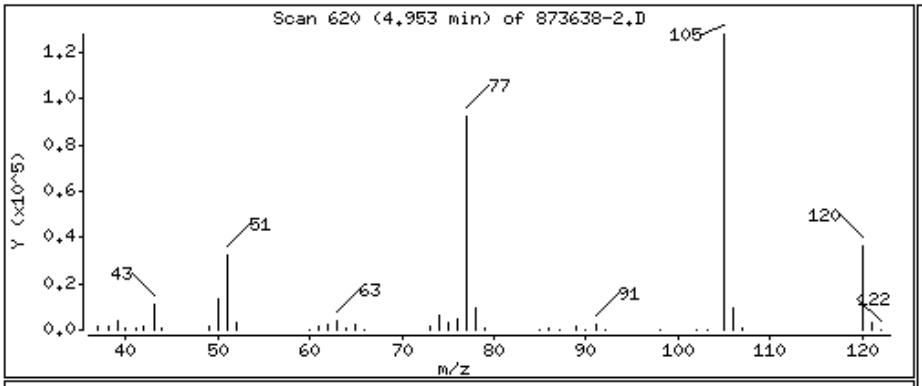
Operator: als

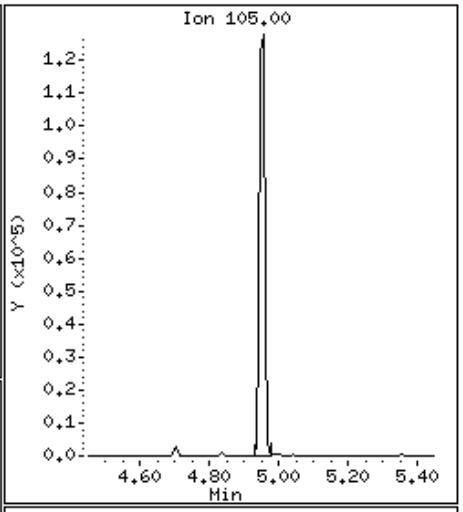
Column phase: RTx-5

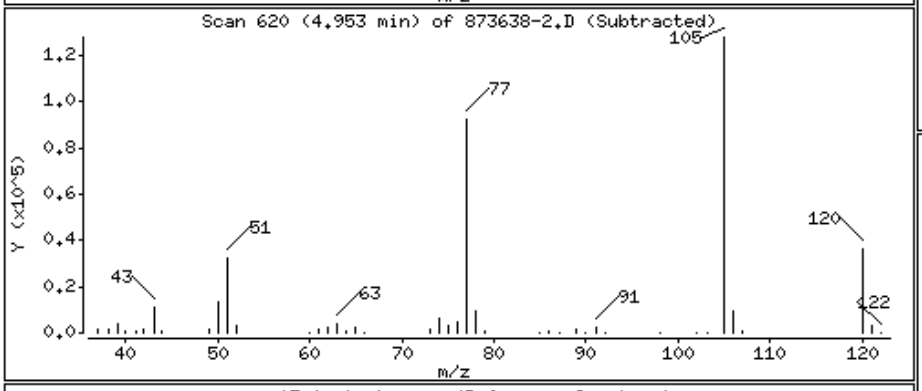
Column diameter: 0.32

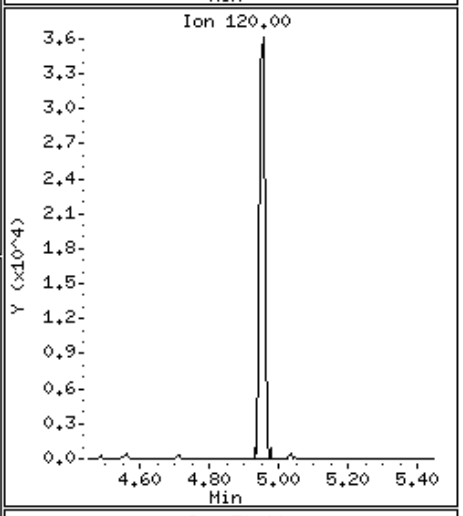
17 Acetophenone

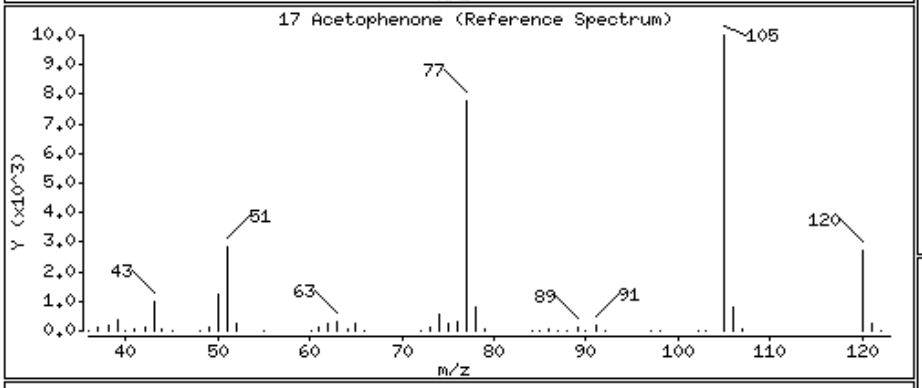
Concentration: 26.4 ug/L

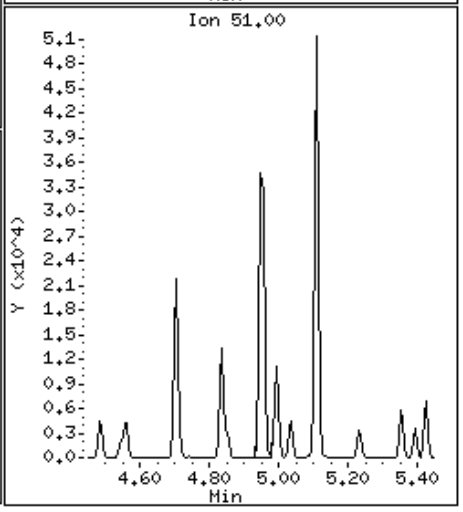


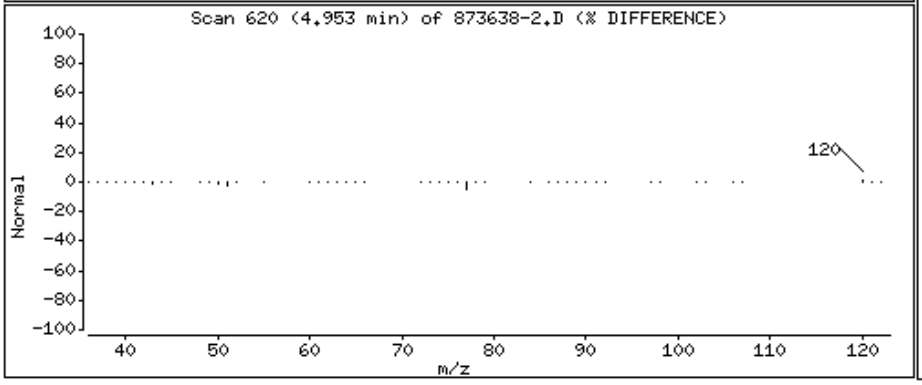












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

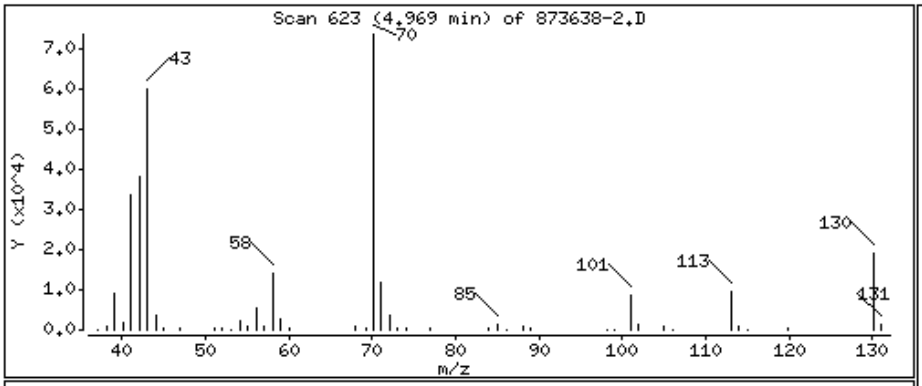
Operator: als

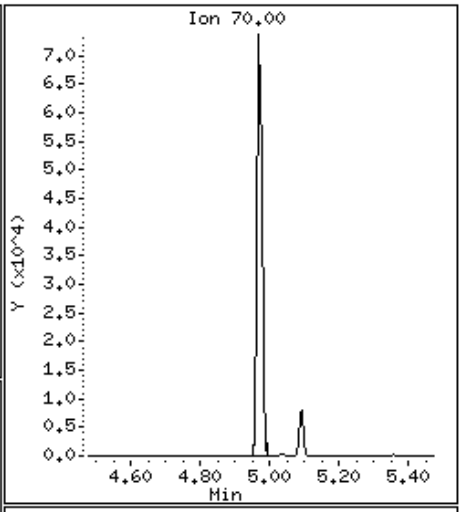
Column phase: RTx-5

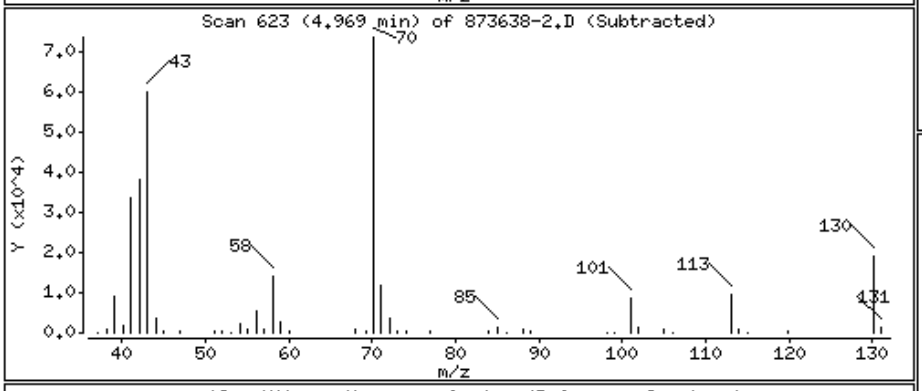
Column diameter: 0.32

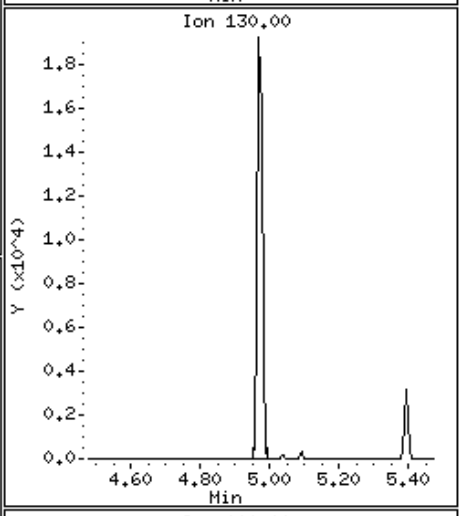
18 n-Nitrosodi-n-propylamine

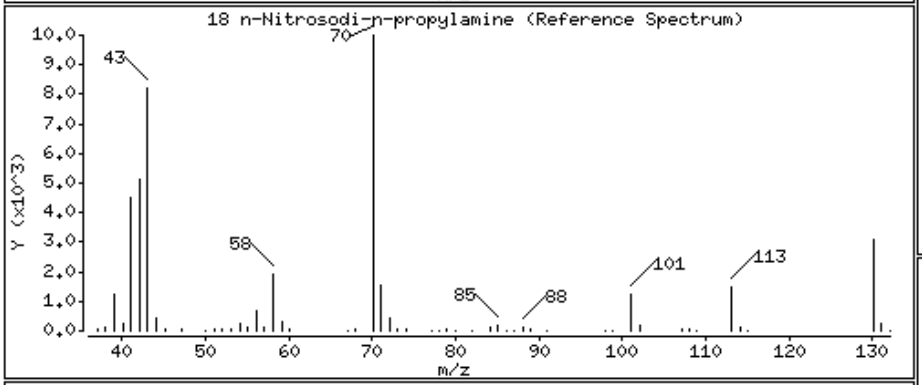
Concentration: 24.4 ug/L

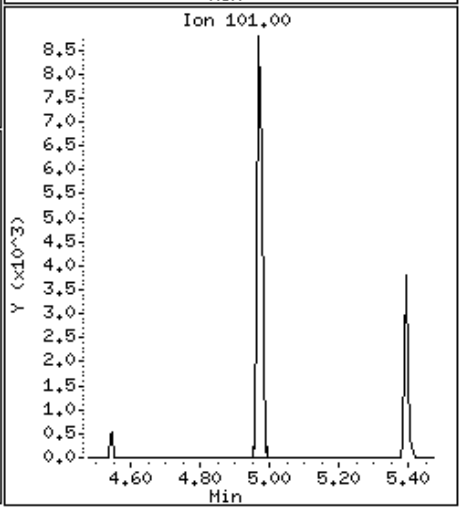


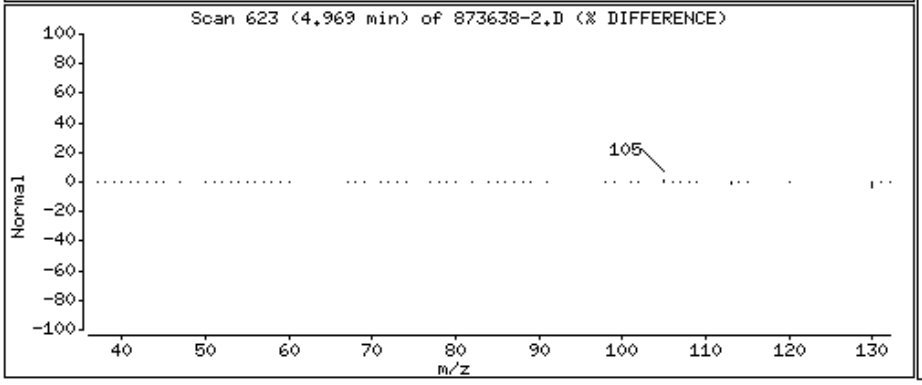












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

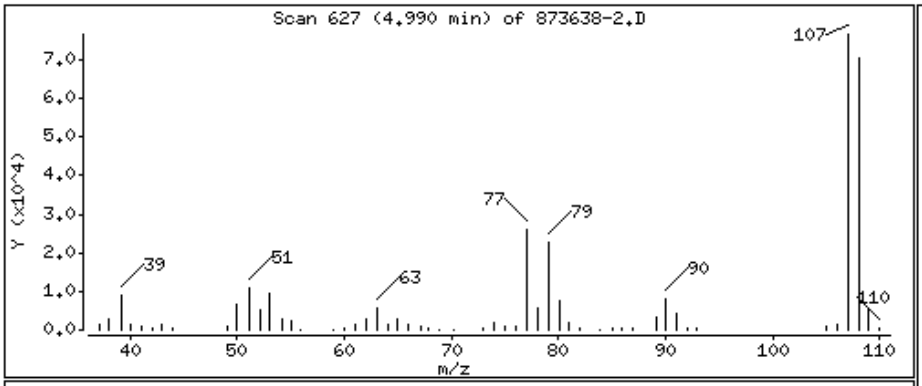
Operator: als

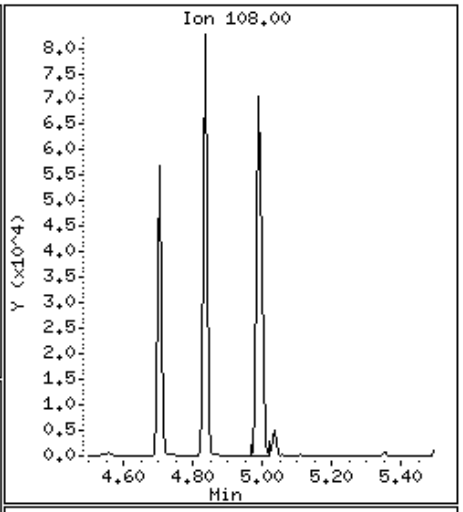
Column phase: RTx-5

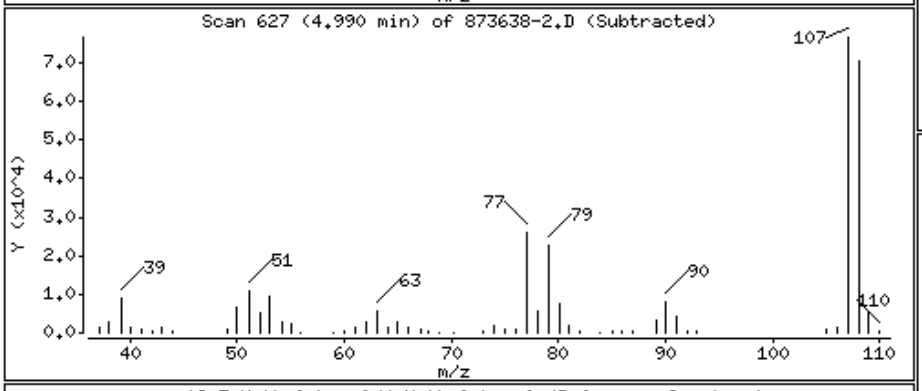
Column diameter: 0.32

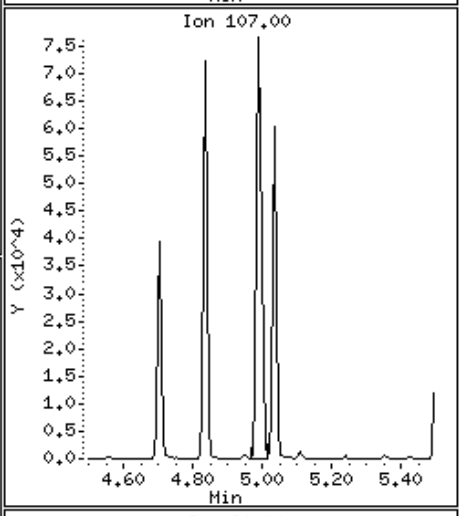
19 3-Methylphenol/4-Methylphenol

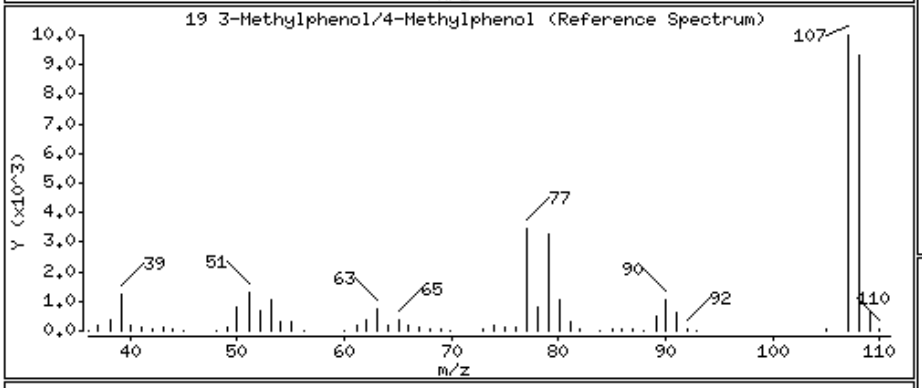
Concentration: 22.2 ug/L

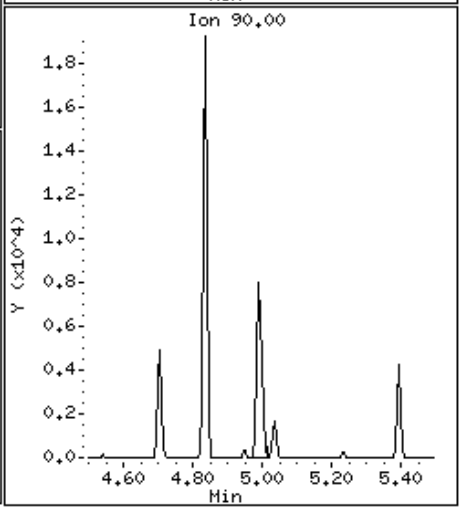


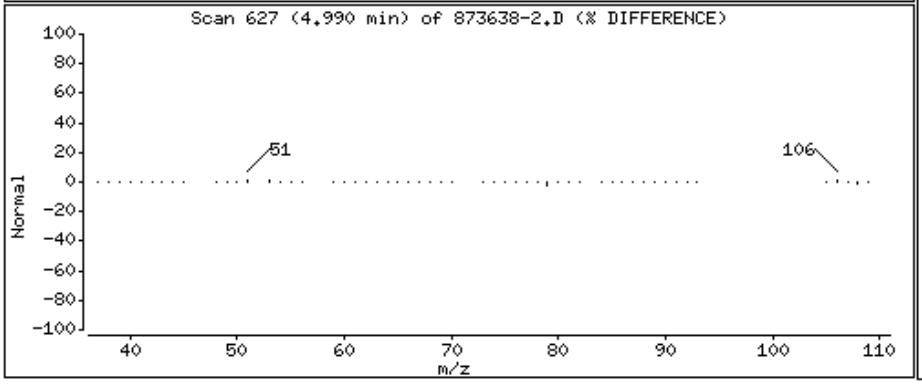












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

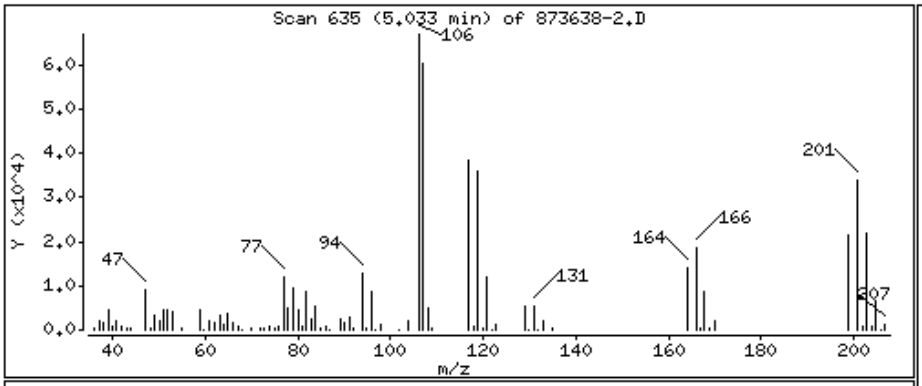
Operator: als

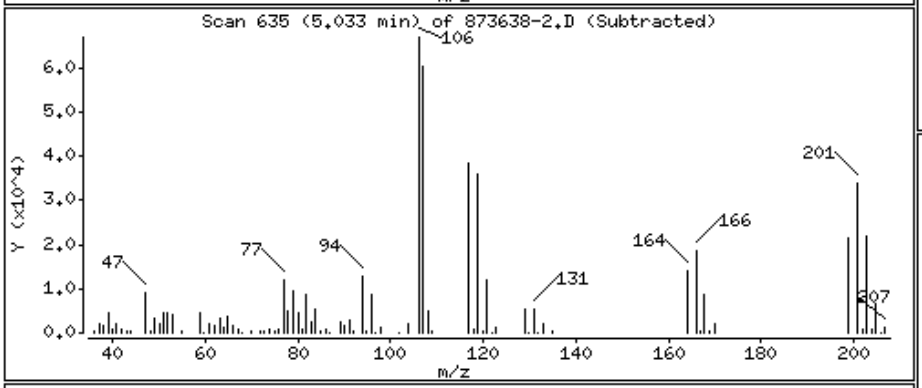
Column phase: RTx-5

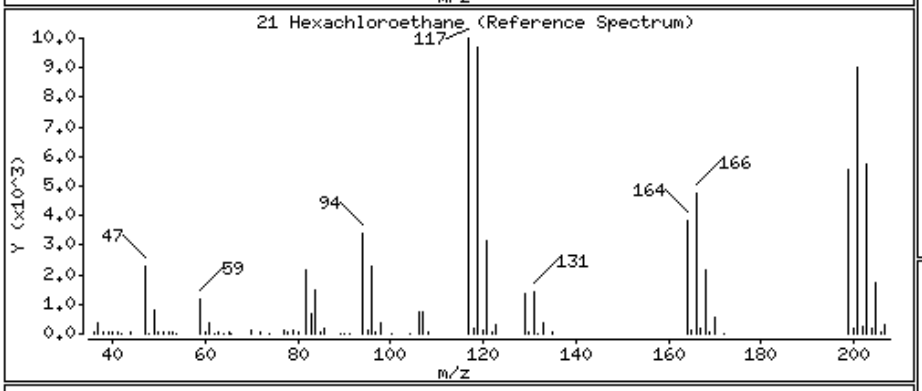
Column diameter: 0.32

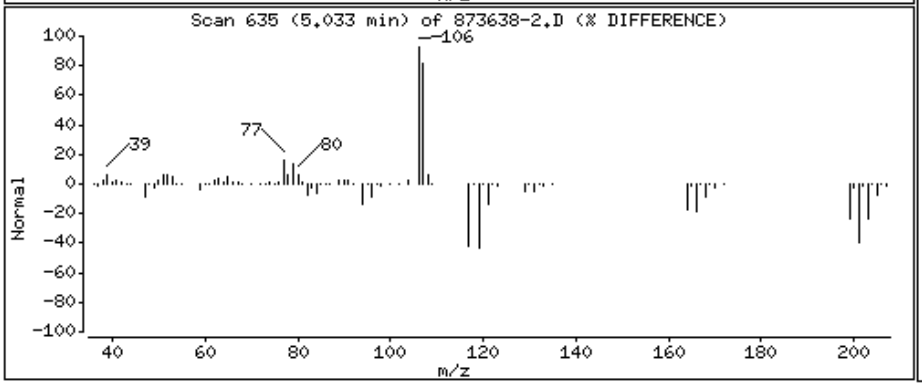
21 Hexachloroethane

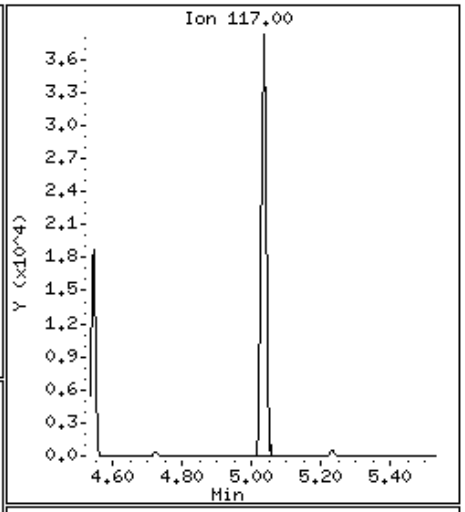
Concentration: 20.6 ug/L

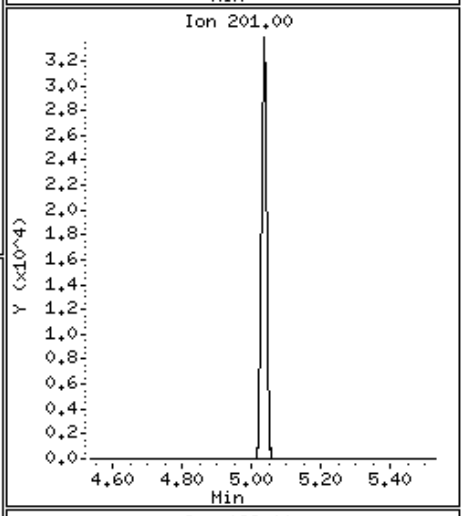


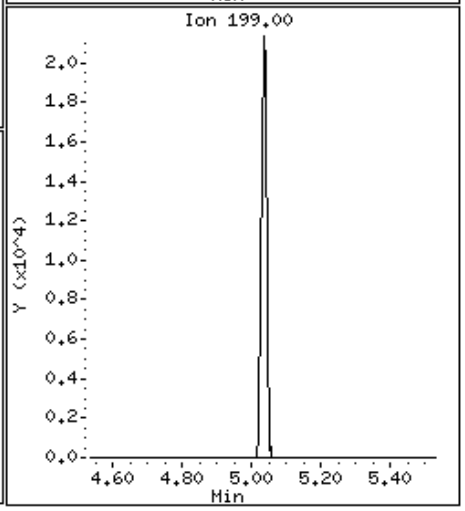












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

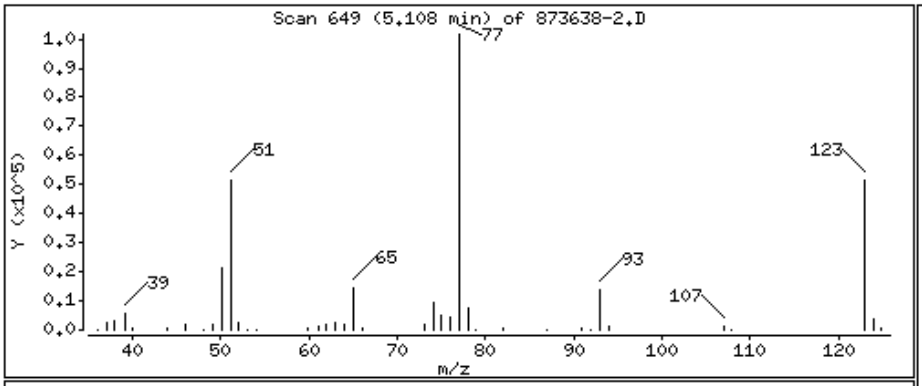
Operator: als

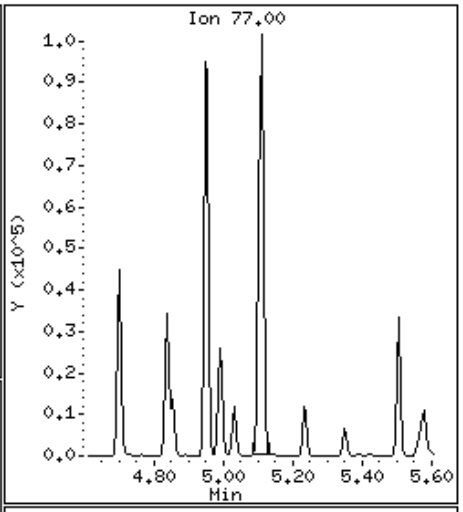
Column phase: RTx-5

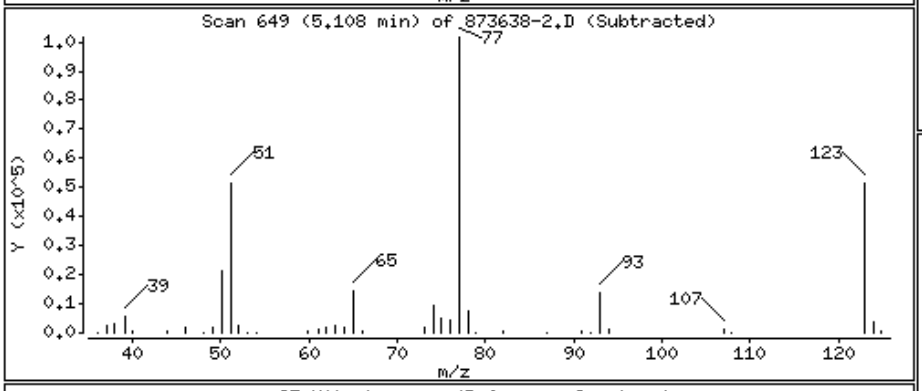
Column diameter: 0.32

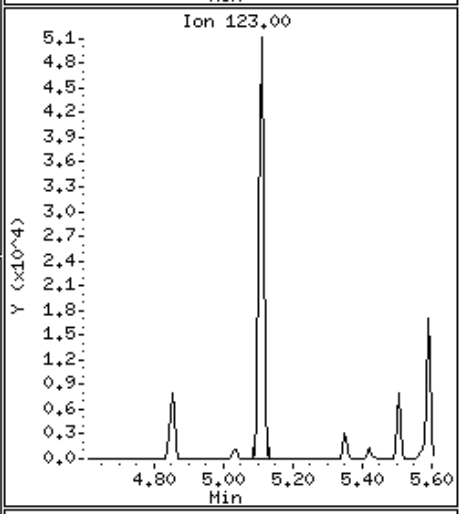
23 Nitrobenzene

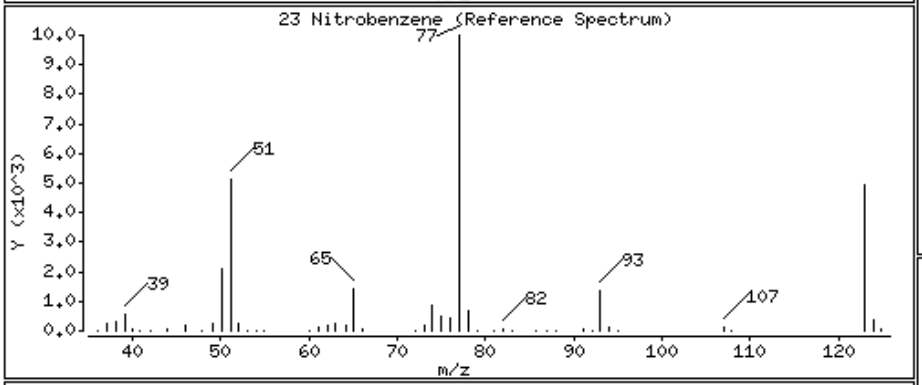
Concentration: 22.2 ug/L

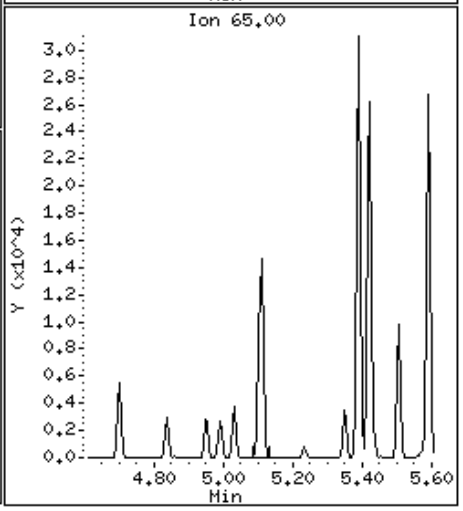


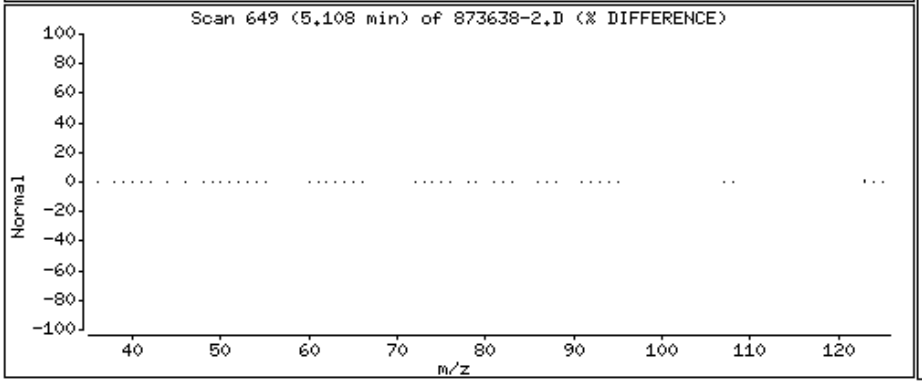












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

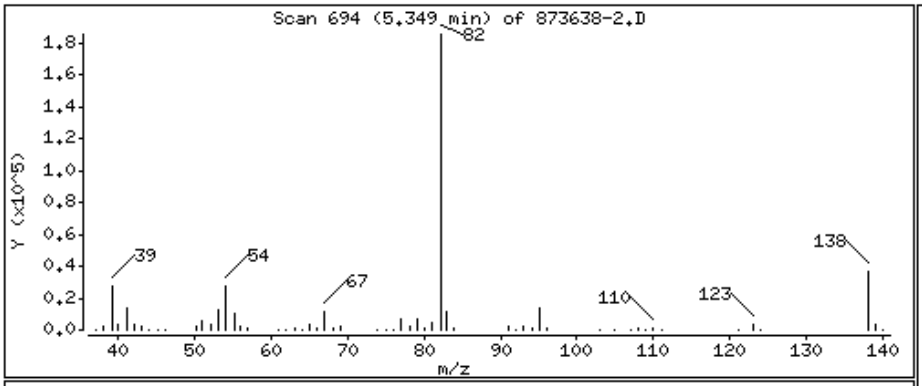
Operator: als

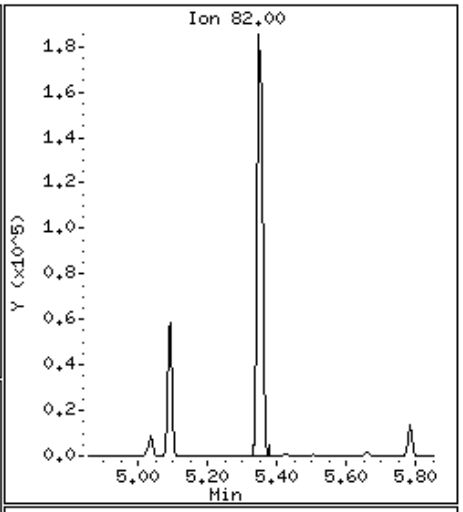
Column phase: RTx-5

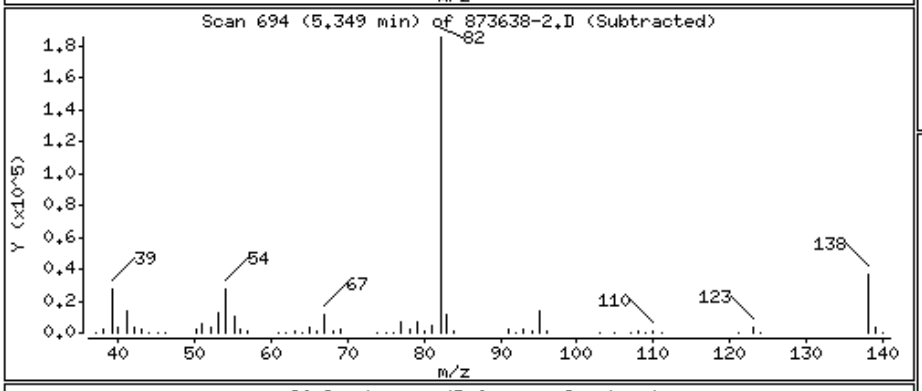
Column diameter: 0.32

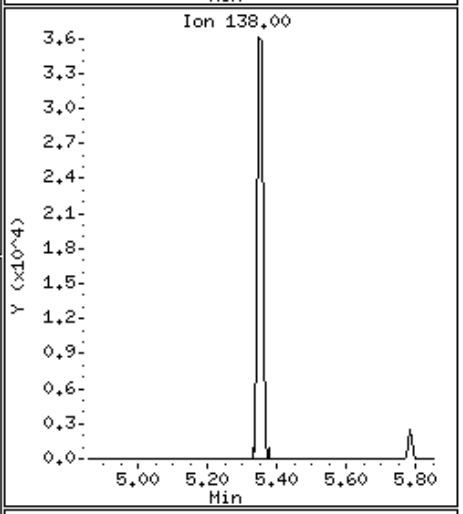
26 Isophorone

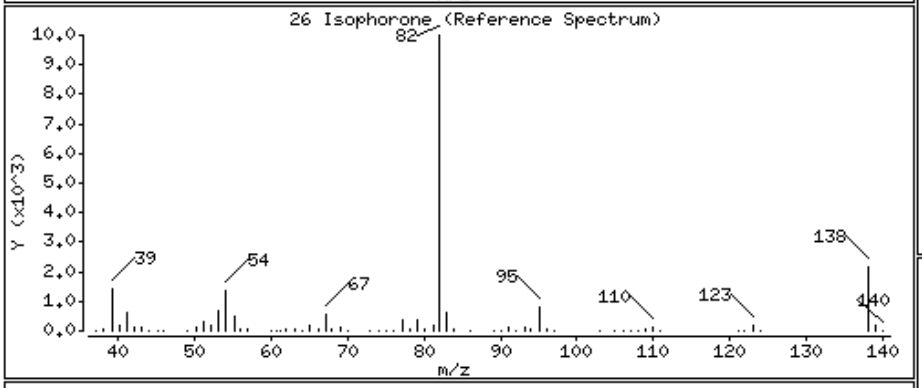
Concentration: 25.1 ug/L

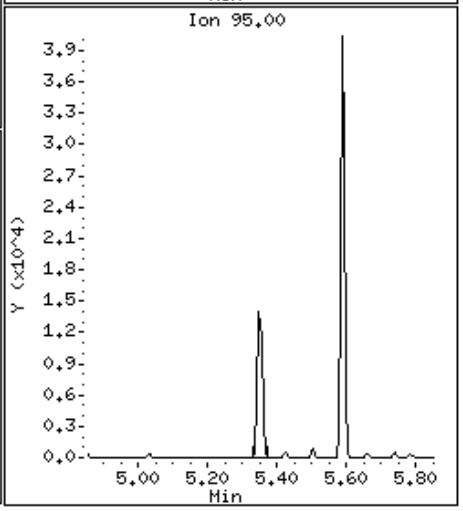


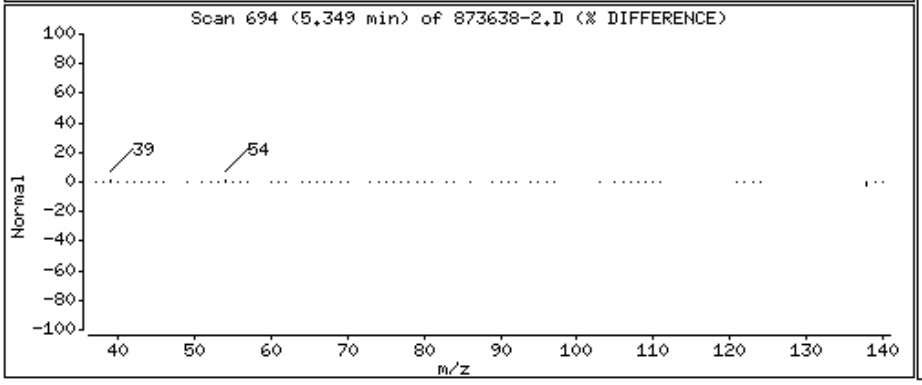












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

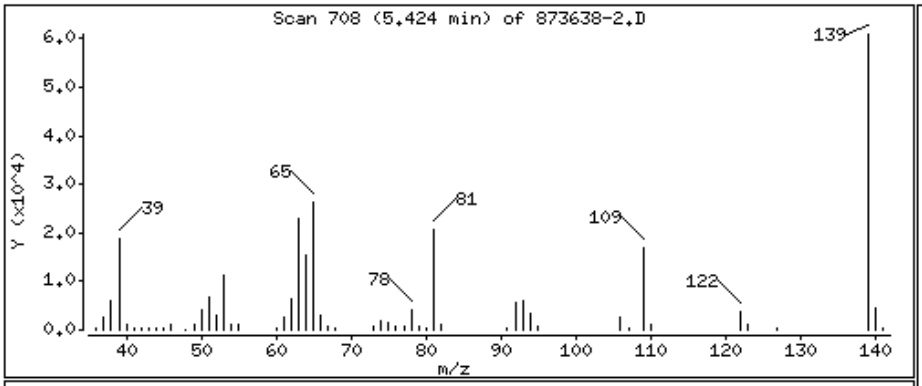
Operator: als

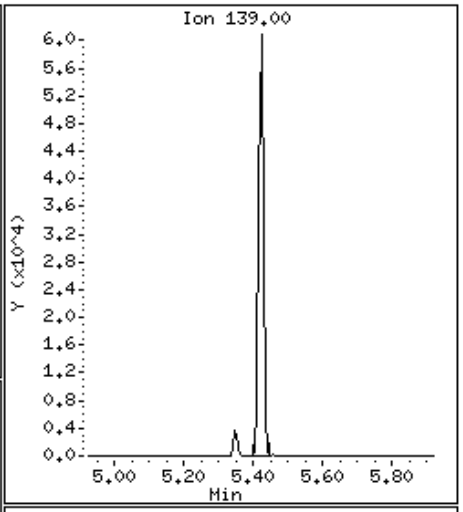
Column phase: RTx-5

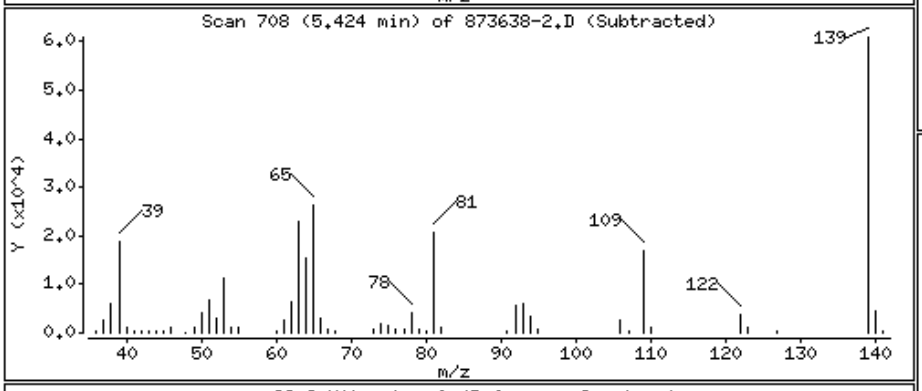
Column diameter: 0.32

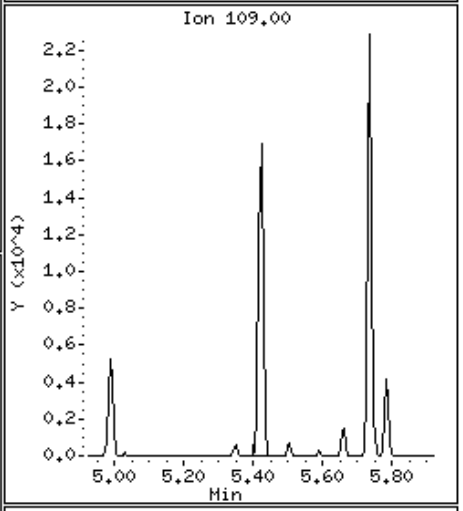
28 2-Nitrophenol

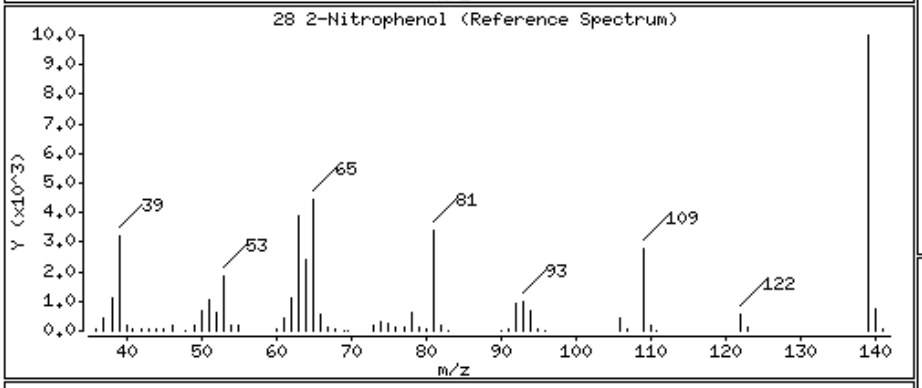
Concentration: 27.6 ug/L

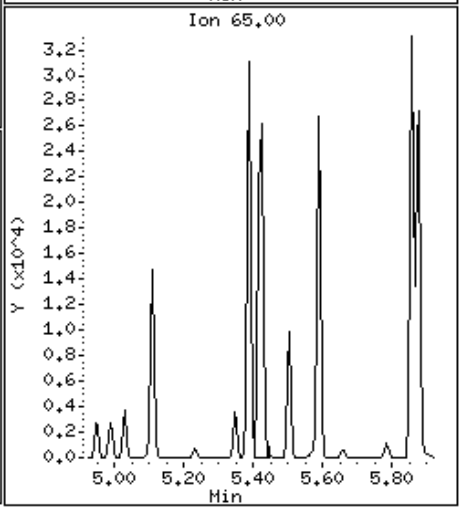


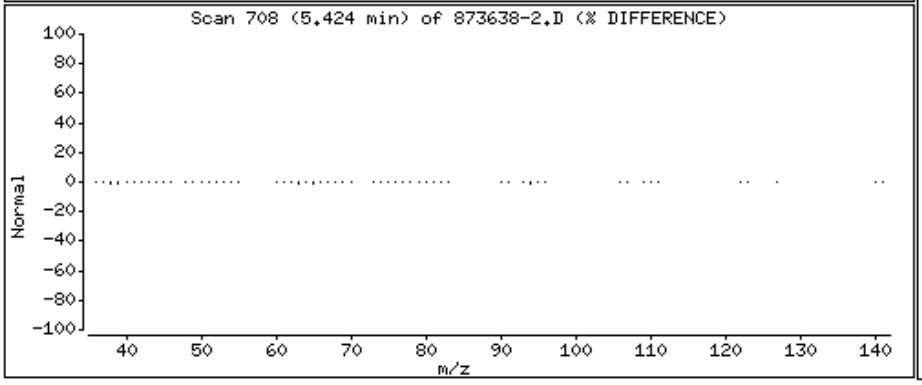












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

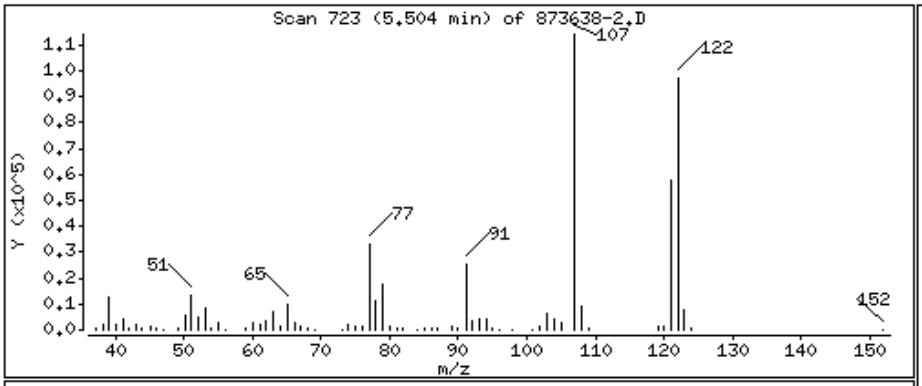
Operator: als

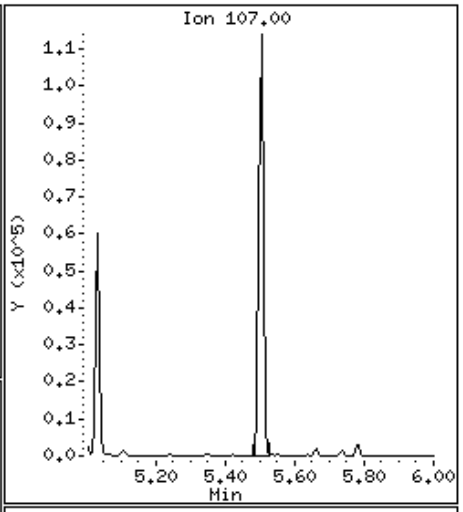
Column phase: RTx-5

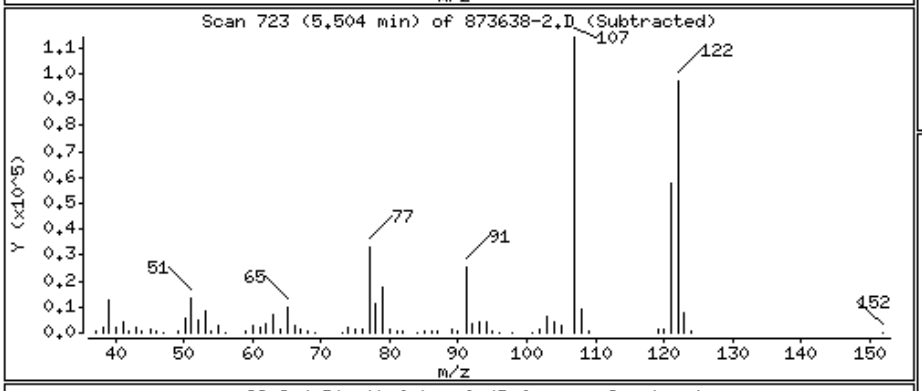
Column diameter: 0.32

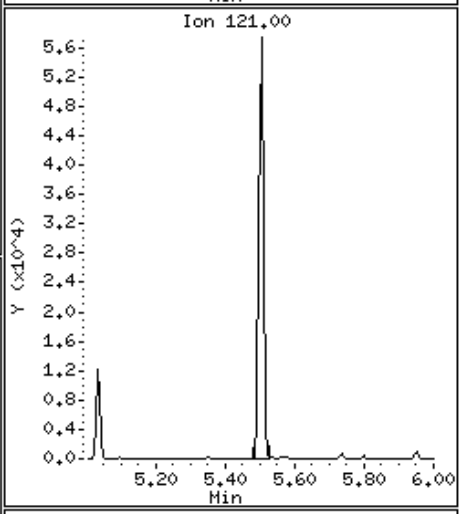
29 2,4-Dimethylphenol

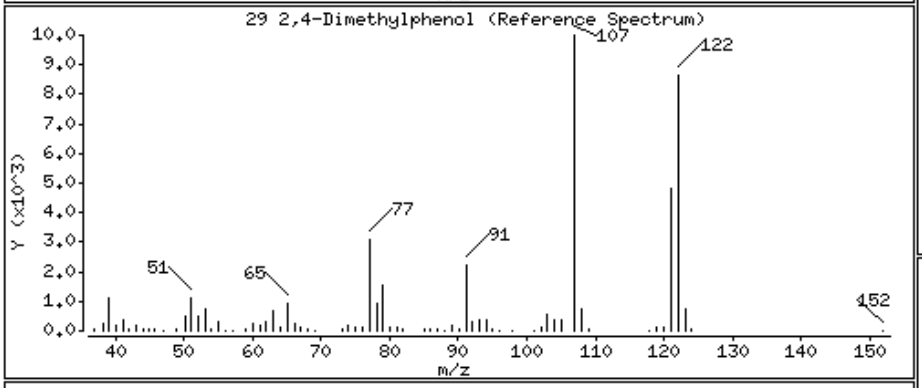
Concentration: 26.7 ug/L

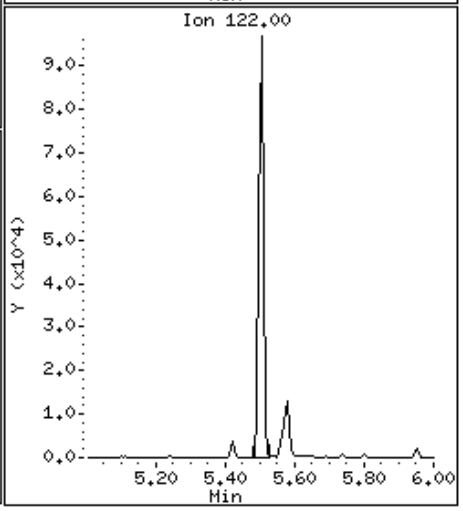


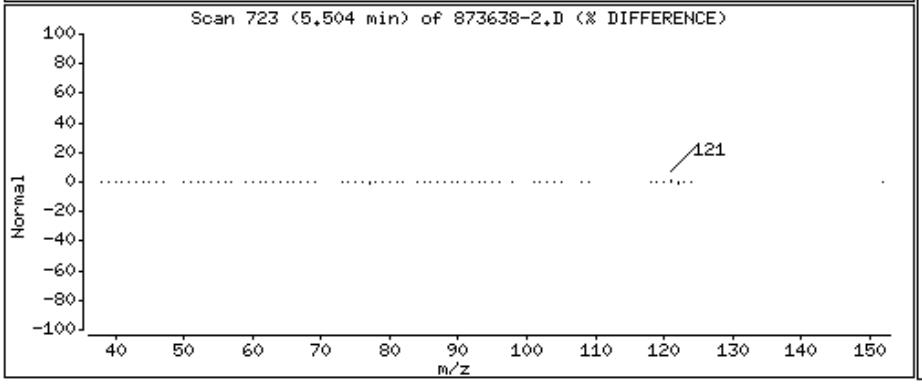












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

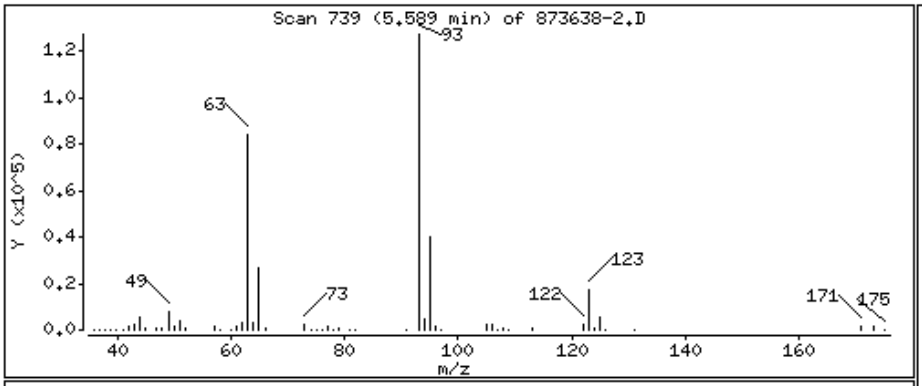
Operator: als

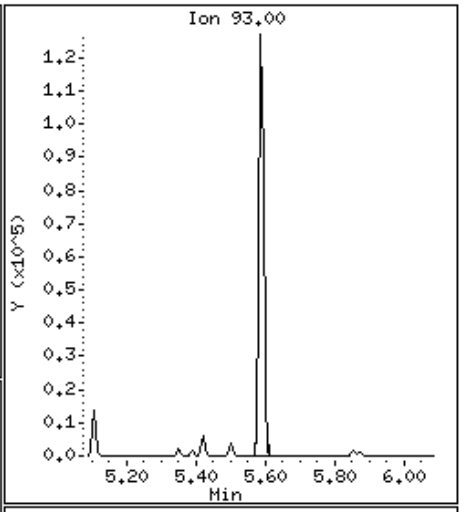
Column phase: RTx-5

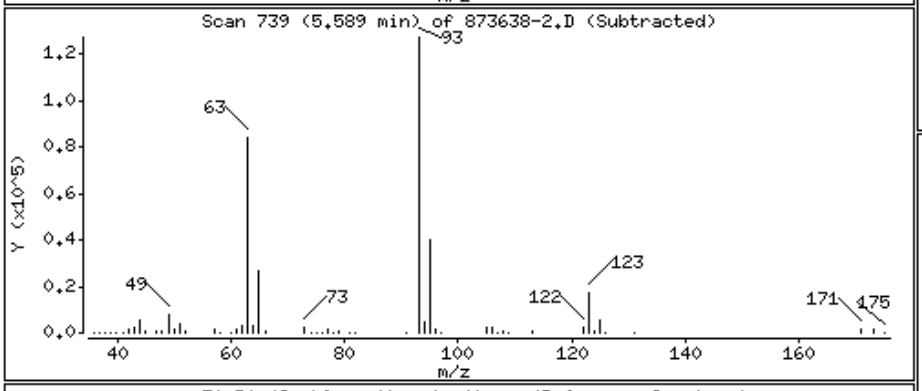
Column diameter: 0.32

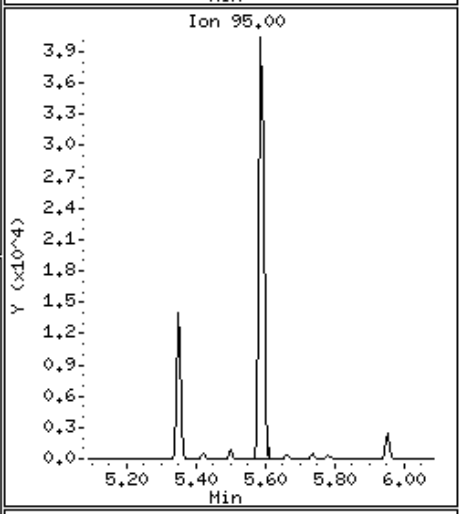
30 Bis(2-chloroethoxy)methane

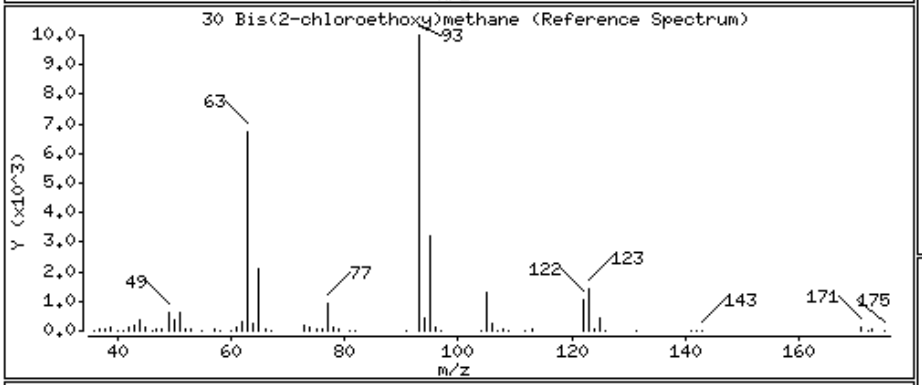
Concentration: 25.0 ug/L

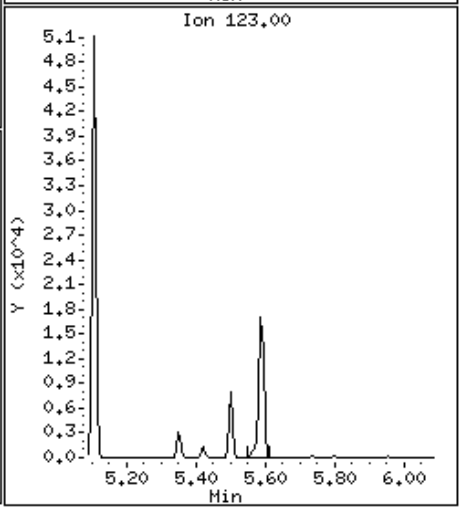


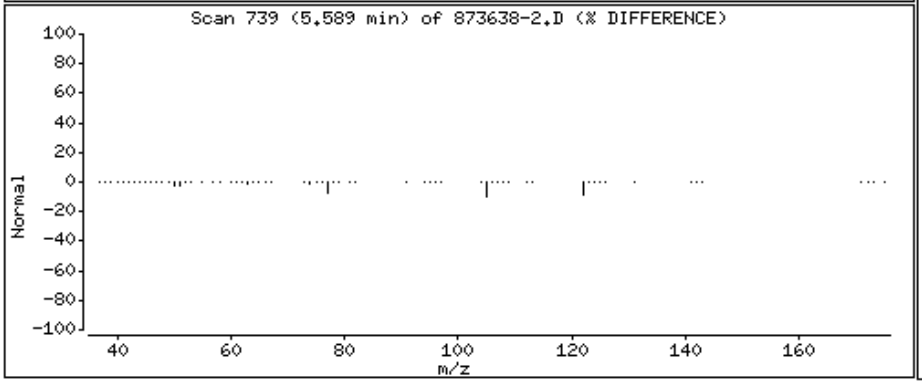












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

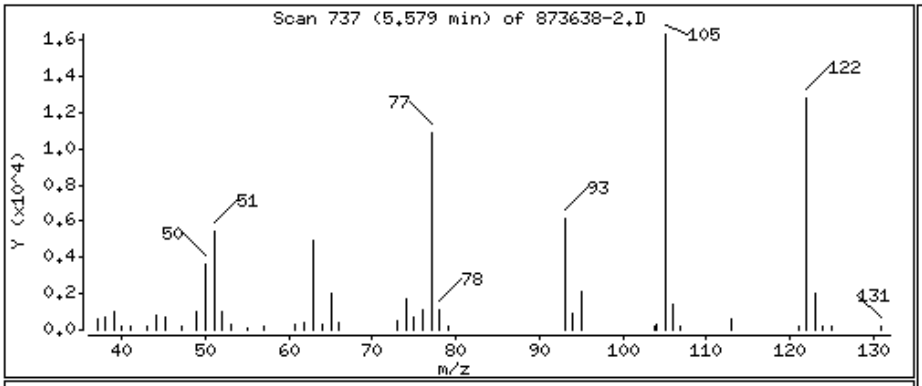
Operator: als

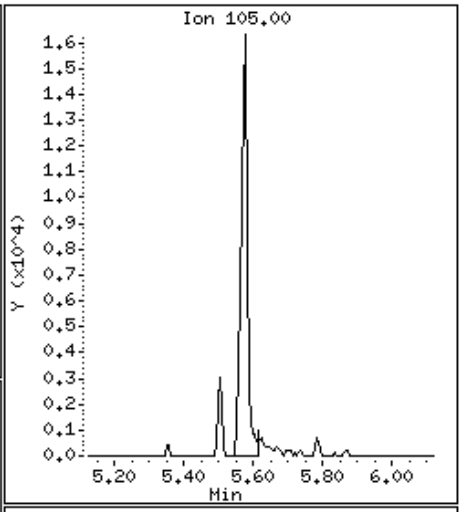
Column phase: RTx-5

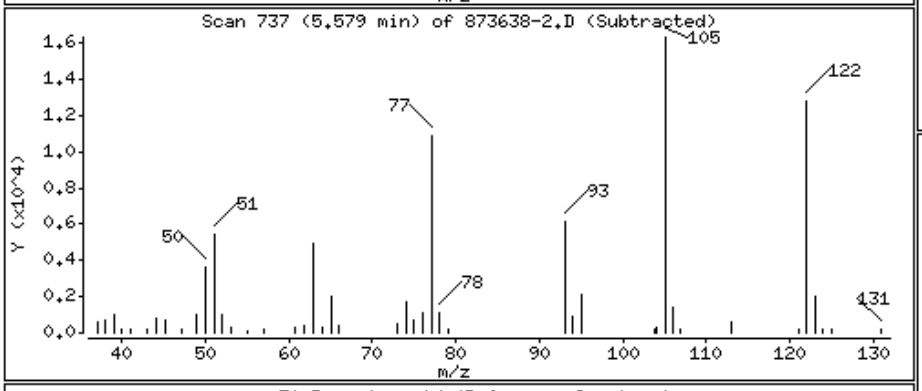
Column diameter: 0.32

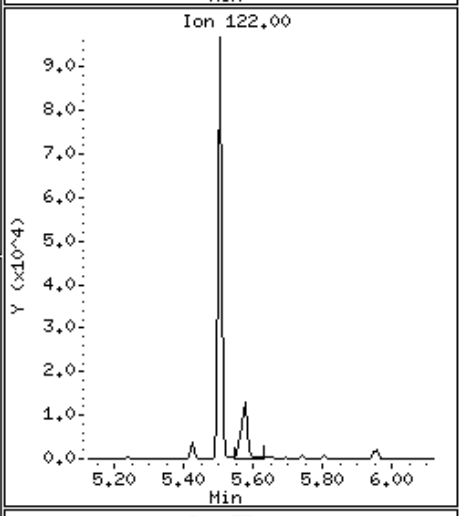
31 Benzoic acid

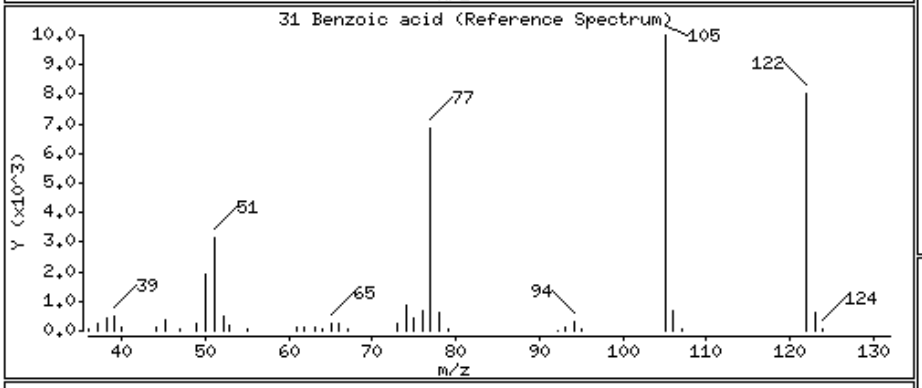
Concentration: 14.6 ug/L

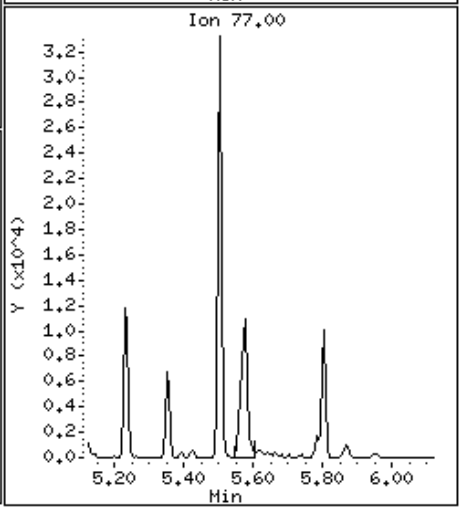


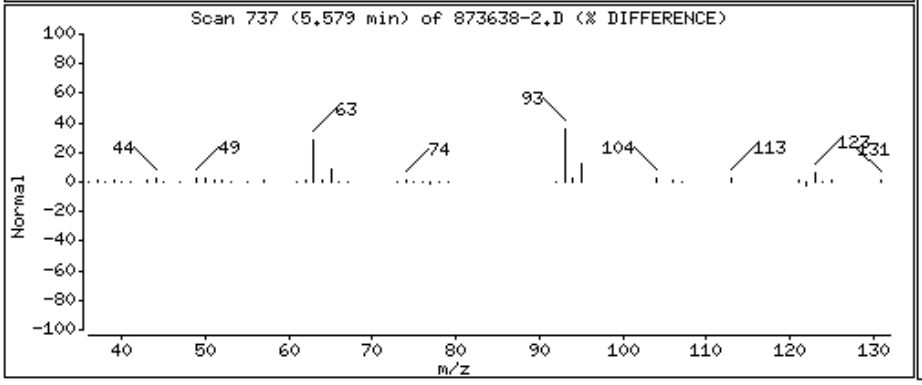












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

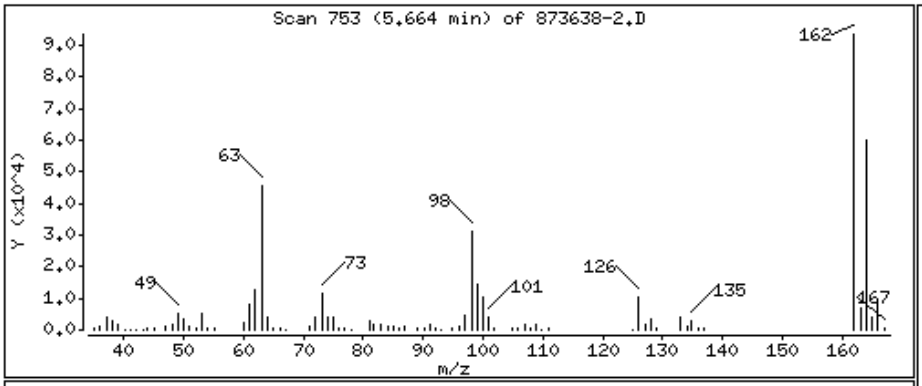
Operator: als

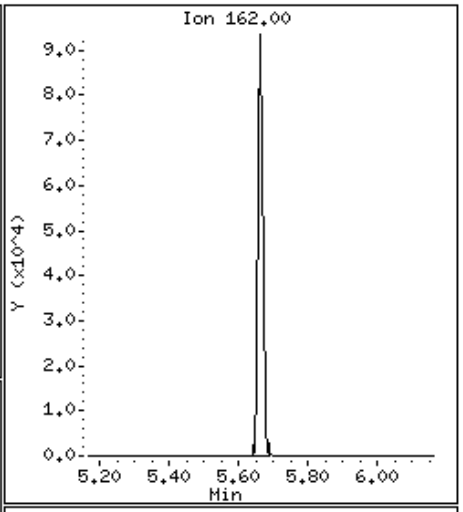
Column phase: RTx-5

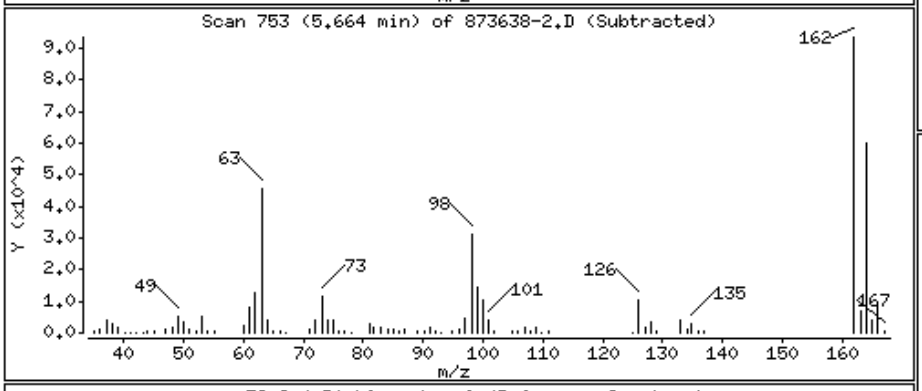
Column diameter: 0.32

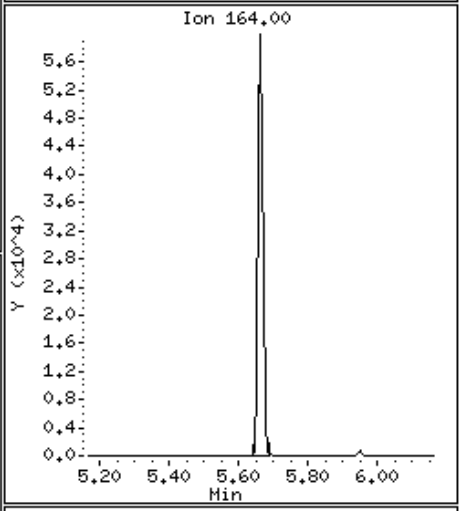
32 2,4-Dichlorophenol

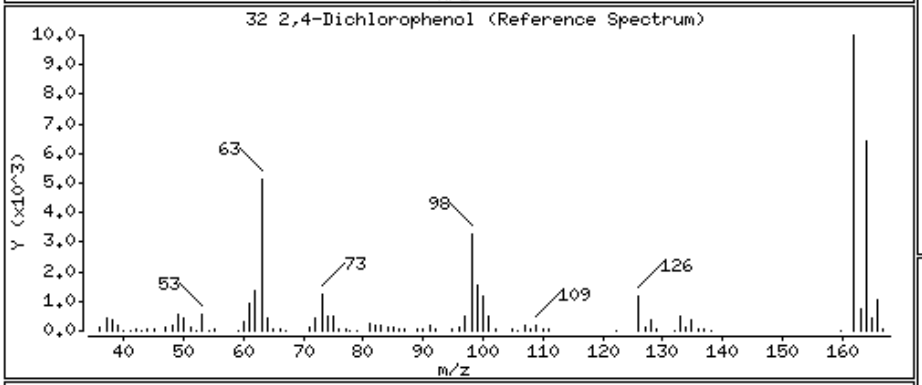
Concentration: 28.0 ug/L

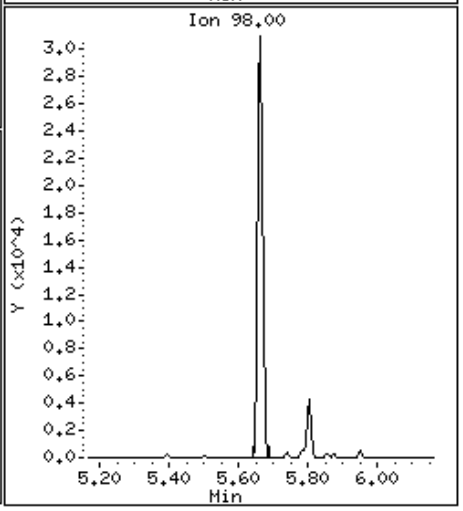


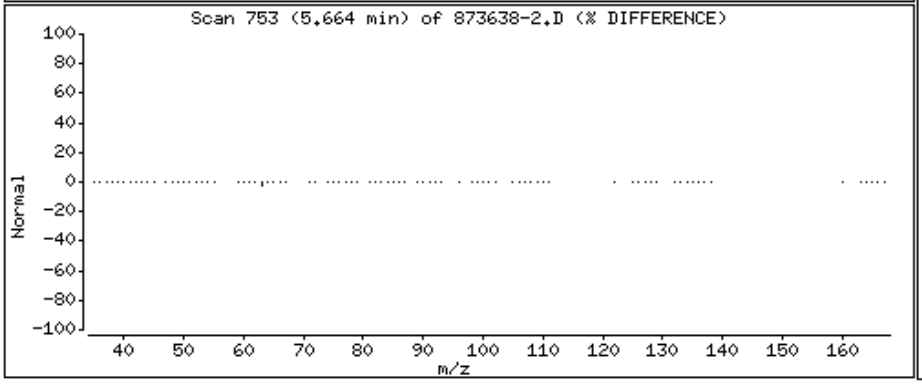












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

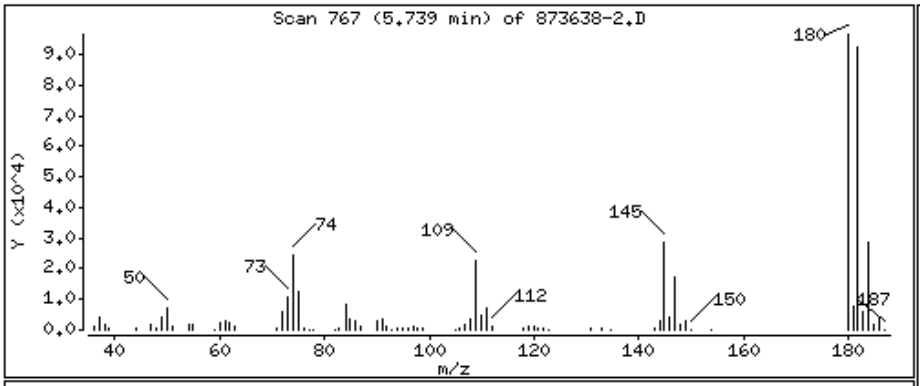
Operator: als

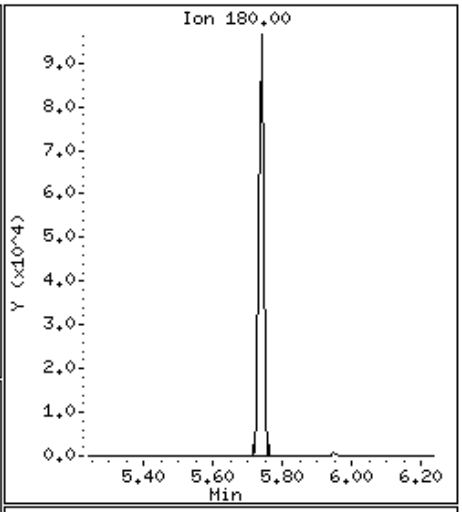
Column phase: RTx-5

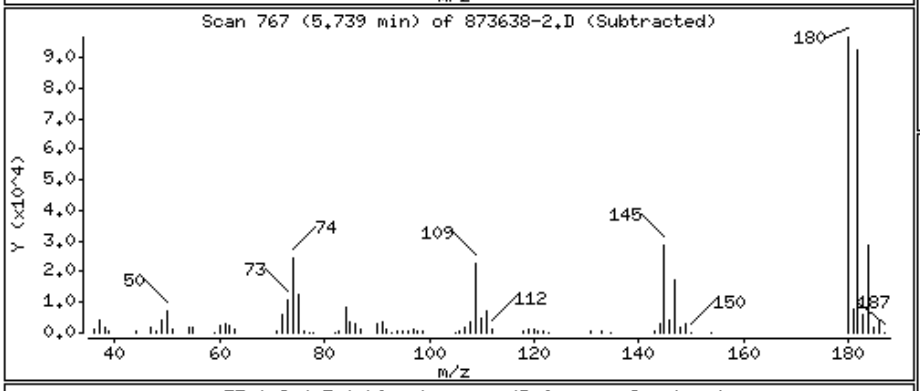
Column diameter: 0.32

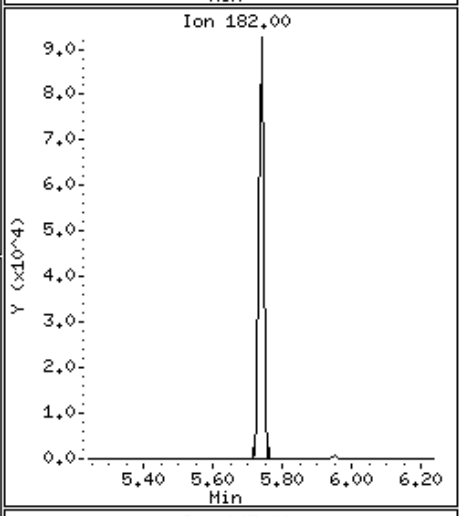
33 1,2,4-Trichlorobenzene

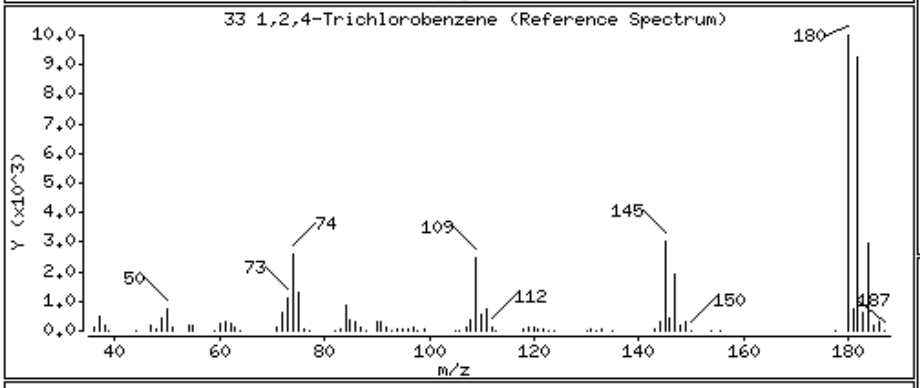
Concentration: 24.5 ug/L

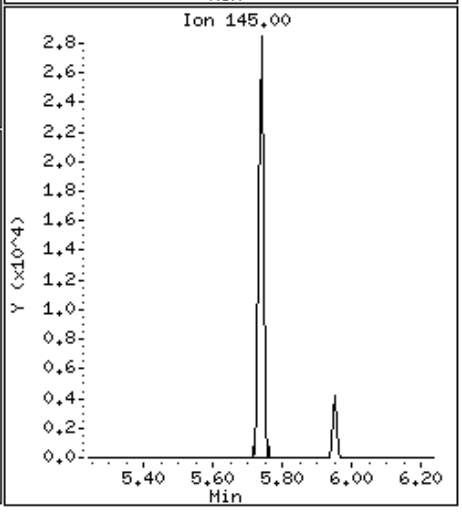


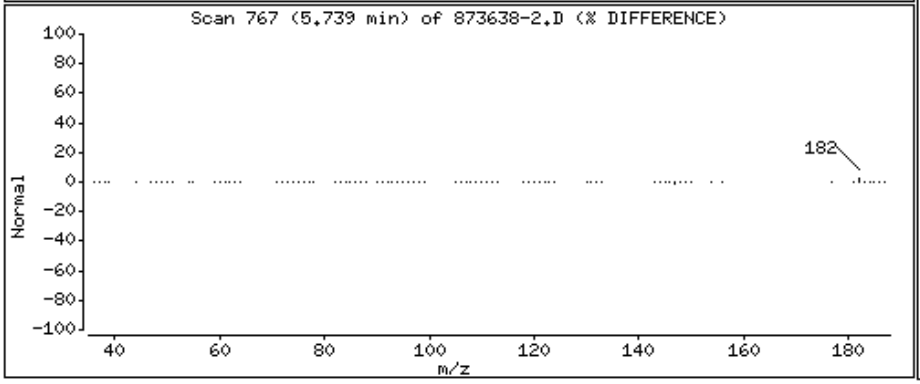












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

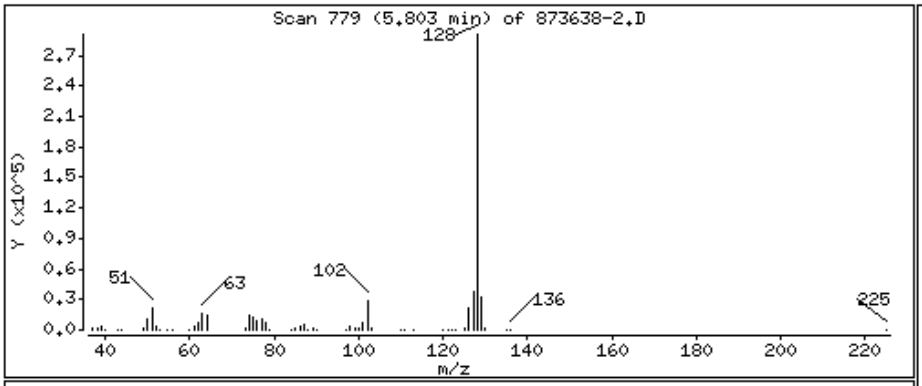
Operator: als

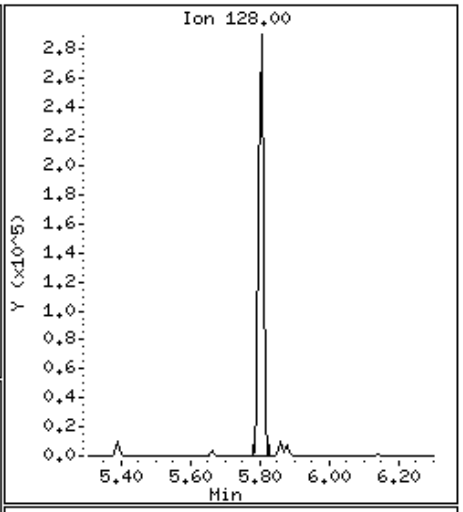
Column phase: RTx-5

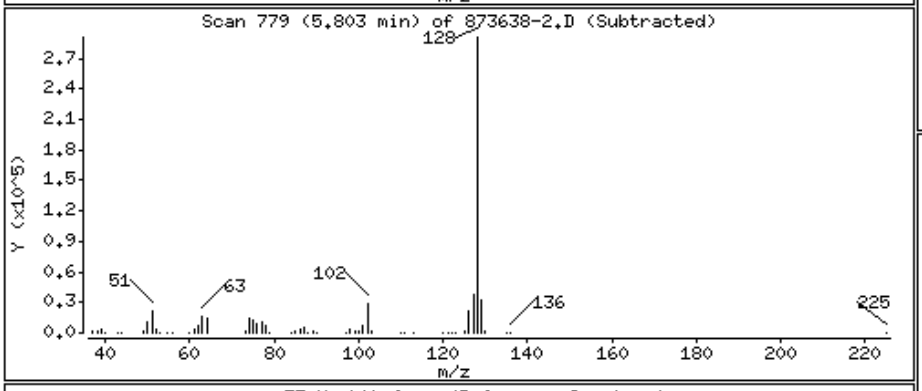
Column diameter: 0.32

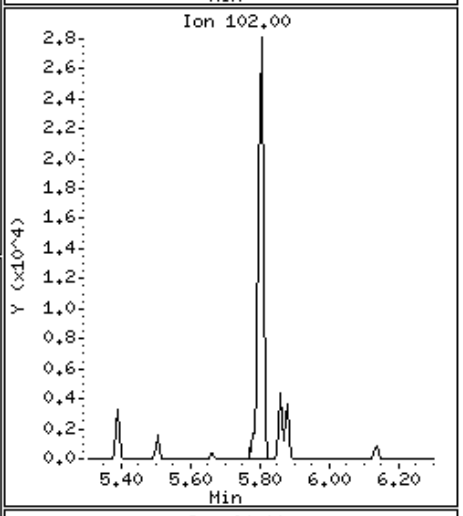
35 Naphthalene

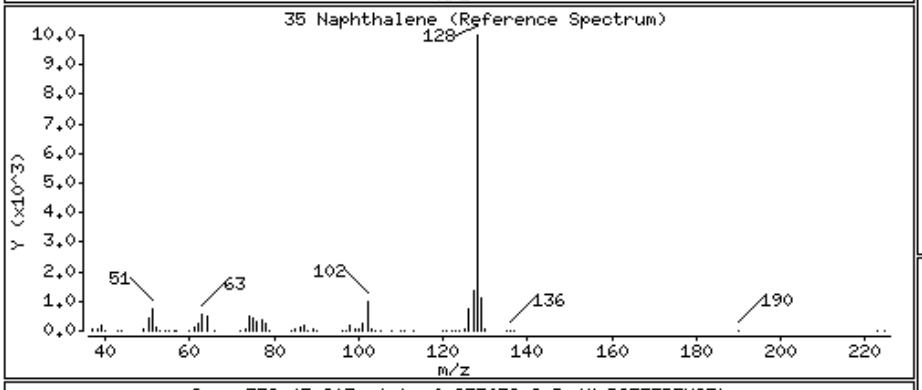
Concentration: 24.2 ug/L

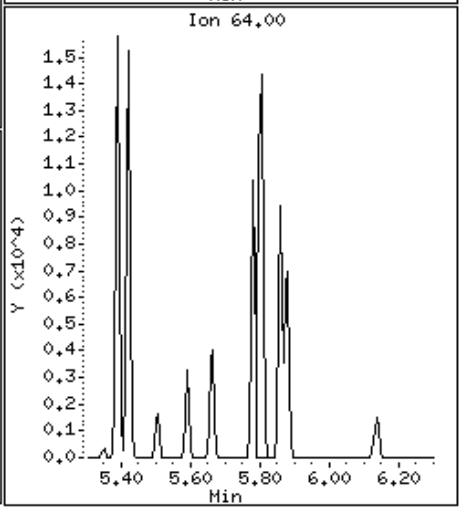


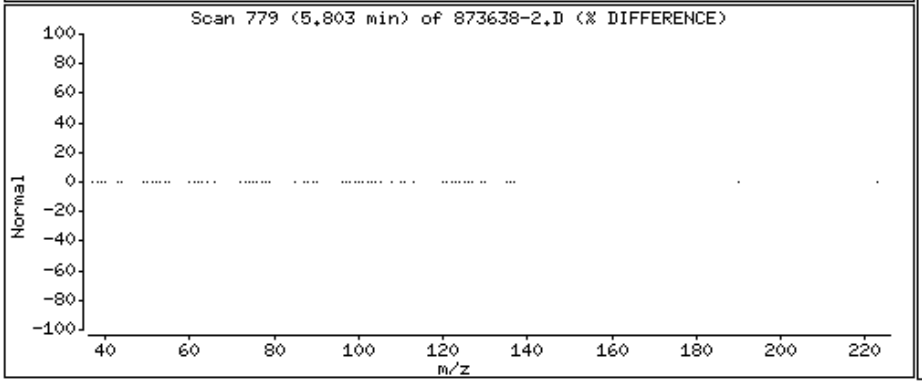












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

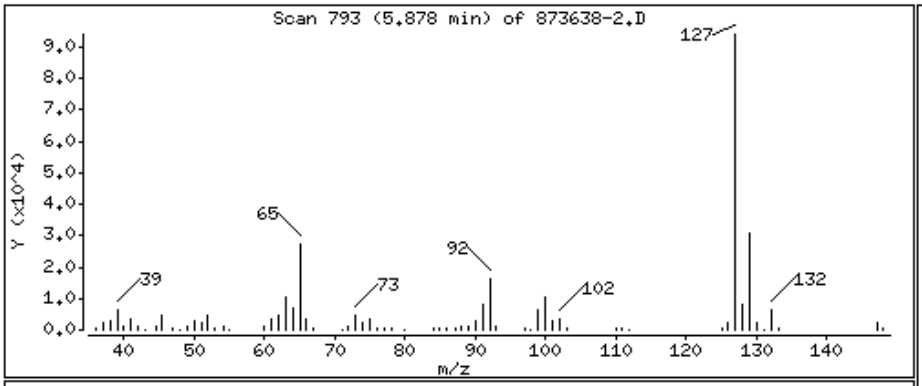
Operator: als

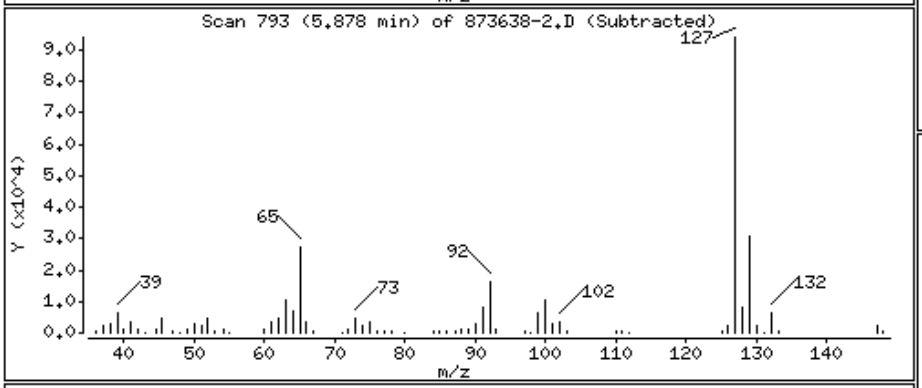
Column phase: RTx-5

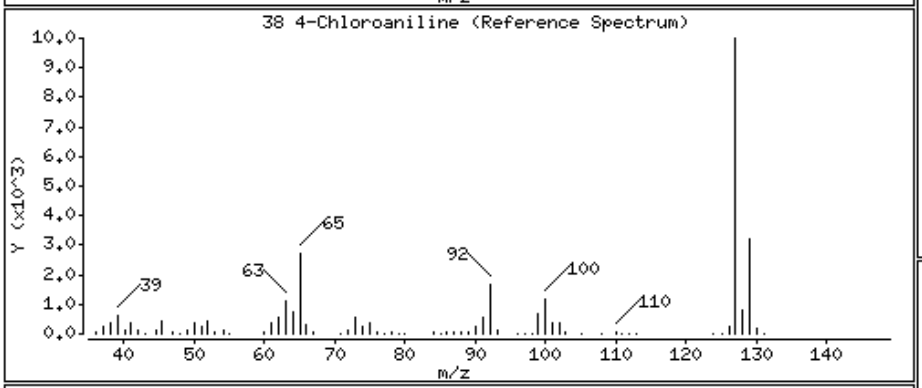
Column diameter: 0.32

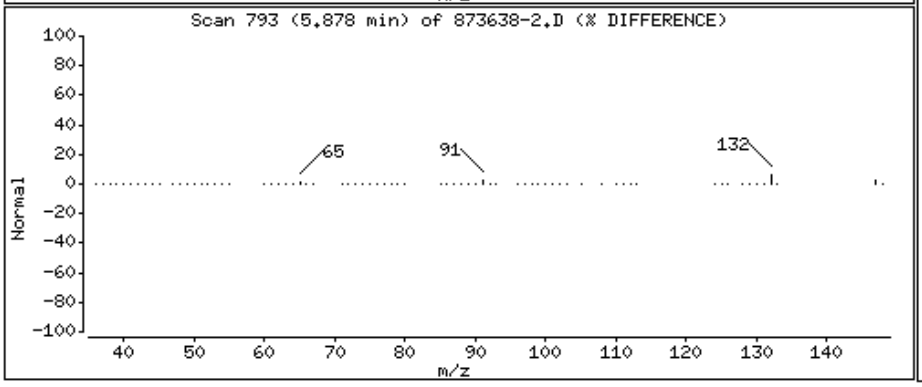
38 4-Chloroaniline

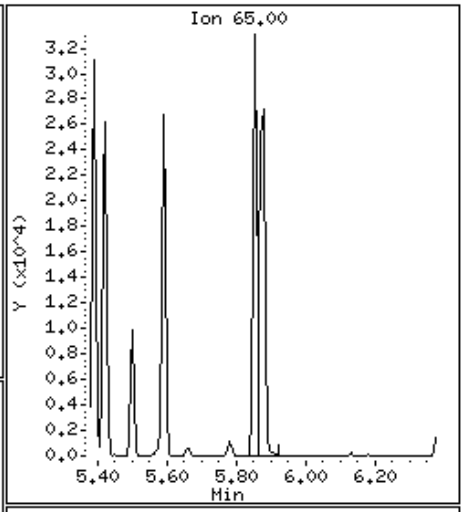
Concentration: 19.8 ug/L

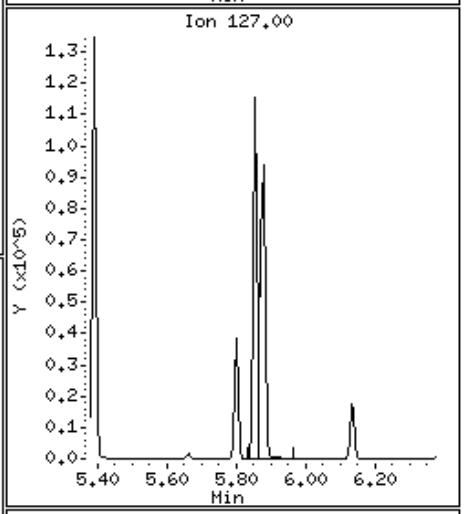


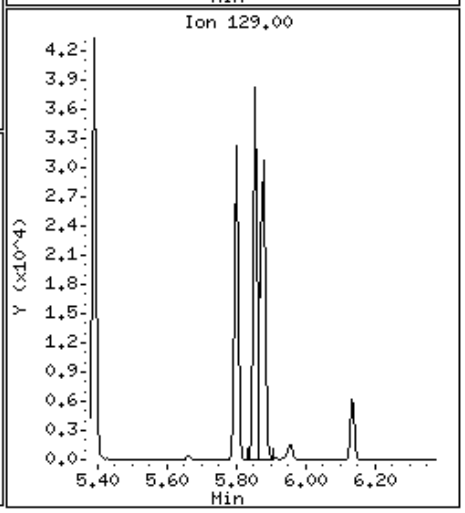












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

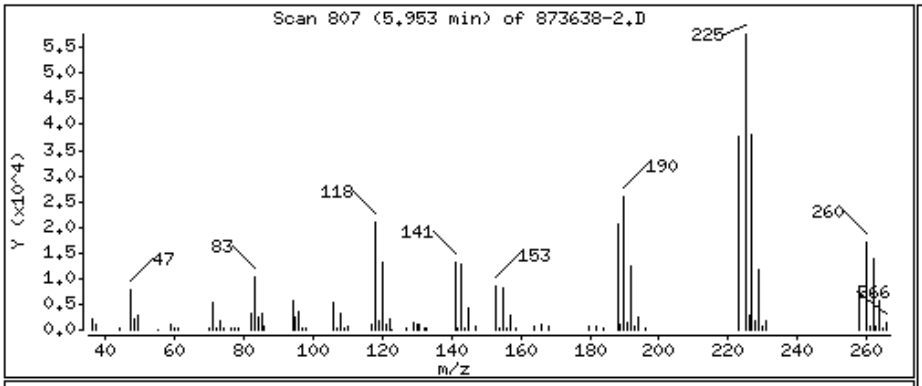
Operator: als

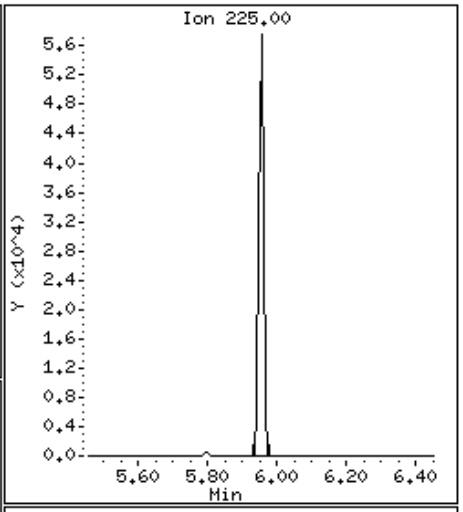
Column phase: RTx-5

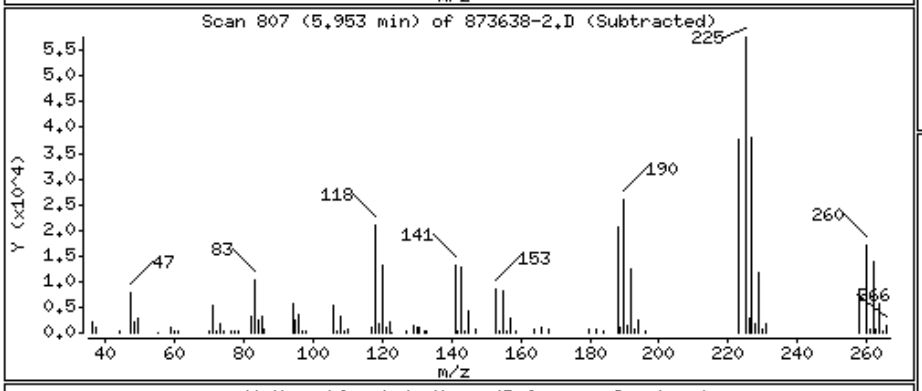
Column diameter: 0.32

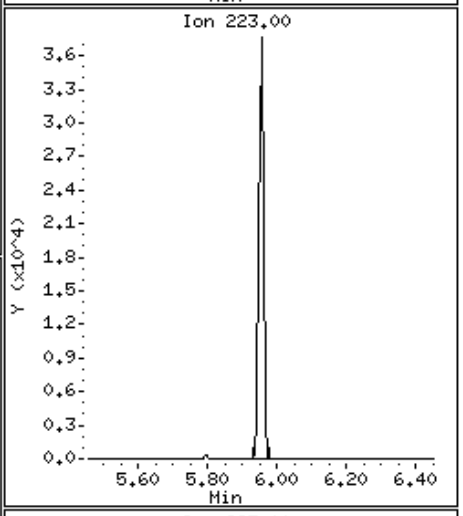
40 Hexachlorobutadiene

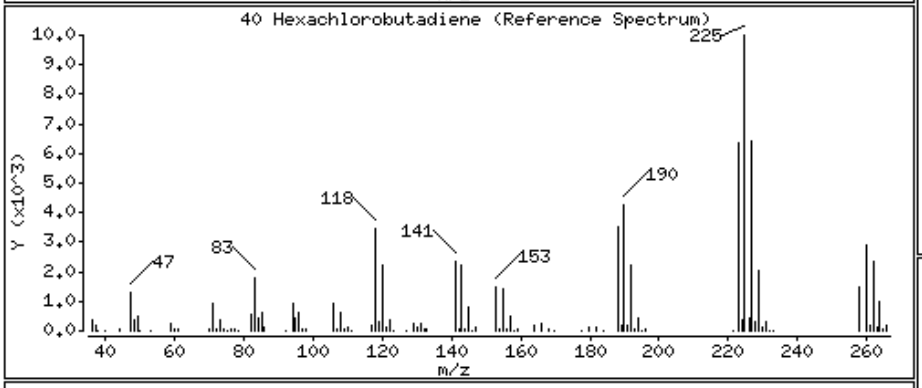
Concentration: 24.8 ug/L

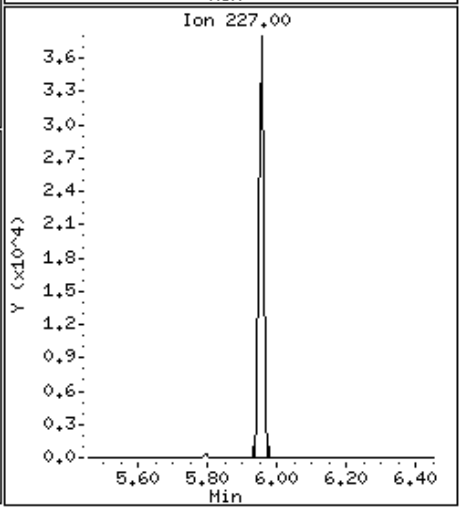


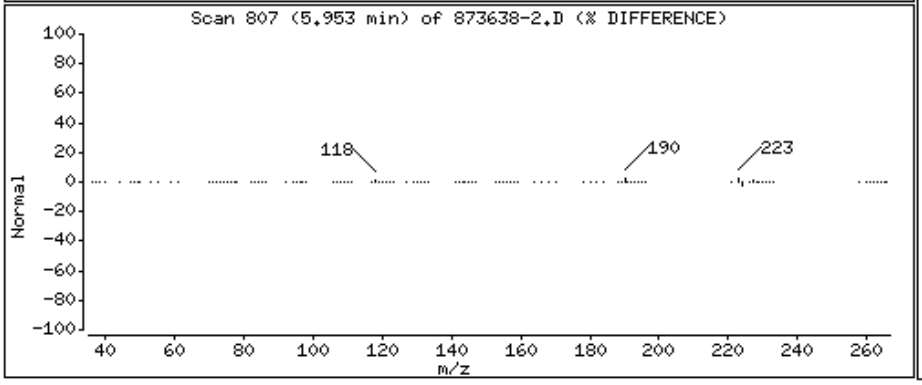












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

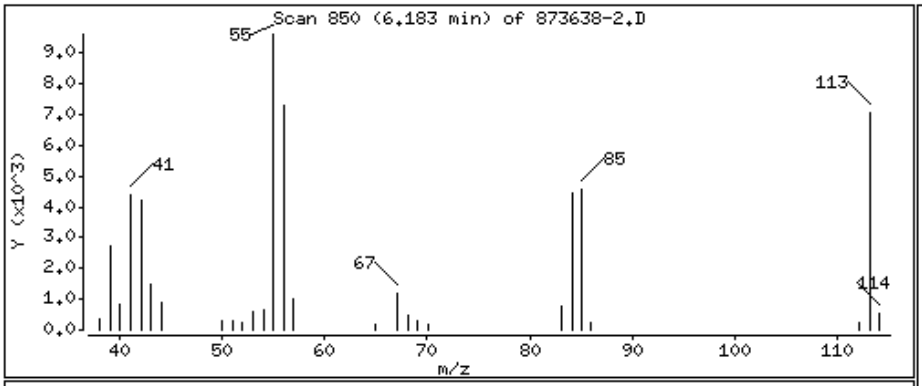
Operator: als

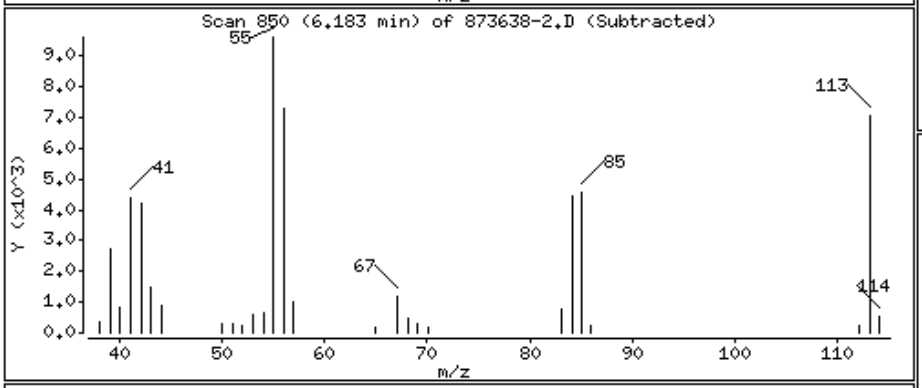
Column phase: RTx-5

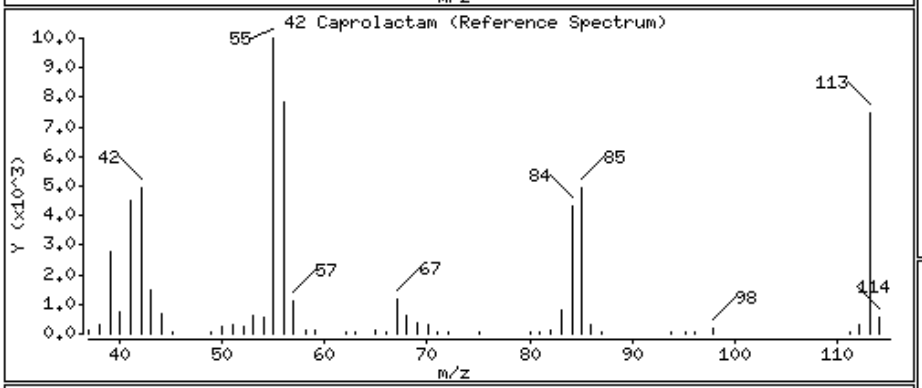
Column diameter: 0.32

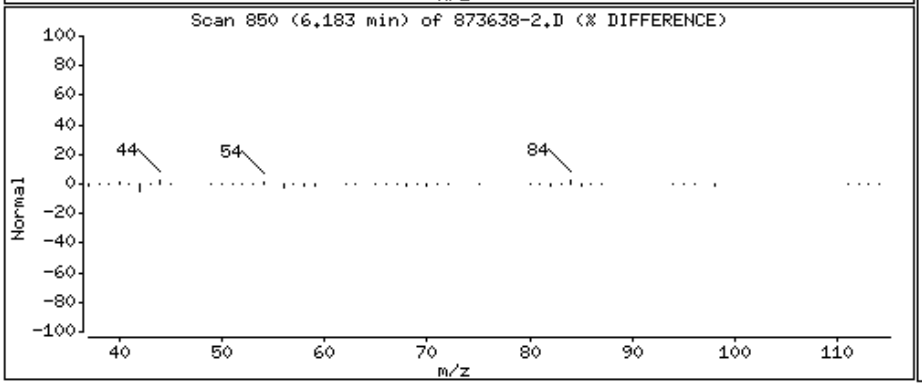
42 Caprolactam

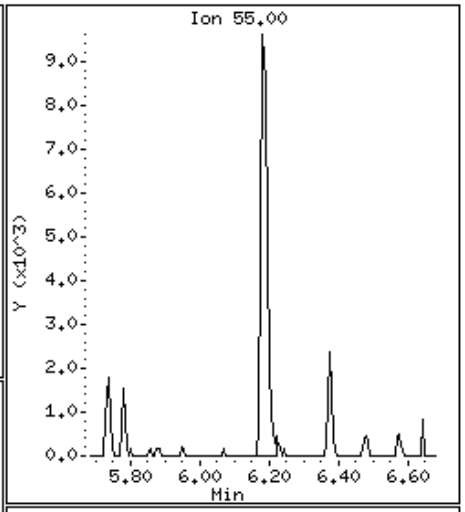
Concentration: 6.46 ug/L

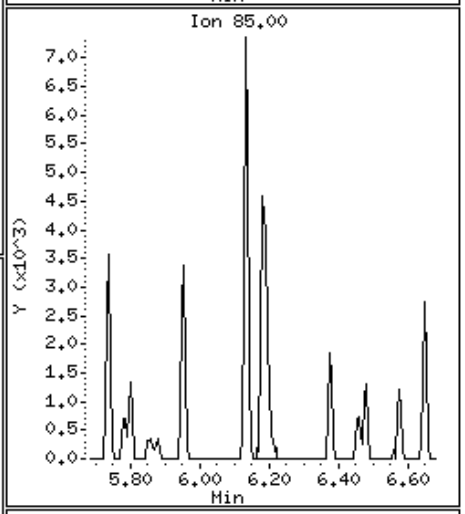


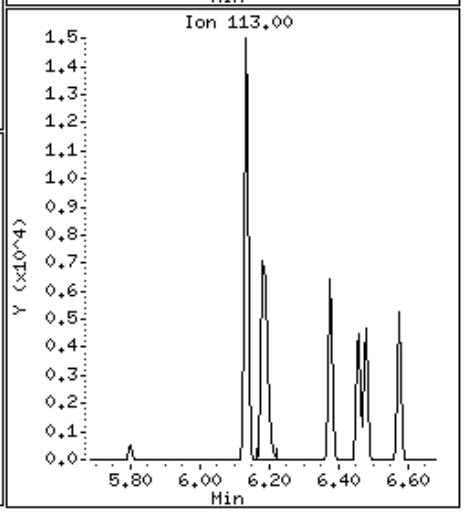












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

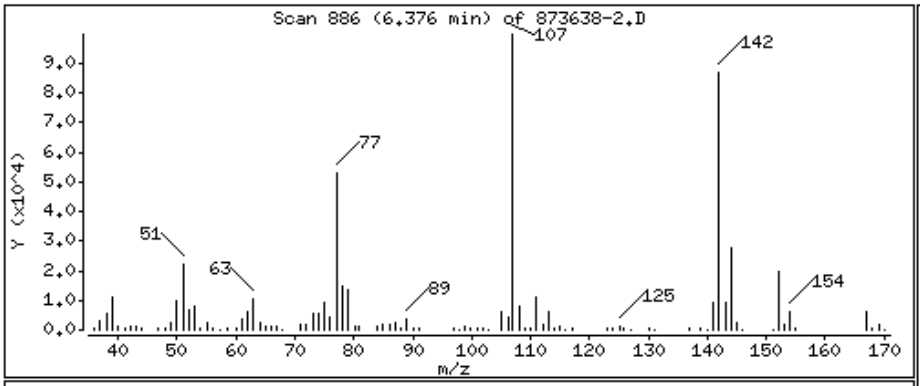
Operator: als

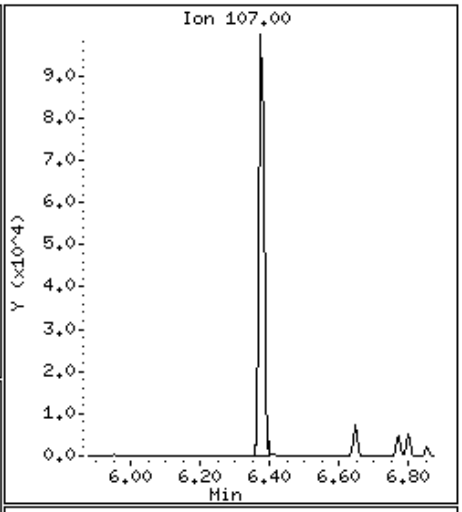
Column phase: RTx-5

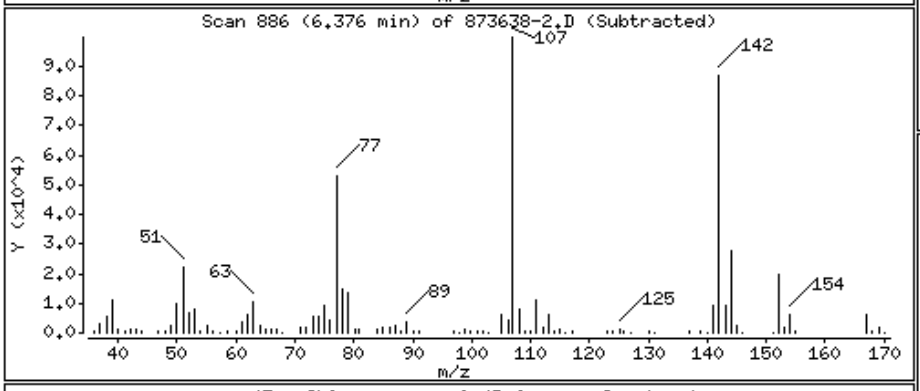
Column diameter: 0.32

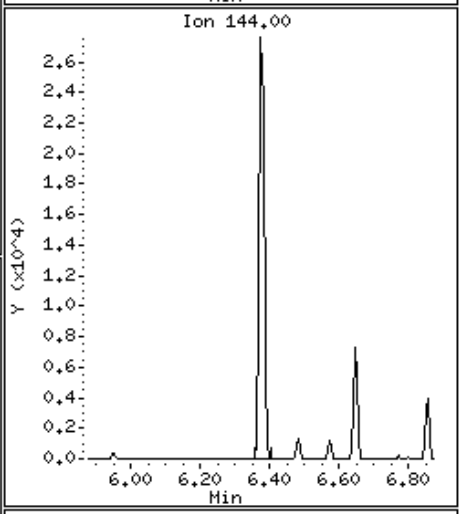
43 p-Chloro-m-cresol

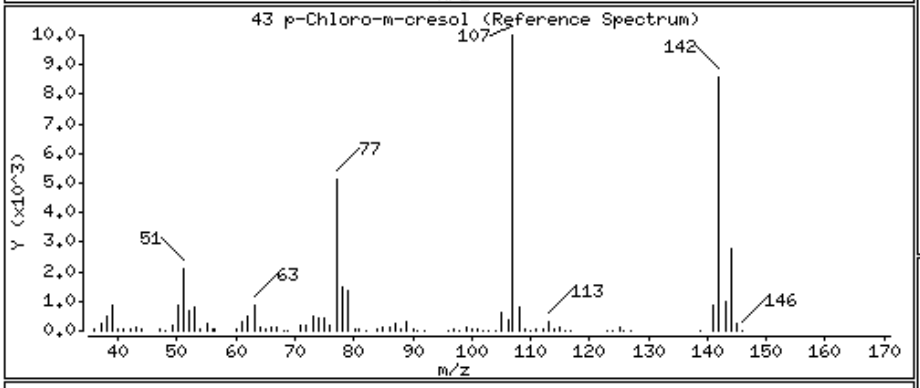
Concentration: 28.3 ug/L

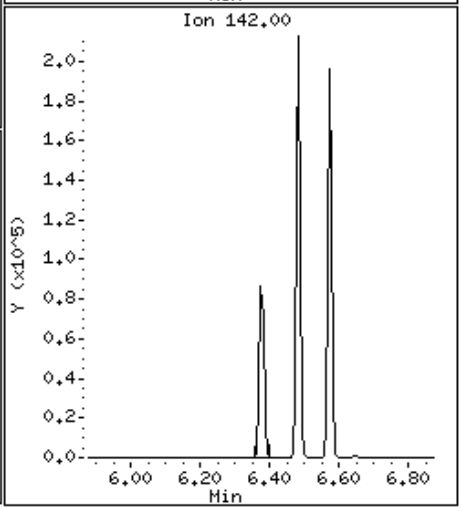


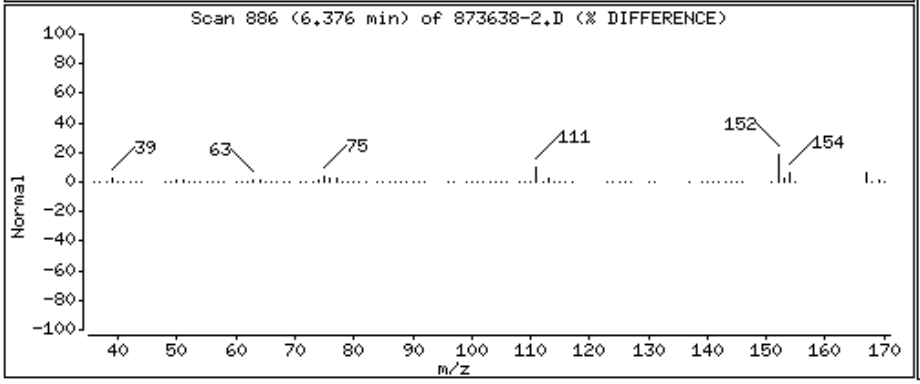












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

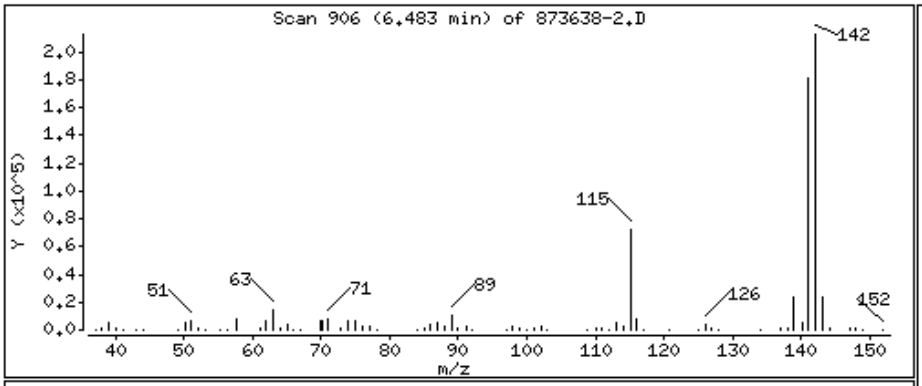
Operator: als

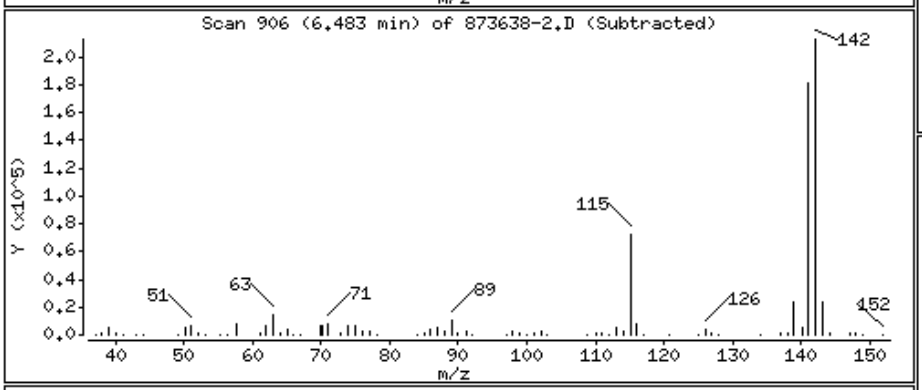
Column phase: RTx-5

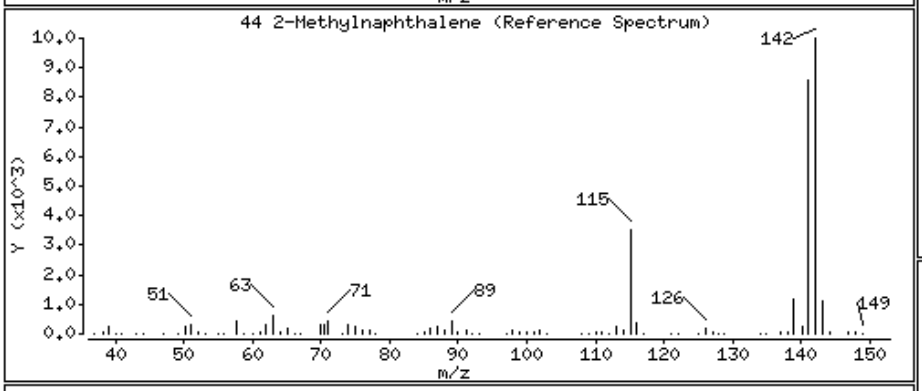
Column diameter: 0.32

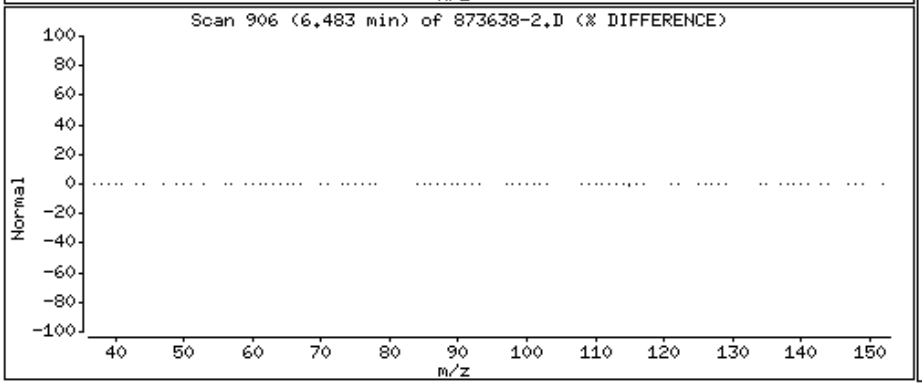
44 2-Methylnaphthalene

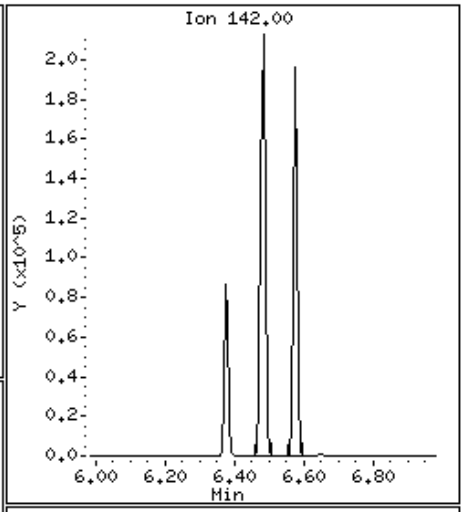
Concentration: 26.3 ug/L

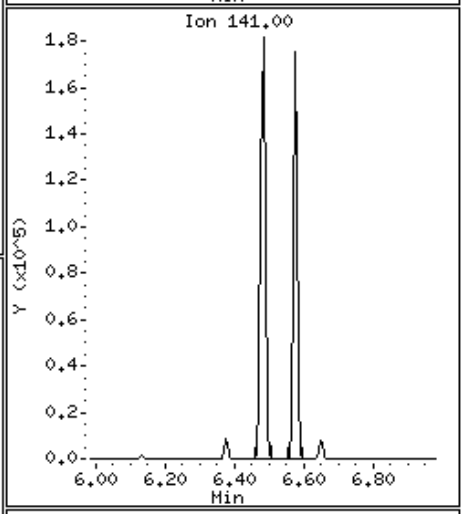


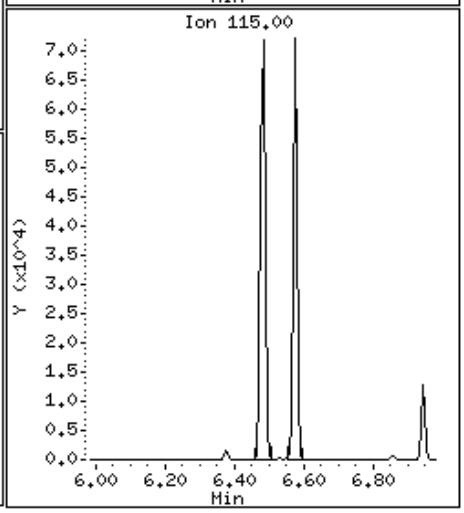












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

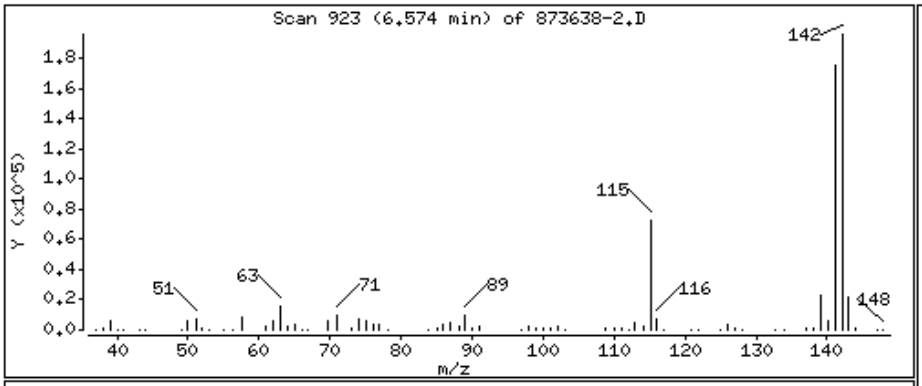
Operator: als

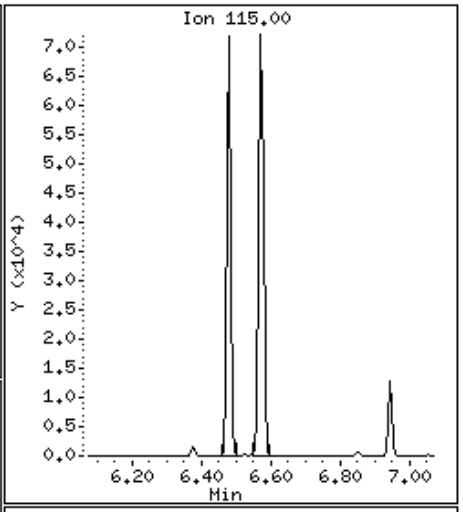
Column phase: RTx-5

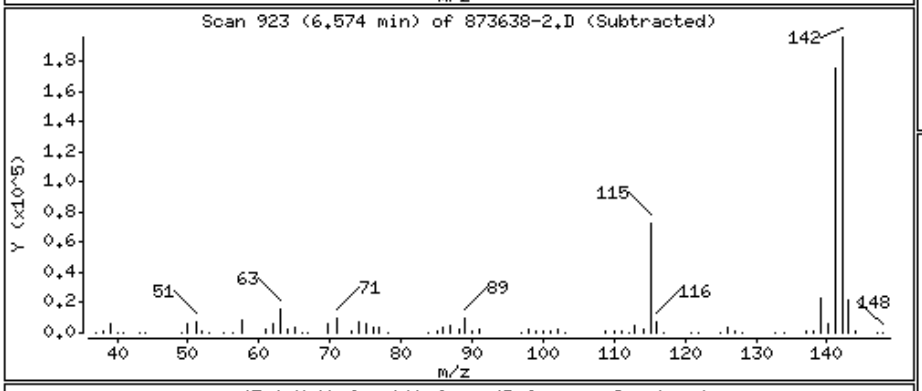
Column diameter: 0.32

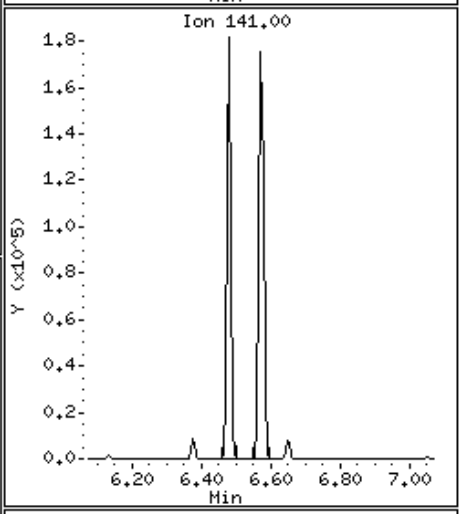
45 1-Methylnaphthalene

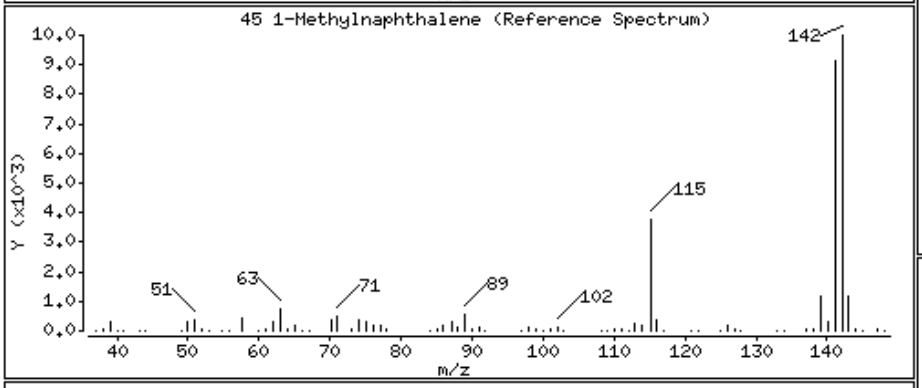
Concentration: 26.2 ug/L

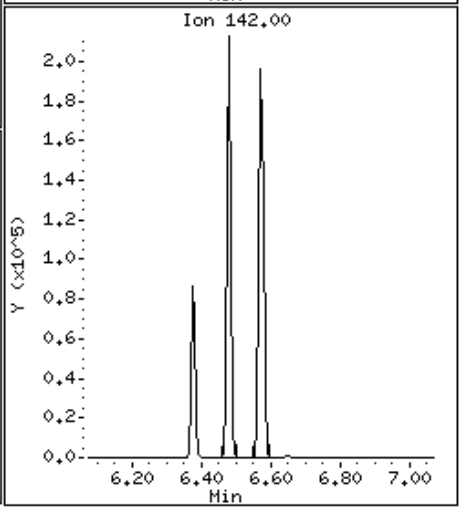


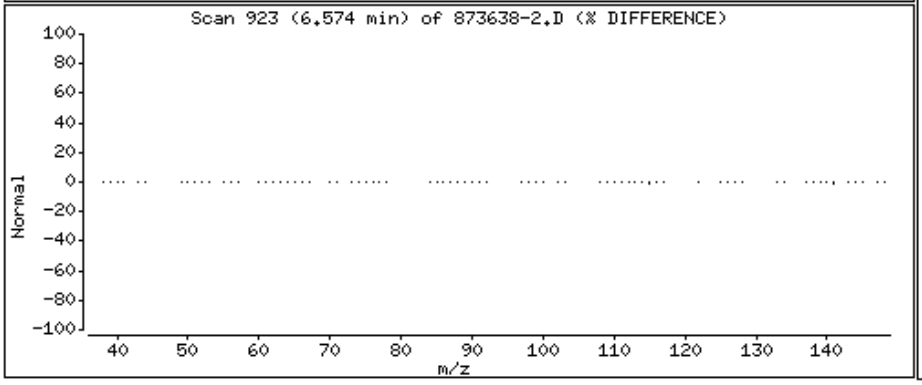












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

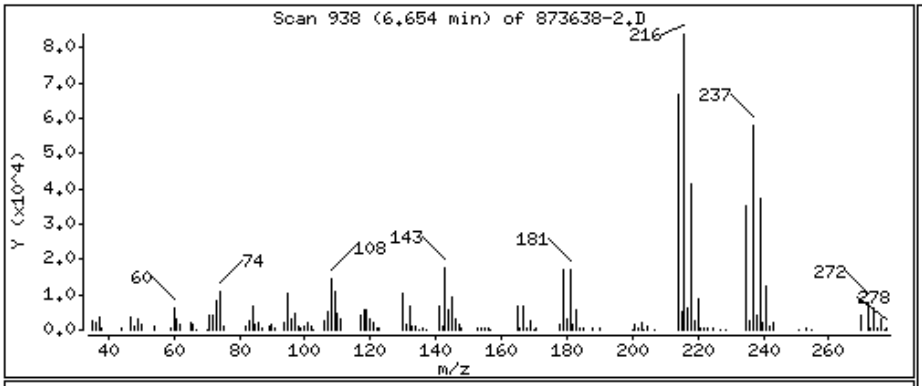
Operator: als

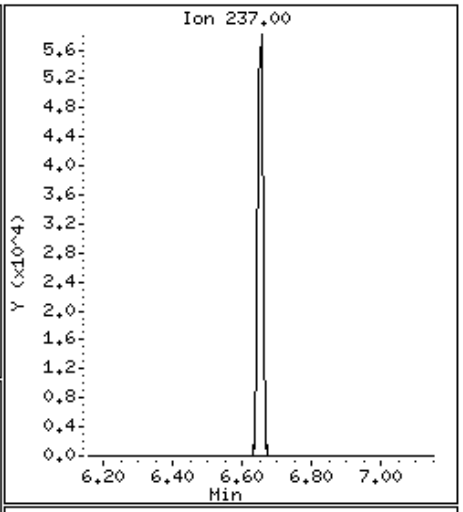
Column phase: RTx-5

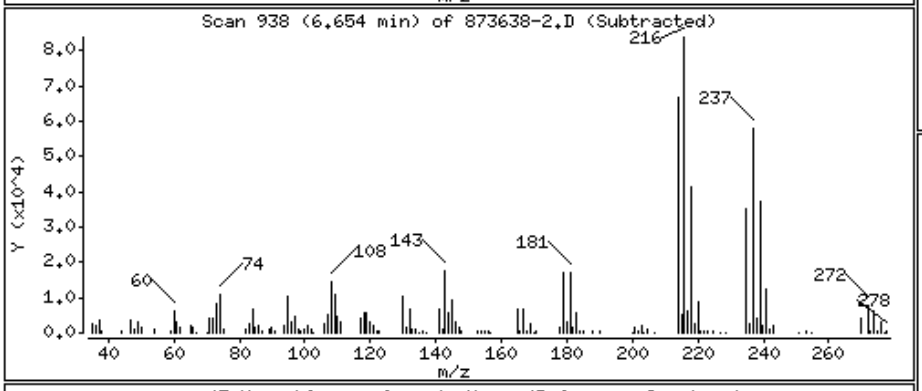
Column diameter: 0.32

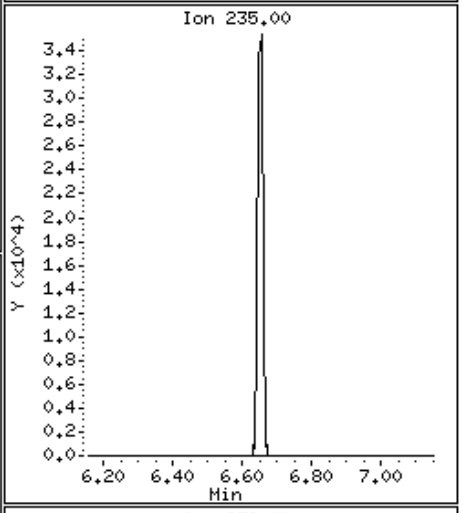
47 Hexachlorocyclopentadiene

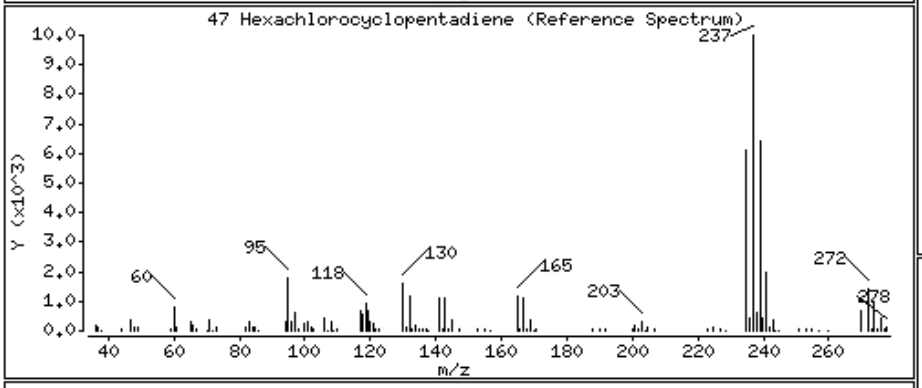
Concentration: 24.4 ug/L

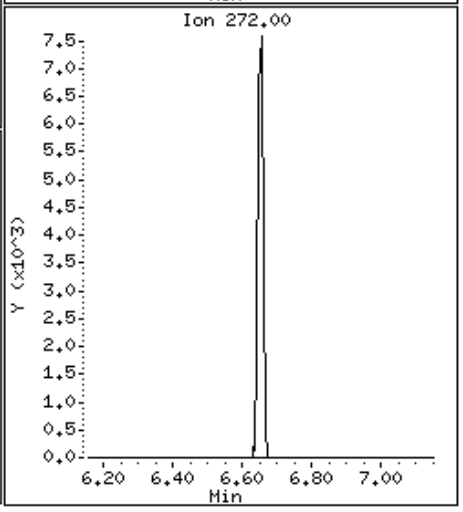


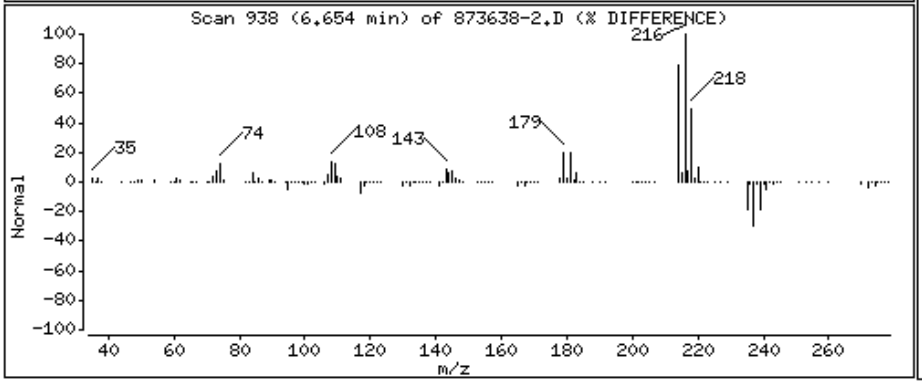












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

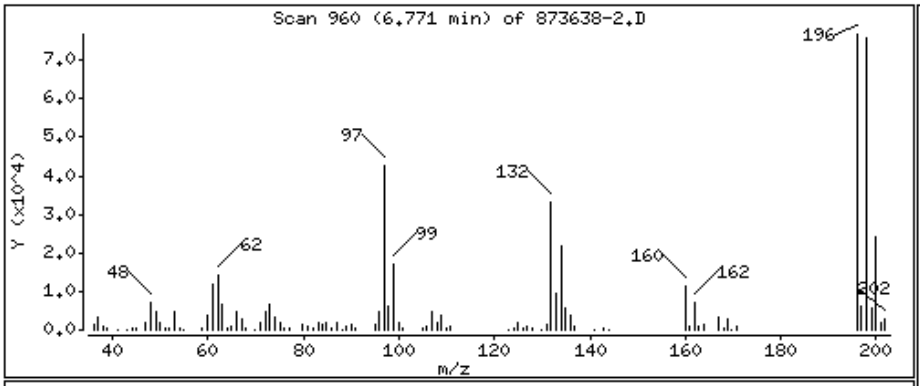
Operator: als

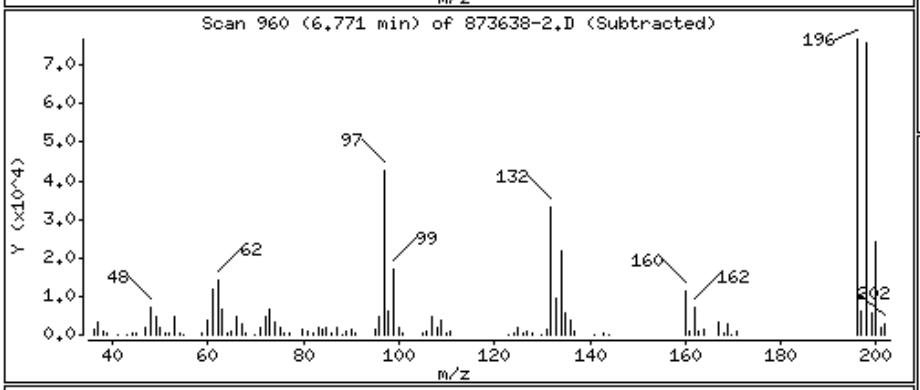
Column phase: RTx-5

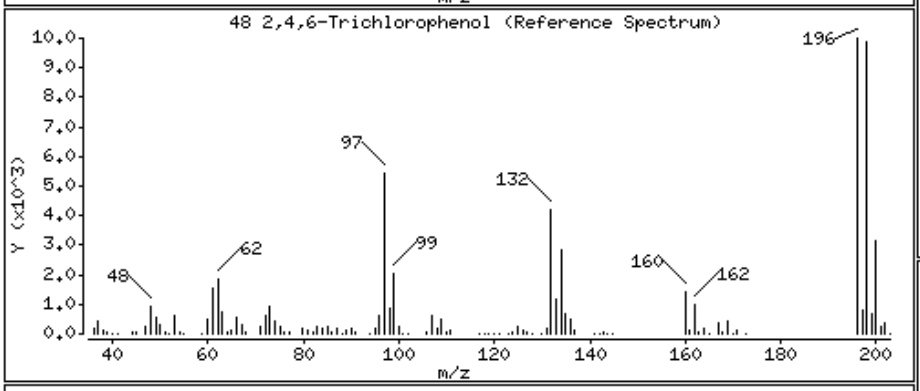
Column diameter: 0.32

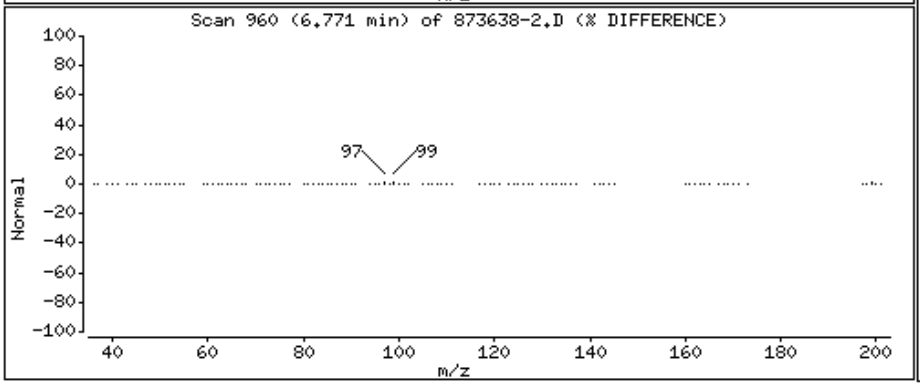
48 2,4,6-Trichlorophenol

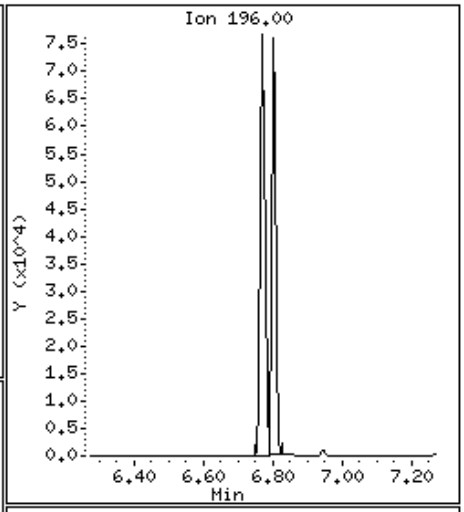
Concentration: 32.4 ug/L

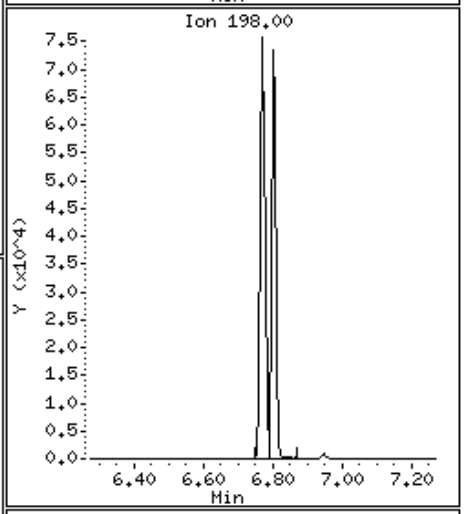


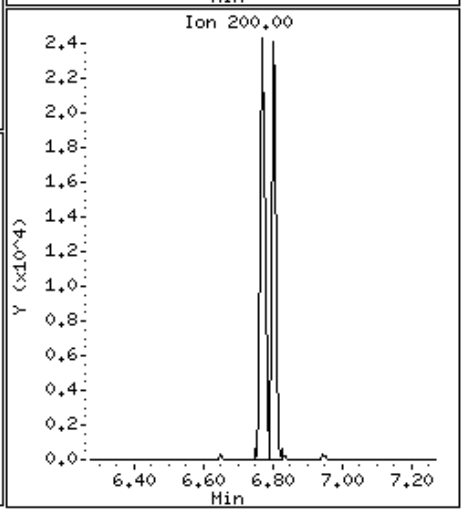












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

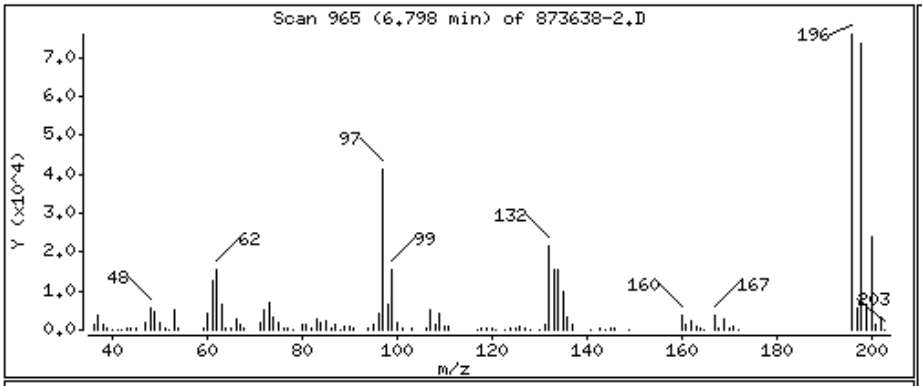
Operator: als

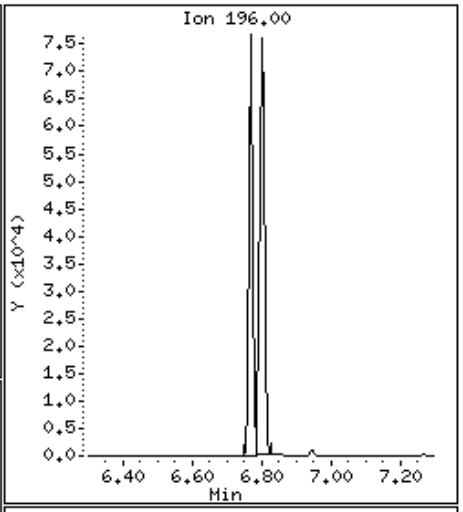
Column phase: RTx-5

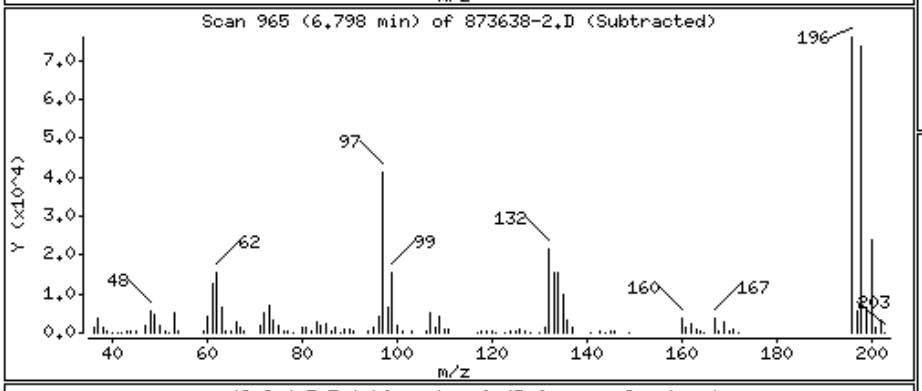
Column diameter: 0.32

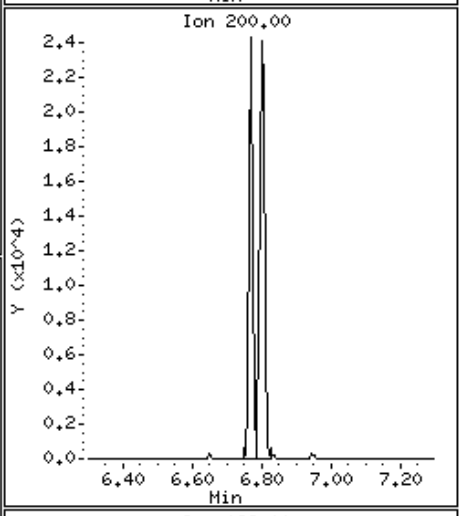
49 2,4,5-Trichlorophenol

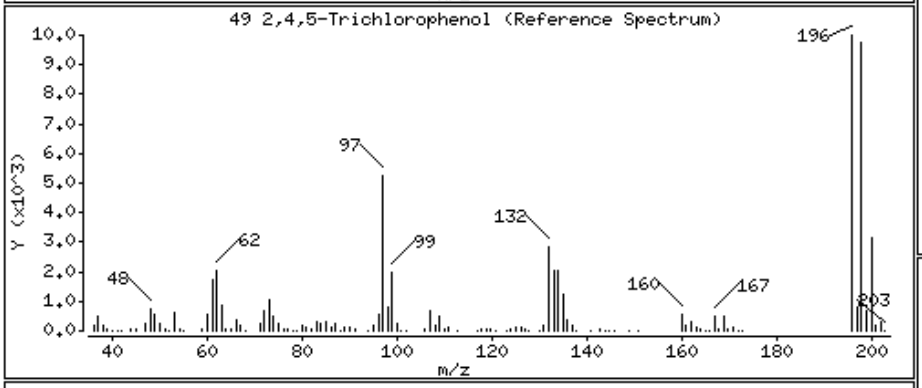
Concentration: 31.1 ug/L

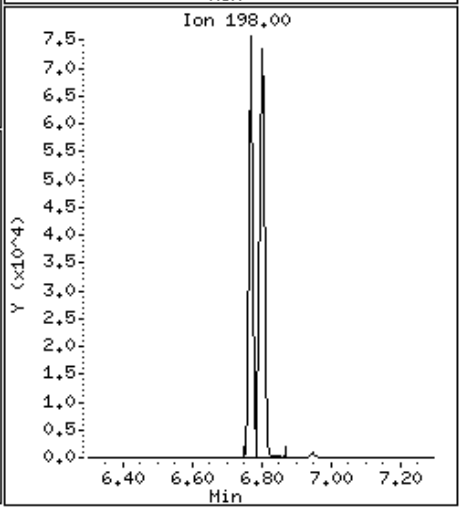


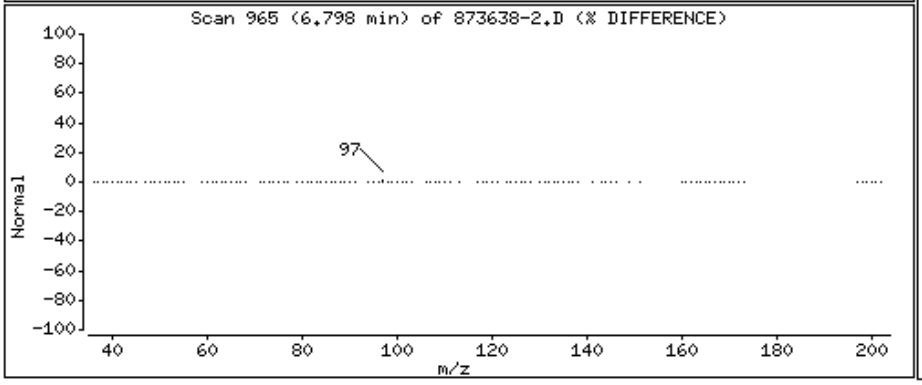












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

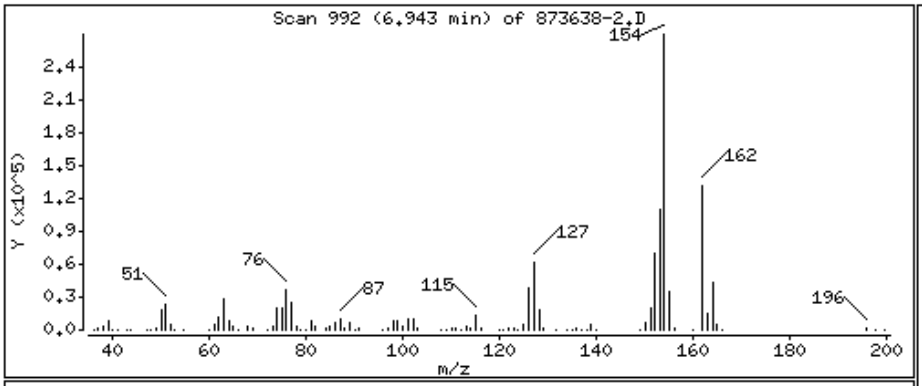
Operator: als

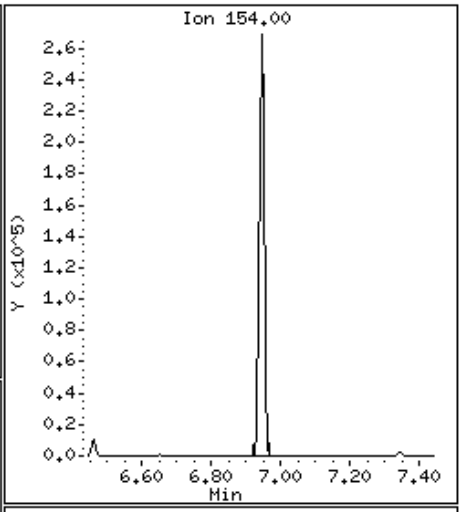
Column phase: RTx-5

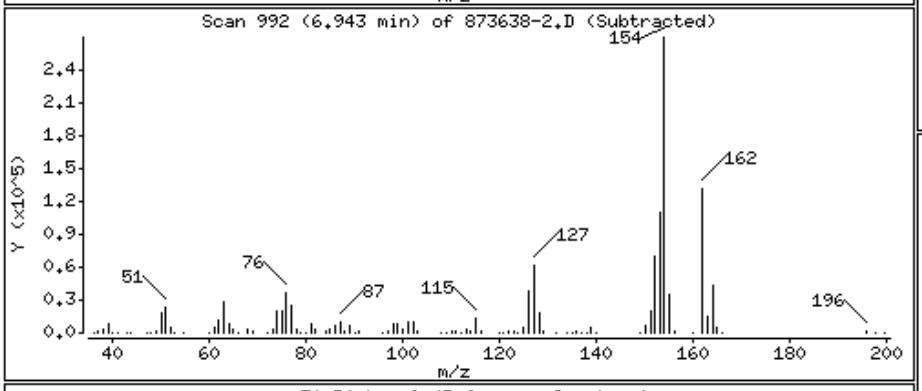
Column diameter: 0.32

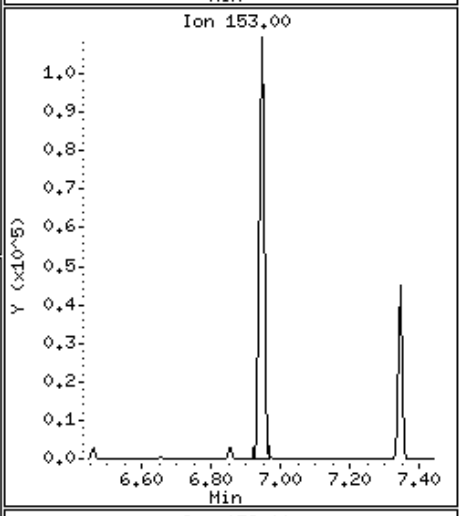
51 Biphenyl

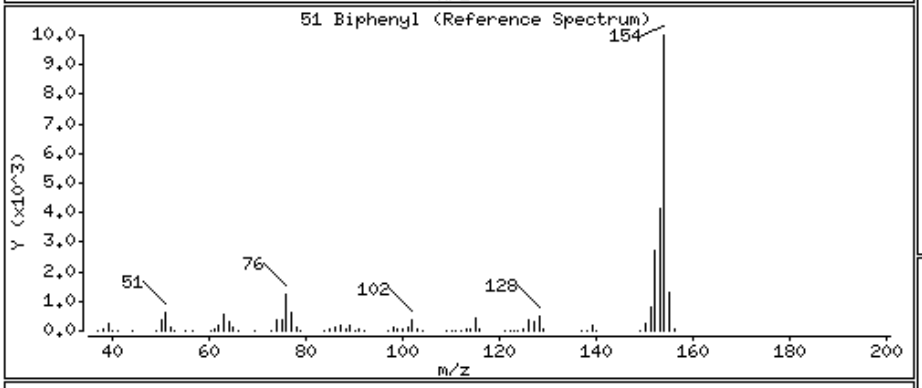
Concentration: 24.8 ug/L

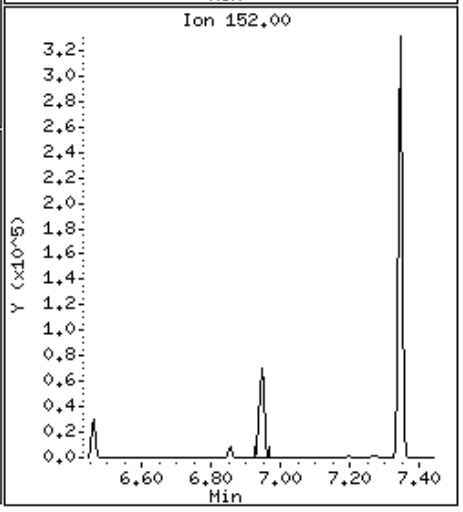


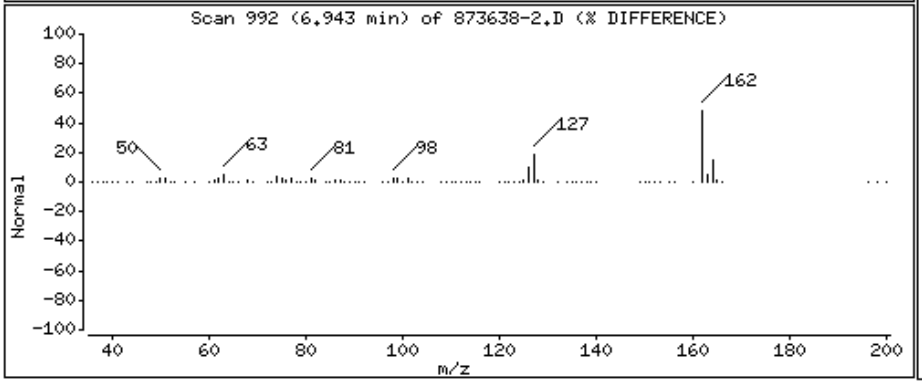












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

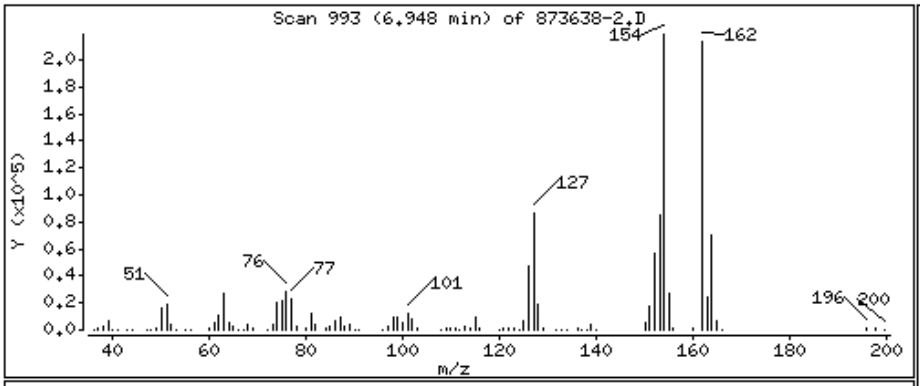
Operator: als

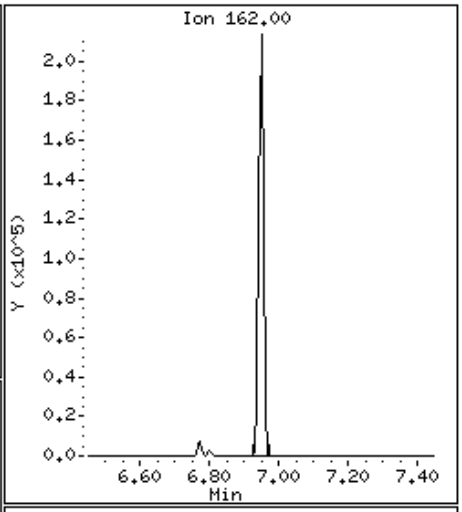
Column phase: RTx-5

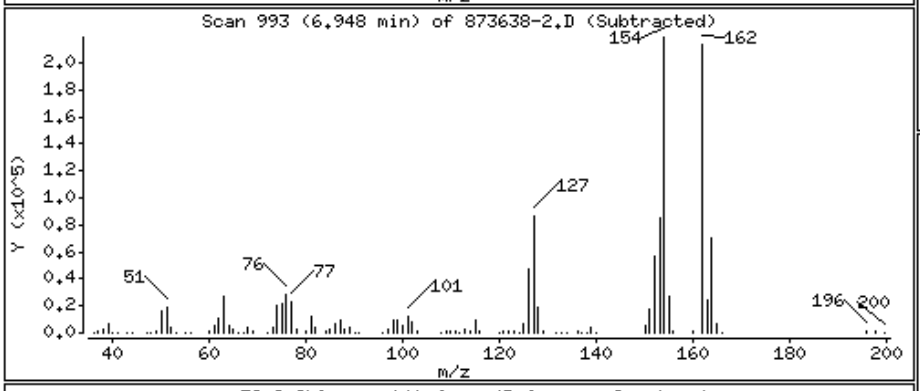
Column diameter: 0.32

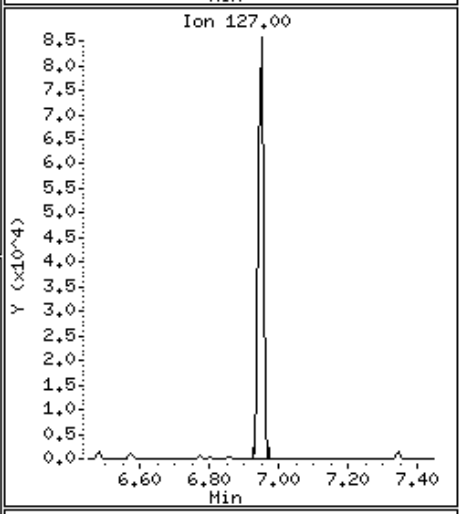
52 2-Chloronaphthalene

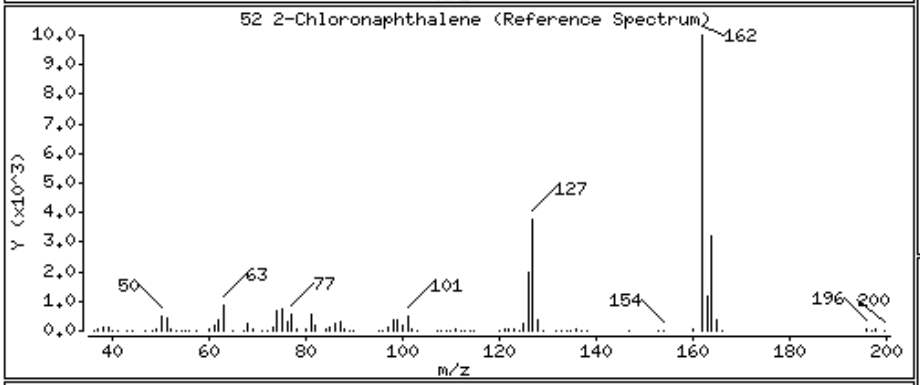
Concentration: 28.2 ug/L

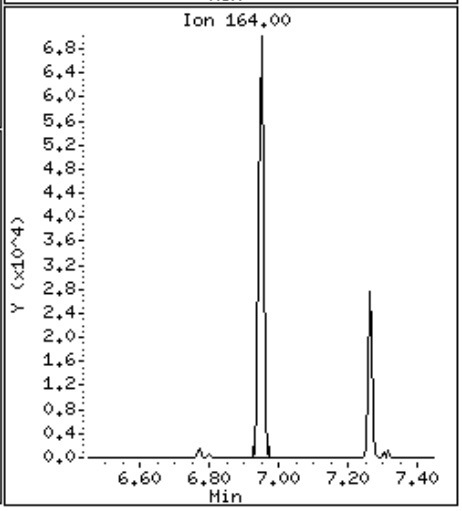


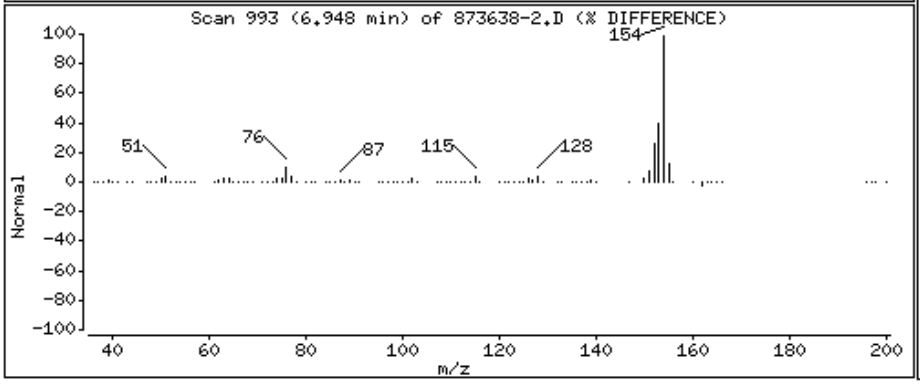












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

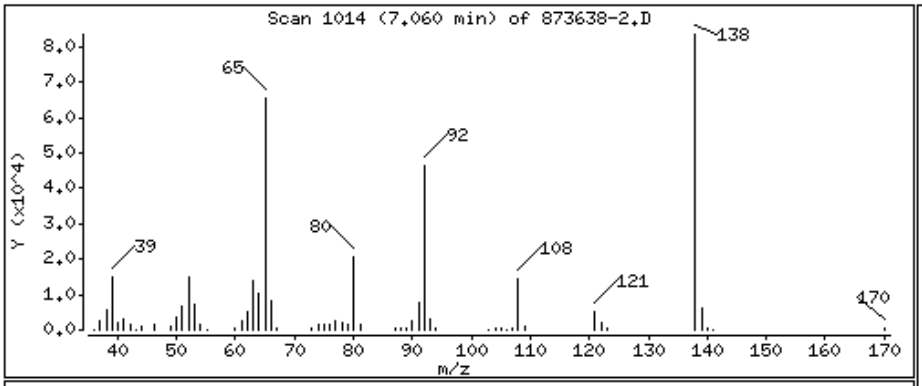
Operator: als

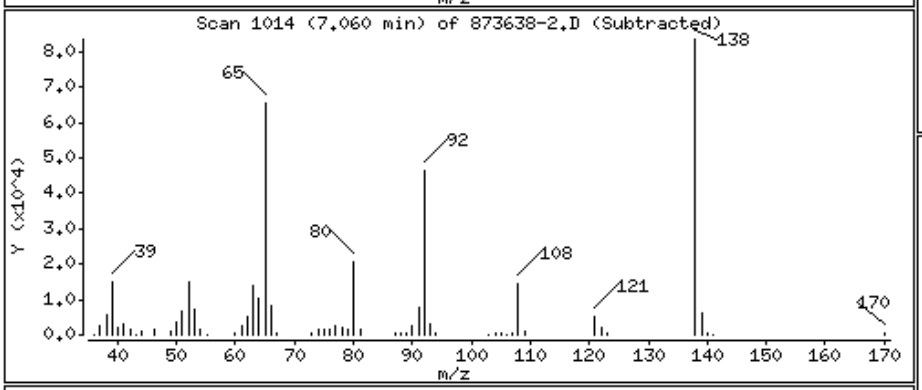
Column phase: RTx-5

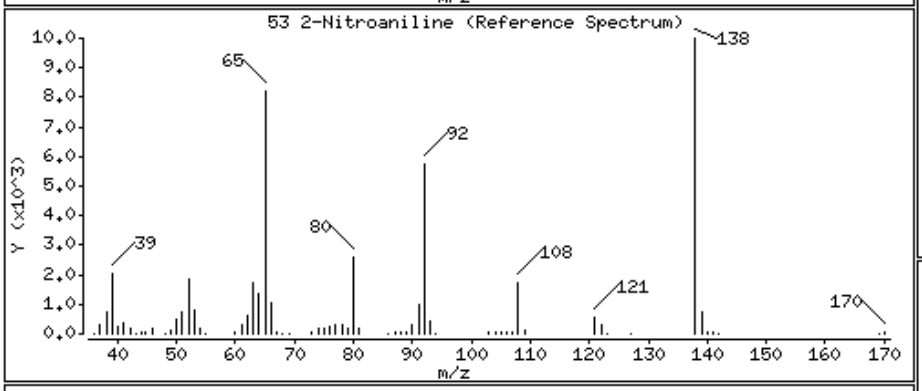
Column diameter: 0.32

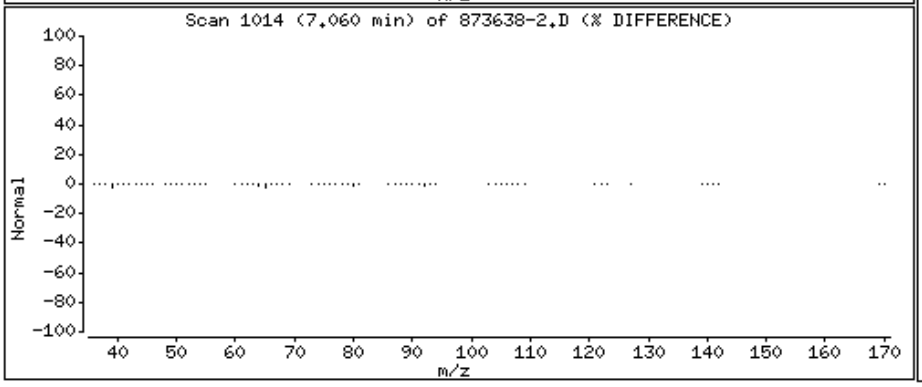
53 2-Nitroaniline

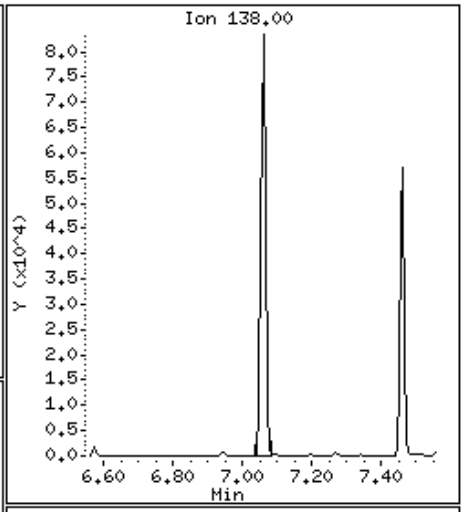
Concentration: 32.5 ug/L

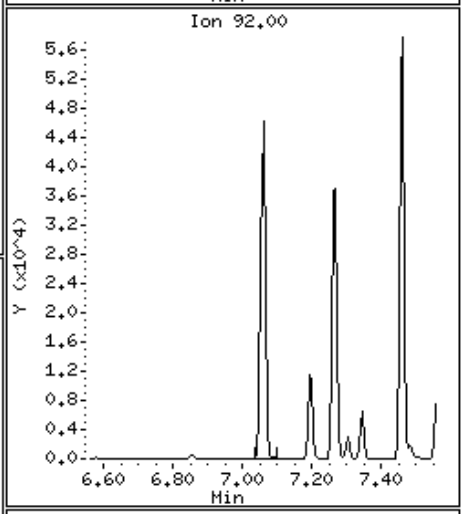


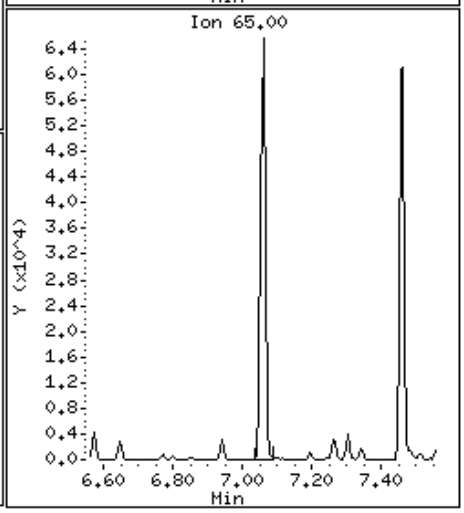












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

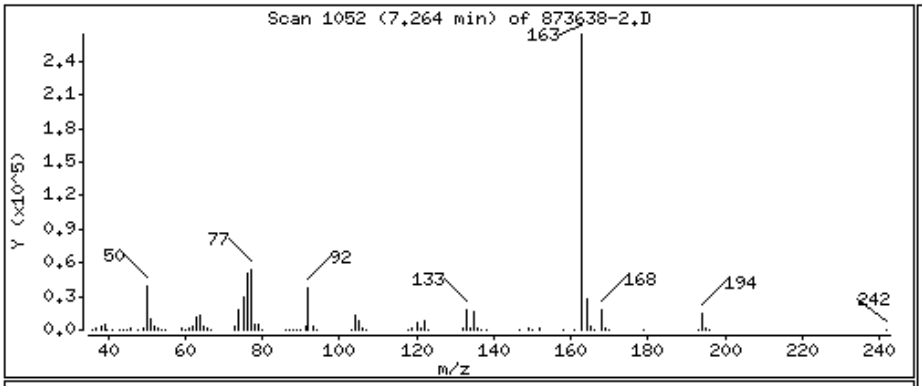
Operator: als

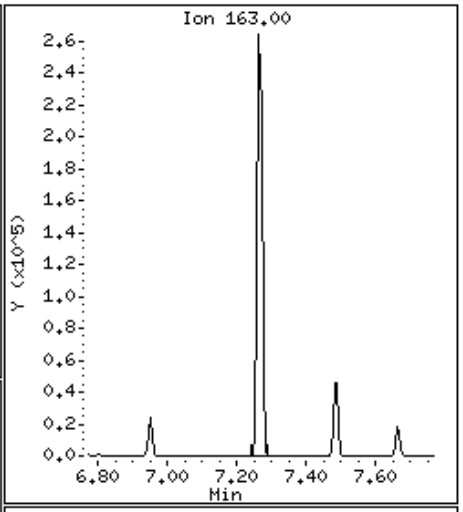
Column phase: RTx-5

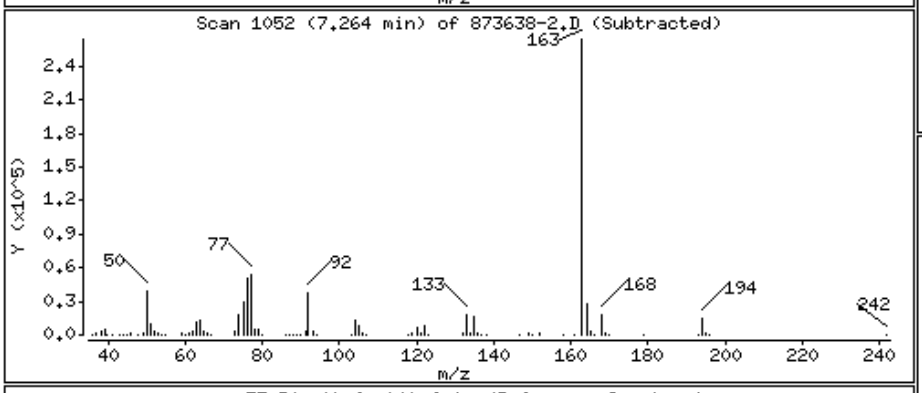
Column diameter: 0.32

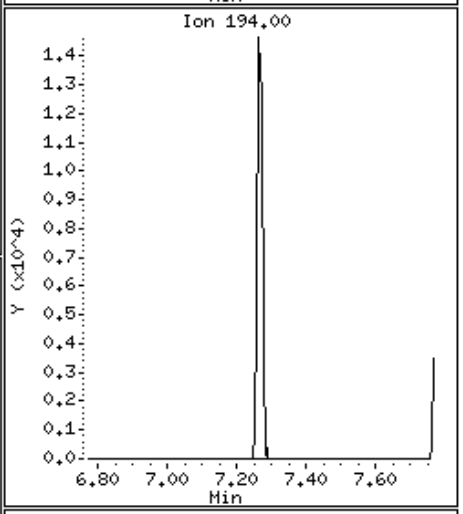
55 Dimethyl phthalate

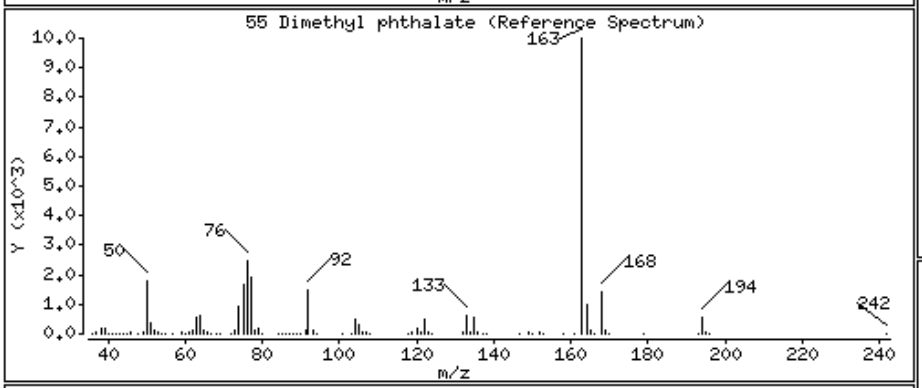
Concentration: 27.0 ug/L

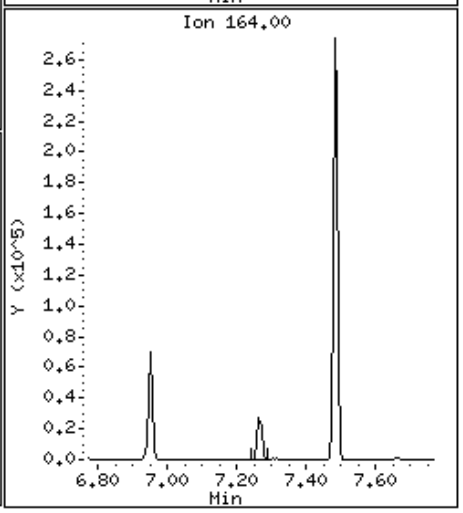


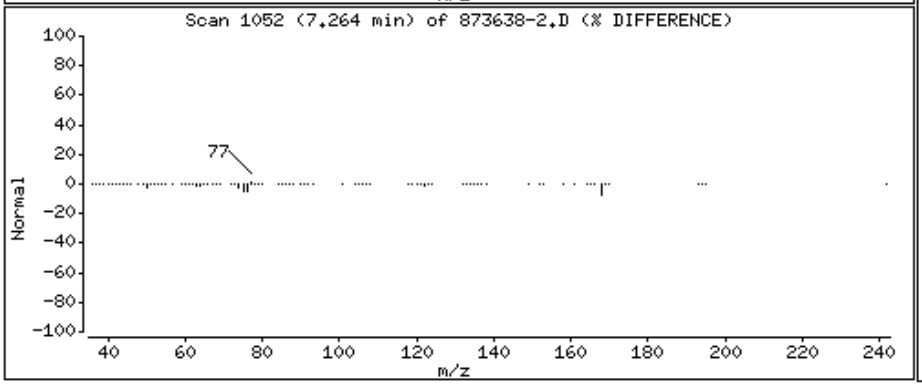












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

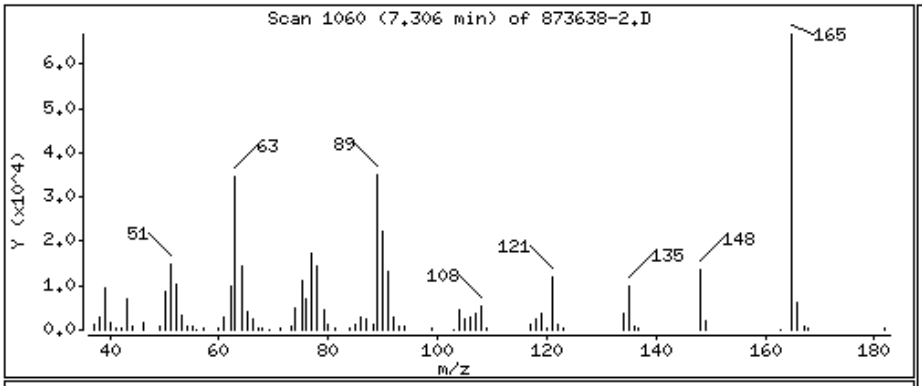
Operator: als

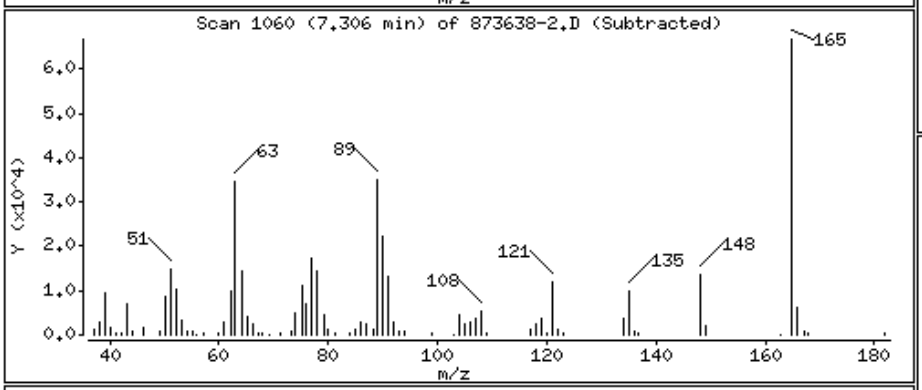
Column phase: RTx-5

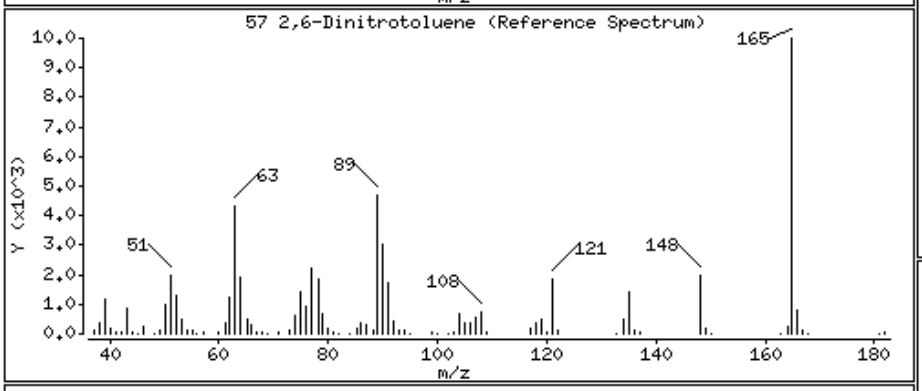
Column diameter: 0.32

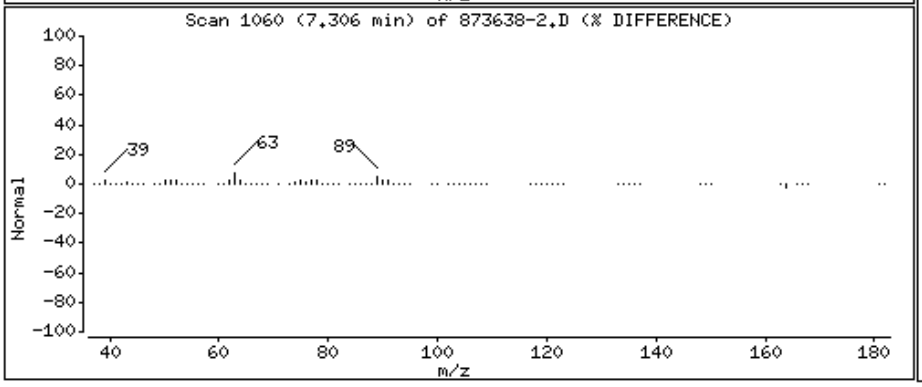
57 2,6-Dinitrotoluene

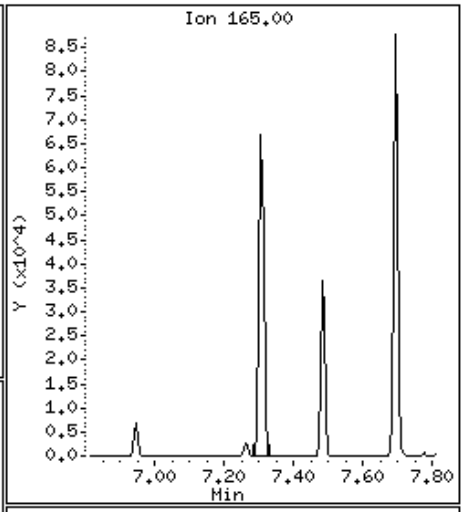
Concentration: 32.8 ug/L

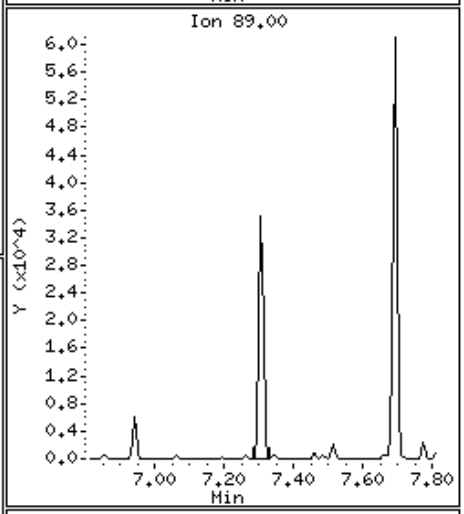


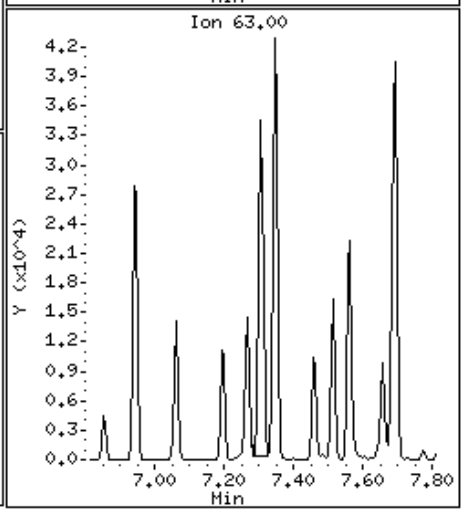












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

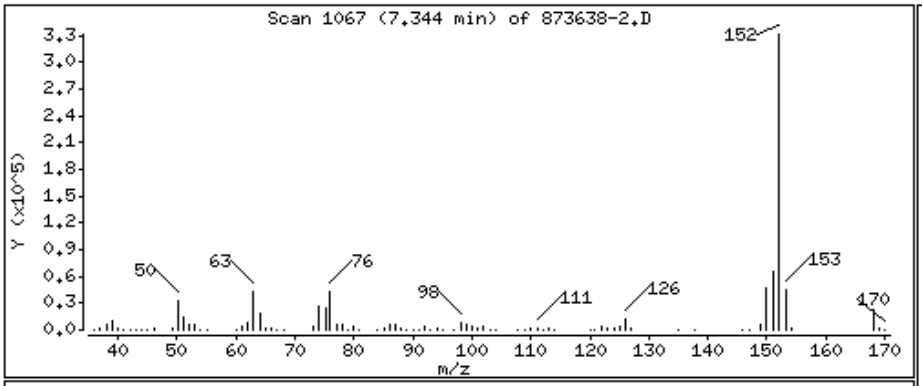
Operator: als

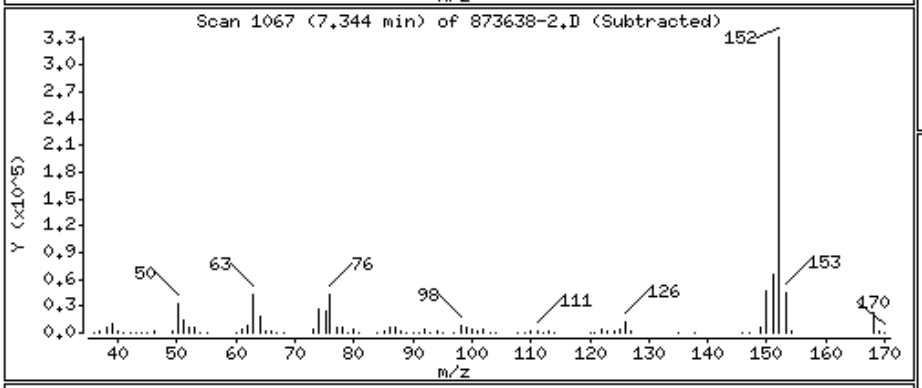
Column phase: RTx-5

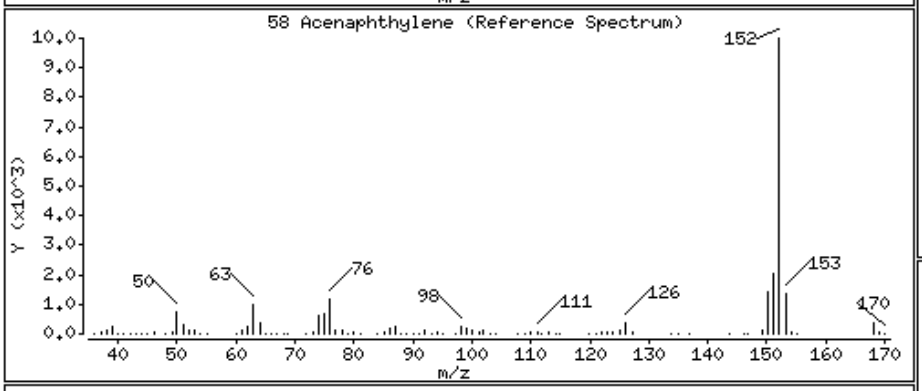
Column diameter: 0.32

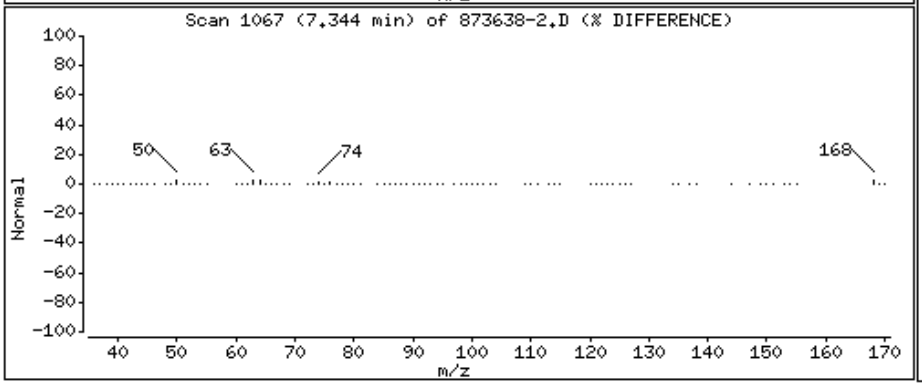
58 Acenaphthylene

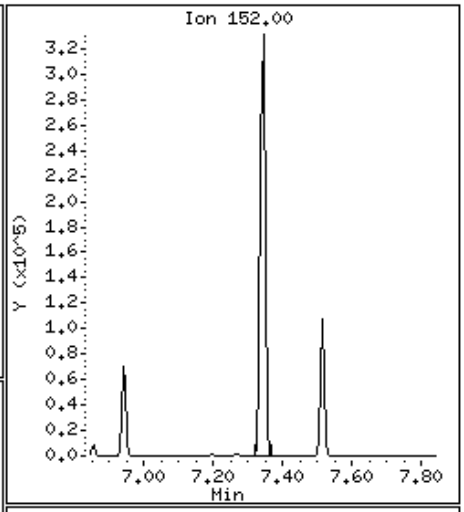
Concentration: 28.3 ug/L

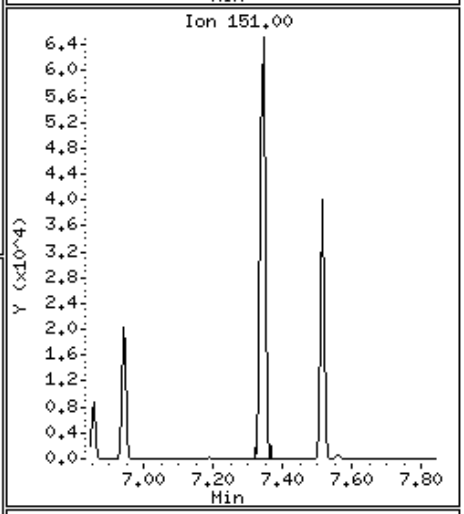


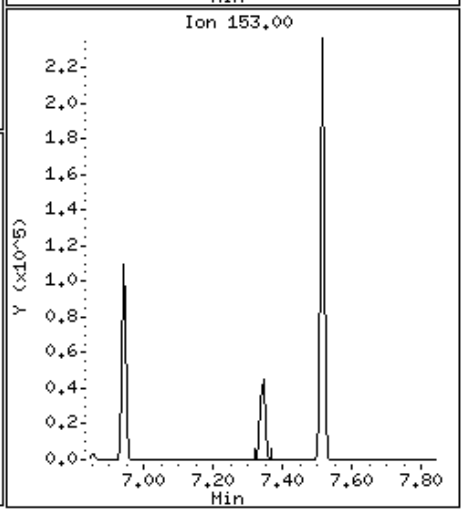












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

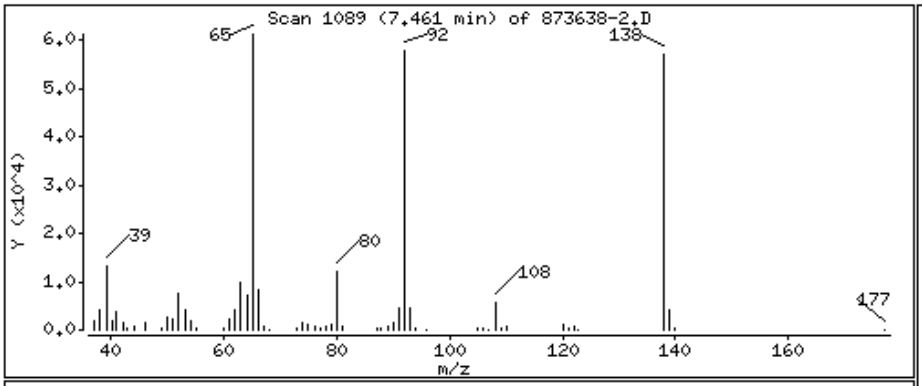
Operator: als

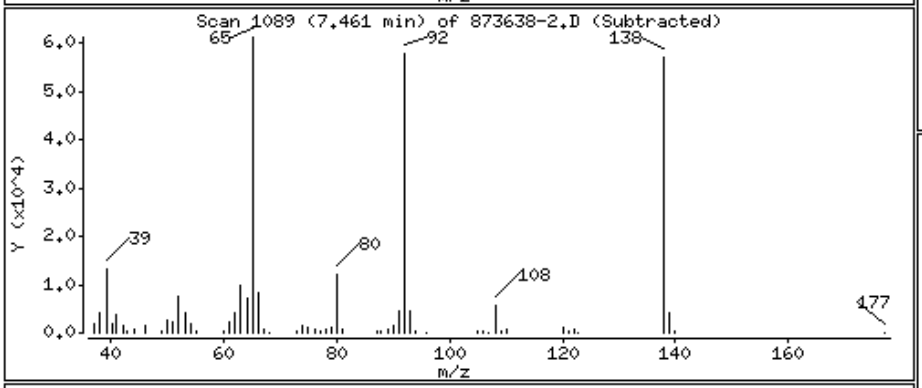
Column phase: RTx-5

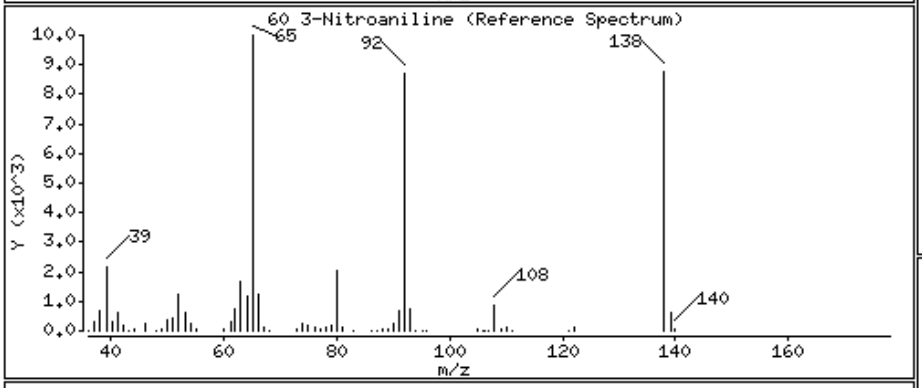
Column diameter: 0.32

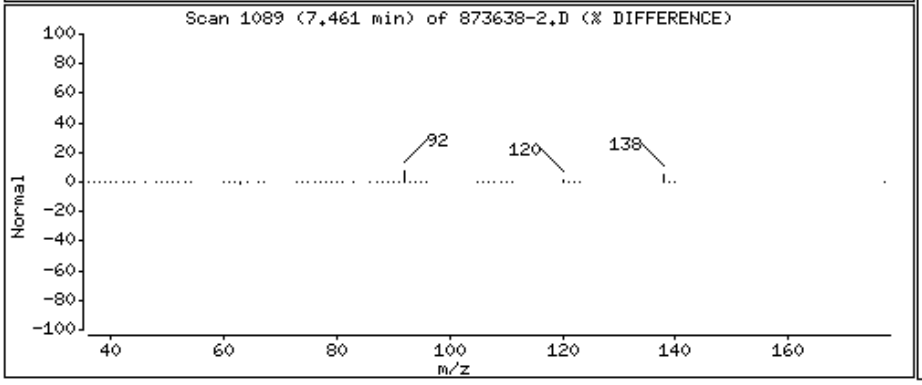
60 3-Nitroaniline

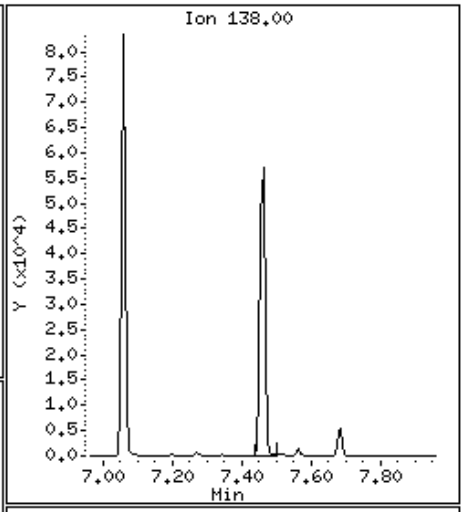
Concentration: 22.9 ug/L

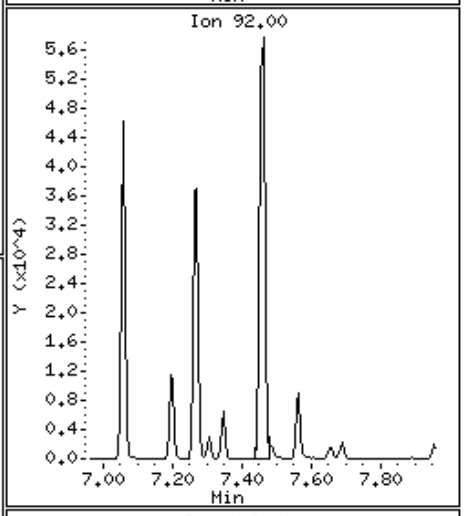


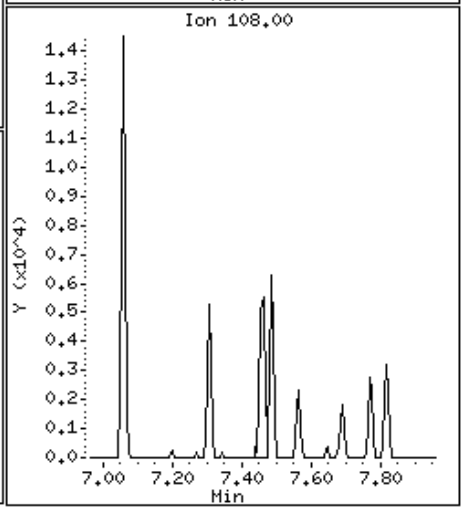












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

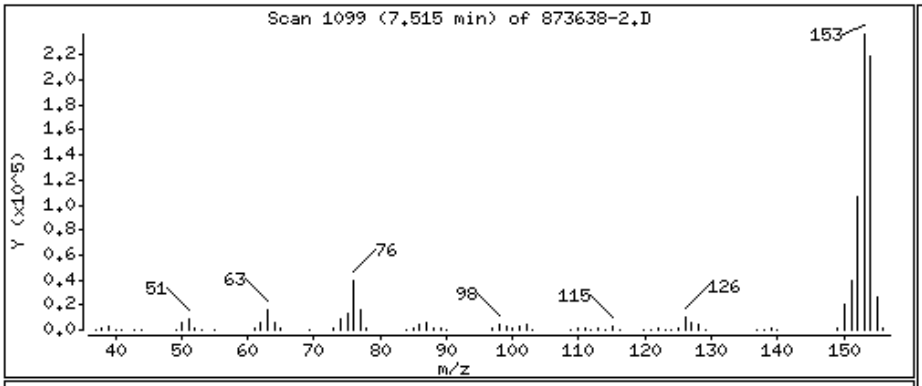
Operator: als

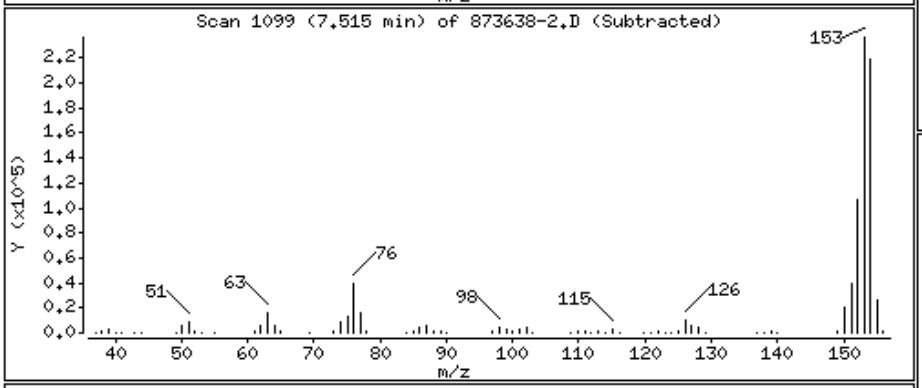
Column phase: RTx-5

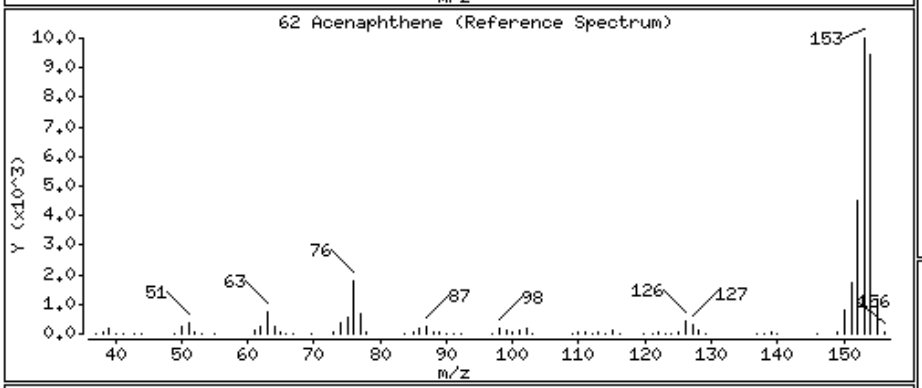
Column diameter: 0.32

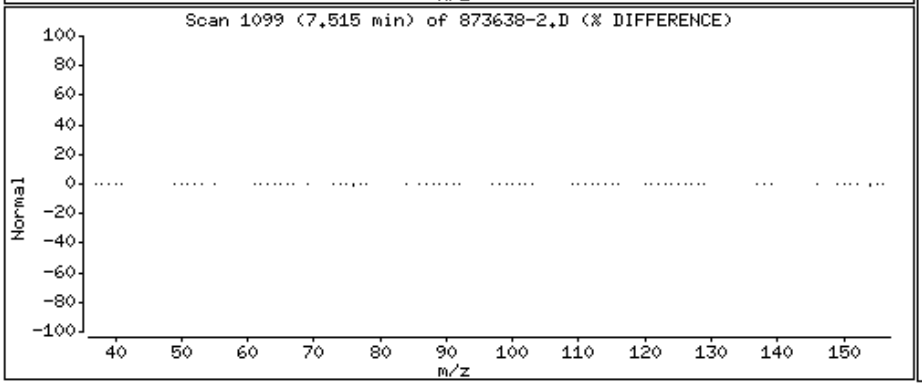
62 Acenaphthene

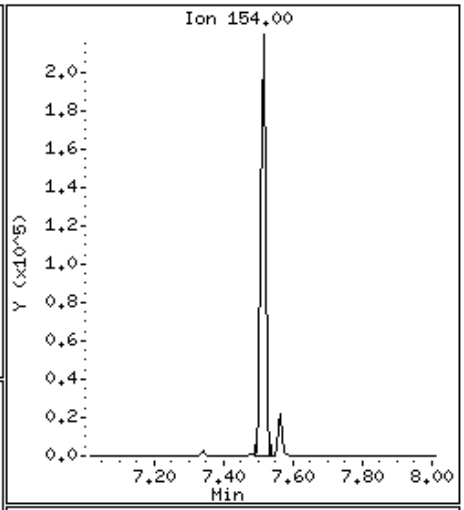
Concentration: 25.4 ug/L

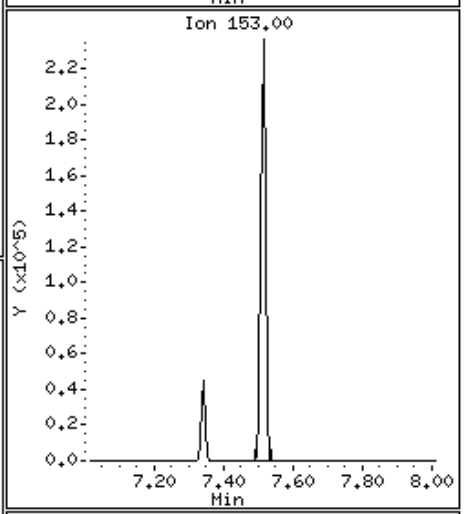


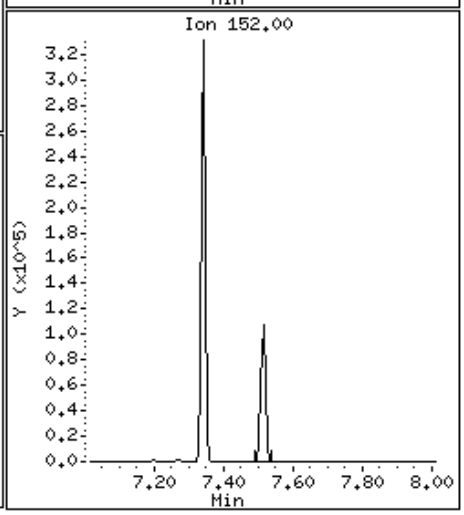












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

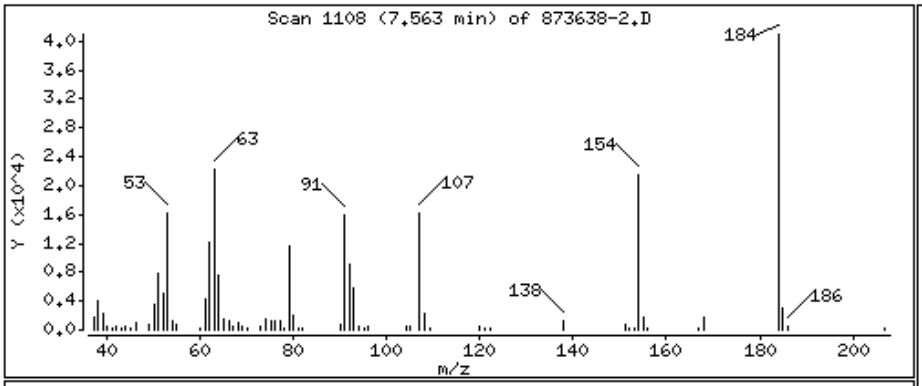
Operator: als

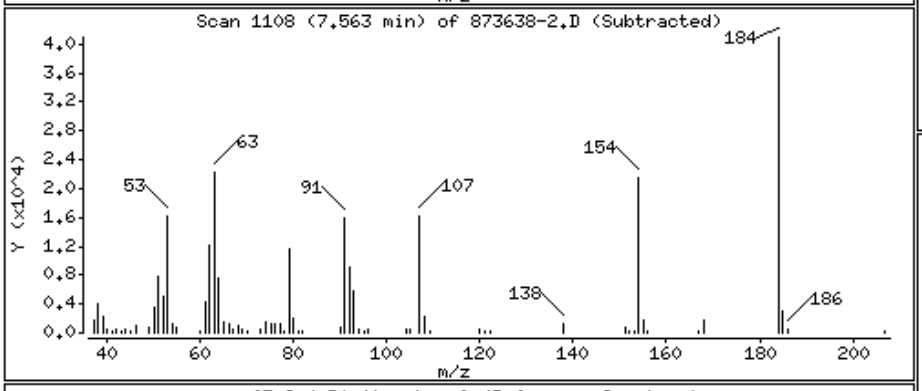
Column phase: RTx-5

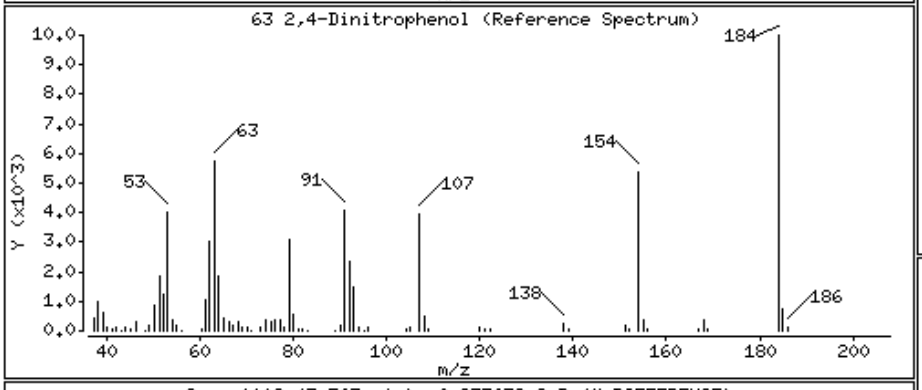
Column diameter: 0.32

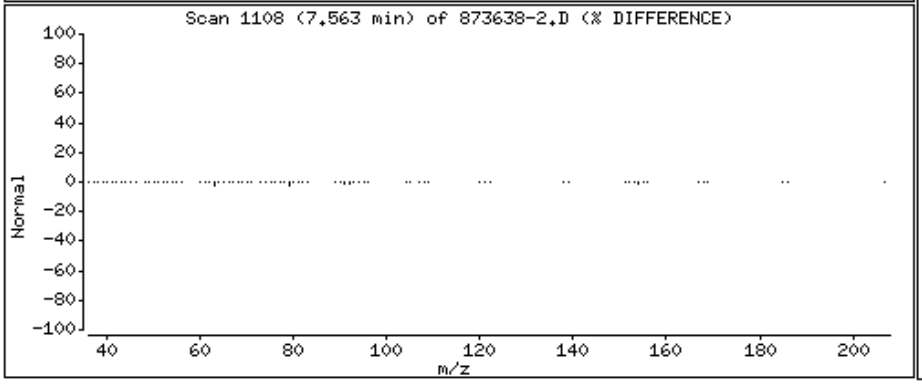
63 2,4-Dinitrophenol

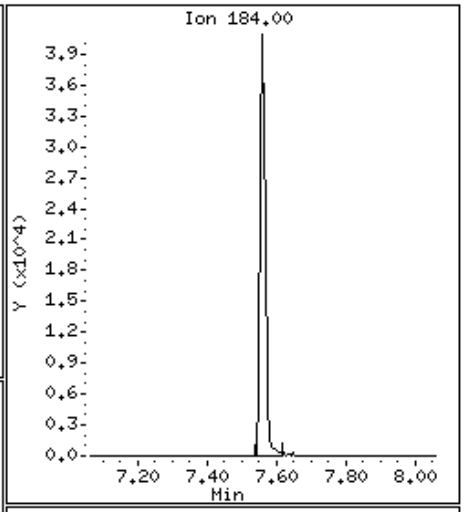
Concentration: 27.0 ug/L

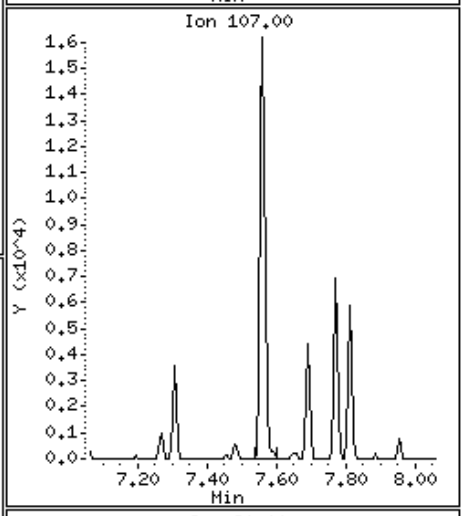


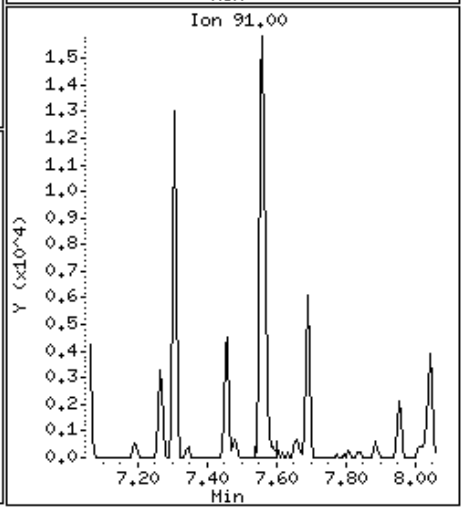












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

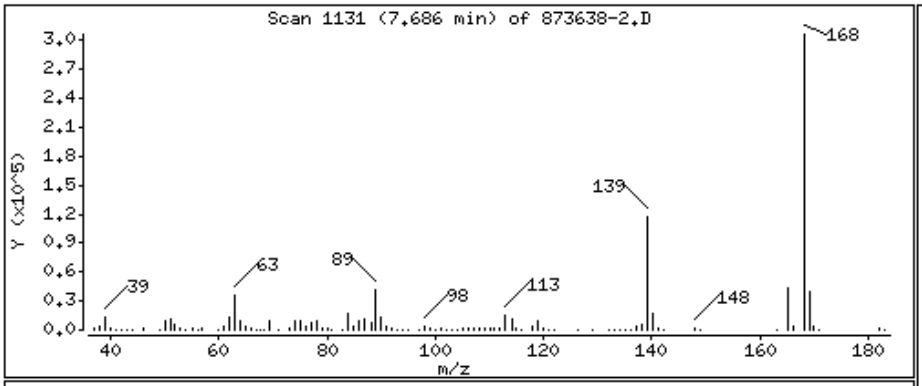
Operator: als

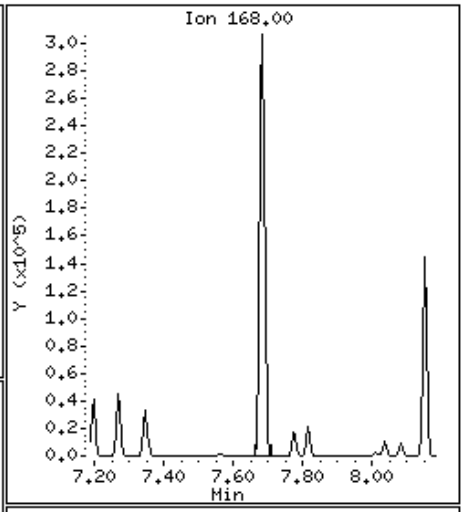
Column phase: RTx-5

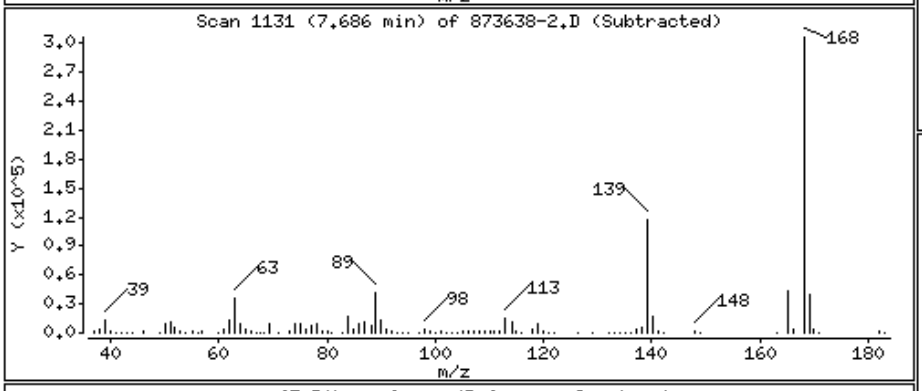
Column diameter: 0.32

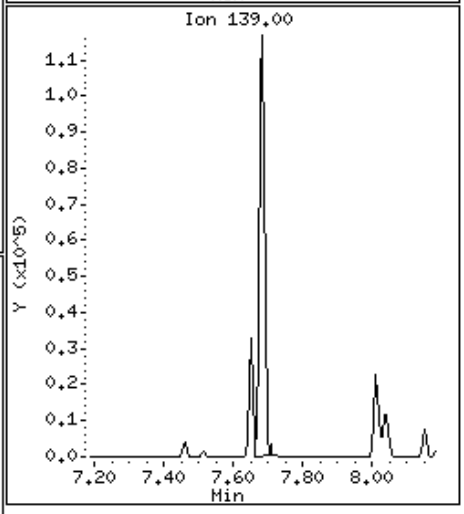
65 Dibenzofuran

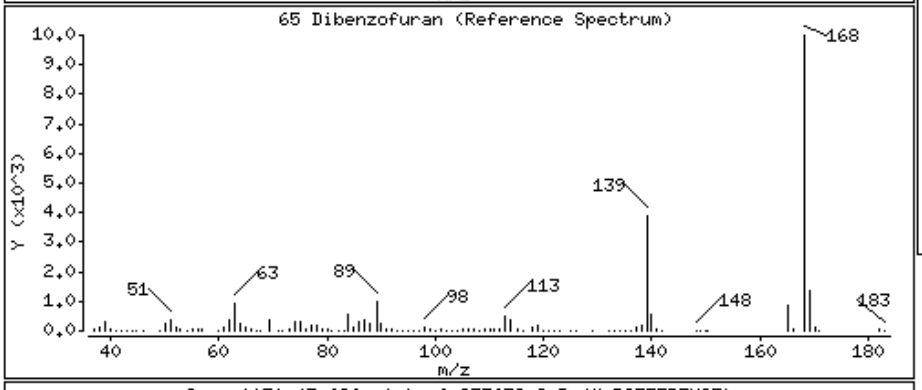
Concentration: 26.5 ug/L

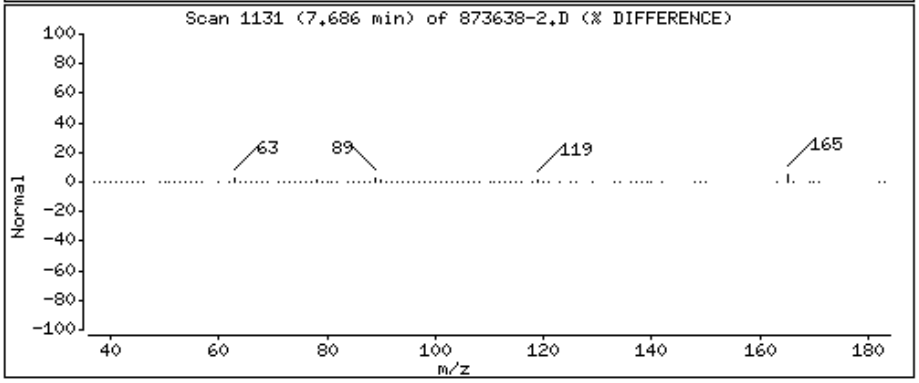












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

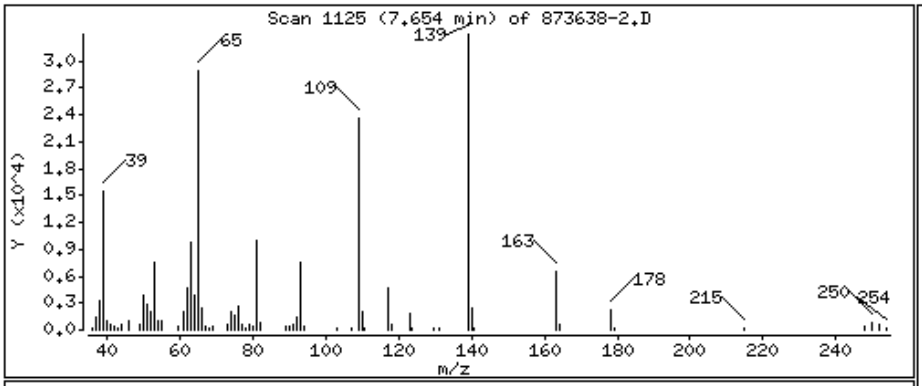
Operator: als

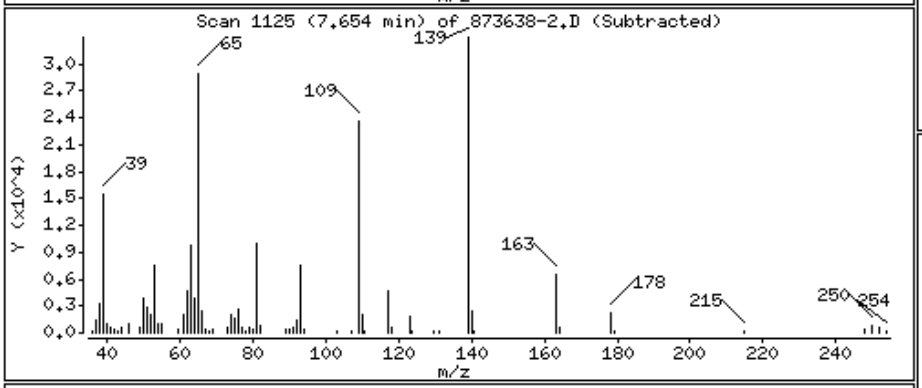
Column phase: RTx-5

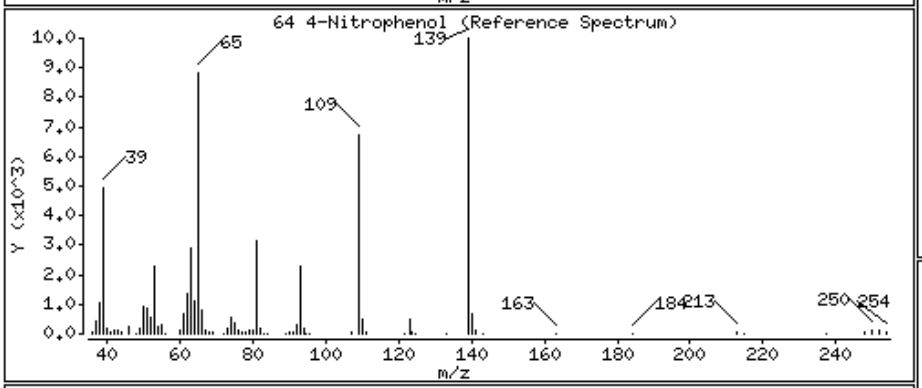
Column diameter: 0.32

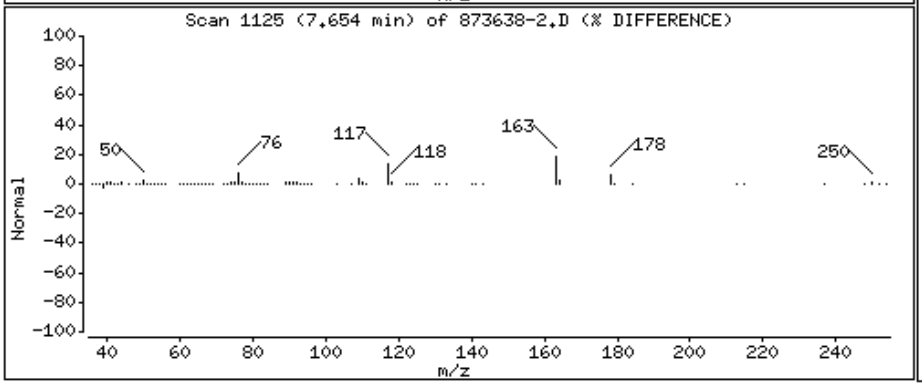
64 4-Nitrophenol

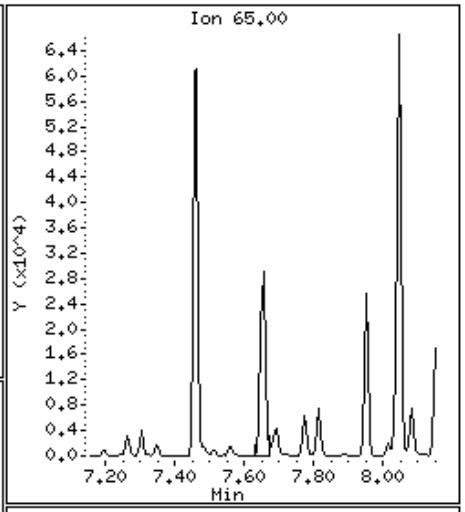
Concentration: 13.9 ug/L

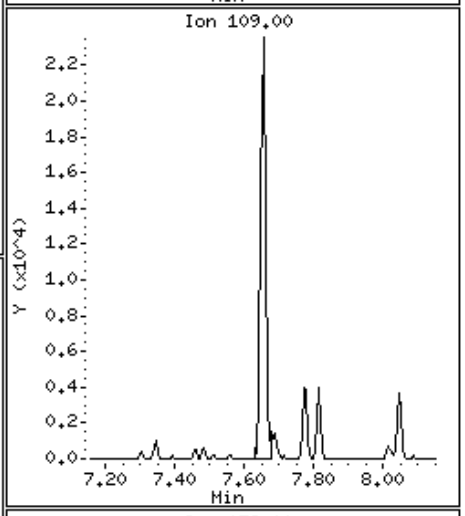


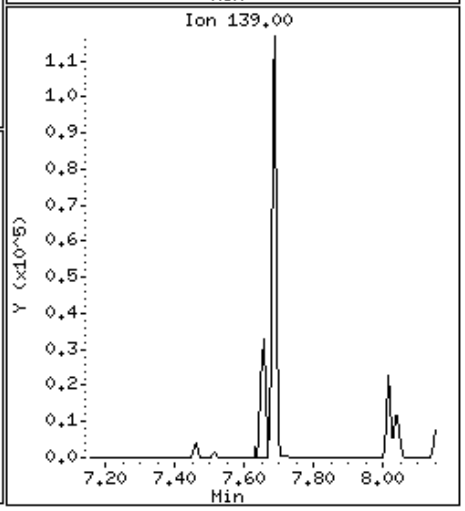












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

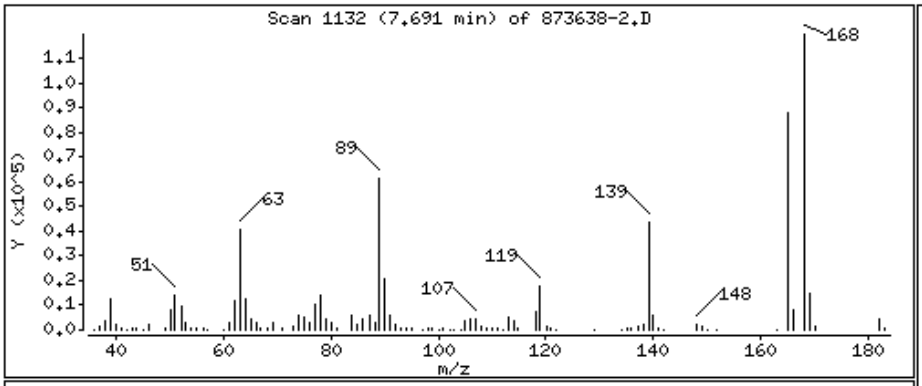
Operator: als

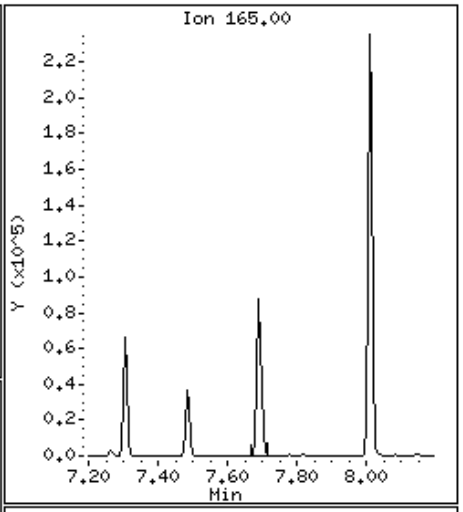
Column phase: RTx-5

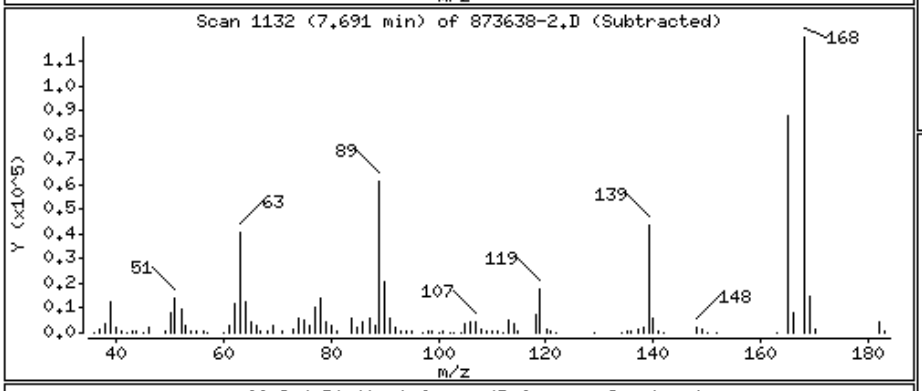
Column diameter: 0.32

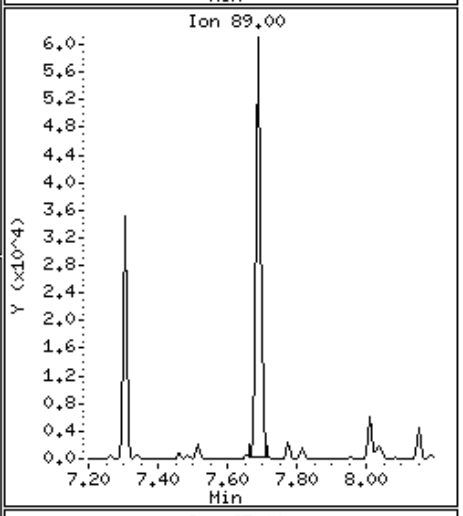
66 2,4-Dinitrotoluene

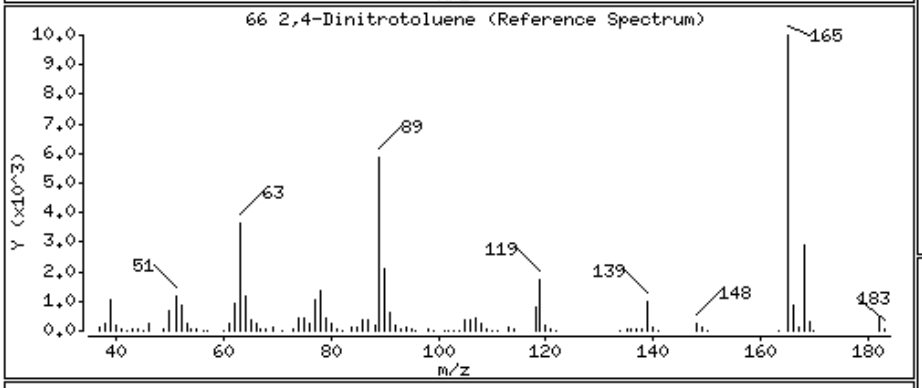
Concentration: 29.4 ug/L

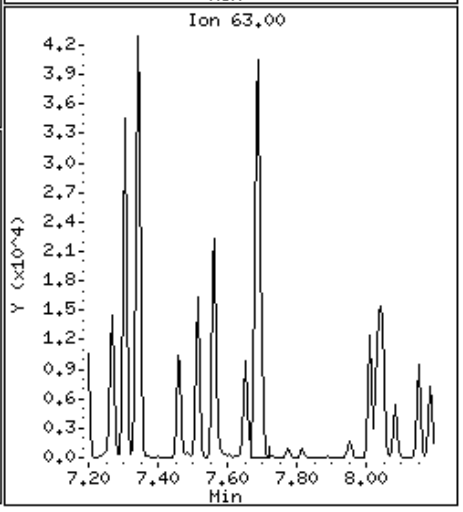


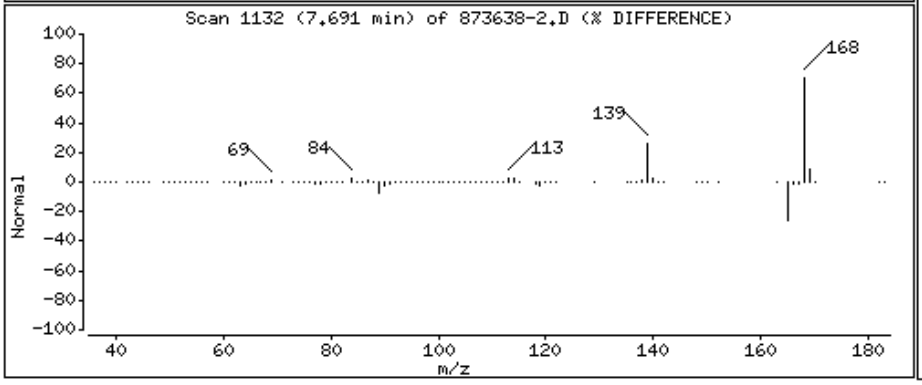












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

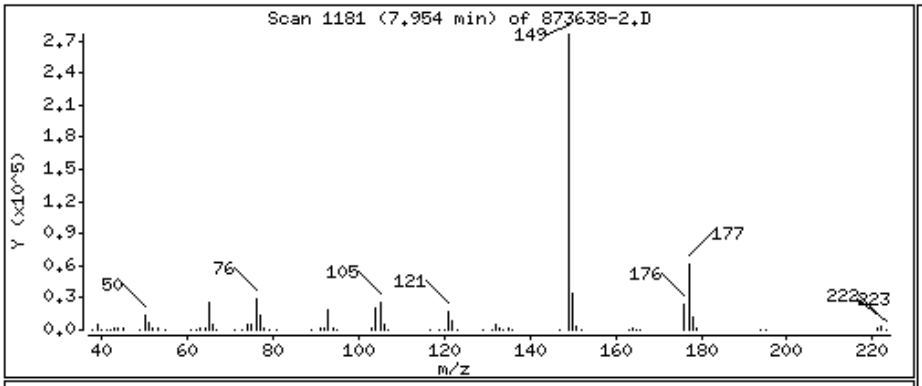
Operator: als

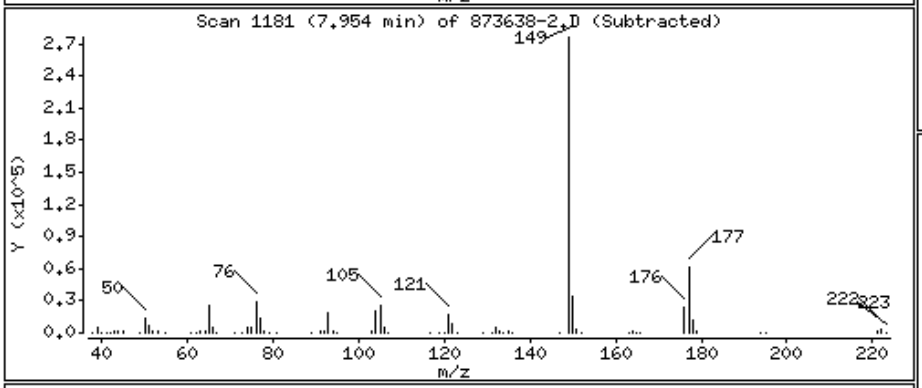
Column phase: RTx-5

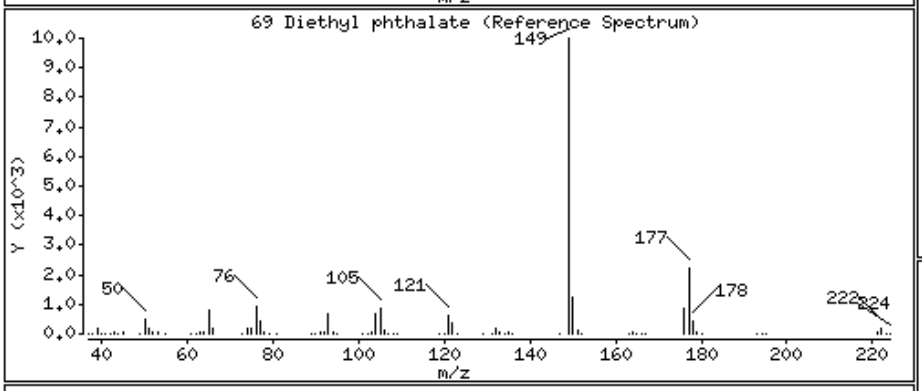
Column diameter: 0.32

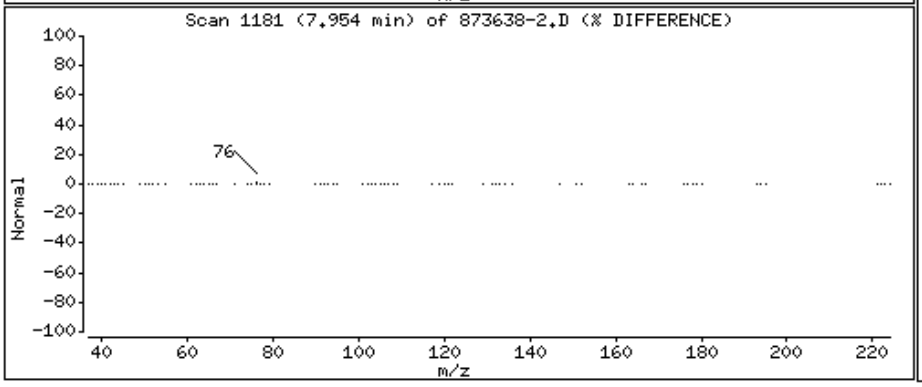
69 Diethyl phthalate

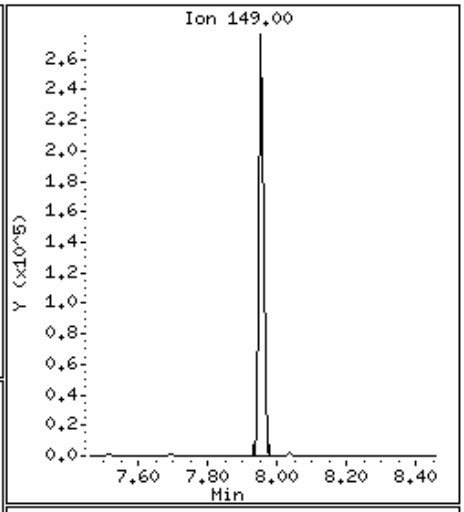
Concentration: 27.4 ug/L

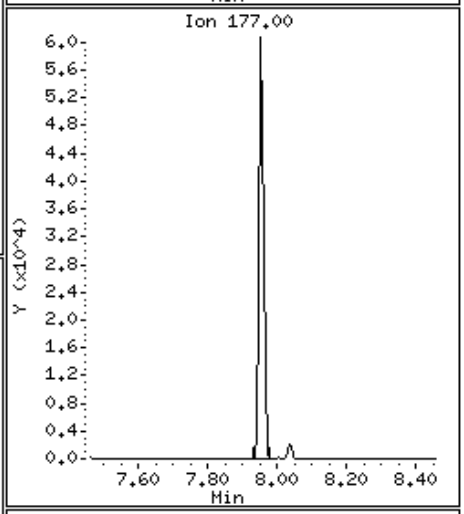


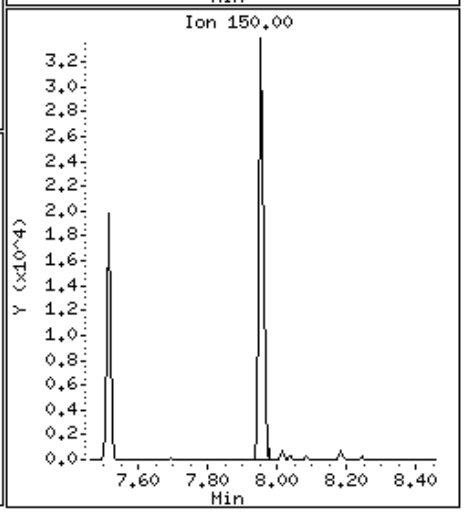












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

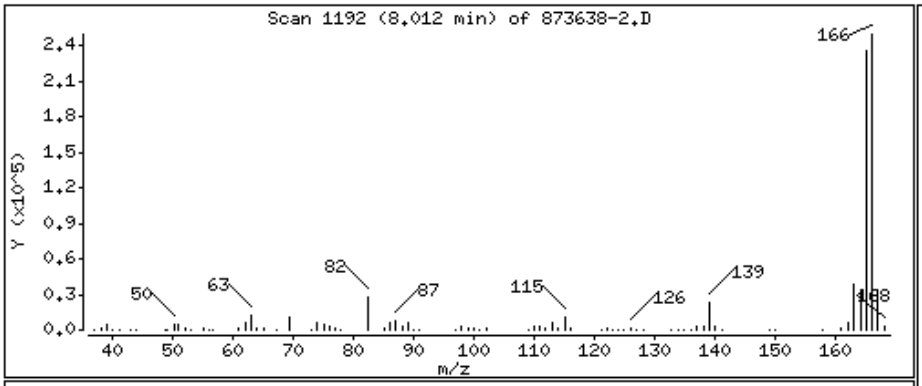
Operator: als

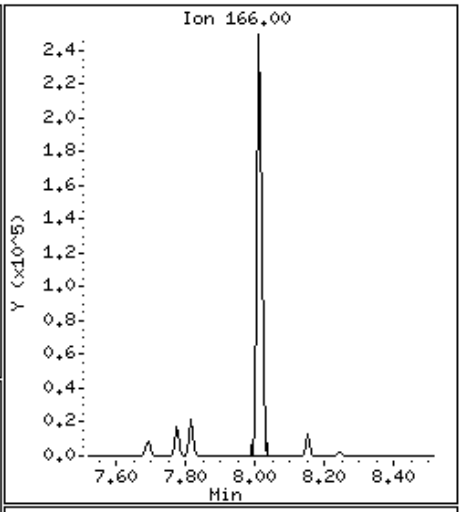
Column phase: RTx-5

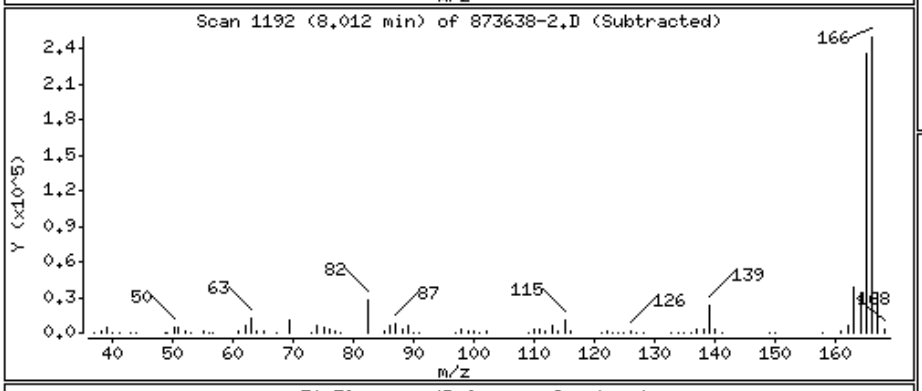
Column diameter: 0.32

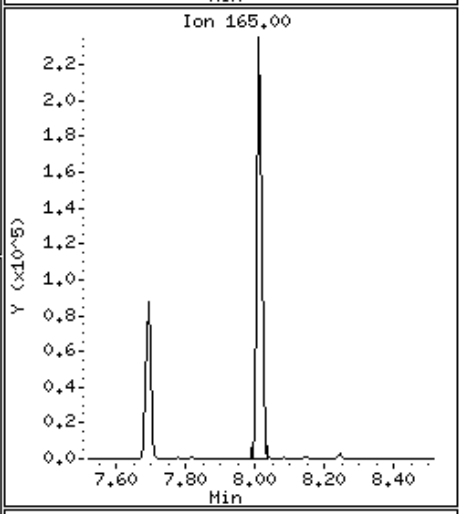
70 Fluorene

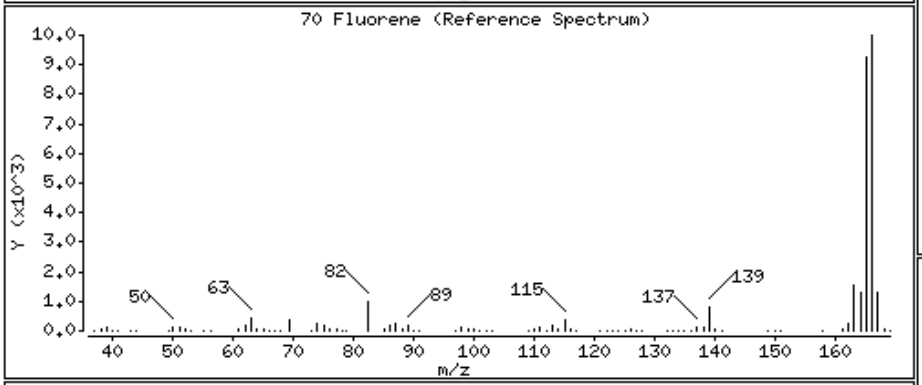
Concentration: 26.6 ug/L

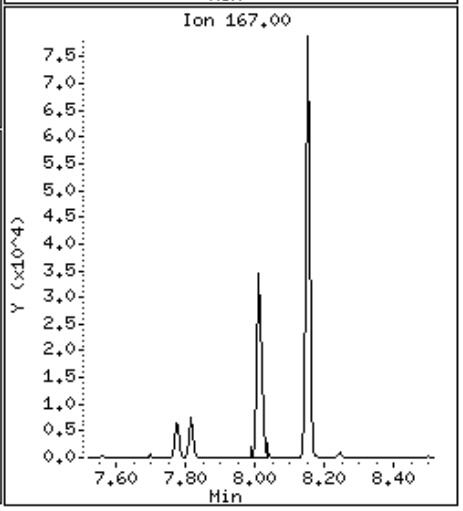


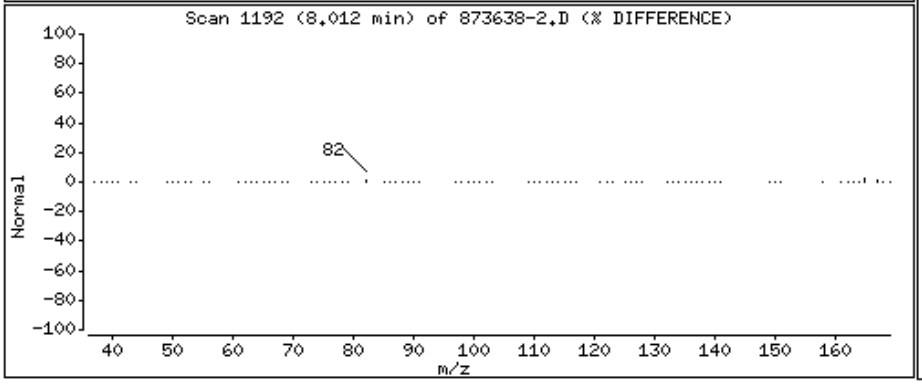












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

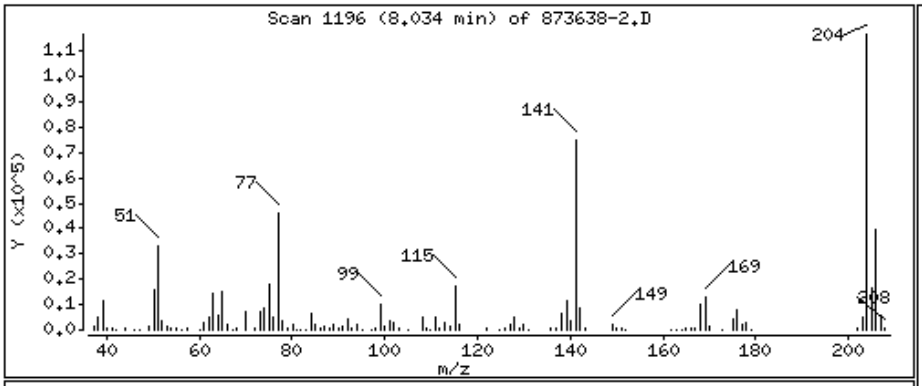
Operator: als

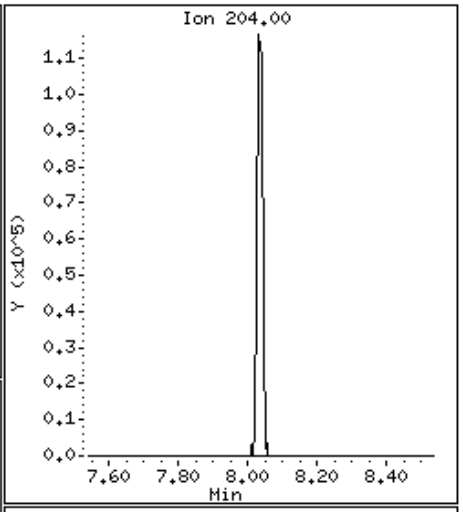
Column phase: RTx-5

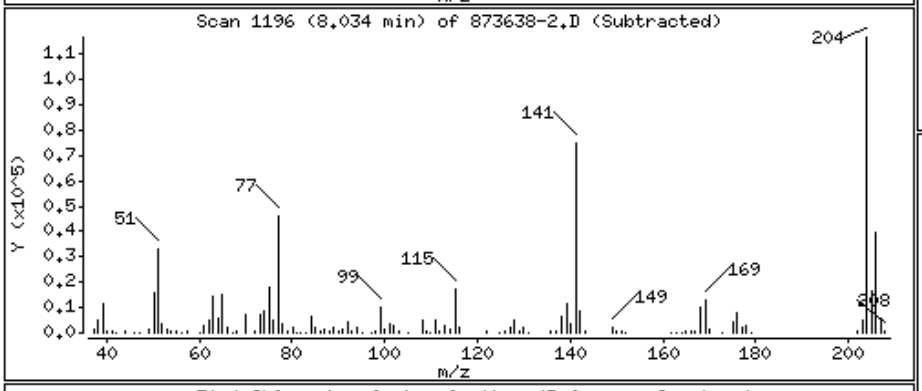
Column diameter: 0.32

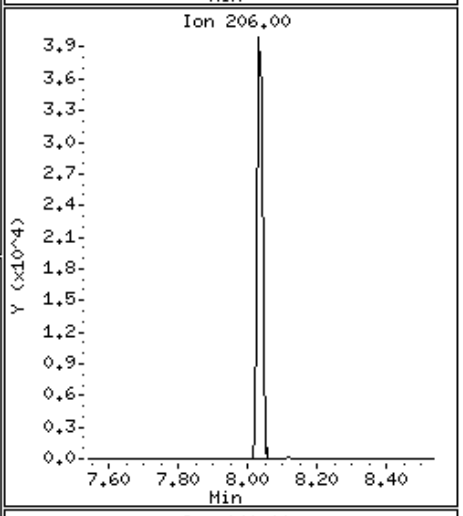
71 4-Chlorophenyl phenyl ether

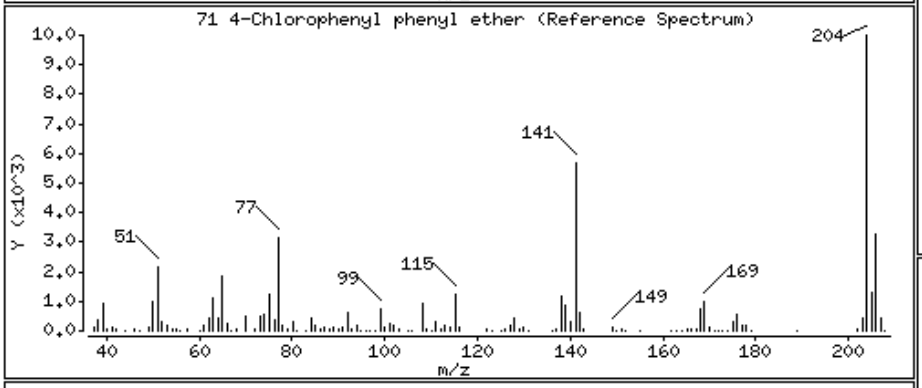
Concentration: 28.0 ug/L

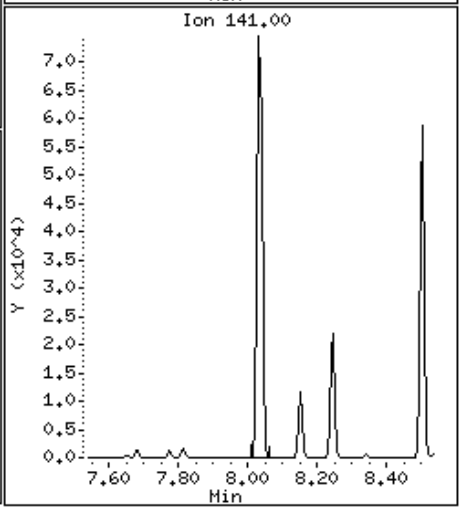


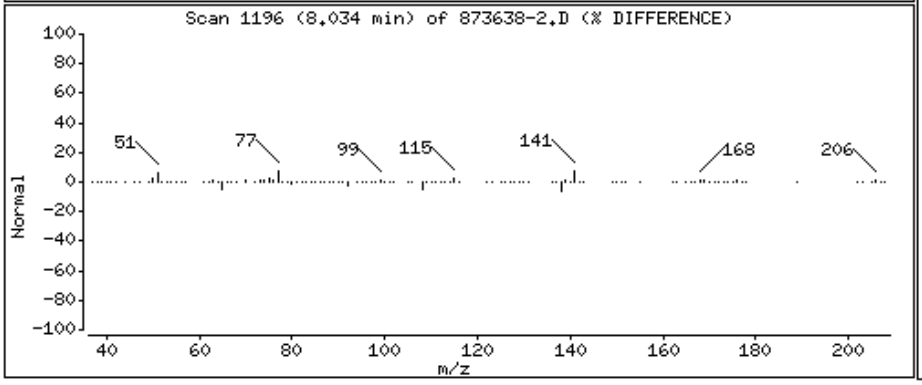












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

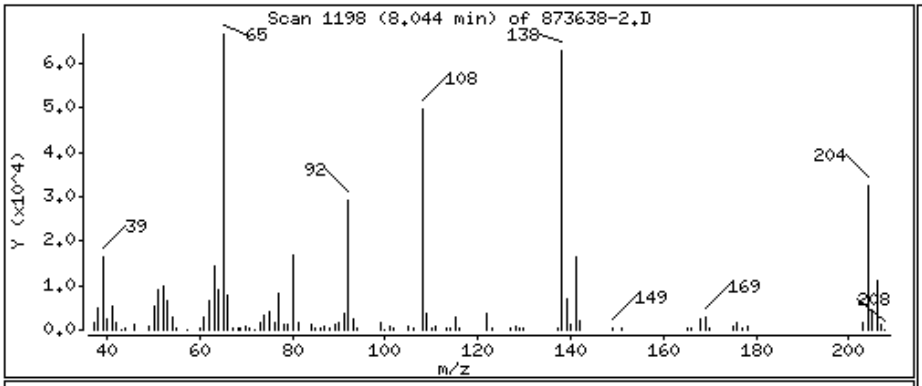
Operator: als

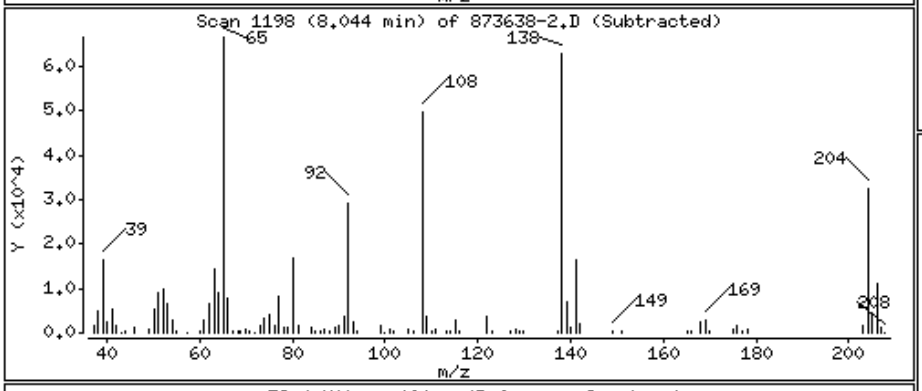
Column phase: RTx-5

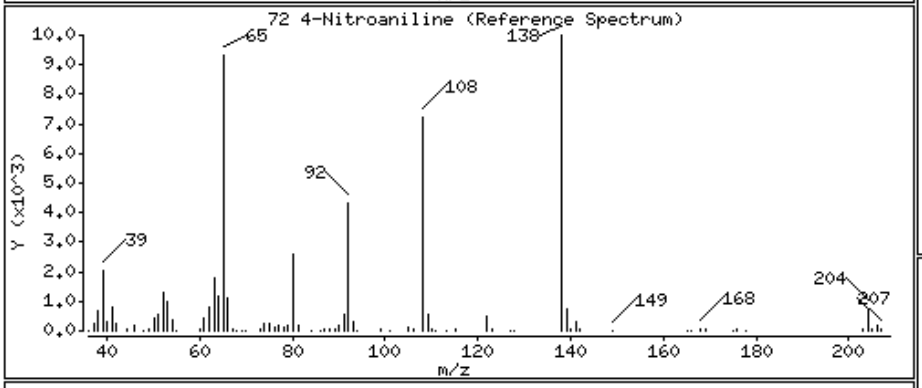
Column diameter: 0.32

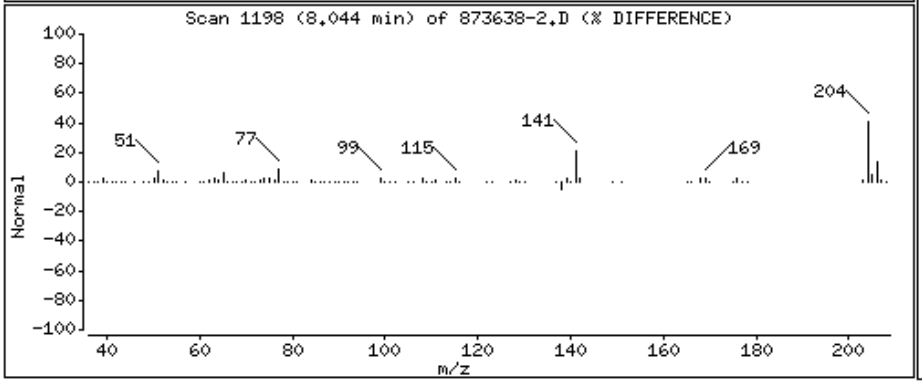
72 4-Nitroaniline

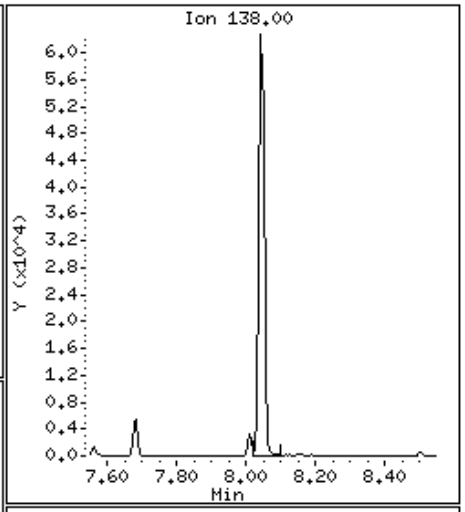
Concentration: 26.7 ug/L

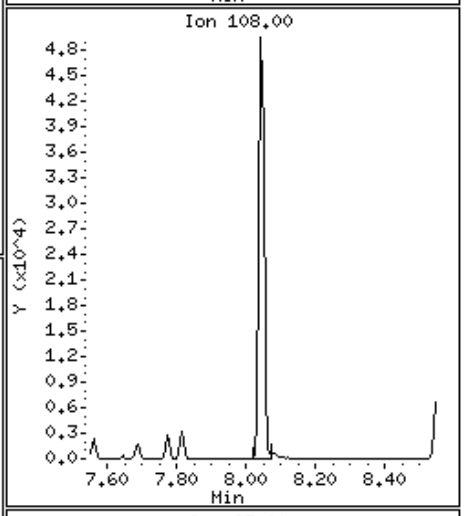


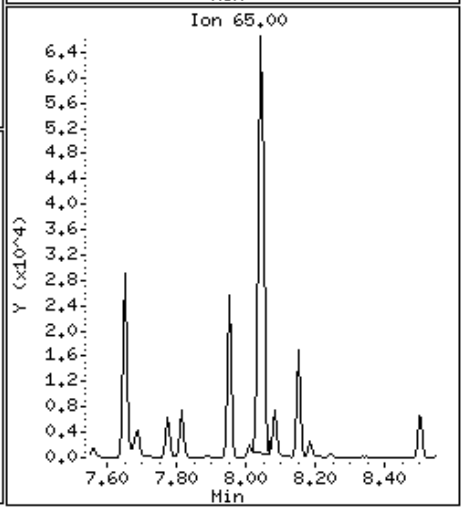












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

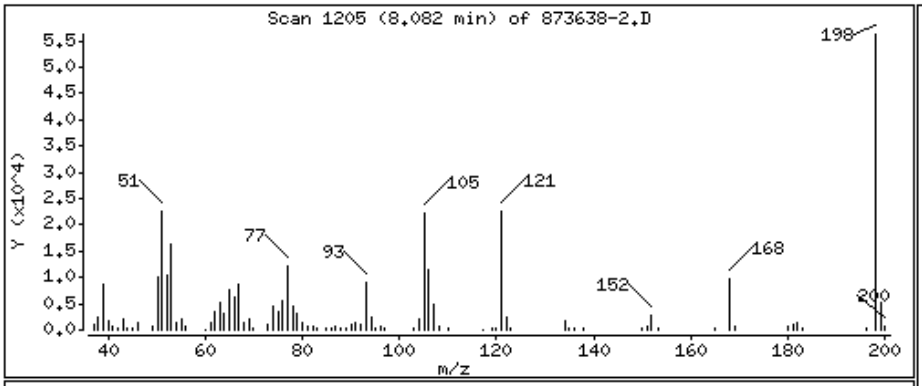
Operator: als

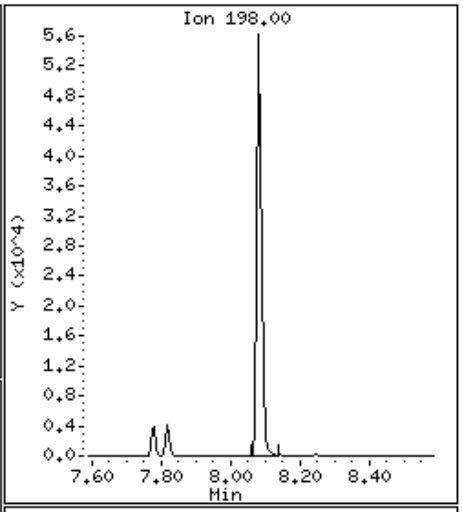
Column phase: RTx-5

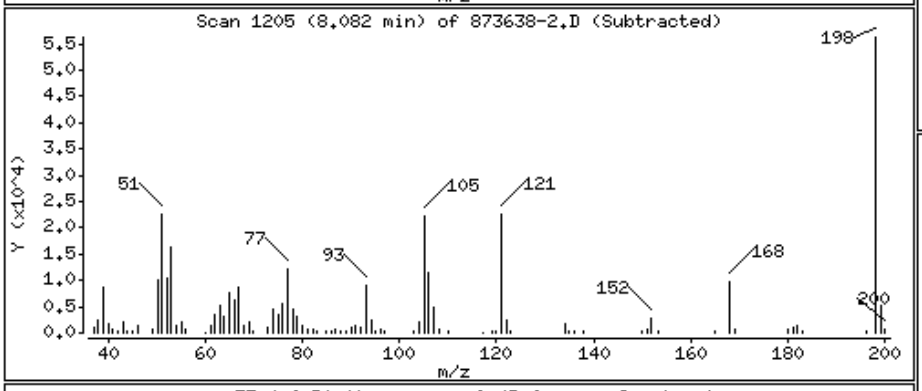
Column diameter: 0.32

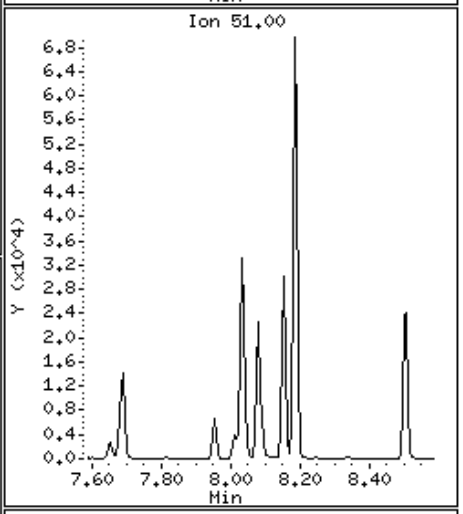
73 4,6-Dinitro-o-cresol

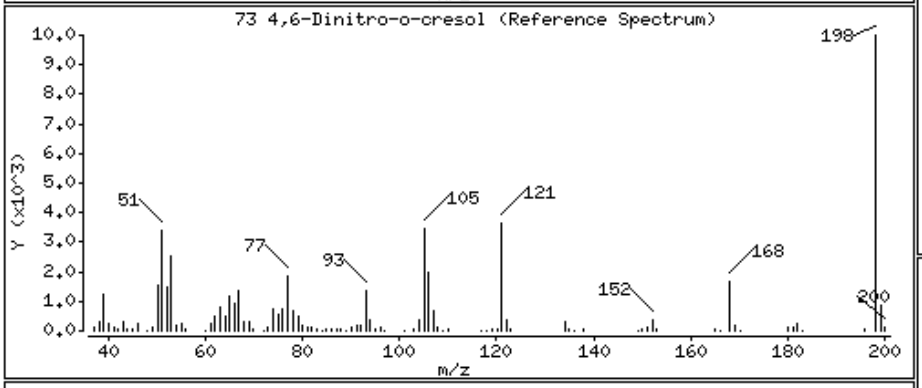
Concentration: 28.0 ug/L

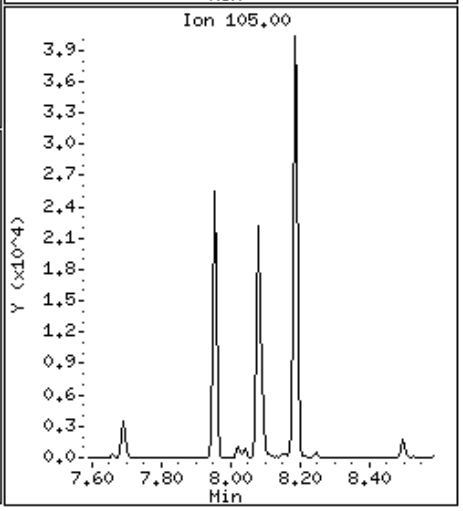


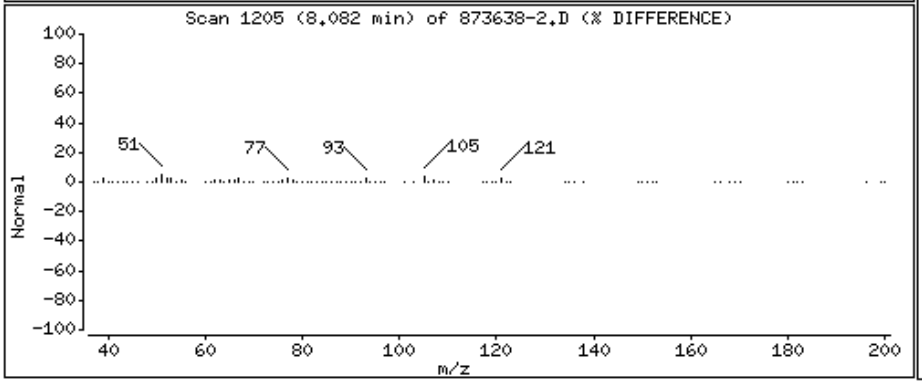












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

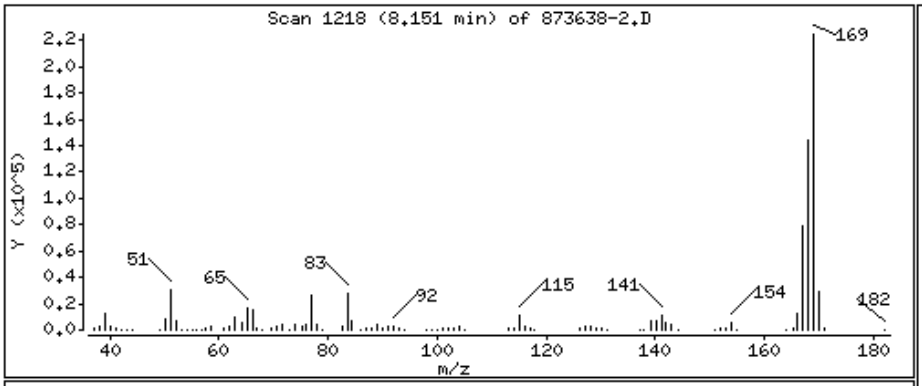
Operator: als

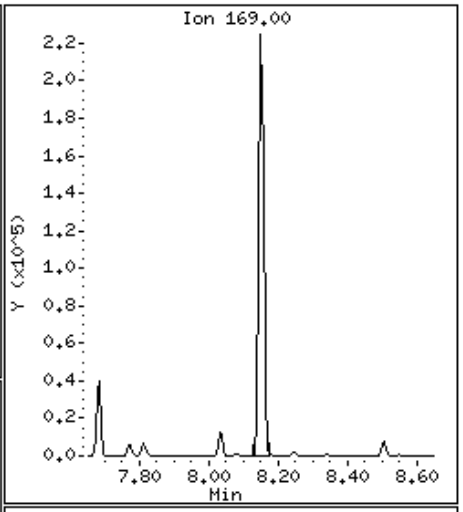
Column phase: RTx-5

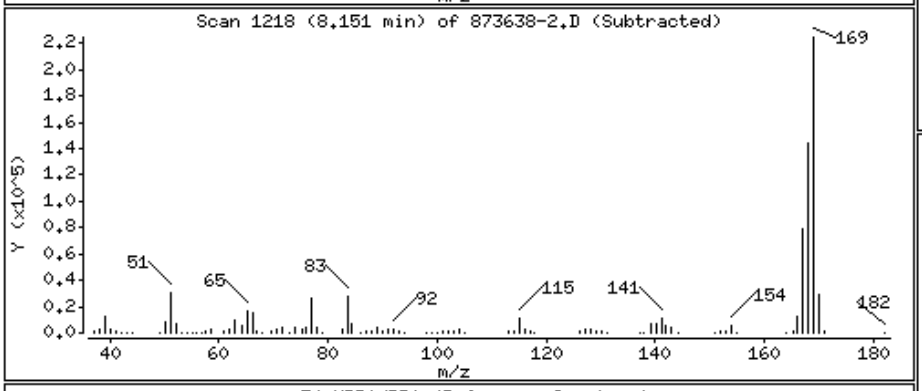
Column diameter: 0.32

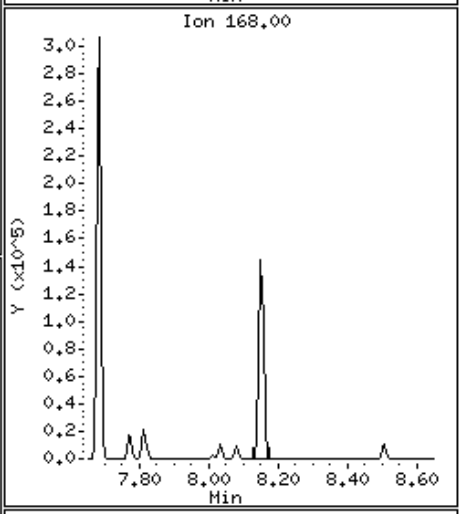
74 NDPA/DPA

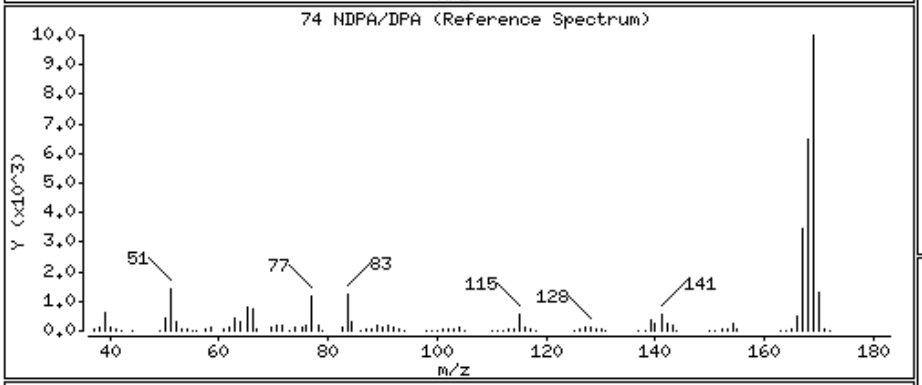
Concentration: 27.0 ug/L

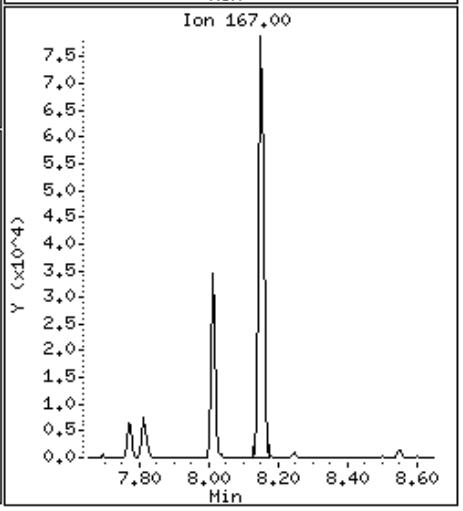


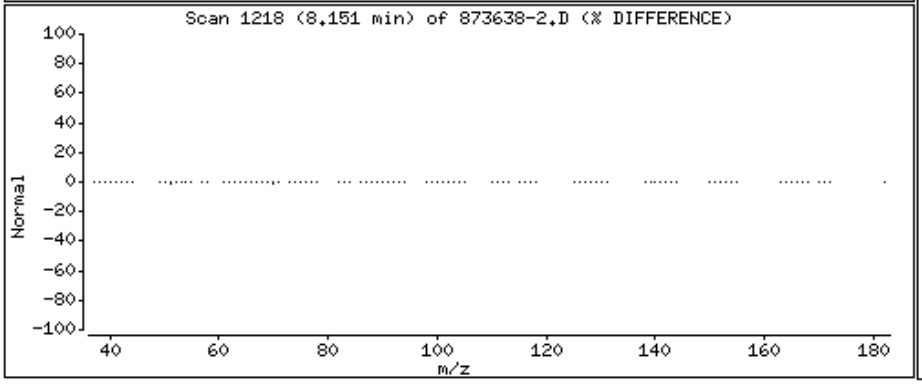












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

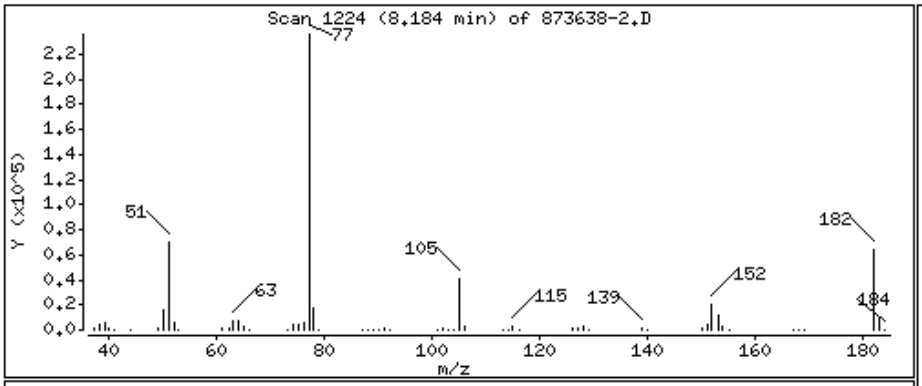
Operator: als

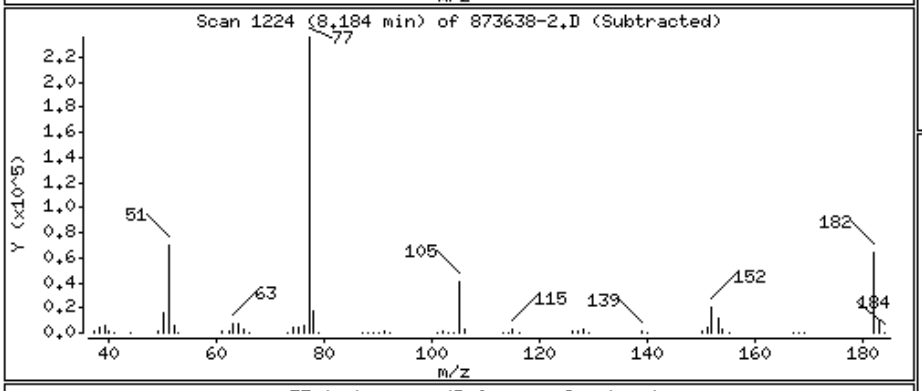
Column phase: RTx-5

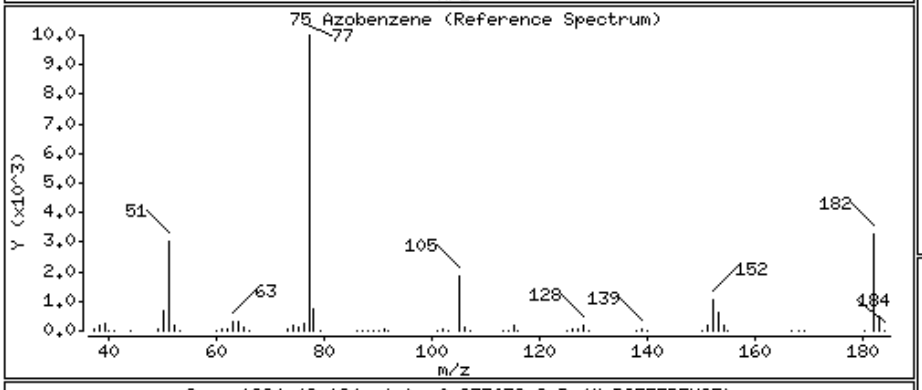
Column diameter: 0.32

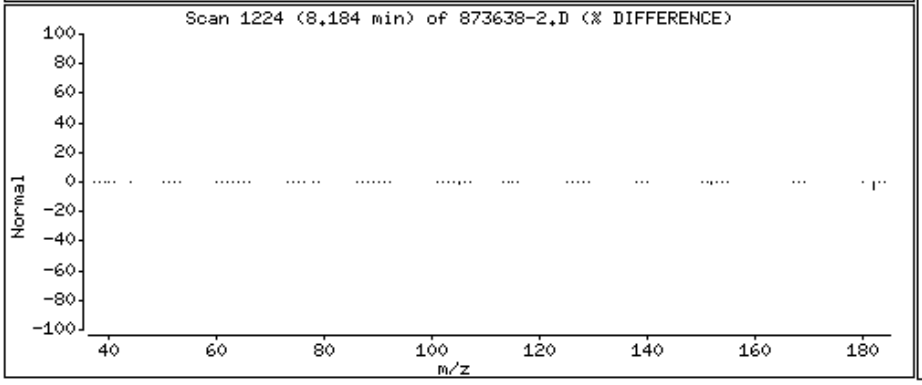
75 Azobenzene

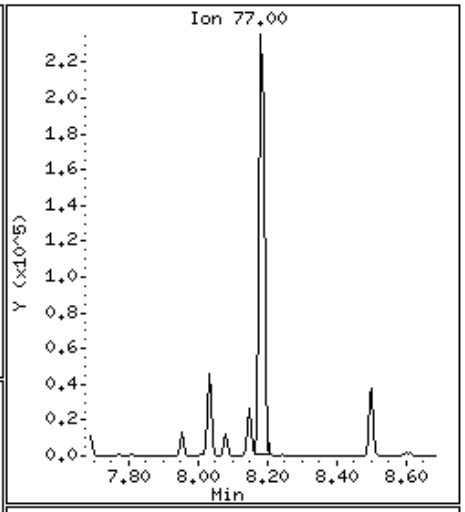
Concentration: 23.1 ug/L

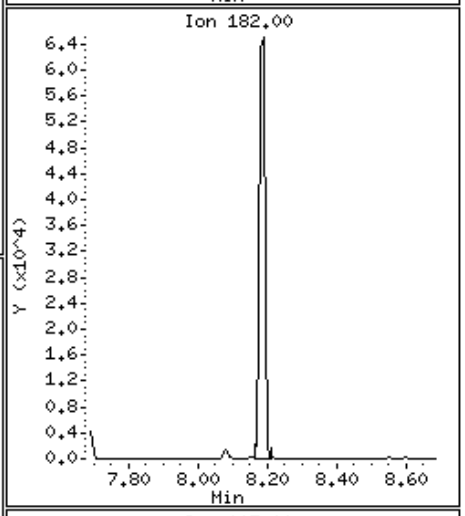


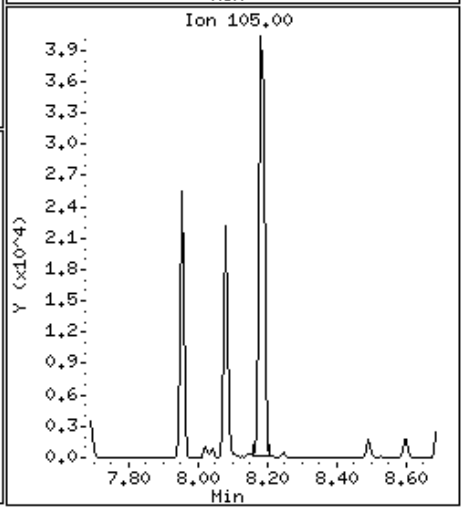












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

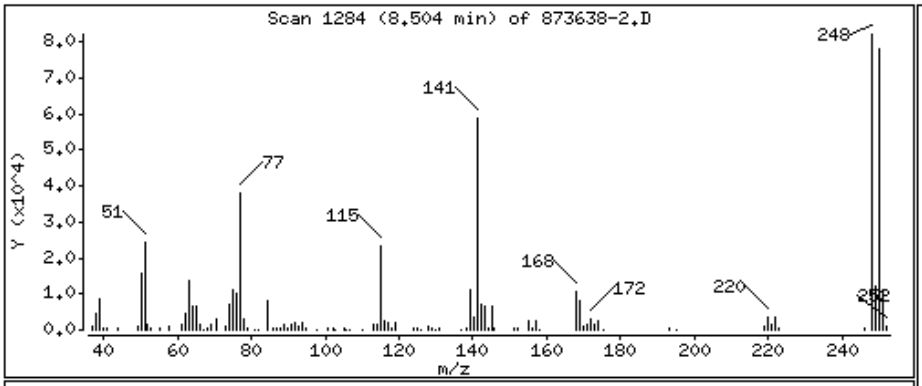
Operator: als

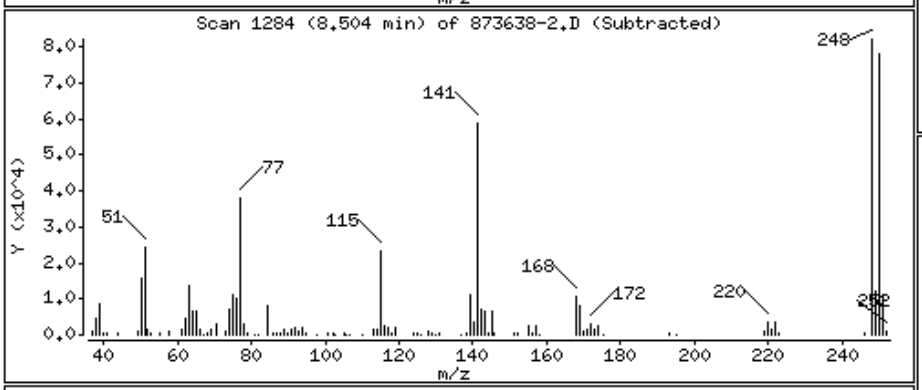
Column phase: RTx-5

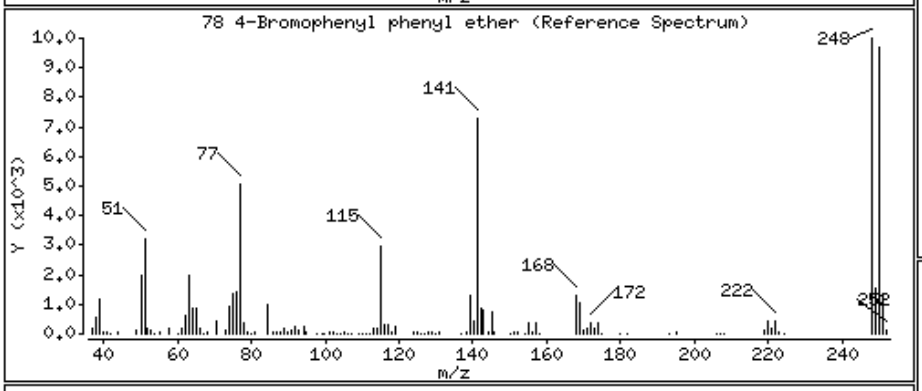
Column diameter: 0.32

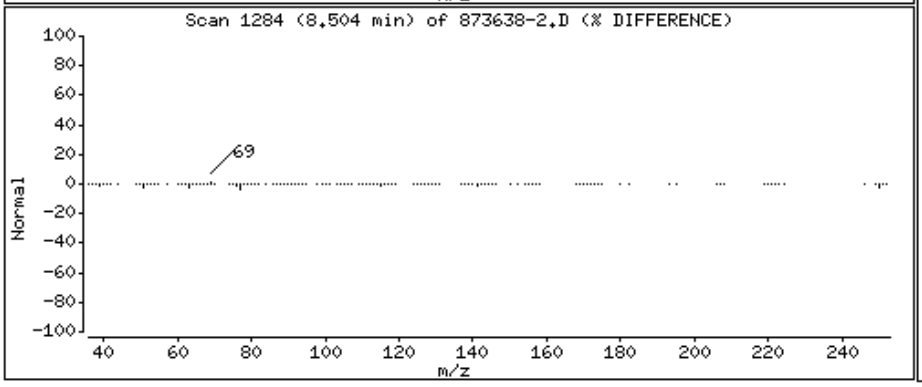
78 4-Bromophenyl phenyl ether

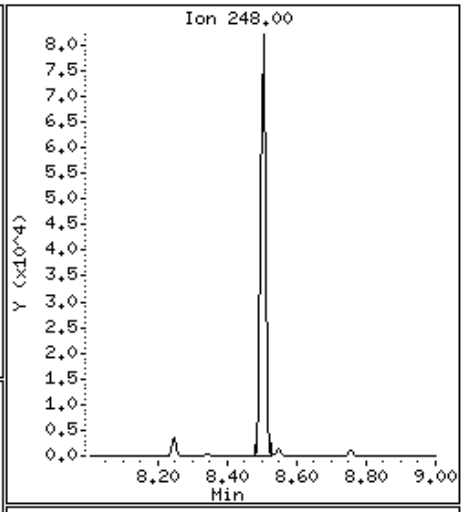
Concentration: 30.7 ug/L

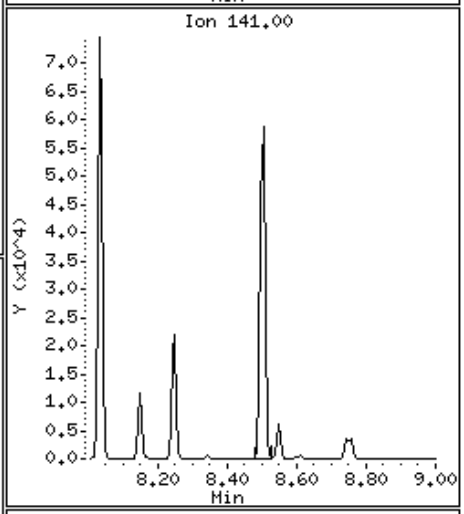


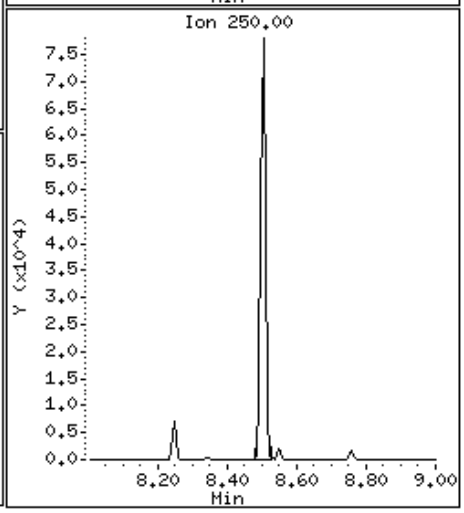












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

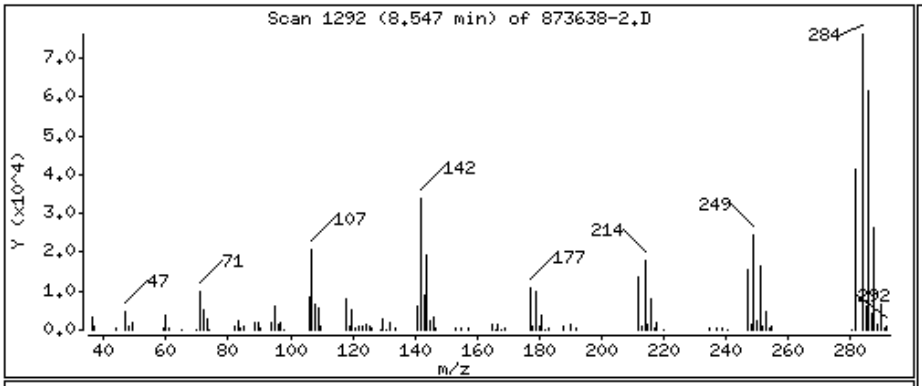
Operator: als

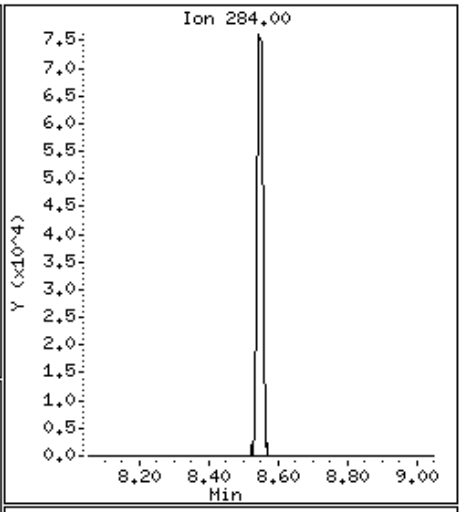
Column phase: RTx-5

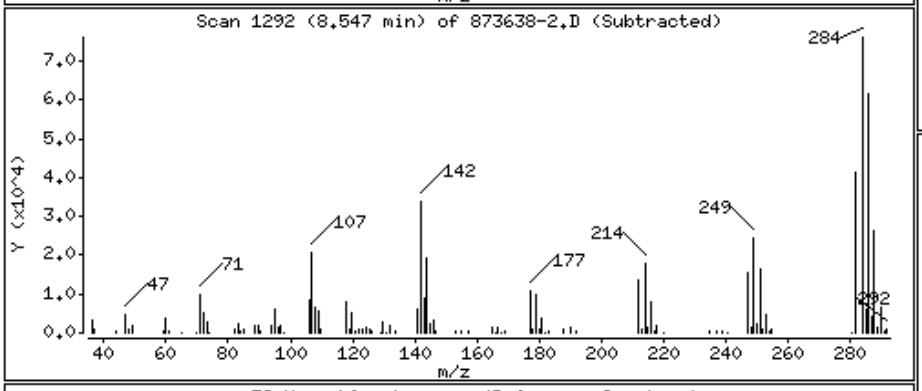
Column diameter: 0.32

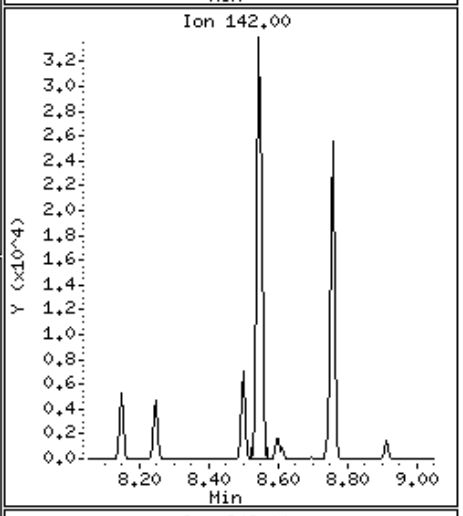
79 Hexachlorobenzene

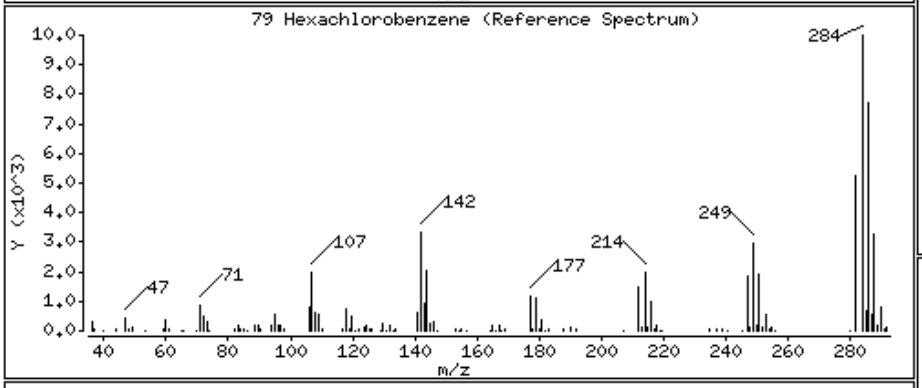
Concentration: 30.9 ug/L

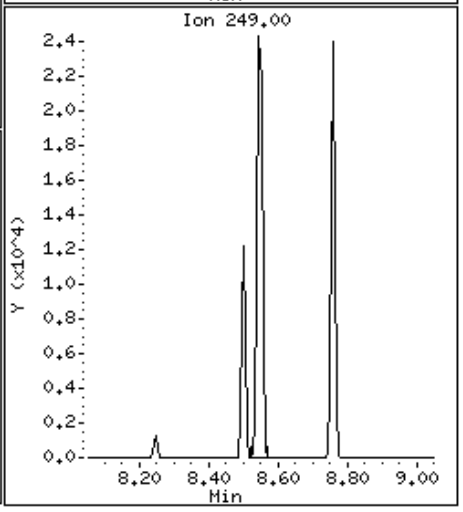


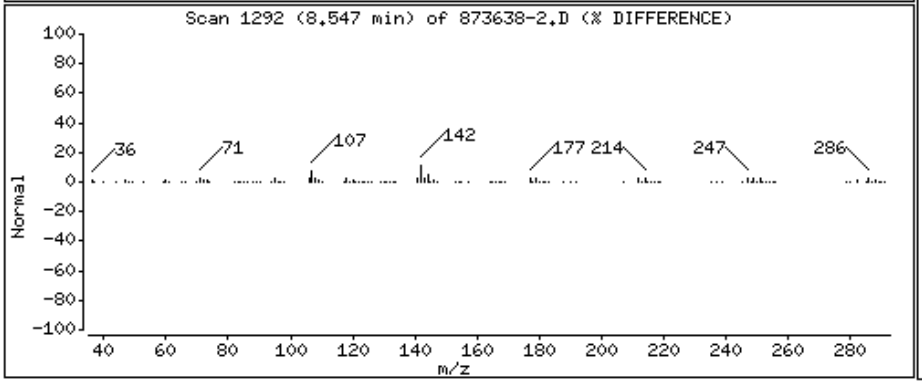












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytol,als

Purge Volume: 1000.0

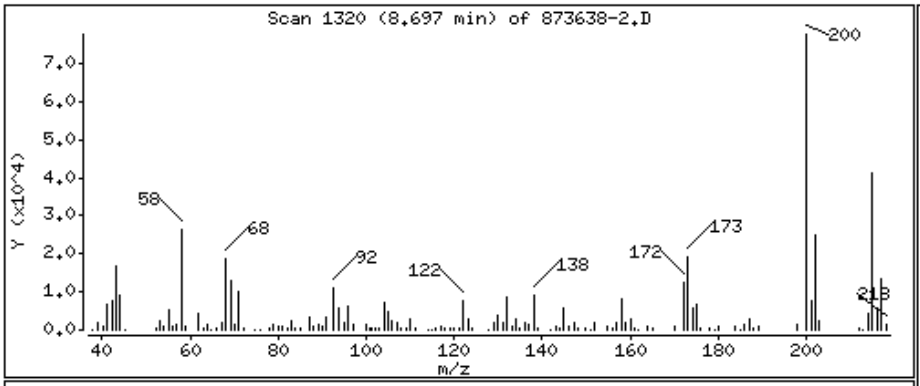
Operator: als

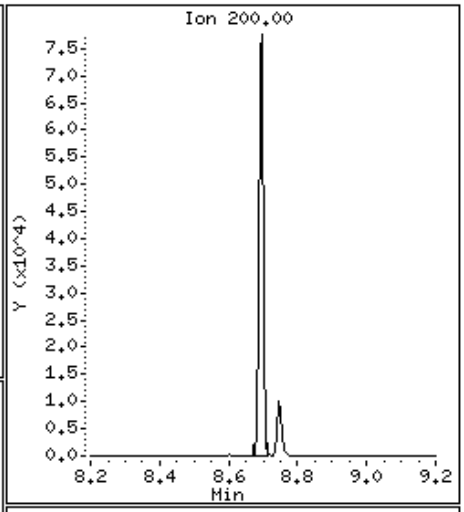
Column phase: RTx-5

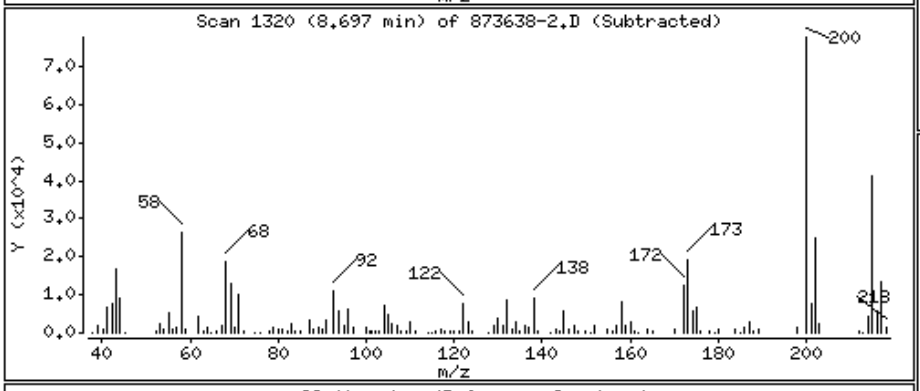
Column diameter: 0.32

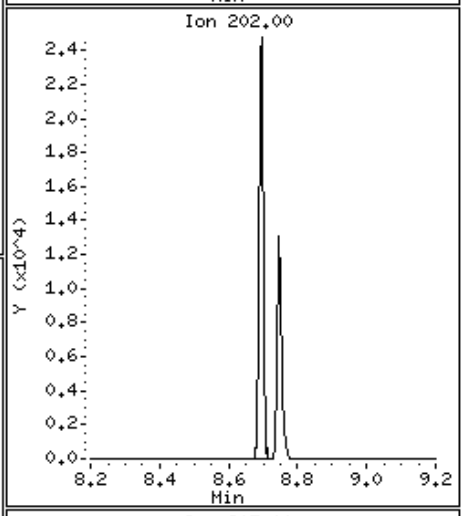
82 Atrazine

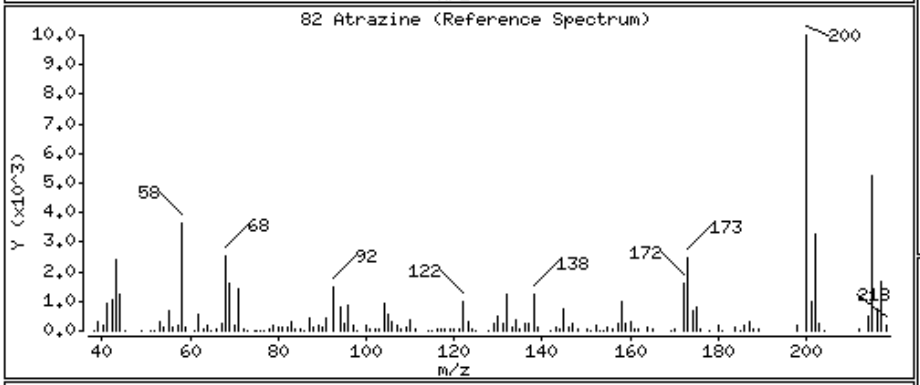
Concentration: 35.1 ug/L

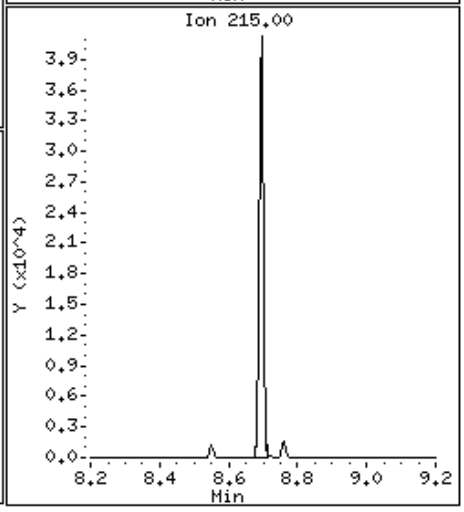


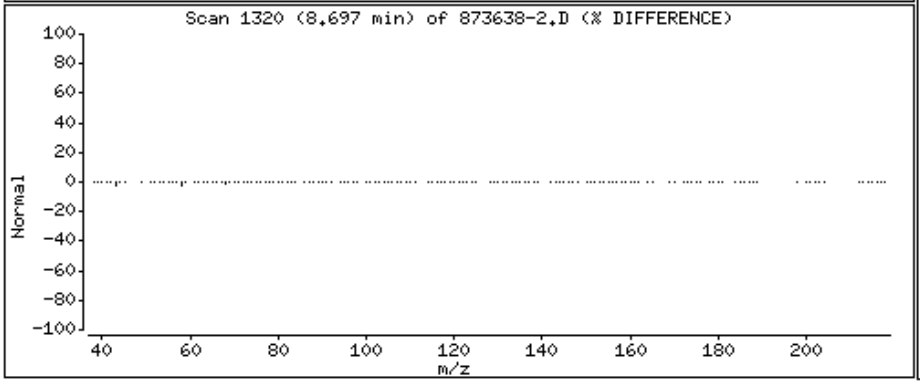












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

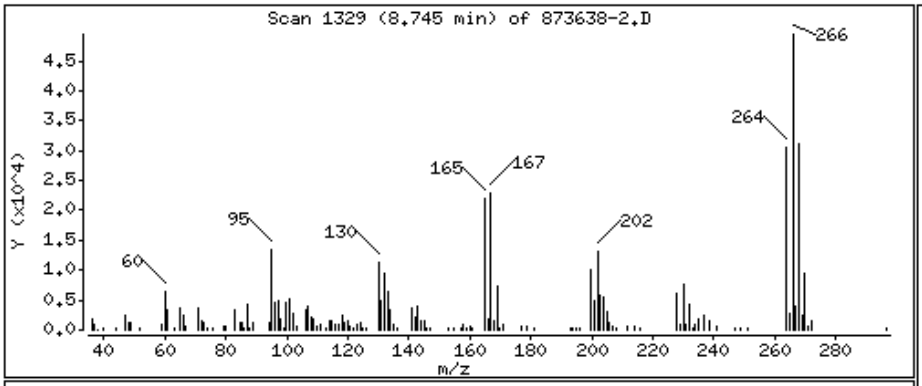
Operator: als

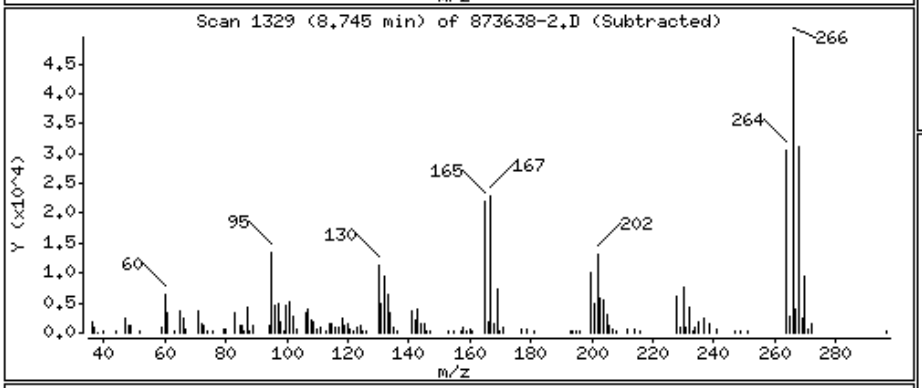
Column phase: RTx-5

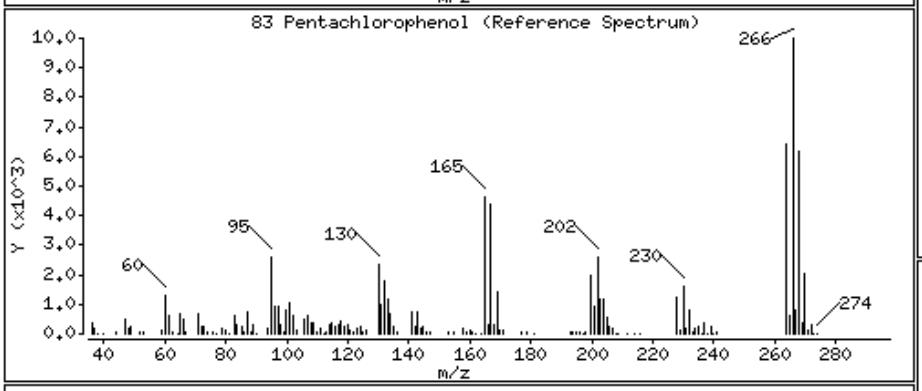
Column diameter: 0.32

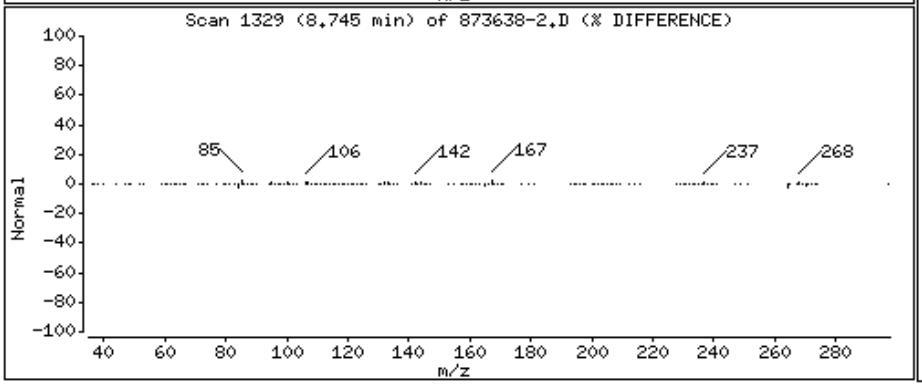
83 Pentachlorophenol

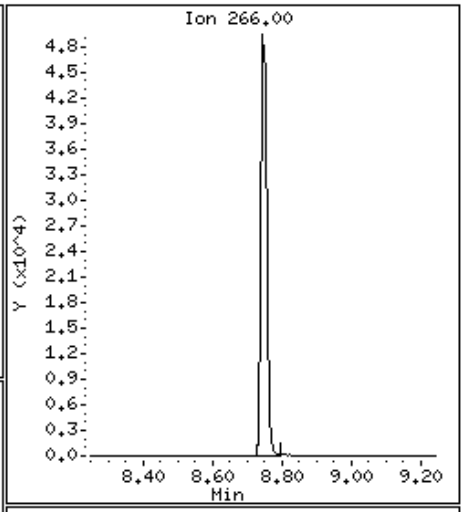
Concentration: 29.5 ug/L

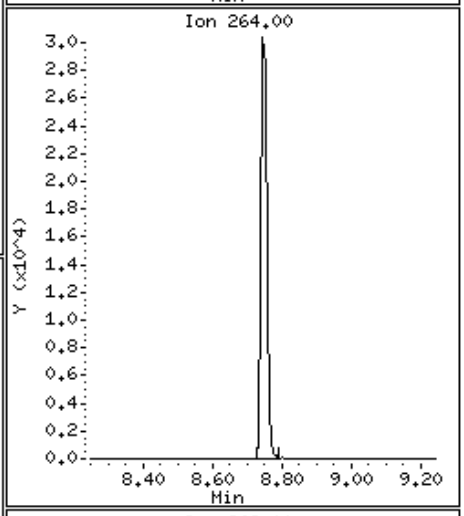


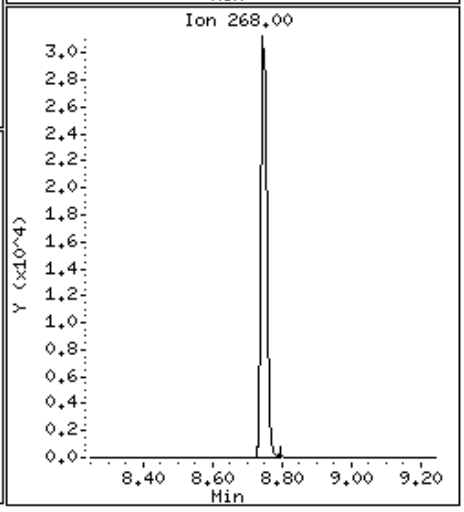












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

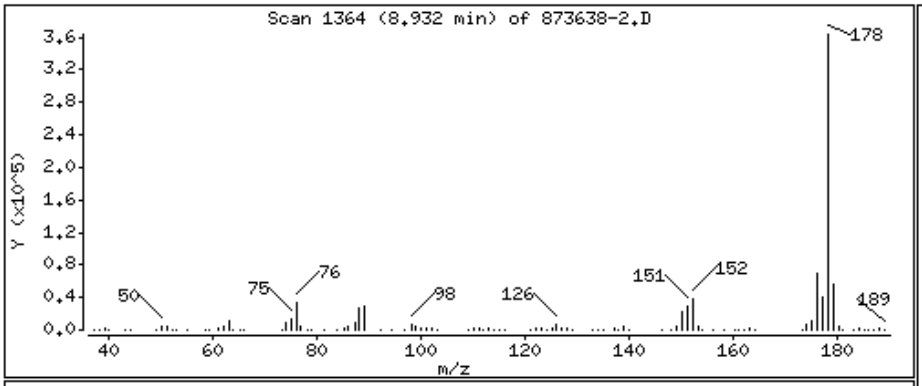
Operator: als

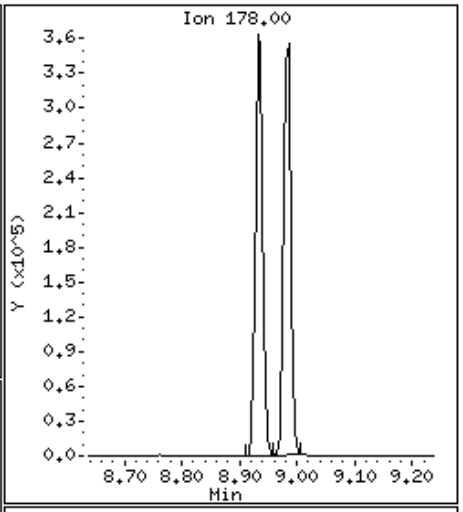
Column phase: RTx-5

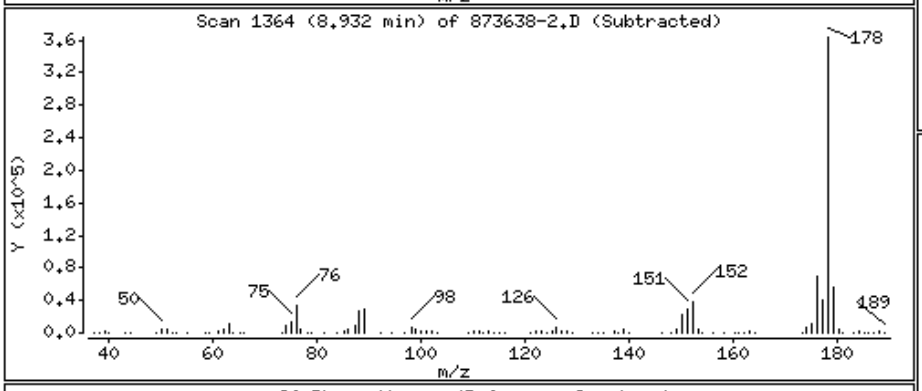
Column diameter: 0.32

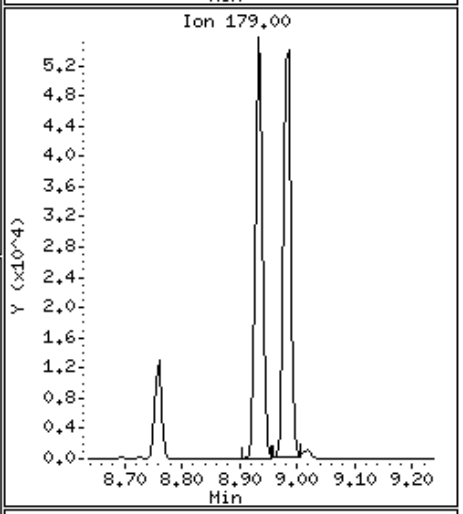
86 Phenanthrene

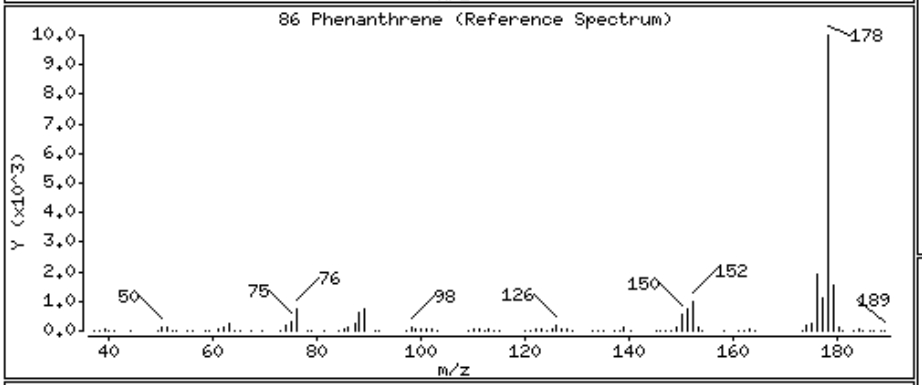
Concentration: 26.3 ug/L

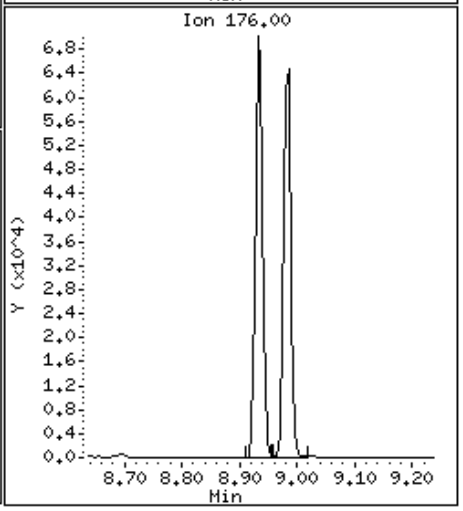


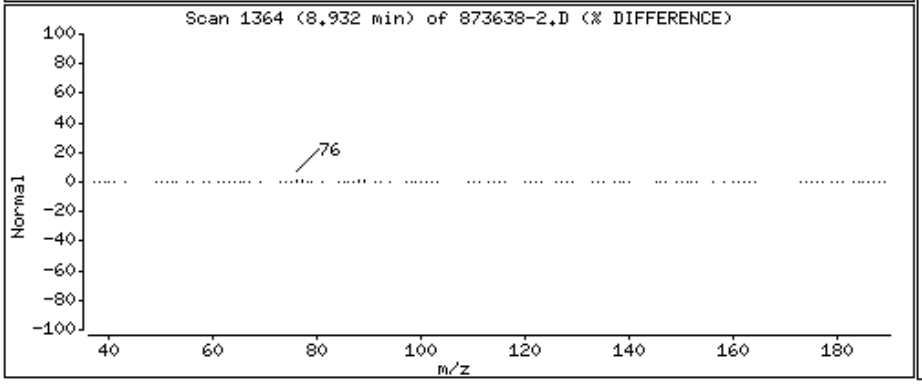












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

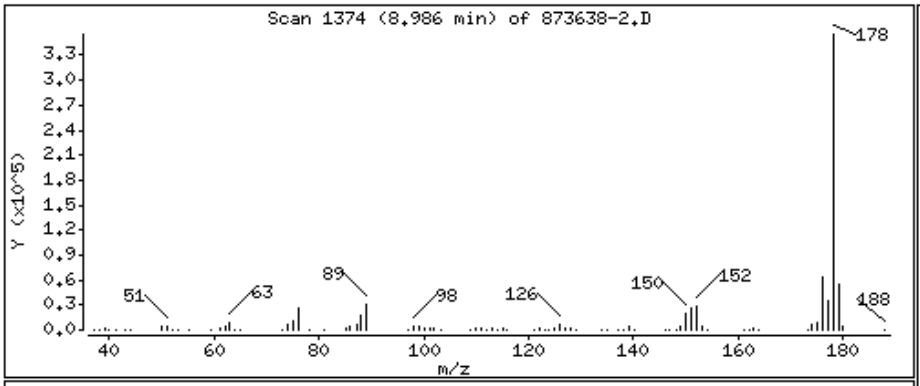
Operator: als

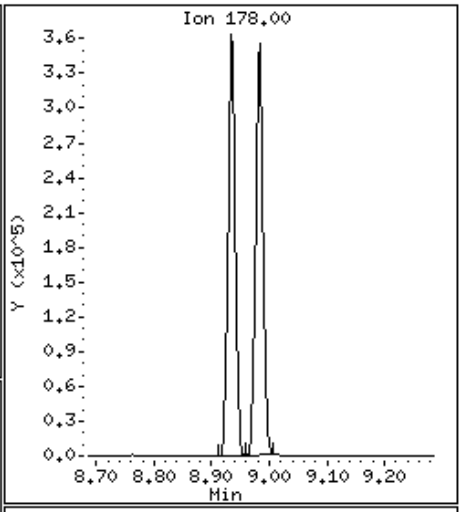
Column phase: RTx-5

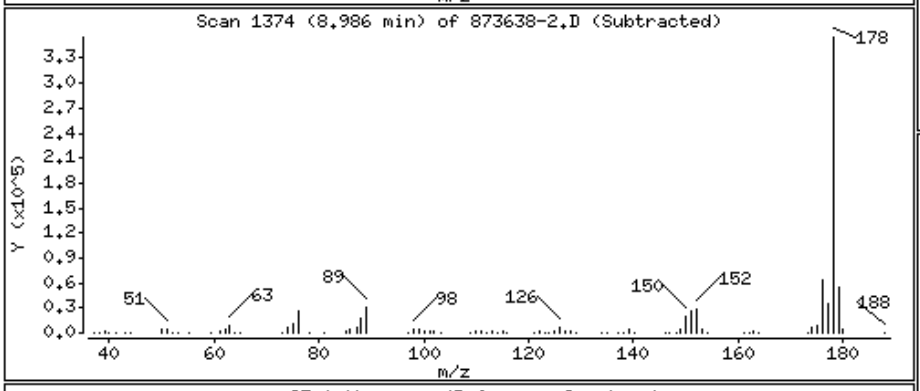
Column diameter: 0.32

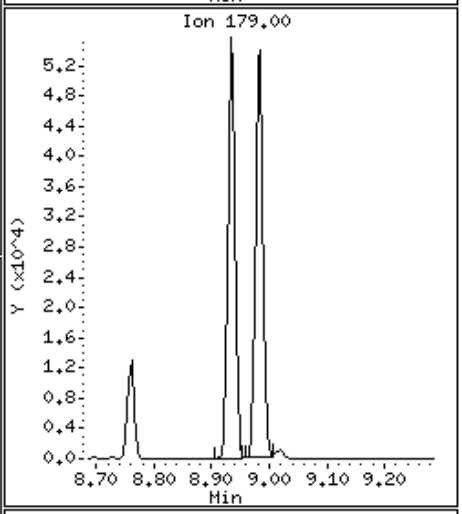
87 Anthracene

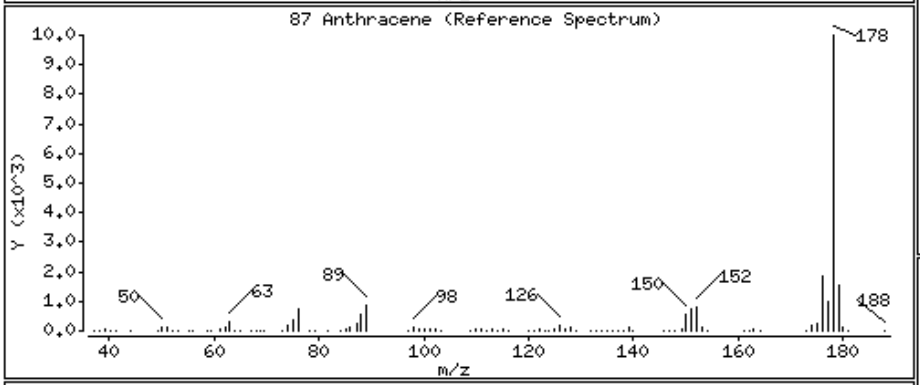
Concentration: 26.5 ug/L

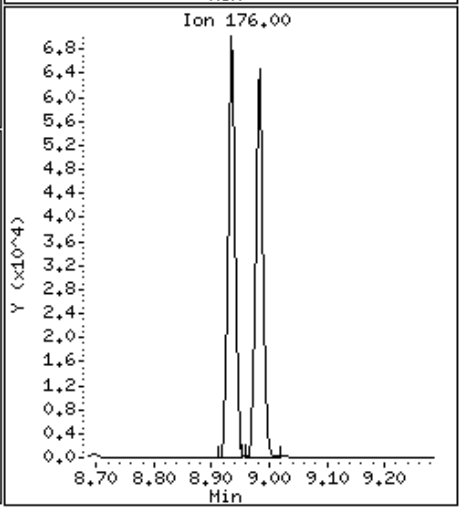


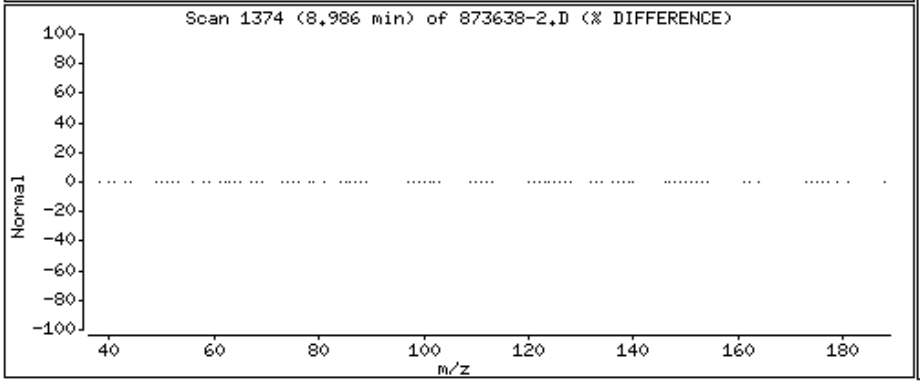












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

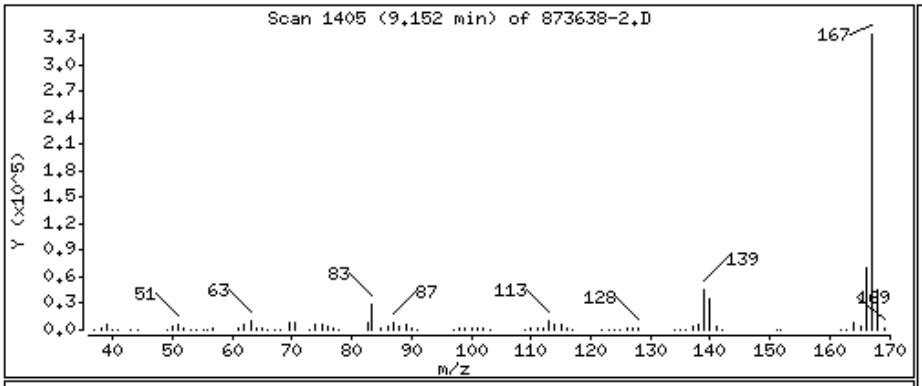
Operator: als

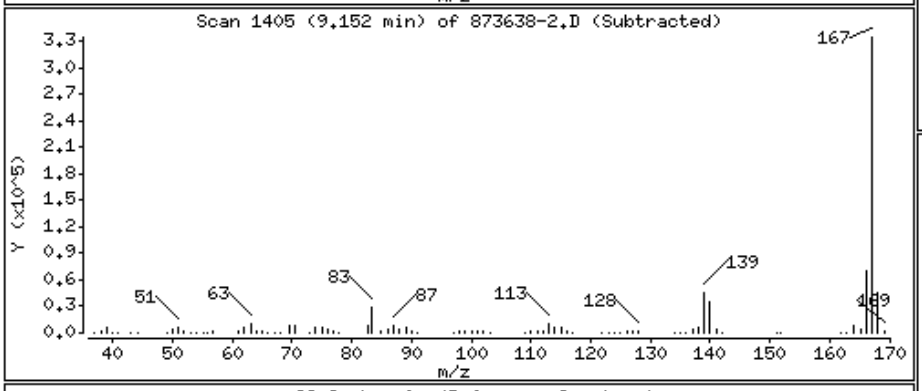
Column phase: RTx-5

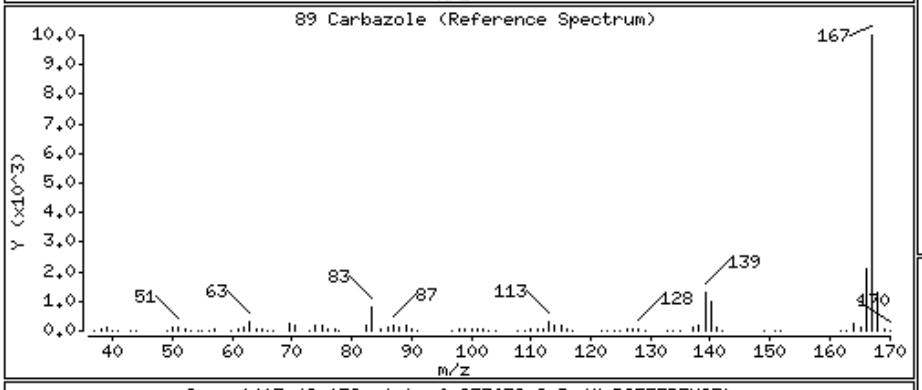
Column diameter: 0.32

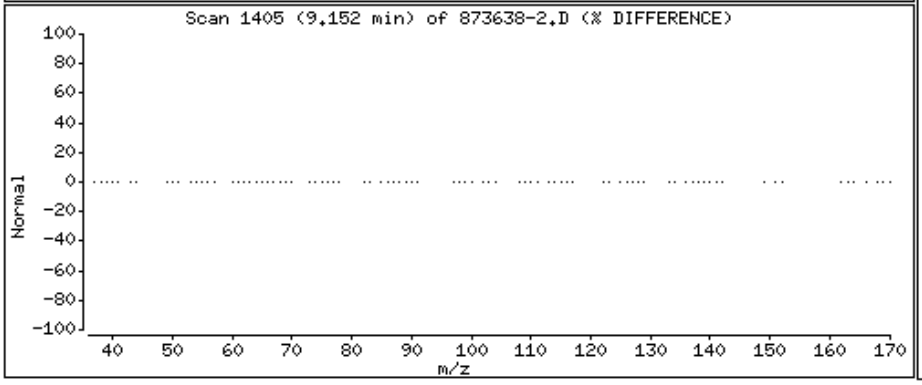
89 Carbazole

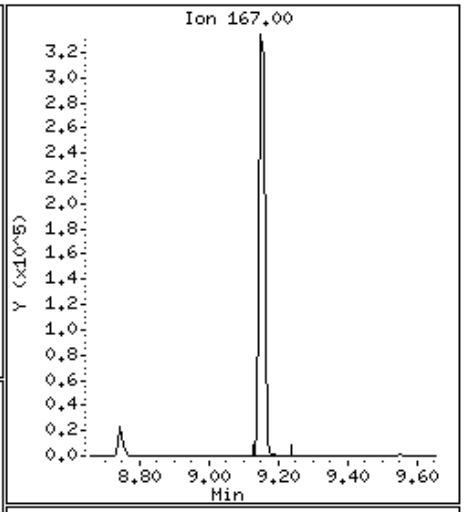
Concentration: 26.5 ug/L

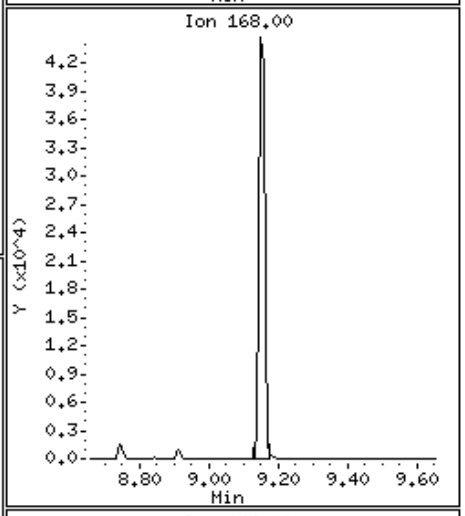


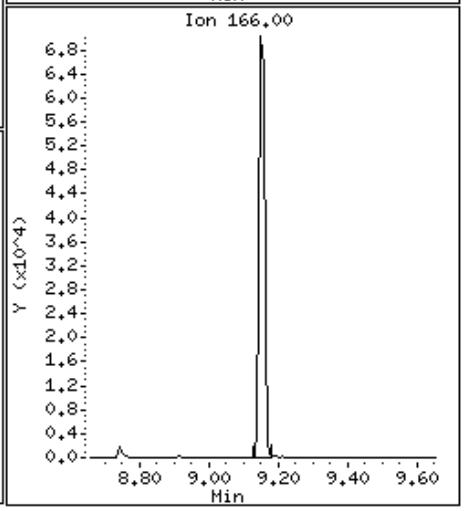












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

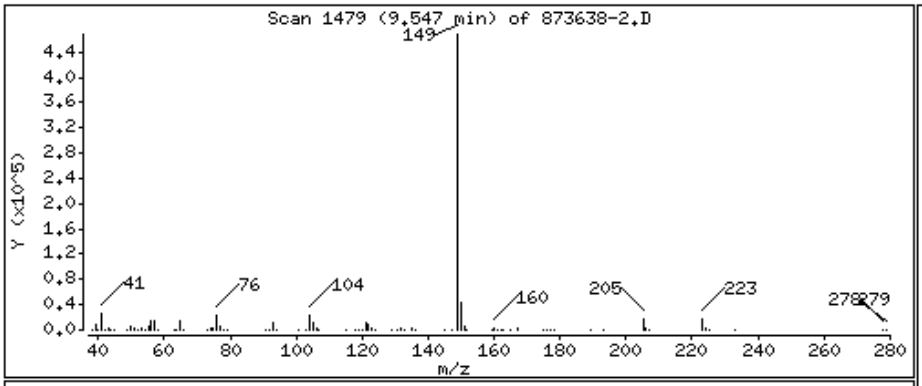
Operator: als

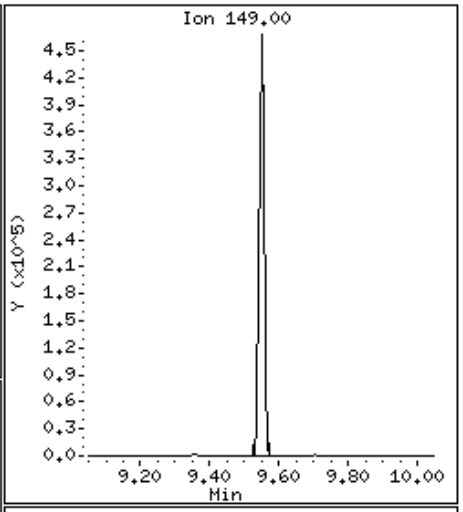
Column phase: RTx-5

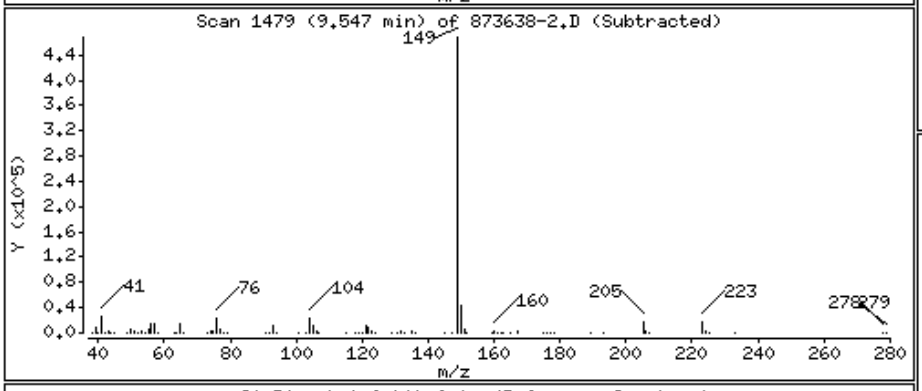
Column diameter: 0.32

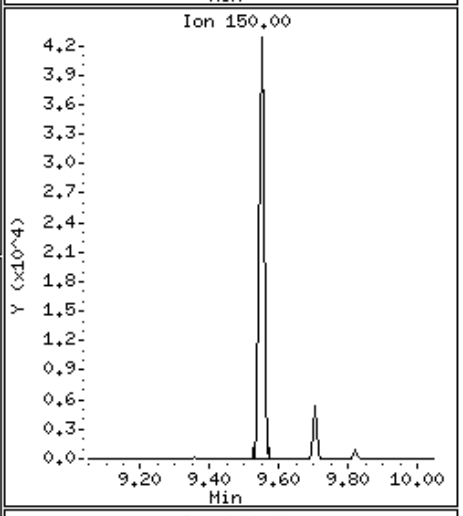
90 Di-n-butylphthalate

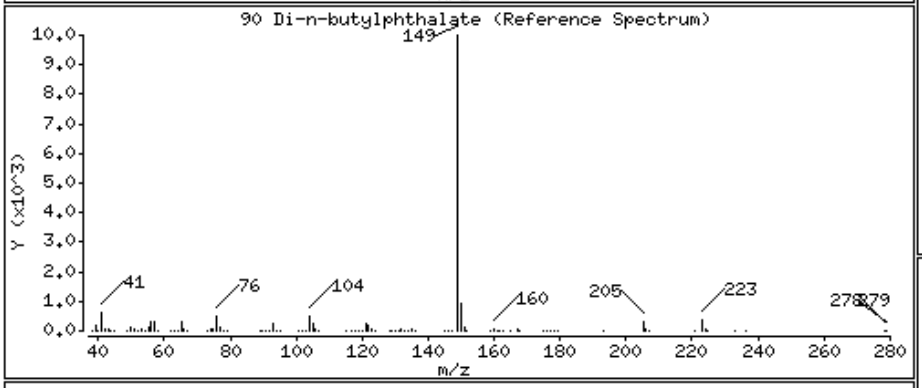
Concentration: 26.7 ug/L

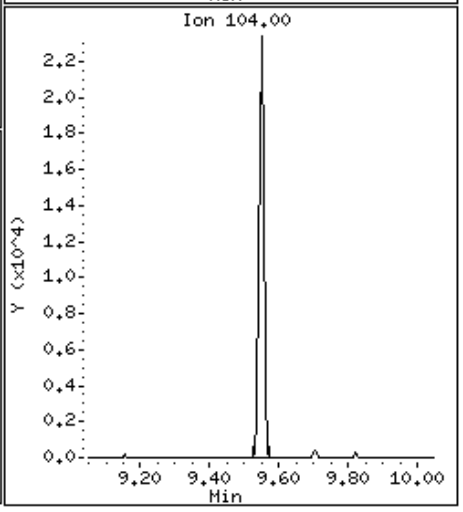


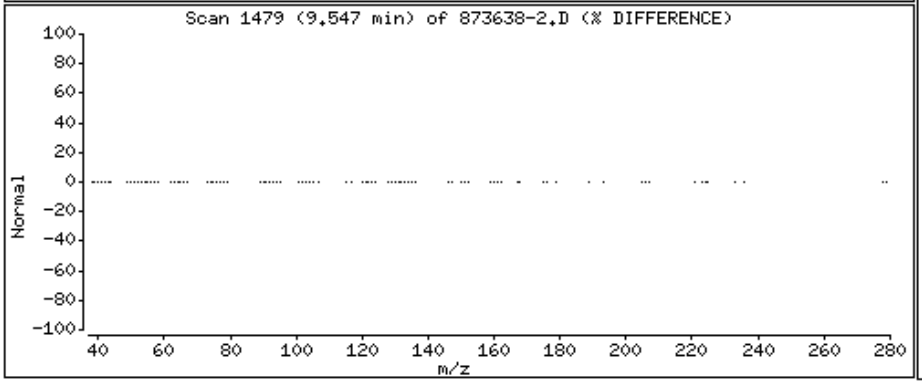












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

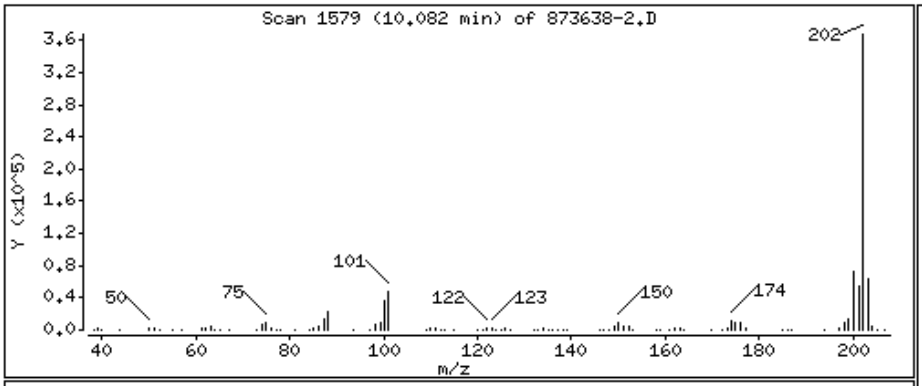
Operator: als

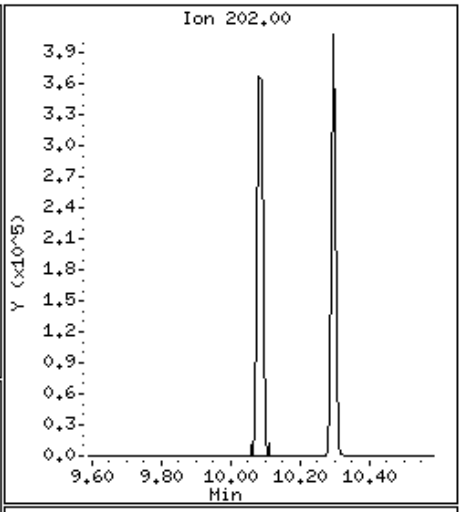
Column phase: RTx-5

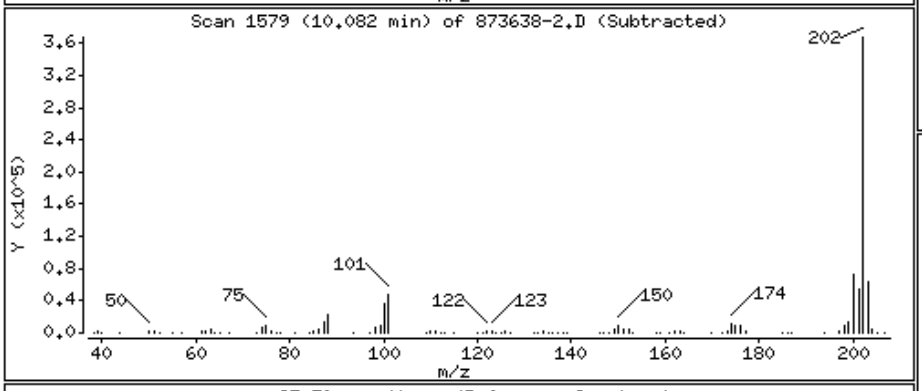
Column diameter: 0.32

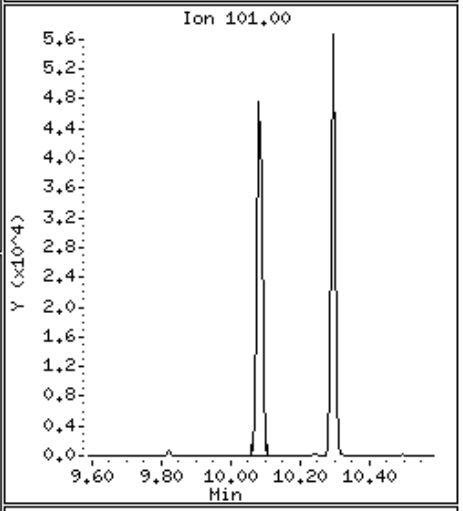
93 Fluoranthene

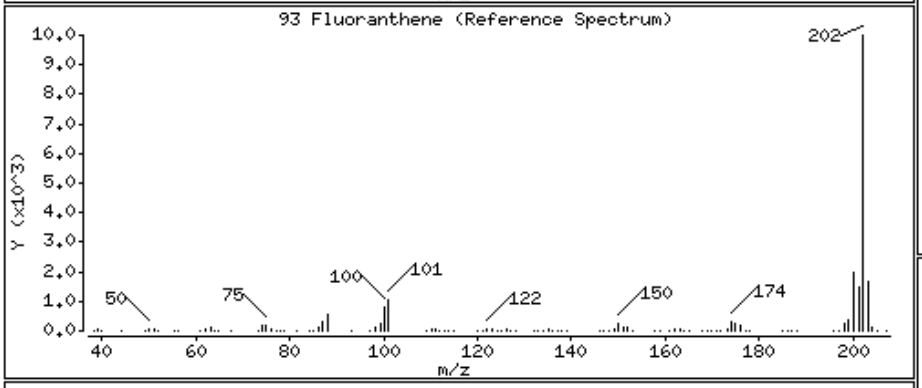
Concentration: 27.4 ug/L

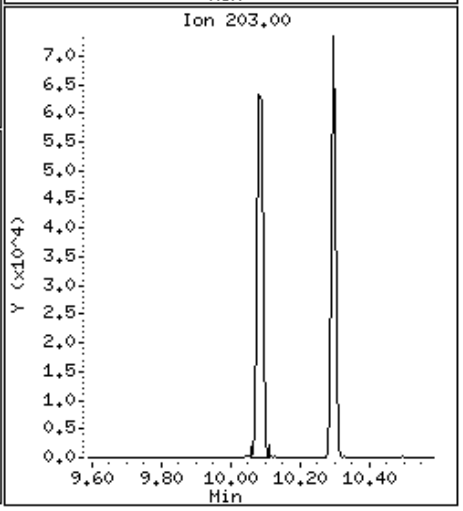


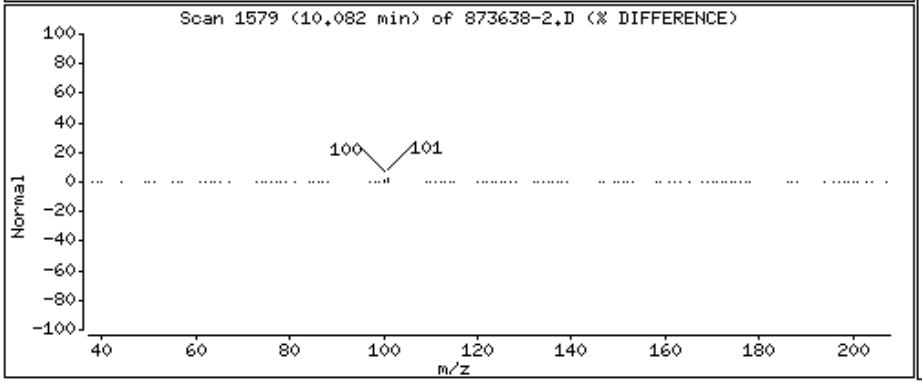












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

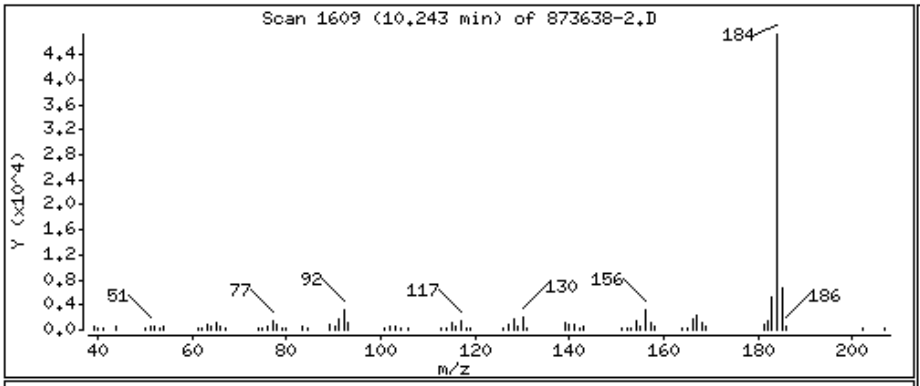
Operator: als

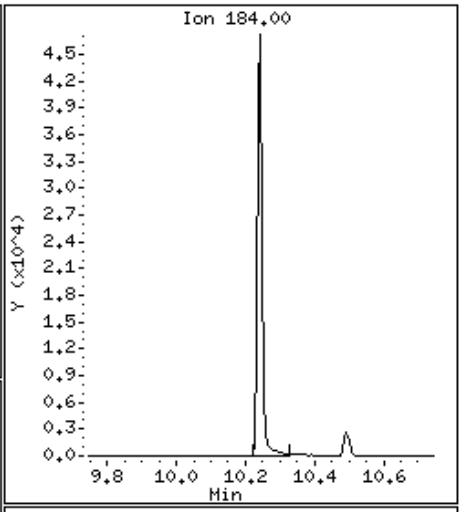
Column phase: RTx-5

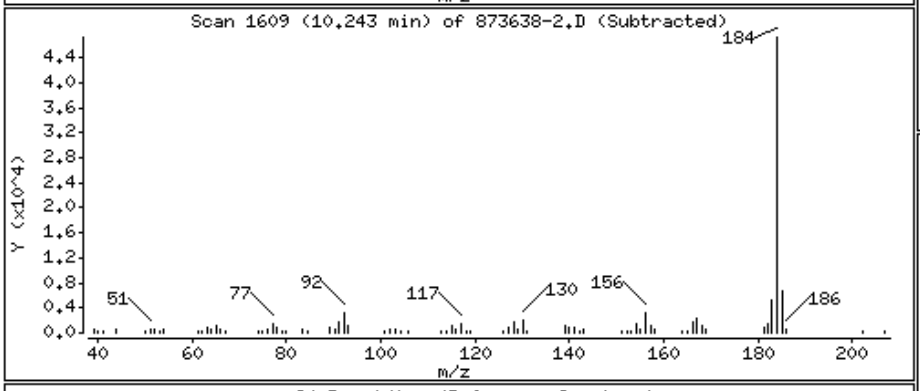
Column diameter: 0.32

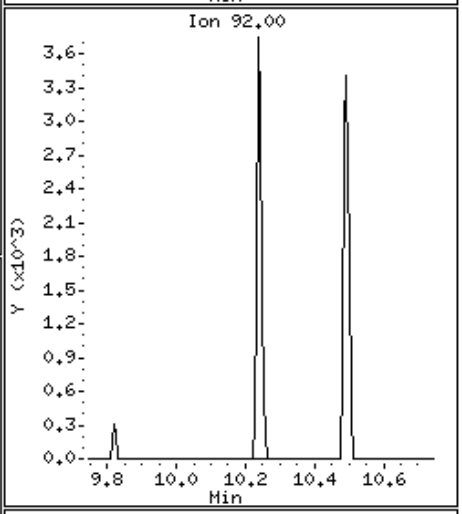
94 Benzidine

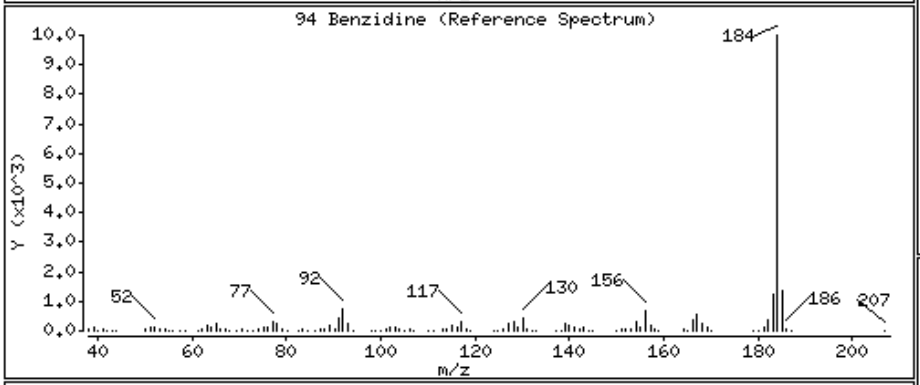
Concentration: 6.61 ug/L

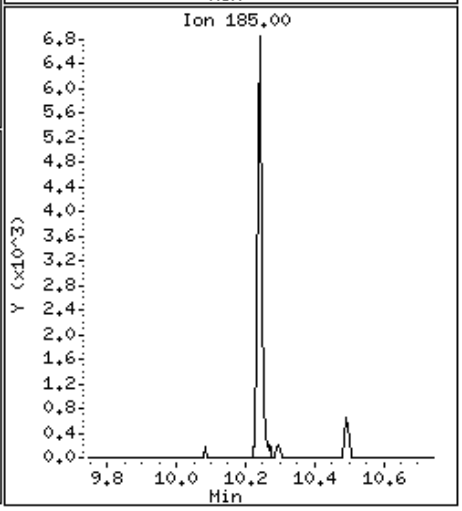


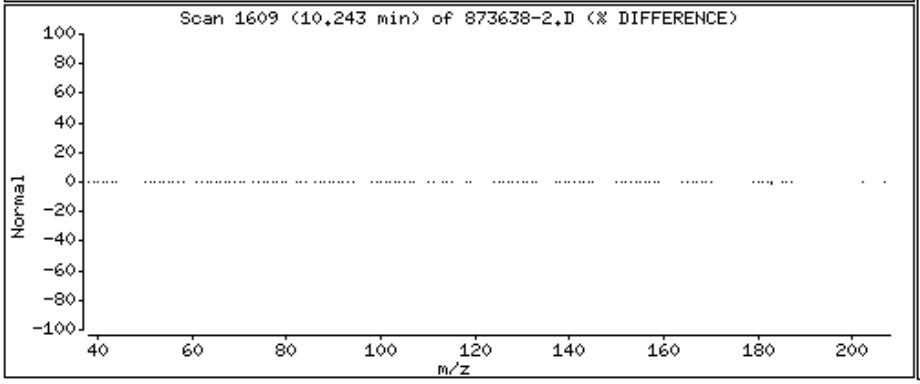












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

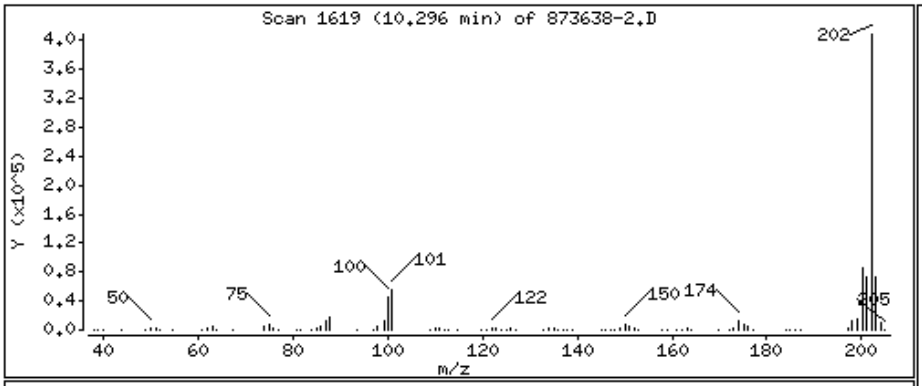
Operator: als

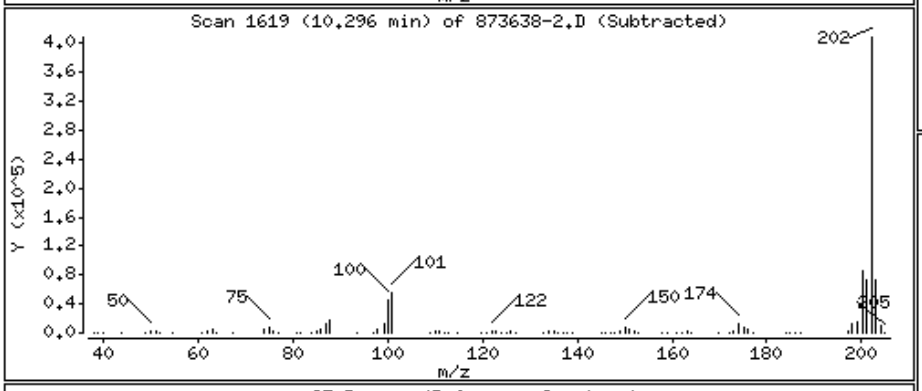
Column phase: RTx-5

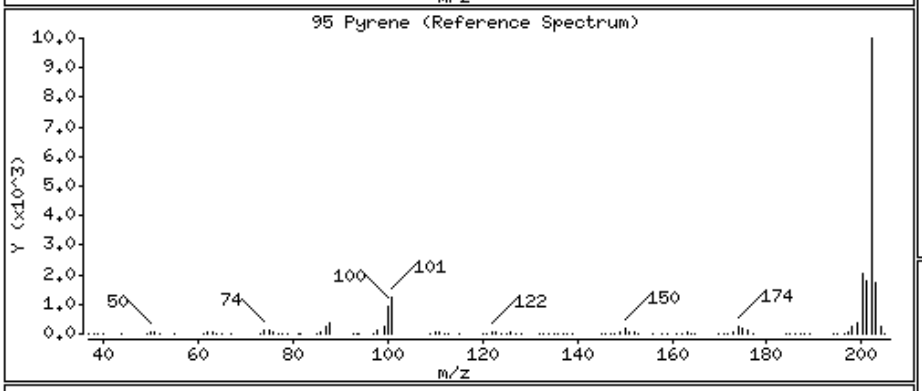
Column diameter: 0.32

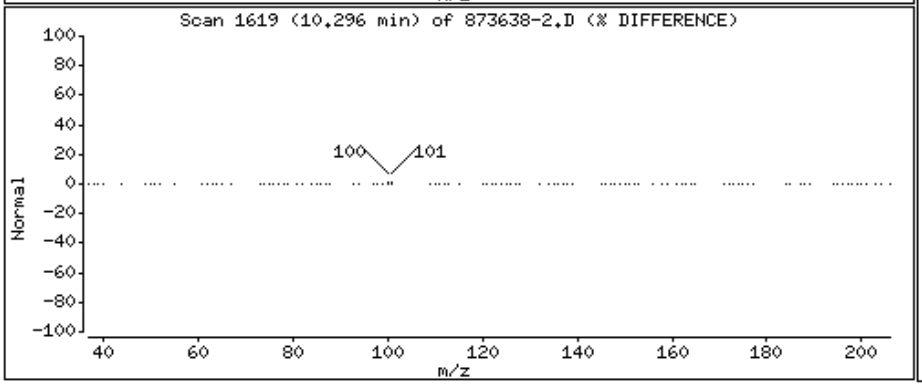
95 Pyrene

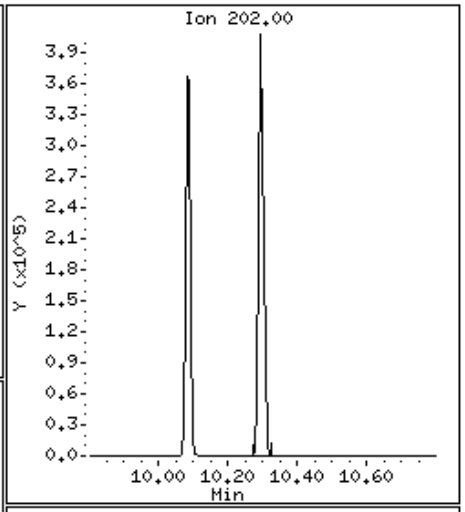
Concentration: 26.7 ug/L

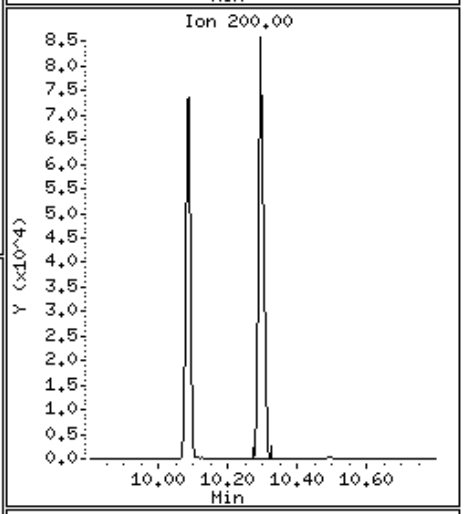


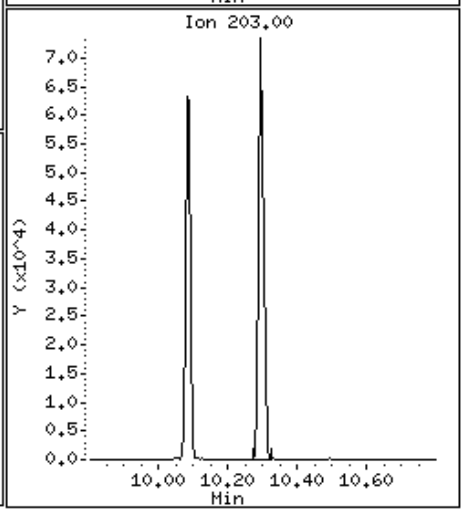












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

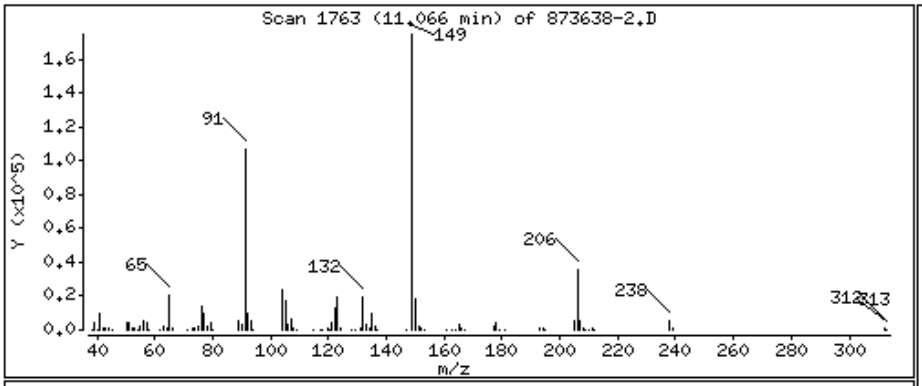
Operator: als

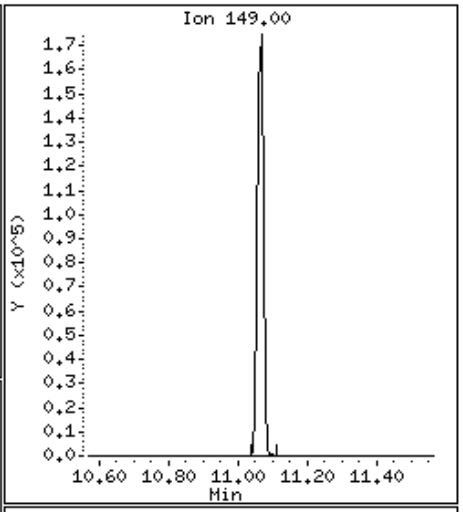
Column phase: RTx-5

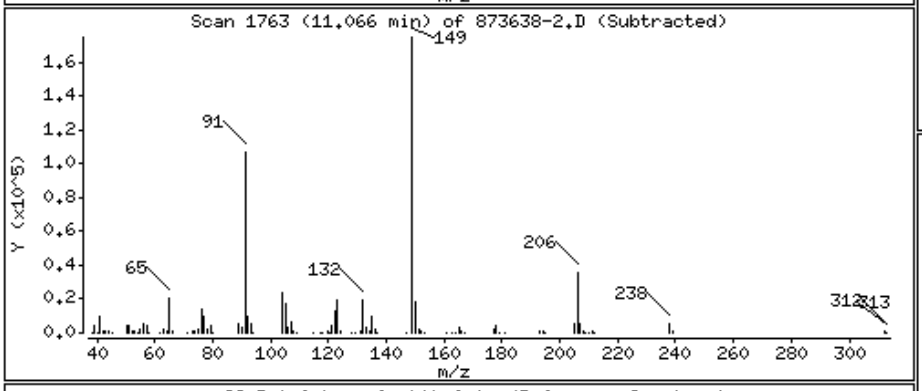
Column diameter: 0.32

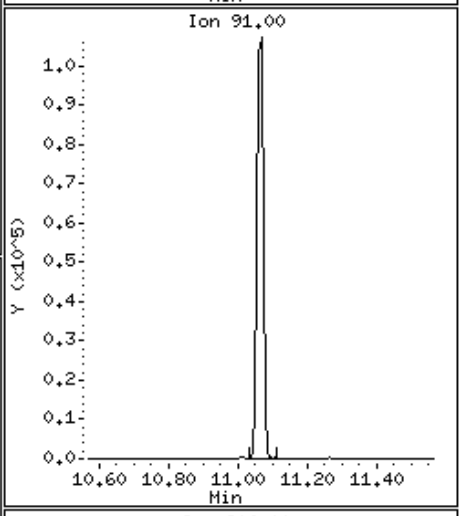
98 Butyl benzyl phthalate

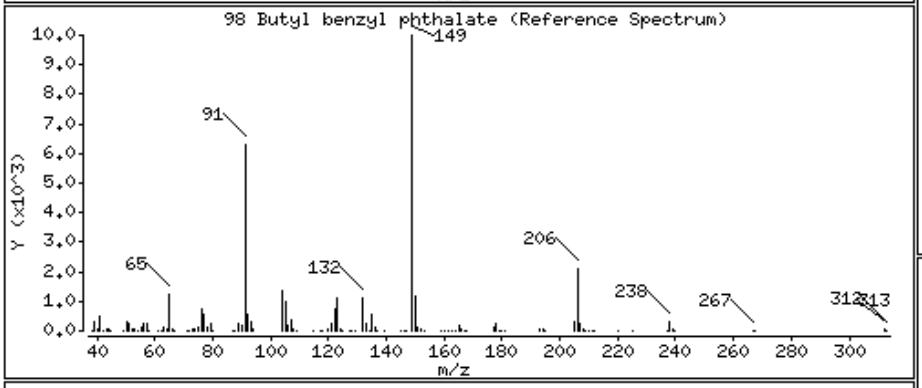
Concentration: 27.2 ug/L

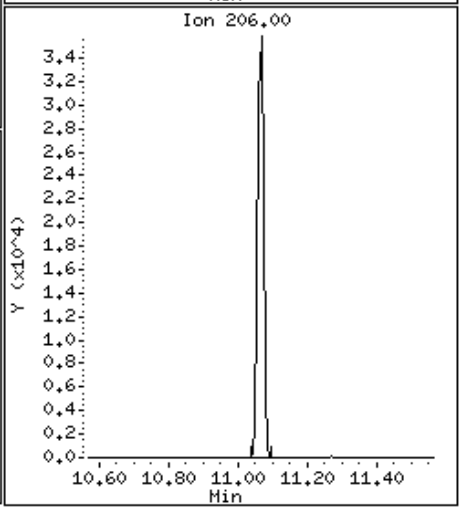


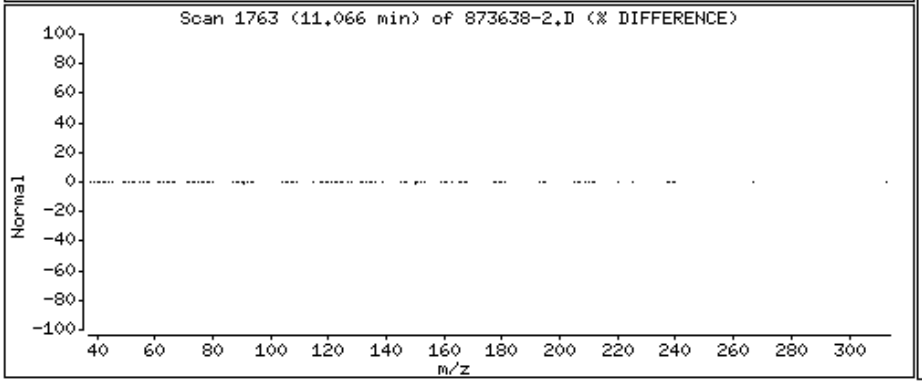












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

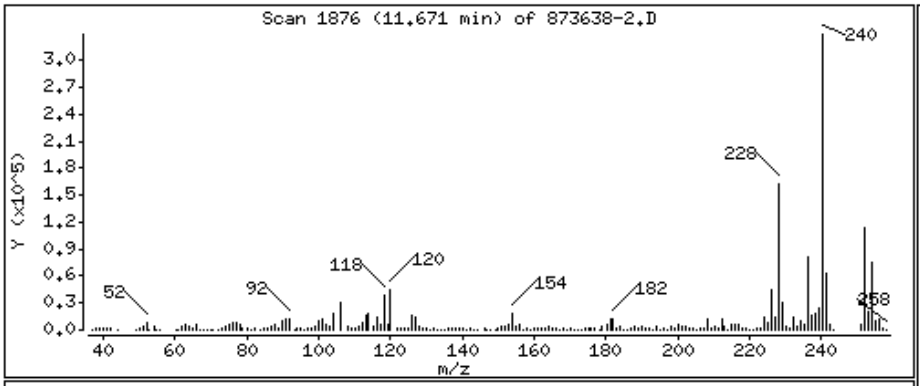
Operator: als

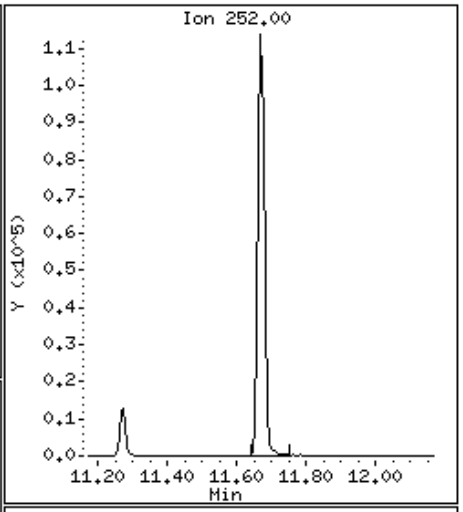
Column phase: RTx-5

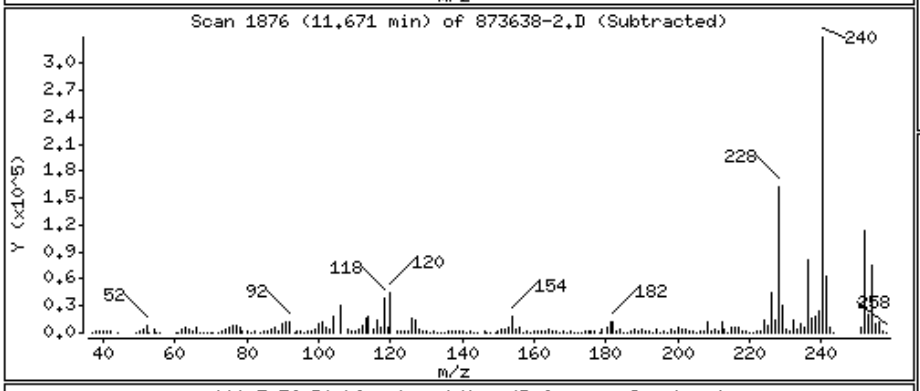
Column diameter: 0.32

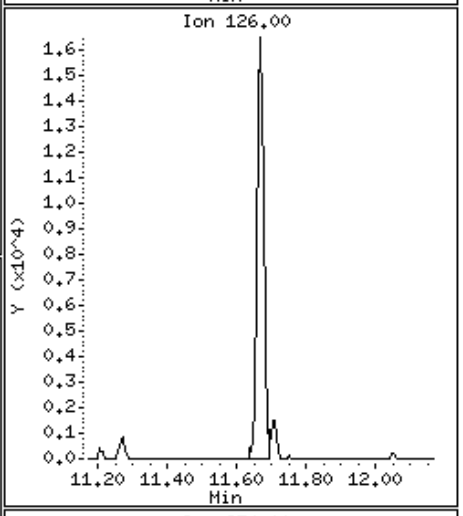
101 3,3'-Dichlorobenzidine

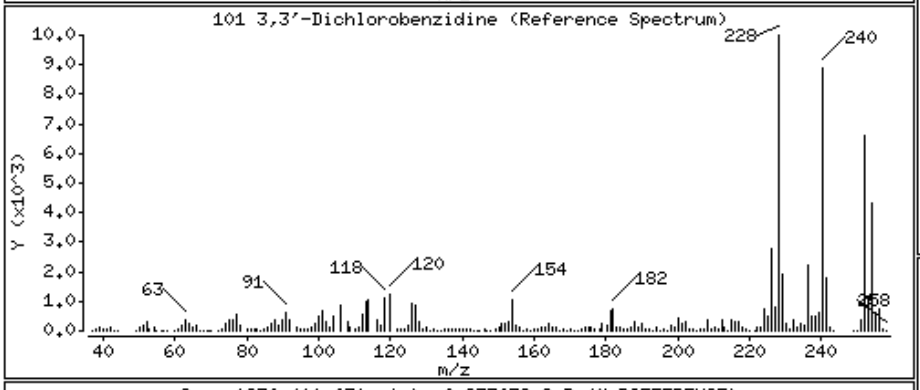
Concentration: 27.8 ug/L

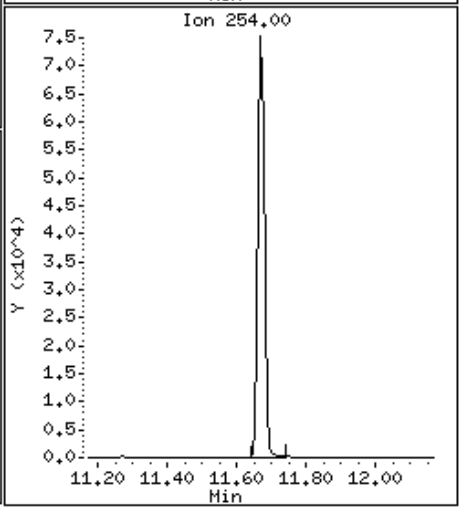


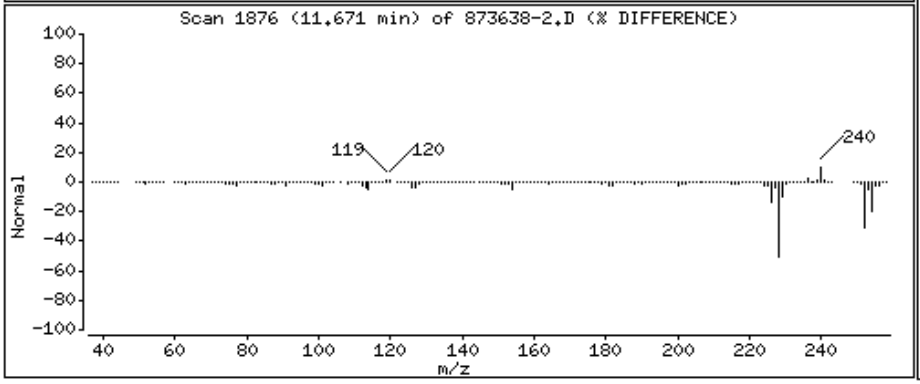












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

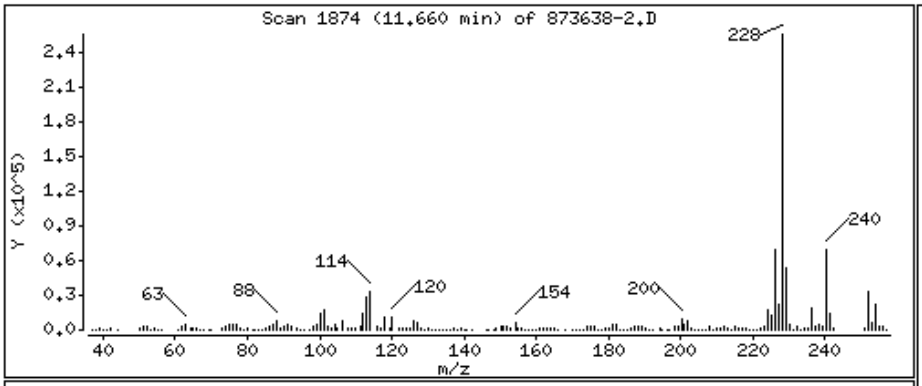
Operator: als

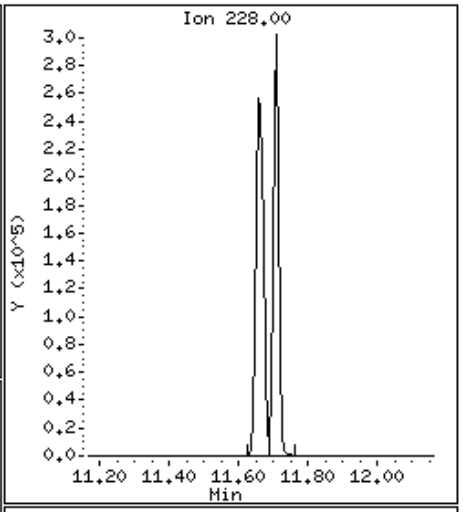
Column phase: RTx-5

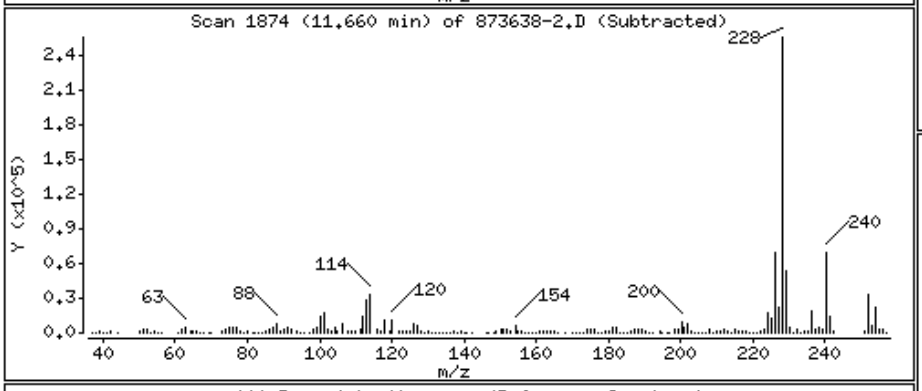
Column diameter: 0.32

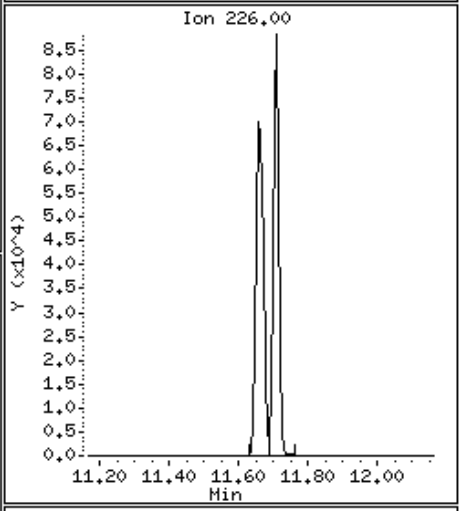
100 Benzo(a)anthracene

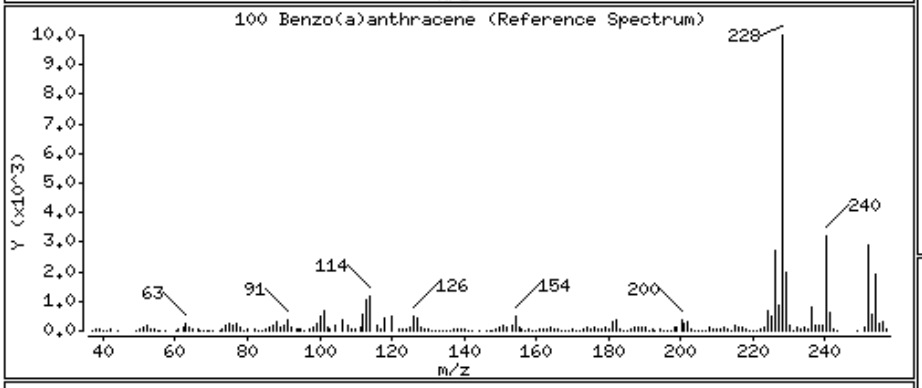
Concentration: 25.8 ug/L

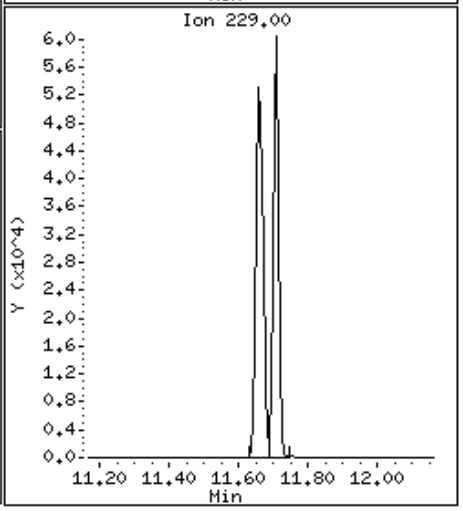


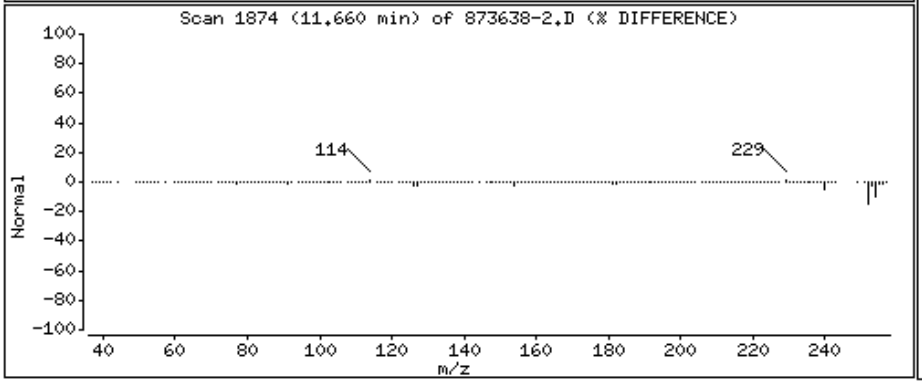












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

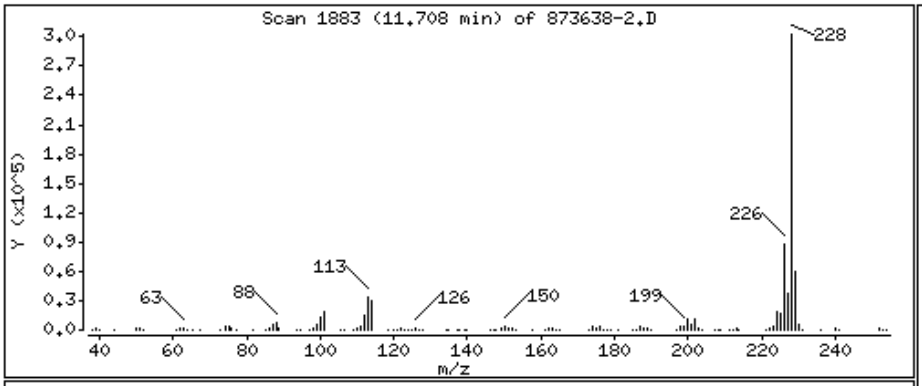
Operator: als

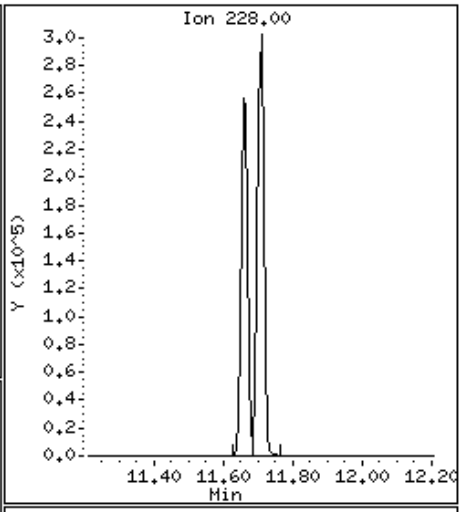
Column phase: RTx-5

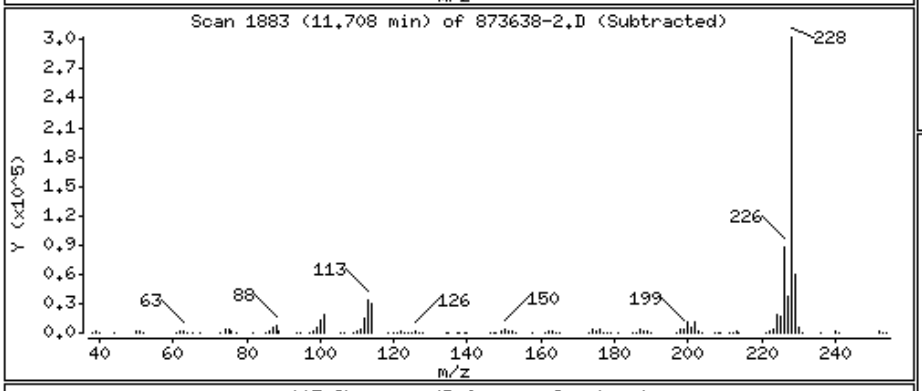
Column diameter: 0.32

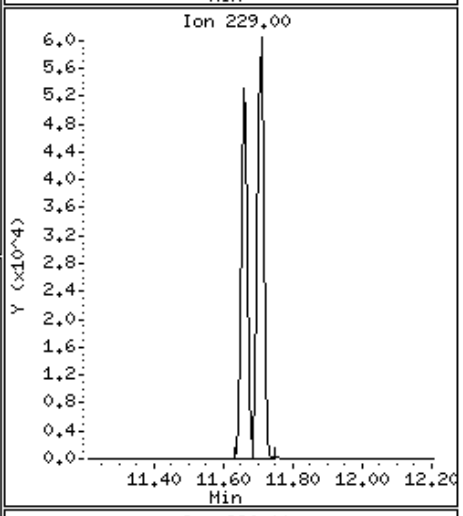
103 Chrysene

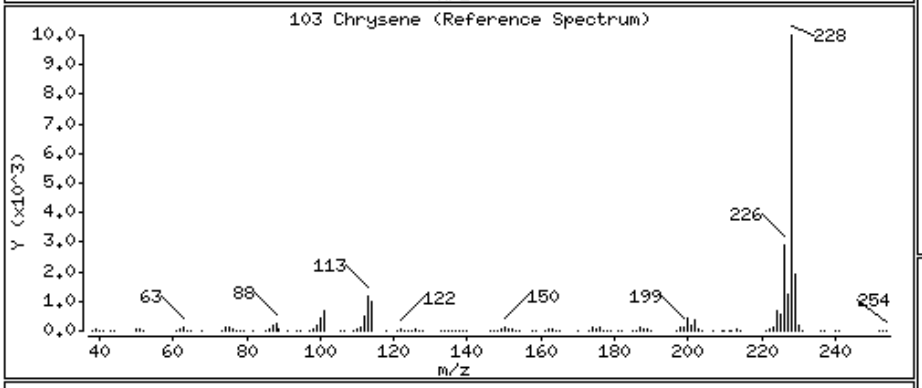
Concentration: 26.0 ug/L

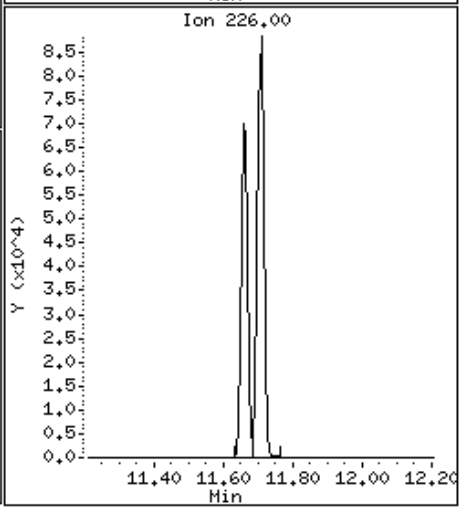


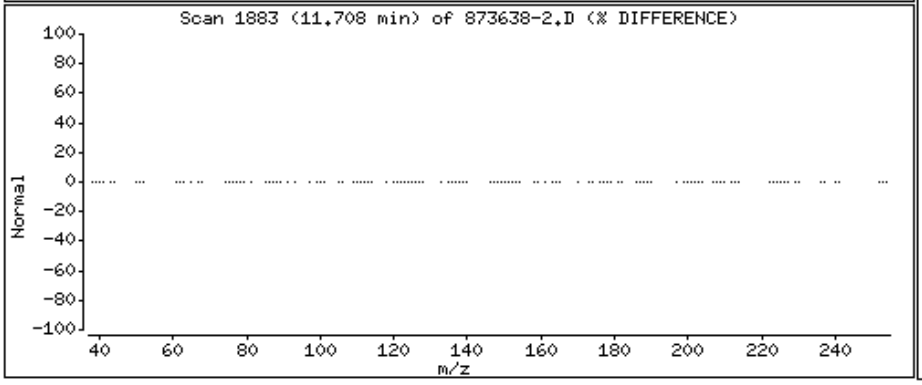












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

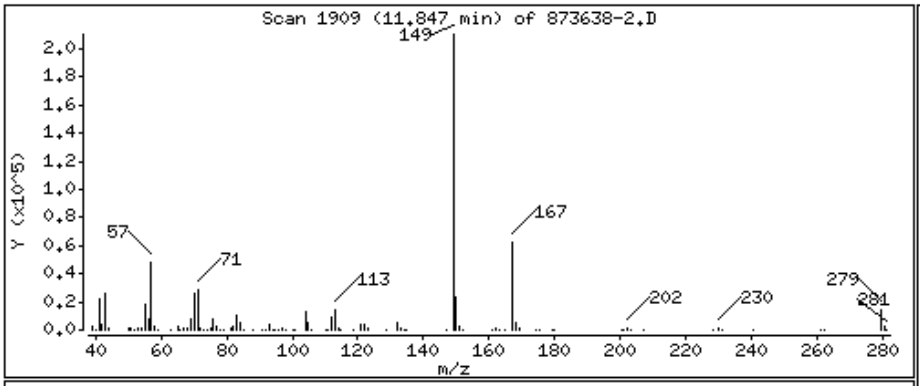
Operator: als

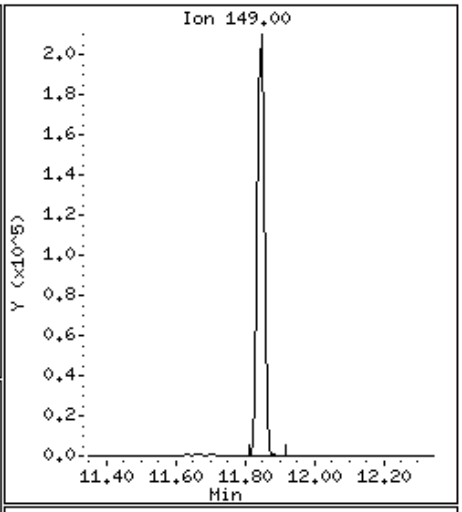
Column phase: RTx-5

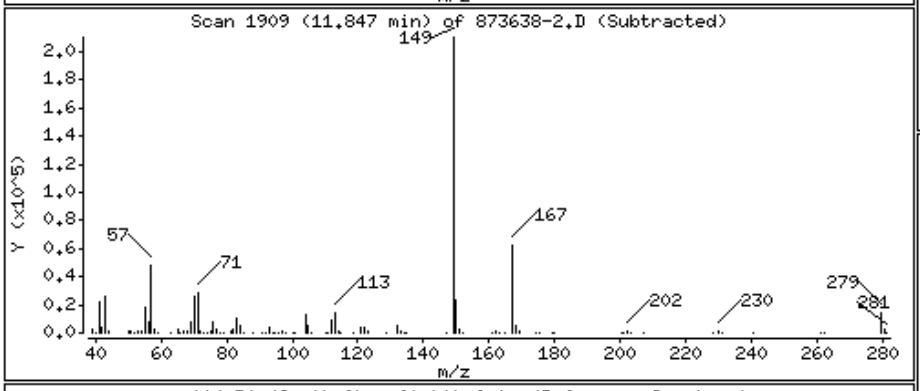
Column diameter: 0.32

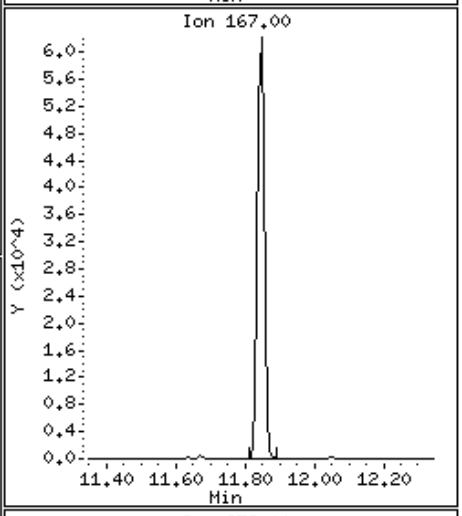
104 Bis(2-ethylhexyl)phthalate

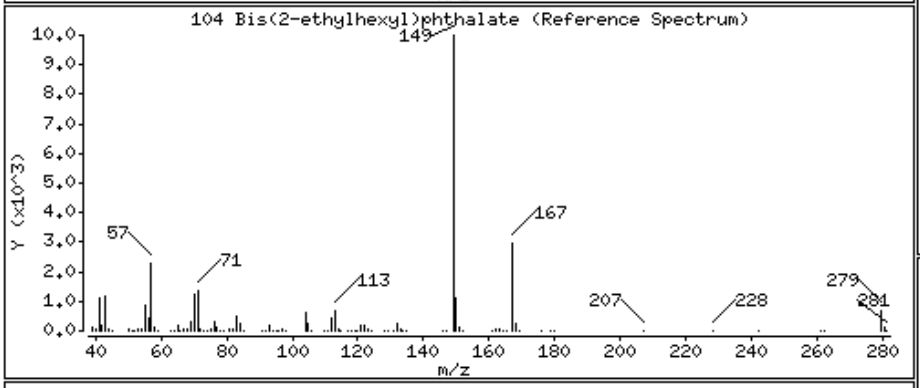
Concentration: 26.0 ug/L

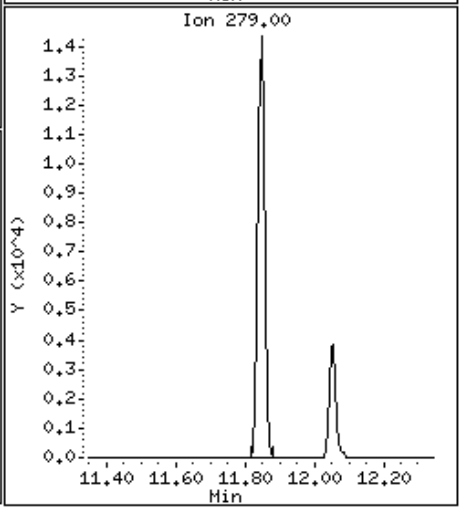


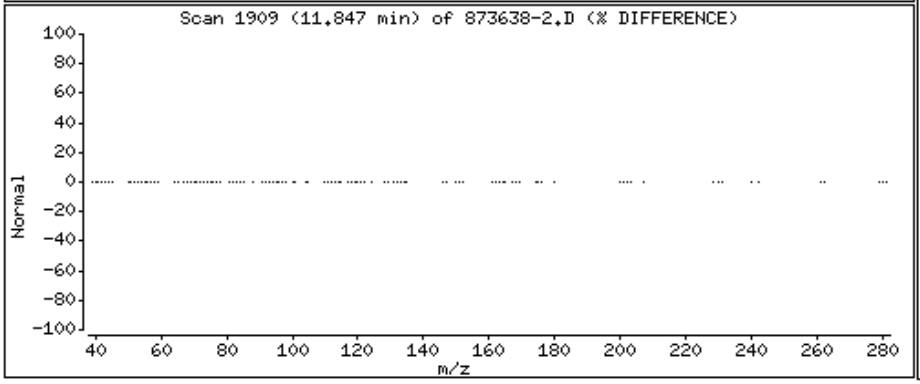












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

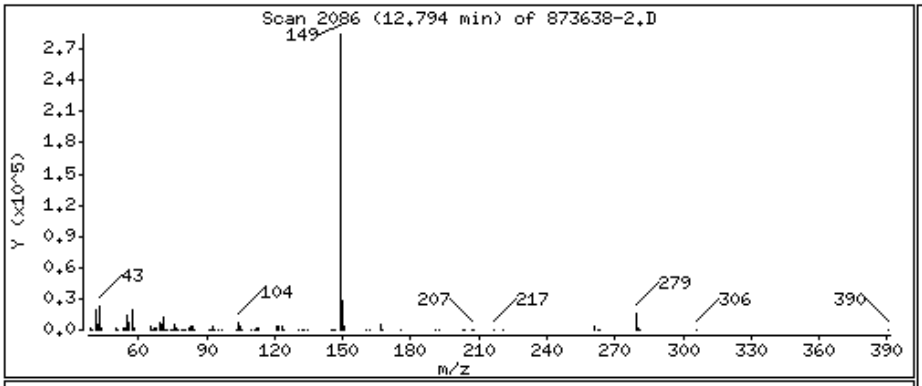
Operator: als

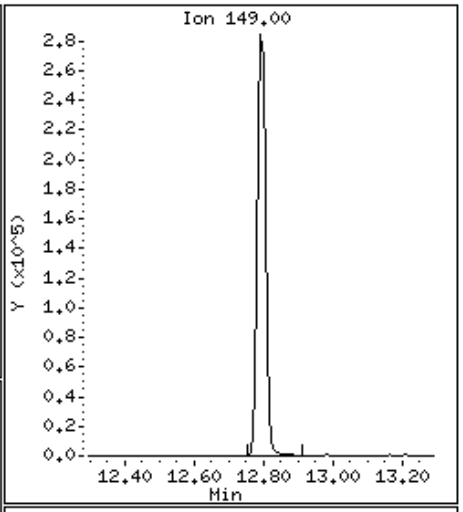
Column phase: RTx-5

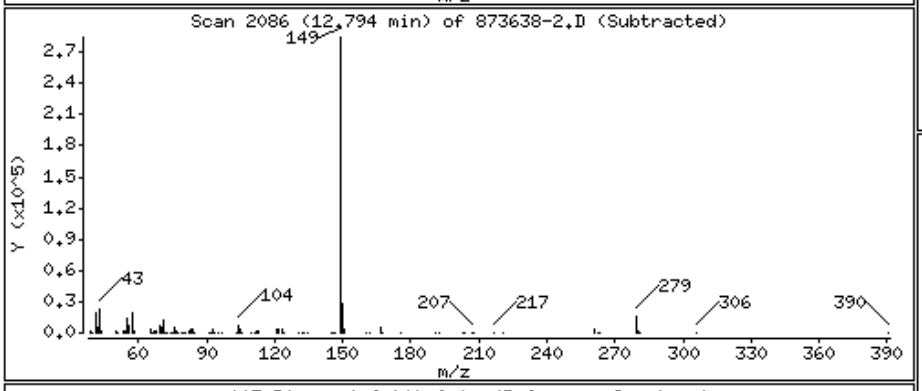
Column diameter: 0.32

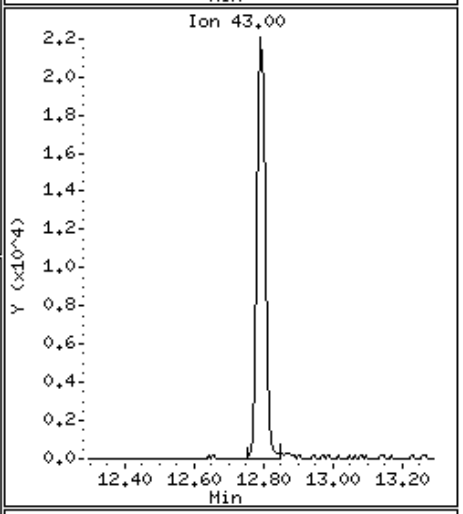
105 Di-n-octylphthalate

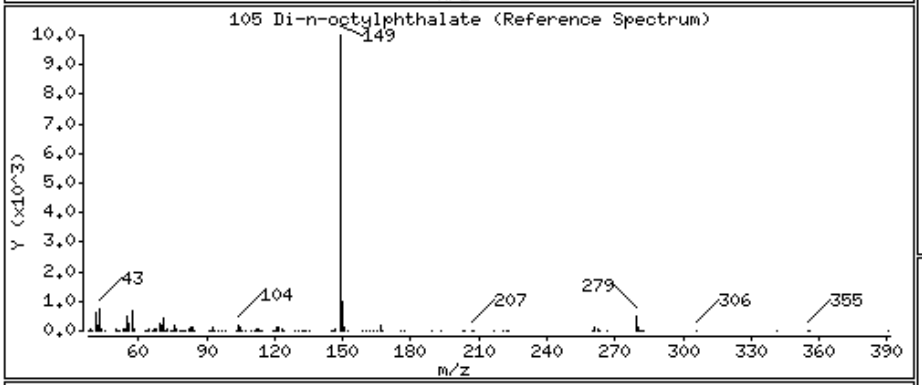
Concentration: 26.0 ug/L

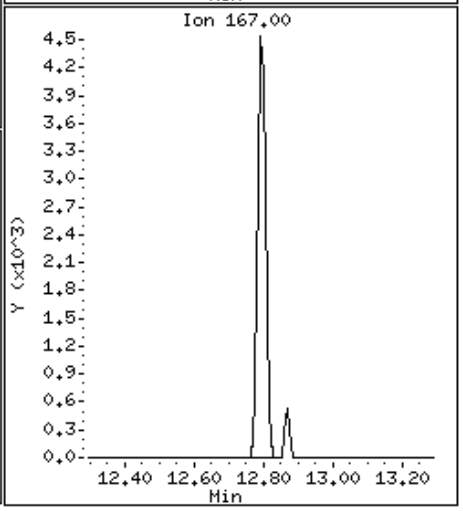


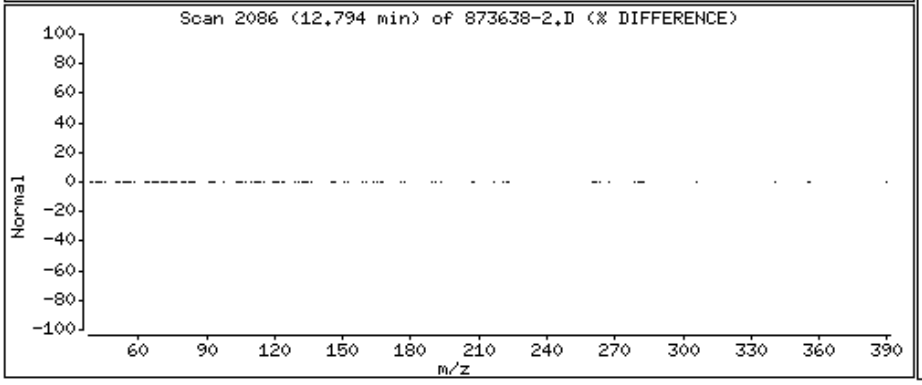












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

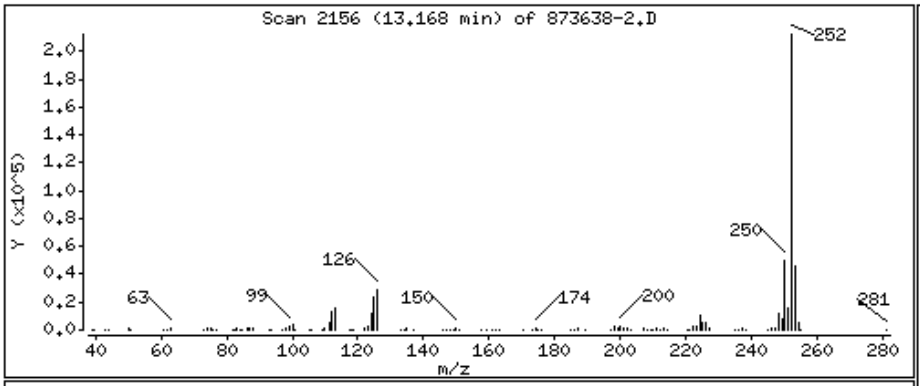
Operator: als

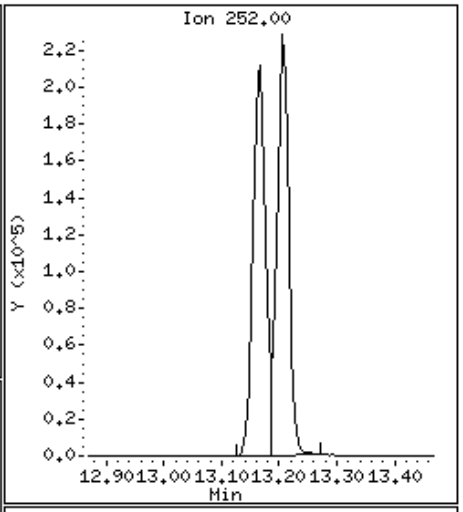
Column phase: RTx-5

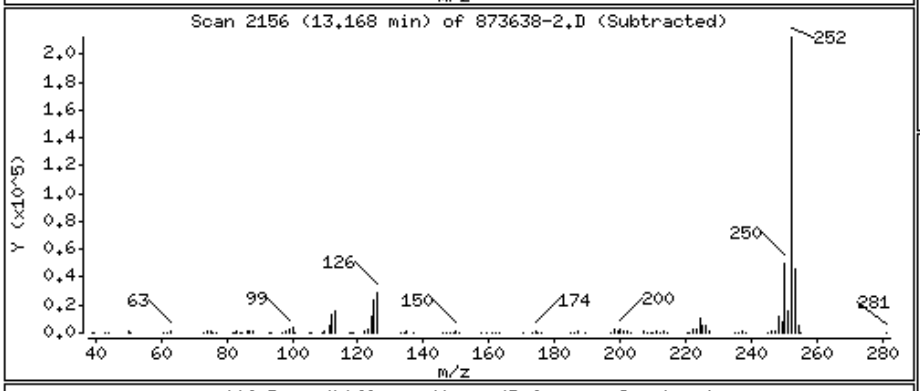
Column diameter: 0.32

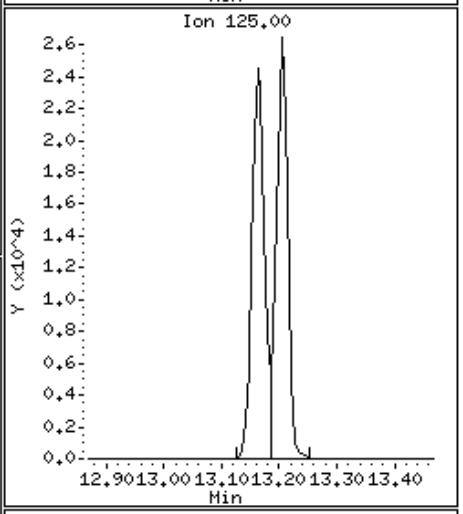
106 Benzo(b)fluoranthene

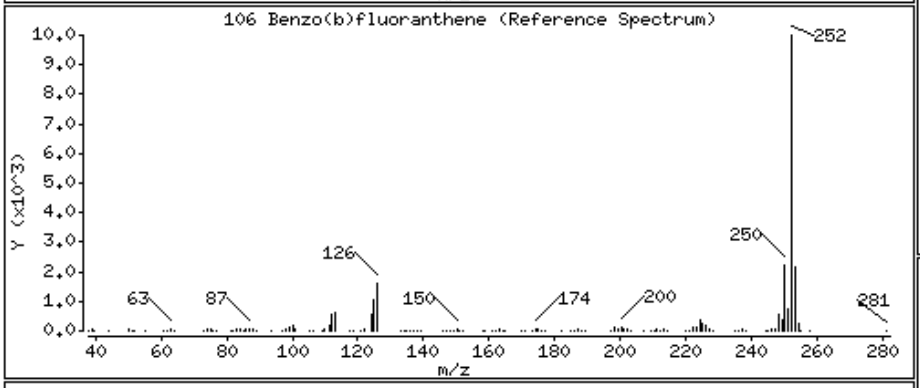
Concentration: 25.6 ug/L

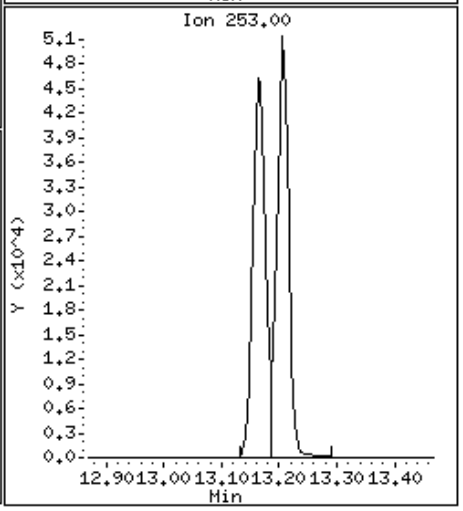


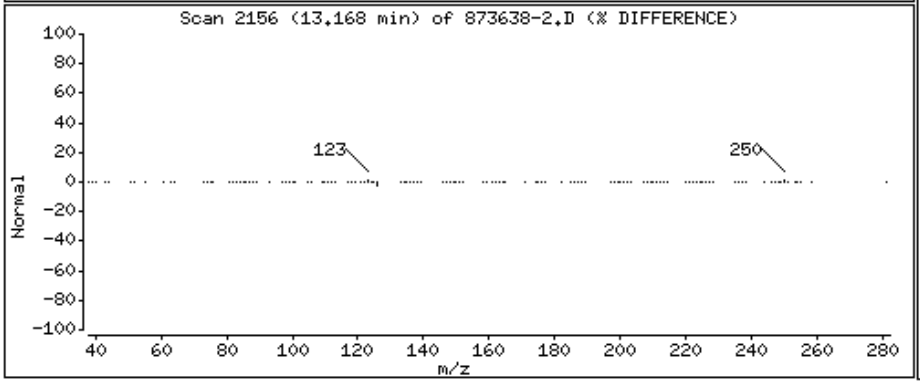












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

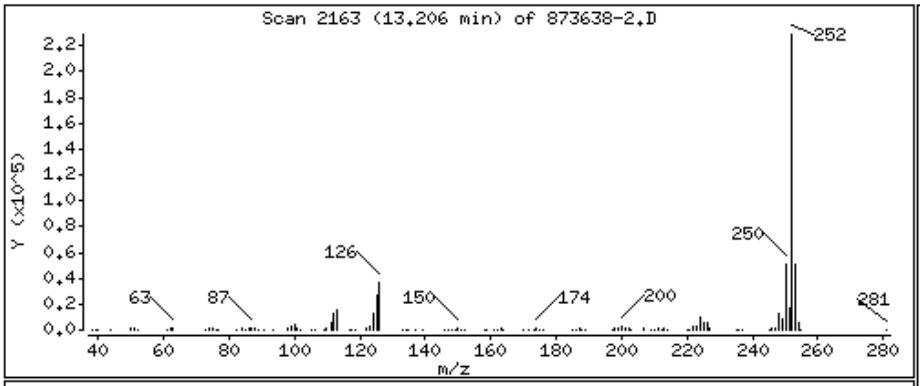
Operator: als

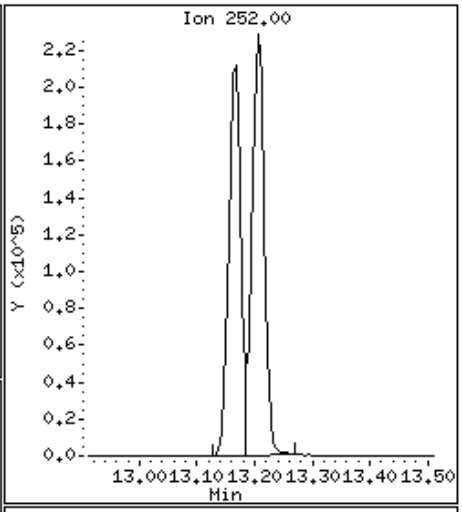
Column phase: RTx-5

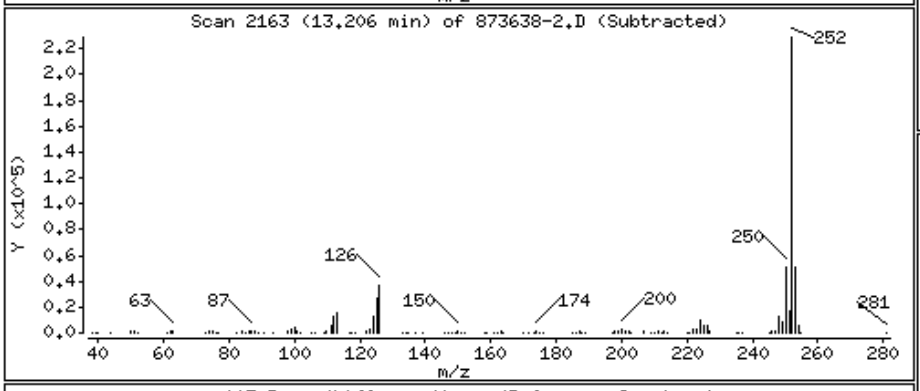
Column diameter: 0.32

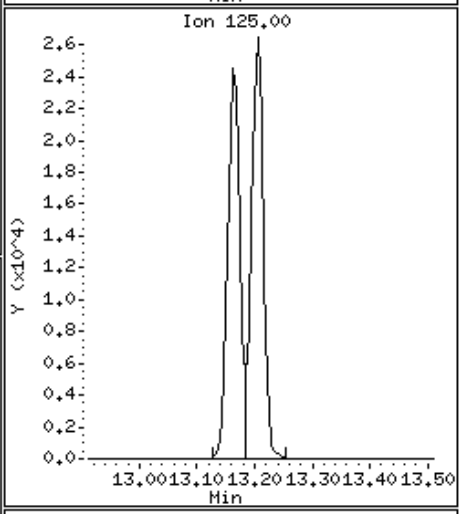
107 Benzo(k)fluoranthene

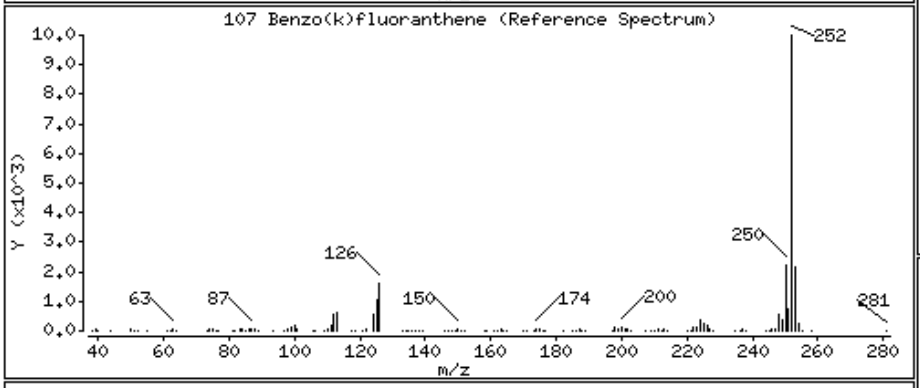
Concentration: 25.7 ug/L

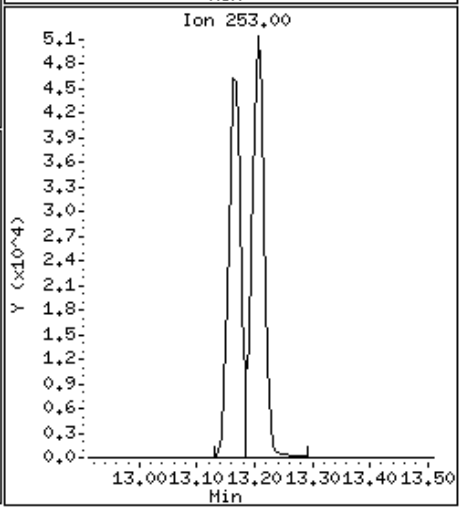


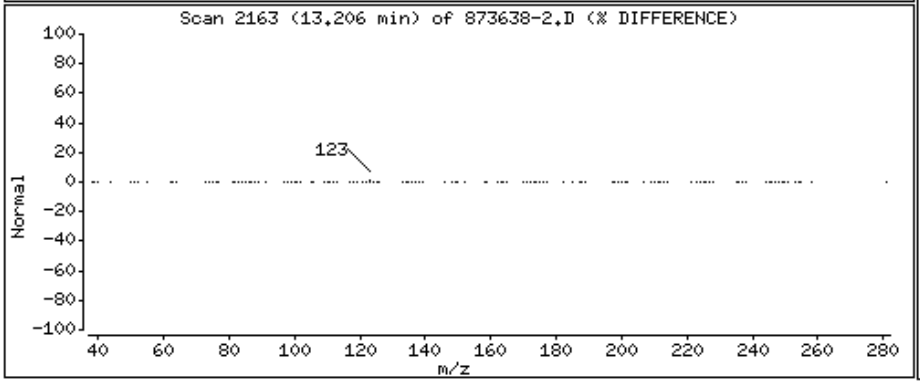












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

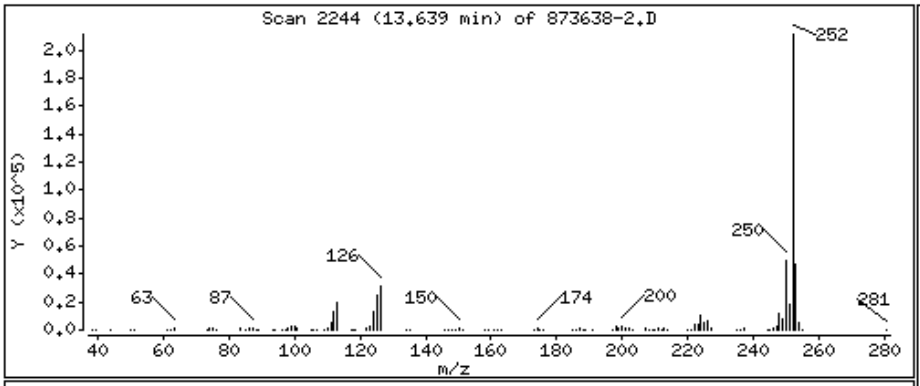
Operator: als

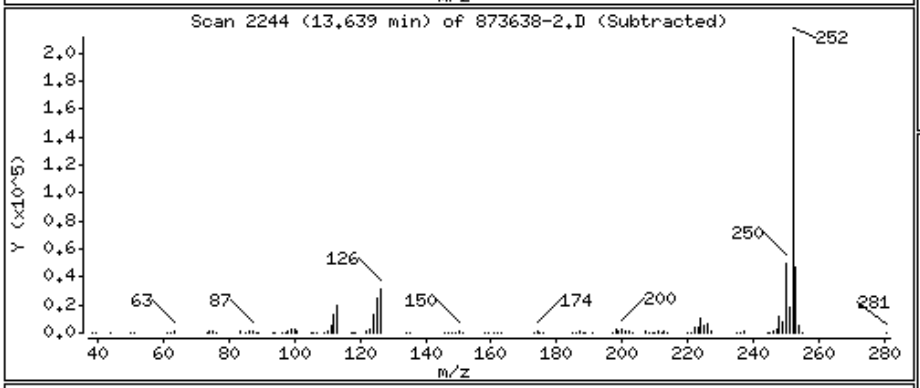
Column phase: RTx-5

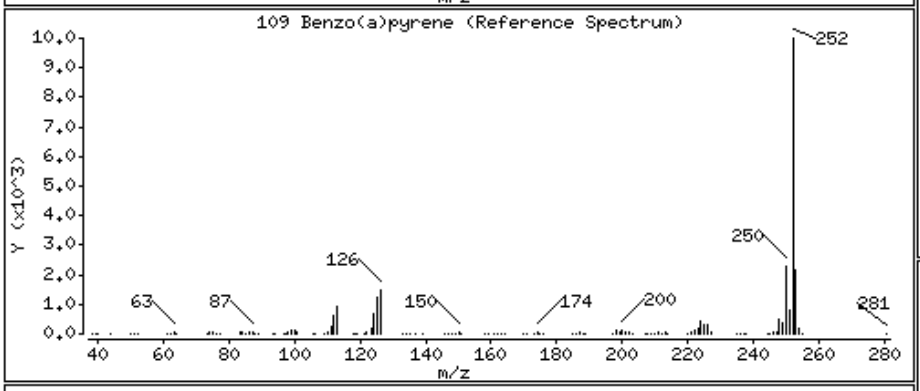
Column diameter: 0.32

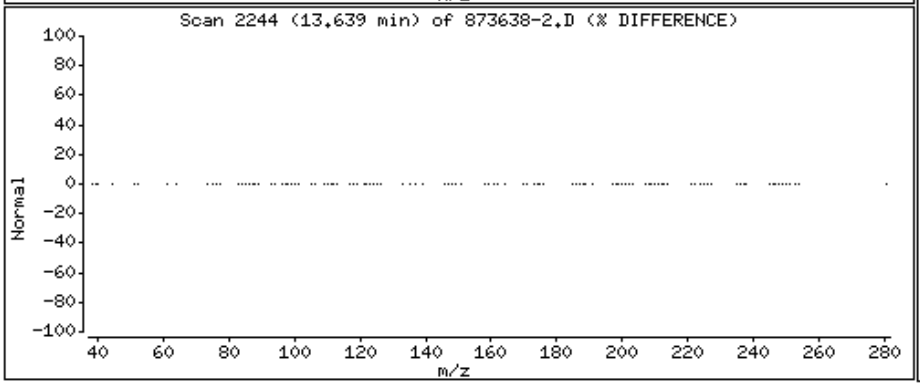
109 Benzo(a)pyrene

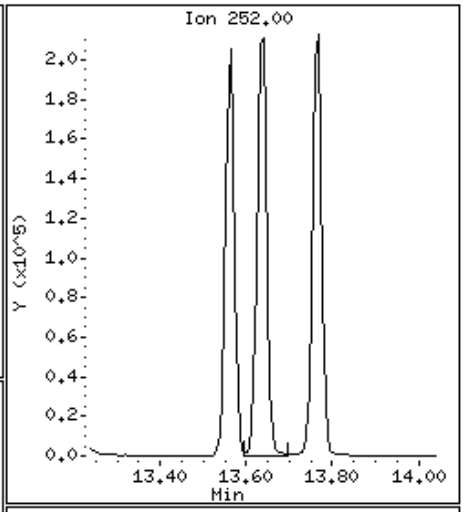
Concentration: 27.2 ug/L

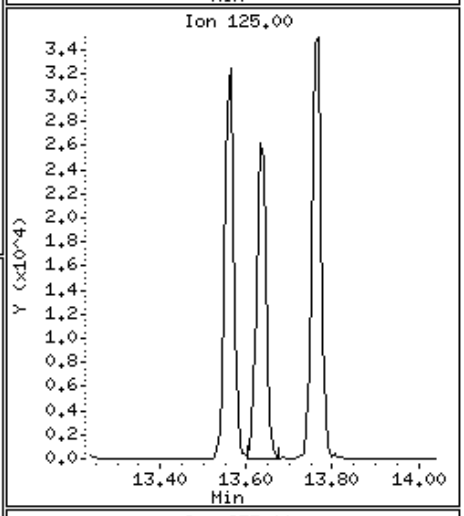


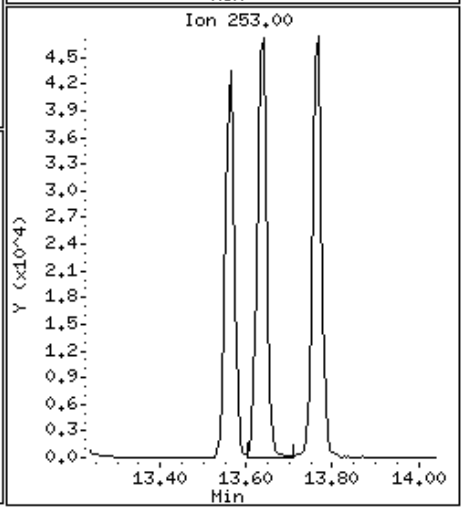












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

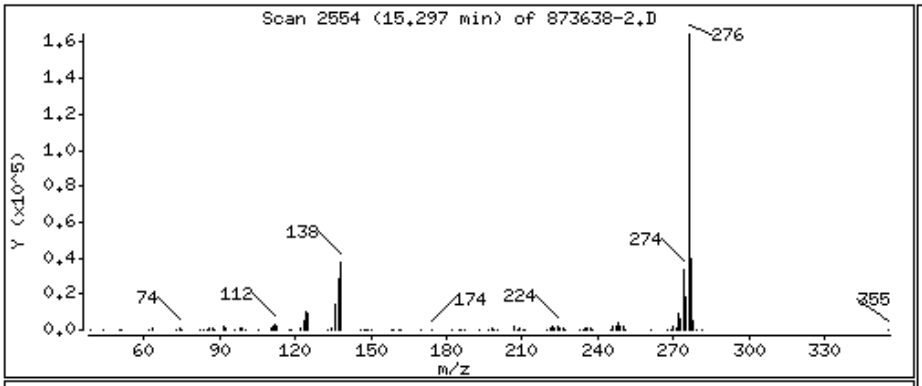
Operator: als

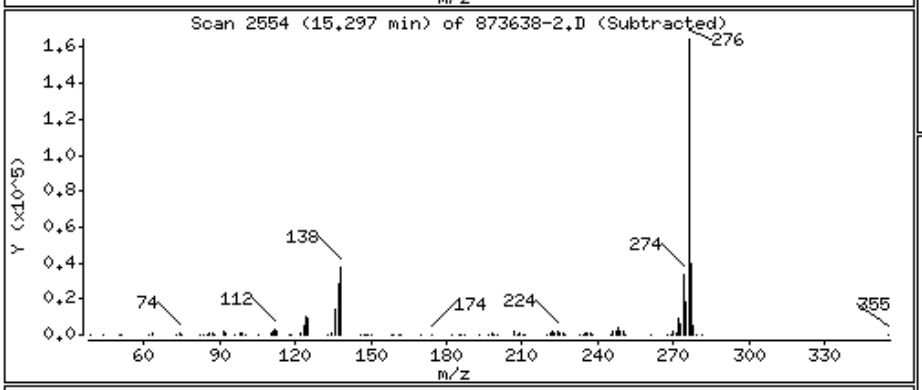
Column phase: RTx-5

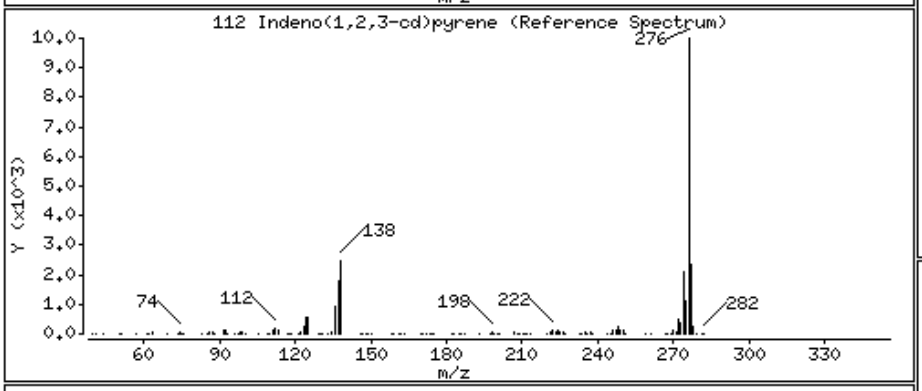
Column diameter: 0.32

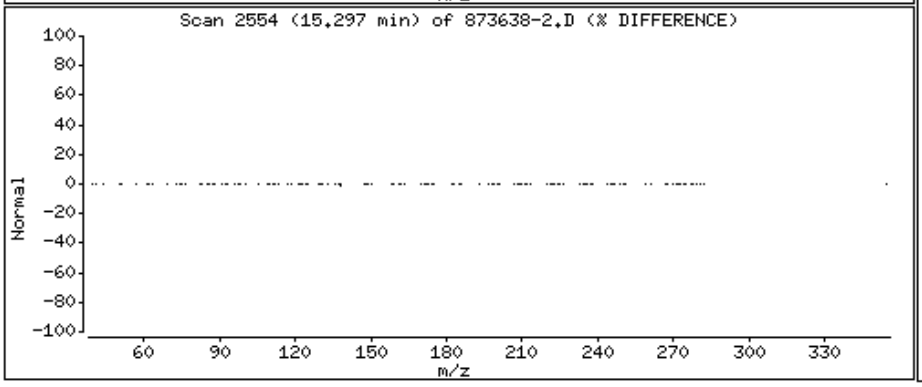
112 Indeno(1,2,3-cd)pyrene

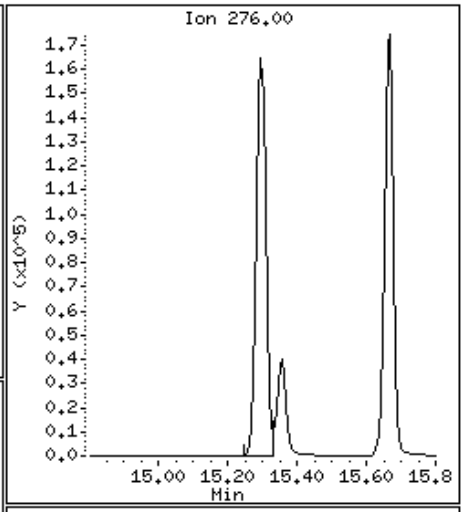
Concentration: 26.3 ug/L

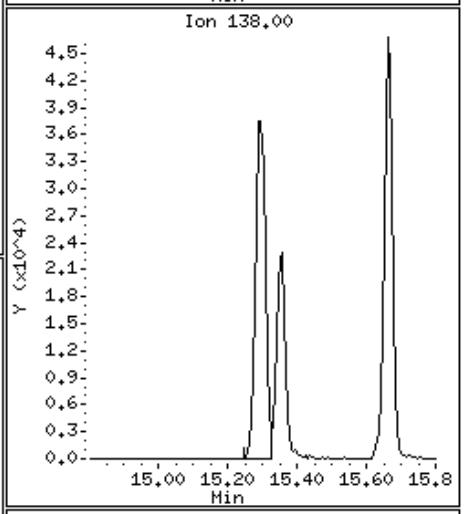


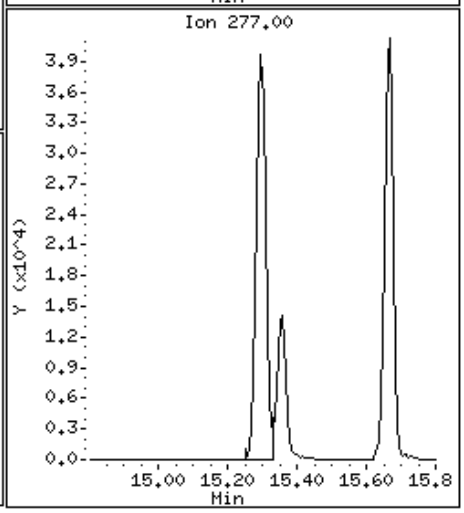












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

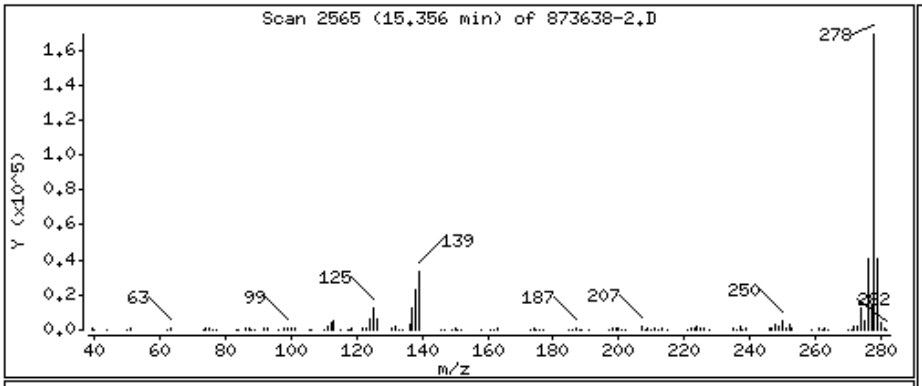
Operator: als

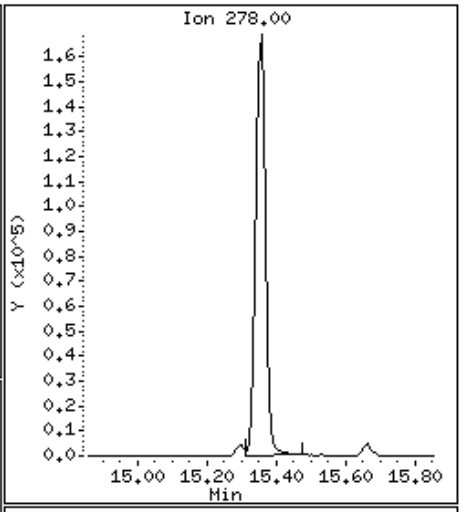
Column phase: RTx-5

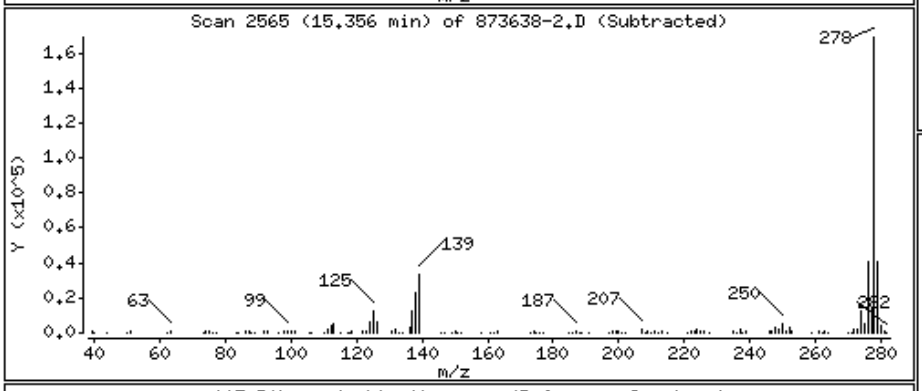
Column diameter: 0.32

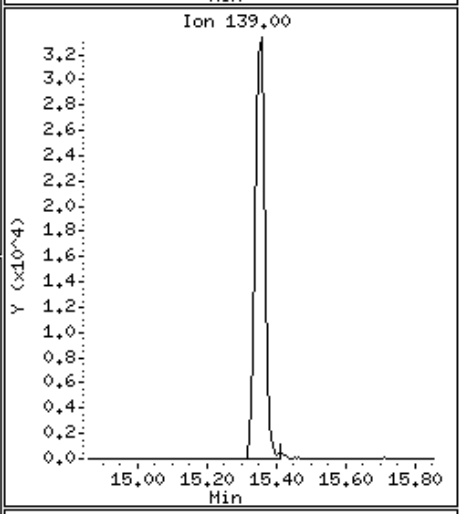
113 Dibenzo(a,h)anthracene

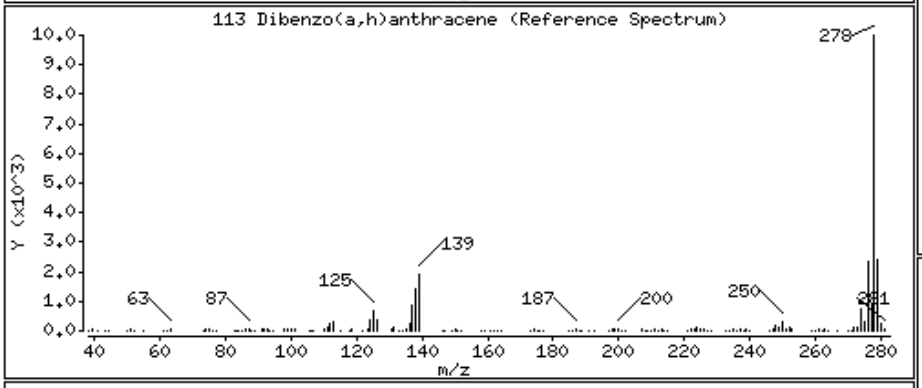
Concentration: 26.0 ug/L

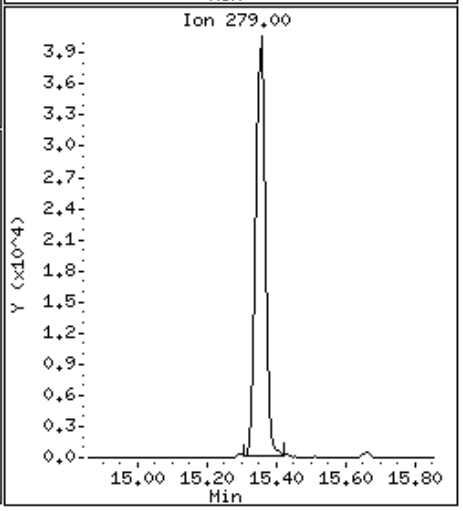


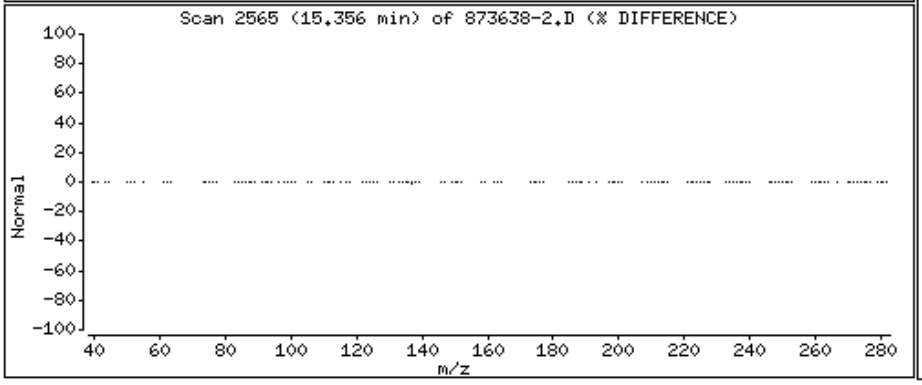












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

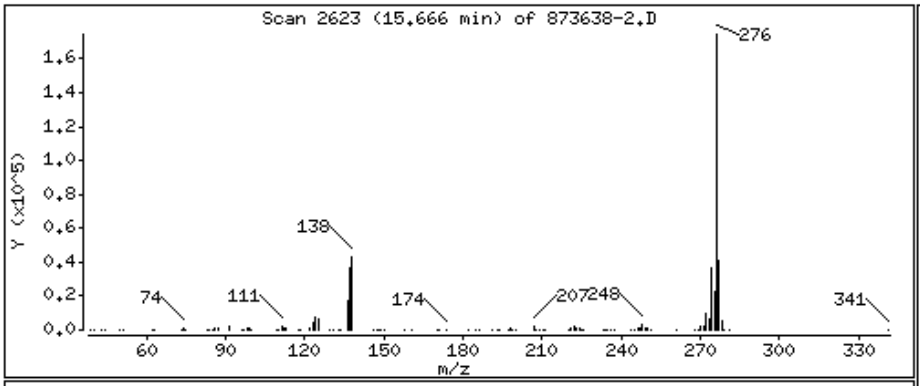
Operator: als

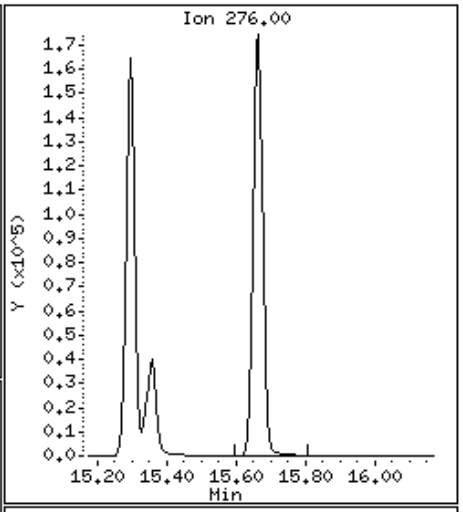
Column phase: RTx-5

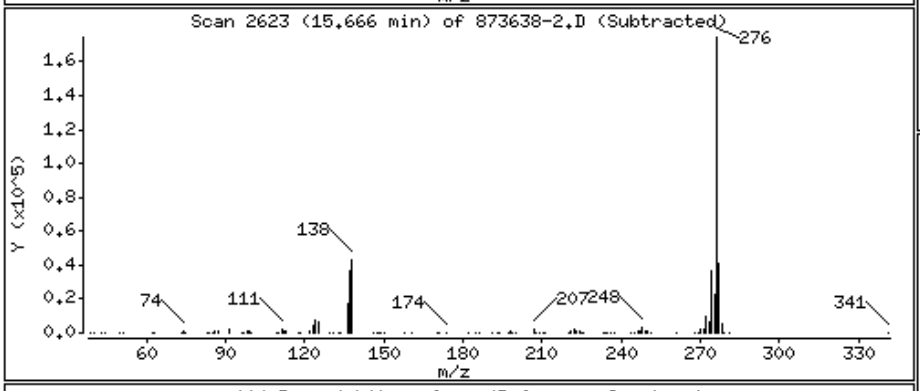
Column diameter: 0.32

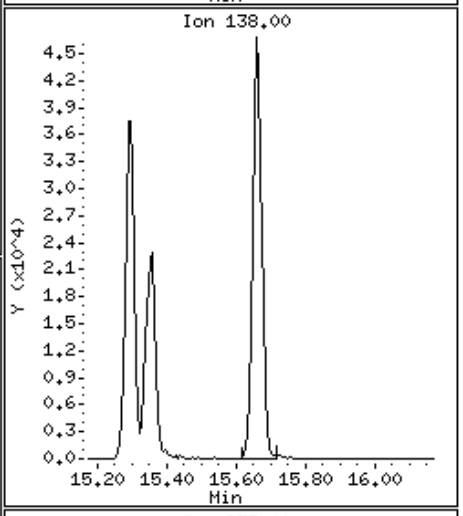
114 Benzo(ghi)perylene

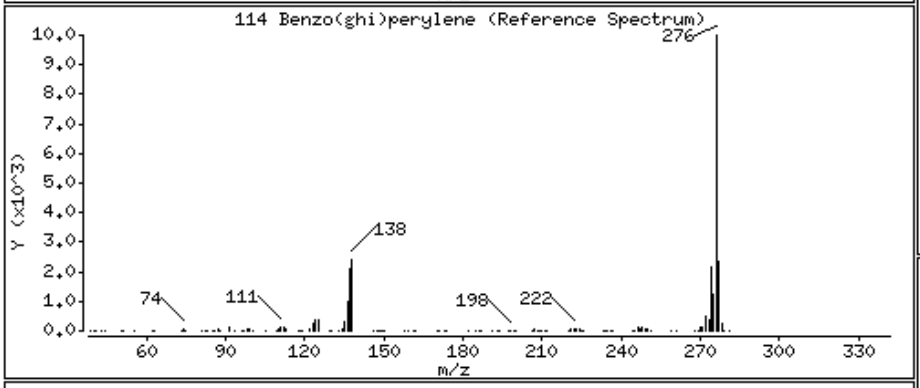
Concentration: 26.1 ug/L

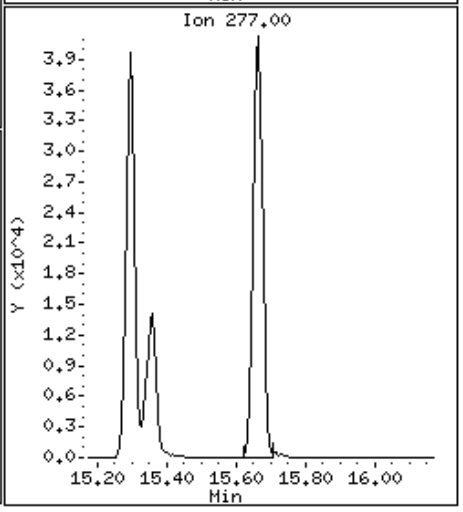


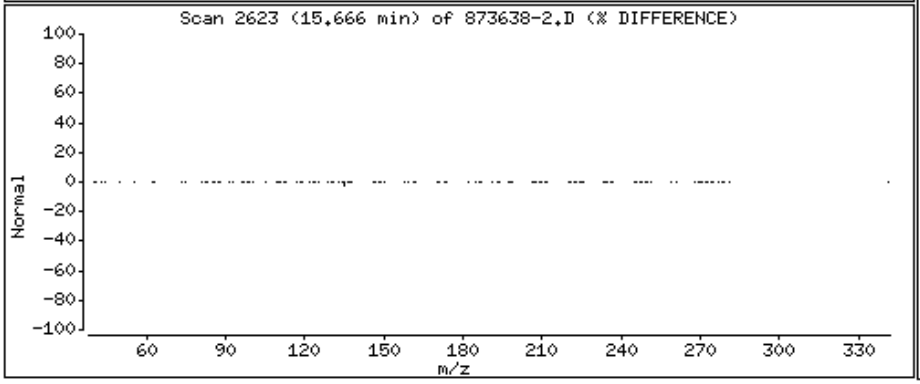












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-2.D

Date : 14-MAR-2016 23:55

Client ID:

Instrument: SV103.i

Sample Info: wg873638-2,32,nytcl,als

Purge Volume: 1000.0

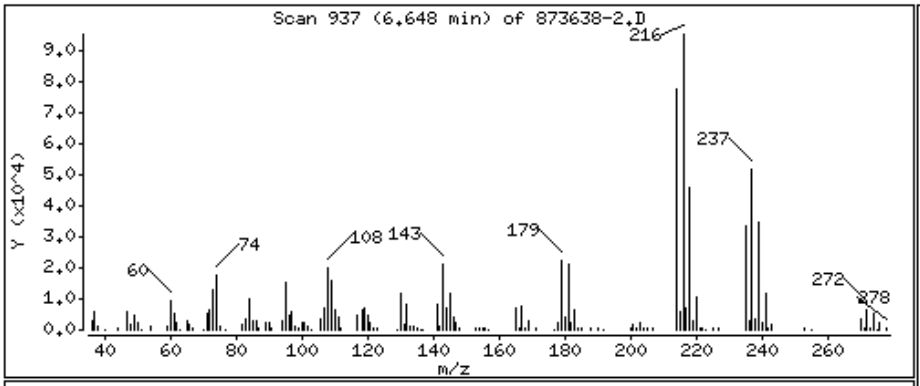
Operator: als

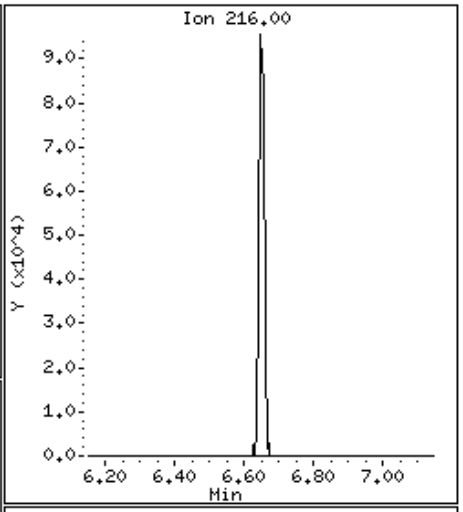
Column phase: RTx-5

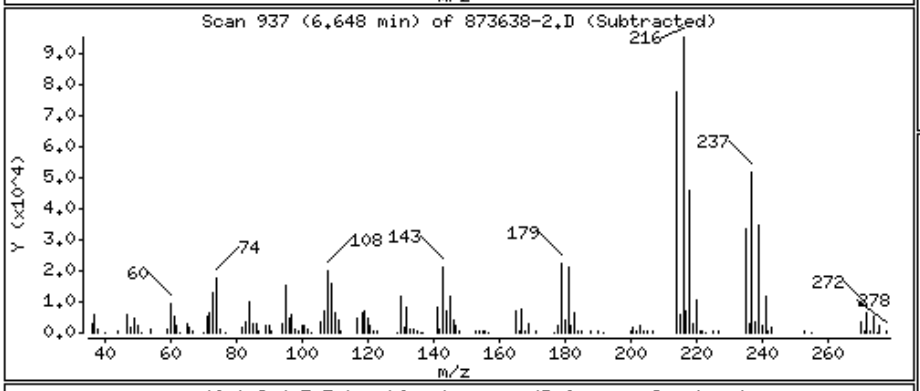
Column diameter: 0.32

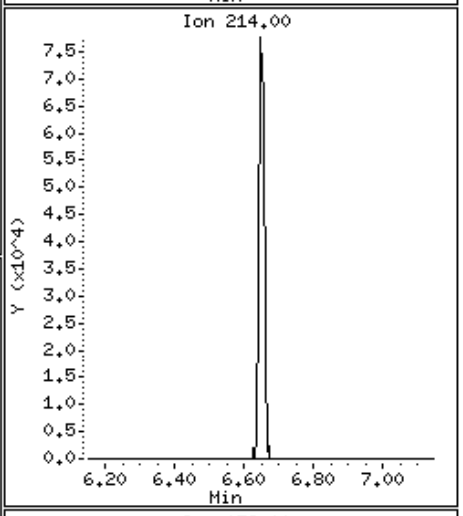
46 1,2,4,5-Tetrachlorobenzene

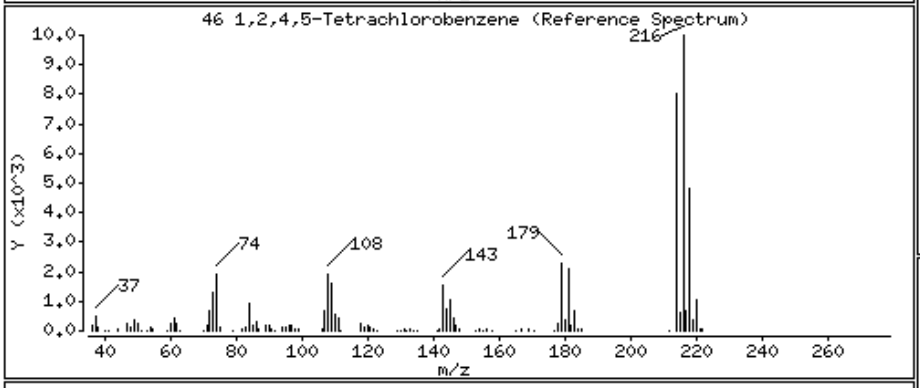
Concentration: 24.9 ug/L

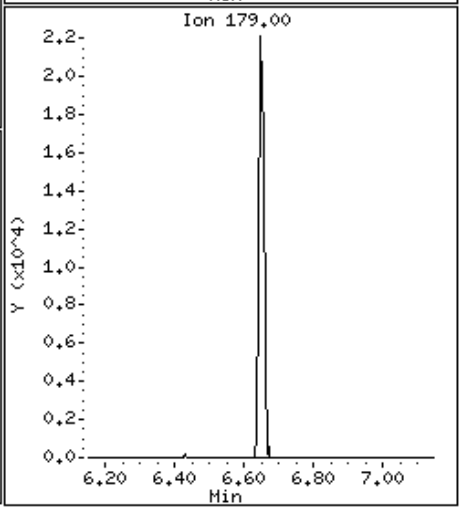


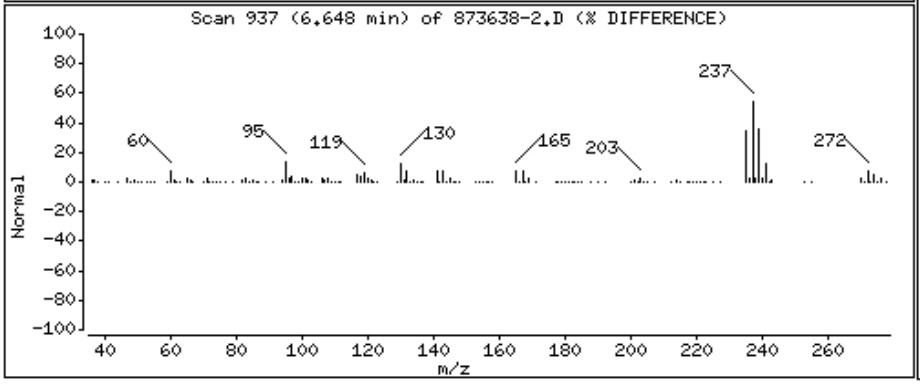












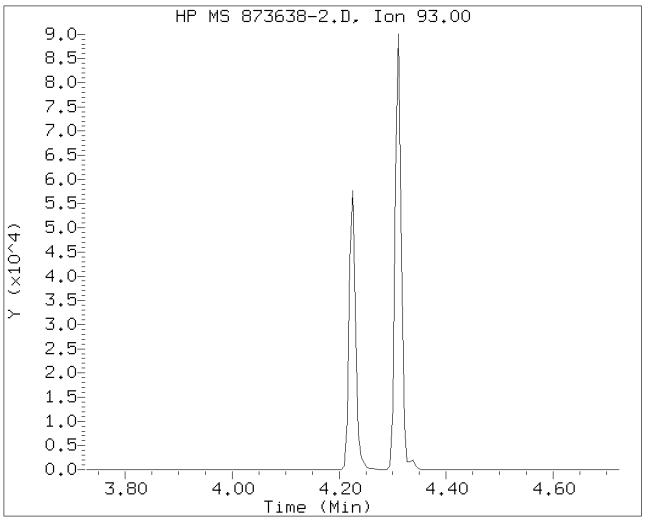
Alpha Analytical Labs

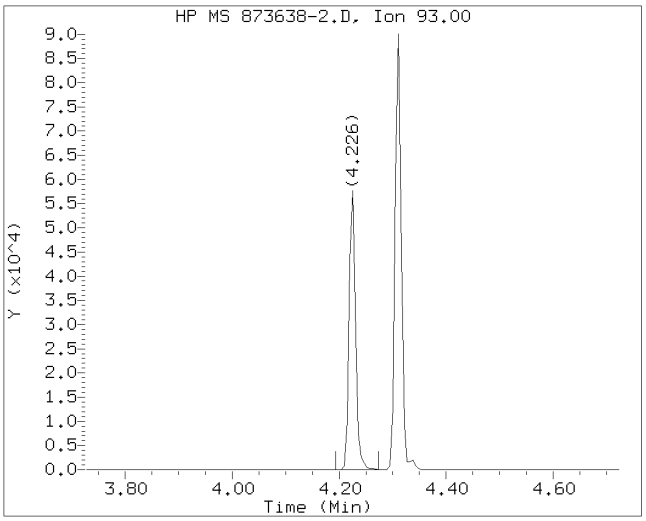
Manual Integration

Sample Info : wg873638-2,32,nytcl,als
wg874362,wg873638, ICAL12135

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : 873638-2.D
Injection Date : 14-MAR-2016 23:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 5: Aniline

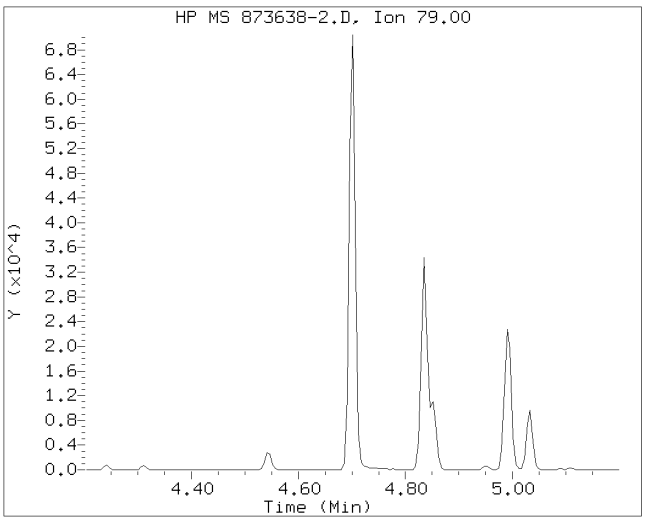


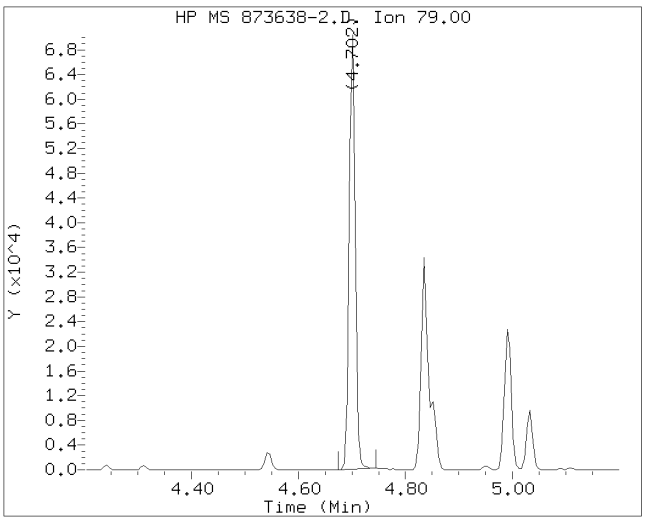


Original Peak Response = 0 Manual Peak Response = 48749 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 13: Benzyl alcohol





Original Peak Response = 0 Manual Peak Response = 55838 M2

M2 = Peak not found by automatic integration algorithm.

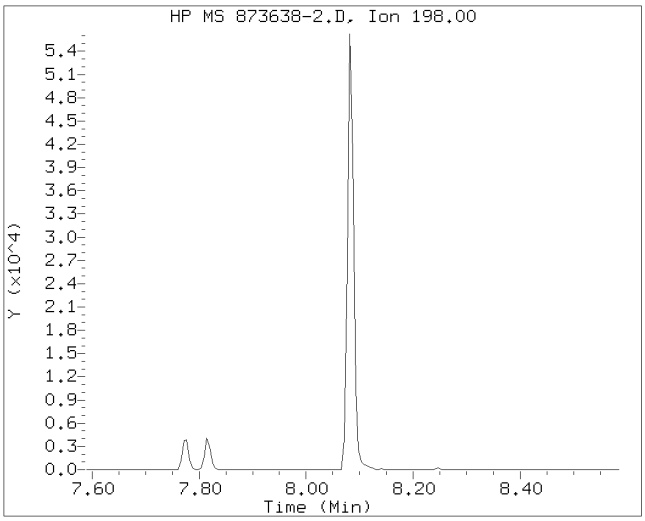
Alpha Analytical Labs

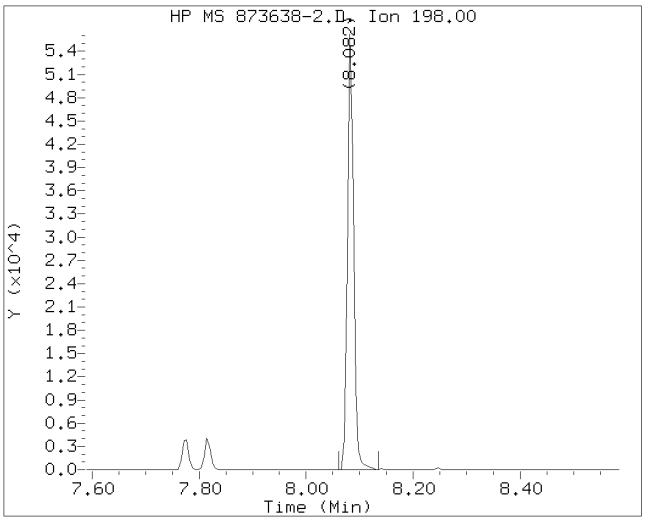
Manual Integration

Sample Info : wg873638-2,32,nytcl,als
wg874362,wg873638, ICAL12135

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : 873638-2.D
Injection Date : 14-MAR-2016 23:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 73: 4,6-Dinitro-o-cresol





Original Peak Response = 0 Manual Peak Response = 45808 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D
Lab Smp Id:
Inj Date : 15-MAR-2016 00:20
Operator : als Inst ID: SV103.i
Smp Info : wg873638-3,32,nytcl,als
Misc Info : wg874362,wg873638, ICAL12135
Comment : Rev. 071219 (Megamix ICAL)
Method : \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Meth Date : 15-Mar-2016 17:06 hlac Quant Type: ISTD
Cal Date : 09-MAR-2016 19:55 Cal File: BENZL10.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270TCL+6.sub
Target Version: 4.12
Processing Host: A1-001720

Concentration Formula: Amt * DF * 1000 * 1/Vo*vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Sample Volume Extracted (mL)
vf	1.000	Extract Final Volume (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)	REVIEW CODE
1	n-Nitrosodimethylamine	74	1.829	1.829	(0.402)	29267	15.5422	15.5	
68	2,3,4,6-Tetrachlorophenol	232	7.814	7.814	(1.044)	61072	34.0250	34.0	
91	Parathion	109	9.702	9.702	(2.134)	46818	43.1757	43.2	
2	Pyridine	79	1.861	1.856	(0.409)	31415	9.78589	9.78	
$ 3	2-Fluorophenol	112	3.257	3.257	(0.716)	66893	24.6266	24.6	
4	Benzaldehyde	105	4.107	4.107	(0.904)	65765	28.8171	28.8	
5	Aniline	93	4.225	4.225	(0.929)	71938	16.0701	16.1	
$ 6	Phenol-d6	99	4.230	4.230	(0.931)	57201	16.7049	16.7	
7	Phenol	94	4.241	4.246	(0.933)	50752	12.9593	13.0	
8	Bis(2-chloroethyl)ether	93	4.311	4.311	(0.948)	78241	26.3478	26.3	
9	2-Chlorophenol	128	4.337	4.337	(0.954)	86191	29.1507	29.2	
10	1,3-Dichlorobenzene	146	4.487	4.487	(0.987)	85217	25.8933	25.9	
* 11	1,4-Dichlorobenzene-d4	152	4.546	4.546	(1.000)	81564	40.0000		
12	1,4-Dichlorobenzene	146	4.562	4.562	(1.004)	88586	26.0277	26.0	
13	Benzyl alcohol	79	4.701	4.701	(1.034)	61236	24.4582	24.4(M)	M2
14	1,2-Dichlorobenzene	146	4.706	4.706	(1.035)	85664	26.8966	26.9	
16	Bis(2-chloroisopropyl)ether	45	4.851	4.851	(1.067)	92539	18.8550	18.8	
15	2-Methylphenol	108	4.835	4.835	(1.064)	69699	26.7566	26.8	
17	Acetophenone	105	4.952	4.947	(1.089)	119859	30.9424	30.9(R)	
18	n-Nitrosodi-n-propylamine	70	4.969	4.974	(1.093)	60105	27.5481	27.5	
19	3-Methylphenol/4-Methylphenol	108	4.990	4.995	(1.098)	69266	25.2325	25.2	
21	Hexachloroethane	117	5.033	5.033	(1.107)	36147	25.6104	25.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$	22 Nitrobenzene-d5	82	5.092	5.091	(1.120)	54546	17.7031	17.7	
	23 Nitrobenzene	77	5.108	5.108	(0.883)	86436	25.2772	25.3	
	26 Isophorone	82	5.348	5.354	(1.176)	166211	28.9859	29.0	
	28 2-Nitrophenol	139	5.423	5.423	(1.193)	52936	32.9546	33.0	
	29 2,4-Dimethylphenol	107	5.503	5.503	(1.211)	89126	30.2905	30.3	
	30 Bis(2-chloroethoxy)methane	93	5.589	5.589	(1.229)	103629	29.2754	29.3	
	31 Benzoic acid	105	5.573	5.621	(0.964)	16032	13.0324	13.0	
	32 2,4-Dichlorophenol	162	5.664	5.664	(0.980)	82158	32.1012	32.1	
	33 1,2,4-Trichlorobenzene	180	5.739	5.739	(0.993)	82461	28.1764	28.2	
*	34 Naphthalene-d8	136	5.782	5.781	(1.000)	359210	40.0000		
	35 Naphthalene	128	5.803	5.803	(1.004)	243999	27.0562	27.0	
	38 4-Chloroaniline	65	5.878	5.878	(1.017)	31389	25.4202	25.4	
	40 Hexachlorobutadiene	225	5.953	5.953	(1.030)	49163	28.8827	28.9	
	42 Caprolactam	55	6.183	6.183	(1.069)	10850	6.91524	6.92	
	43 p-Chloro-m-cresol	107	6.375	6.375	(1.103)	81314	30.8372	30.8	
	44 2-Methylnaphthalene	142	6.482	6.482	(1.121)	174974	28.7690	28.8	
	45 1-Methylnaphthalene	115	6.573	6.573	(1.137)	60456	28.8704	28.9	
	47 Hexachlorocyclopentadiene	237	6.648	6.653	(1.150)	53350	27.9941	28.0	
	48 2,4,6-Trichlorophenol	196	6.771	6.771	(1.171)	61730	34.4999	34.5	
	49 2,4,5-Trichlorophenol	196	6.798	6.798	(1.176)	64127	33.1589	33.2	
$	50 2-Fluorobiphenyl	172	6.857	6.857	(1.186)	128688	20.2109	20.2	
	51 Biphenyl	154	6.942	6.942	(0.928)	226989	26.7981	26.8	
	52 2-Chloronaphthalene	162	6.948	6.947	(1.202)	177434	30.8925	30.9	
	53 2-Nitroaniline	138	7.060	7.060	(1.221)	65988	34.7123	34.7	
	55 Dimethyl phthalate	163	7.263	7.268	(0.971)	216898	28.4040	28.4	
	57 2,6-Dinitrotoluene	165	7.306	7.311	(1.264)	52931	34.7135	34.7(M)	M2
	58 Acenaphthylene	152	7.343	7.343	(1.270)	275809	30.3493	30.3	
	60 3-Nitroaniline	138	7.461	7.461	(0.997)	52317	25.9787	26.0	
*	61 Acenaphthene-d10	164	7.482	7.488	(1.000)	224625	40.0000		
	62 Acenaphthene	154	7.514	7.514	(1.004)	174970	27.0187	27.0	
	63 2,4-Dinitrophenol	184	7.563	7.563	(1.011)	36545	28.6439	28.6	
	65 Dibenzofuran	168	7.686	7.686	(1.027)	261201	27.9670	28.0	
	64 4-Nitrophenol	65	7.654	7.653	(1.023)	25486	15.1201	15.1	
	66 2,4-Dinitrotoluene	165	7.691	7.696	(1.028)	71487	30.5424	30.5	
	69 Diethyl phthalate	149	7.953	7.958	(1.063)	228933	29.0622	29.1	
	70 Fluorene	166	8.012	8.017	(1.071)	219274	28.6902	28.7	
	71 4-Chlorophenyl phenyl ether	204	8.033	8.039	(1.074)	106507	29.7637	29.8	
	72 4-Nitroaniline	138	8.044	8.049	(1.075)	56726	28.3813	28.4	
	73 4,6-Dinitro-o-cresol	198	8.081	8.087	(1.080)	47295	29.5621	29.6(M)	M2
	74 NDPA/DPA	169	8.151	8.151	(1.089)	183729	28.5133	28.5	
	75 Azobenzene	77	8.183	8.188	(1.094)	196987	24.4626	24.5	
$	76 2,4,6-Tribromophenol	330	8.247	8.247	(0.926)	49852	41.5116	41.5	
	78 4-Bromophenyl phenyl ether	248	8.504	8.504	(1.137)	65064	31.9687	32.0	
	79 Hexachlorobenzene	284	8.547	8.552	(1.142)	70661	32.4508	32.4	
	82 Atrazine	200	8.691	8.697	(0.975)	70224	37.0855	37.1	
	83 Pentachlorophenol	266	8.745	8.745	(0.981)	46744	30.2082	30.2	
*	85 Phenanthrene-d10	188	8.910	8.910	(1.000)	428386	40.0000		
	86 Phenanthrene	178	8.932	8.937	(1.002)	329744	27.0537	27.0	
	87 Anthracene	178	8.985	8.985	(1.008)	332751	27.7532	27.8	
	89 Carbazole	167	9.151	9.156	(1.027)	307532	27.4483	27.4	
	90 Di-n-butylphthalate	149	9.547	9.547	(1.071)	390954	27.9032	27.9	
	93 Fluoranthene	202	10.082	10.087	(1.131)	353470	28.4885	28.5	
	94 Benzidine	184	10.242	10.242	(1.149)	113297	14.3910	14.4	
	95 Pyrene	202	10.296	10.301	(1.155)	367723	28.2647	28.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 96 4-Terphenyl-d14	244	10.494	10.499	(1.178)	153121	18.8593	18.8	
98 Butyl benzyl phthalate	149	11.066	11.066	(1.242)	177680	28.2834	28.3	
101 3,3'-Dichlorobenzidine	252	11.670	11.670	(1.000)	139229	31.0761	31.1(R)	
100 Benzo(a)anthracene	228	11.660	11.665	(0.999)	351819	27.1952	27.2	
* 102 Chrysene-d12	240	11.676	11.676	(1.000)	425640	40.0000		
103 Chrysene	228	11.708	11.708	(1.003)	343705	27.3471	27.3	
104 Bis(2-ethylhexyl)phthalate	149	11.847	11.847	(1.015)	253794	26.9403	26.9	
105 Di-n-octylphthalate	149	12.794	12.794	(1.096)	432582	27.8723	27.9	
106 Benzo(b)fluoranthene	252	13.168	13.168	(0.959)	335526	27.0370	27.0	
107 Benzo(k)fluoranthene	252	13.205	13.211	(0.962)	357782	27.5096	27.5	
109 Benzo(a)pyrene	252	13.639	13.639	(0.993)	350075	29.2621	29.3	
* 110 Perylene-d12	264	13.730	13.724	(1.000)	425899	40.0000		
112 Indeno(1,2,3-cd)pyrene	276	15.297	15.302	(1.114)	299861	28.0866	28.1	
113 Dibenzo(a,h)anthracene	278	15.356	15.356	(1.118)	310534	27.8994	27.9	
114 Benzo(ghi)perylene	276	15.666	15.671	(1.141)	323262	27.7132	27.7	
46 1,2,4,5-Tetrachlorobenzene	216	6.648	6.648	(0.888)	87434	27.8756	27.9	

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: SV103.i
Lab File ID: 873638-3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: als
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: wg874362,wg873638, ICAL12135

Calibration Date: 14-MAR-2016
Calibration Time: 21:47
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	96142	48071	192284	81564	-15.16
34 Naphthalene-d8	407631	203816	815262	359210	-11.88
61 Acenaphthene-d10	241274	120637	482548	224625	-6.90
85 Phenanthrene-d10	439963	219982	879926	428386	-2.63
102 Chrysene-d12	427960	213980	855920	425640	-0.54
110 Perylene-d12	392647	196324	785294	425899	8.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 1,4-Dichlorobenze	4.55	4.05	5.05	4.55	0.00
34 Naphthalene-d8	5.78	5.28	6.28	5.78	0.00
61 Acenaphthene-d10	7.49	6.99	7.99	7.48	-0.07
85 Phenanthrene-d10	8.91	8.41	9.41	8.91	0.00
102 Chrysene-d12	11.68	11.18	12.18	11.68	0.00
110 Perylene-d12	13.72	13.22	14.22	13.73	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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: 160314n.b
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: als
Data Type: MS DATA SampleType: LCS
SpikeList File: mcp8270spk.spk Quant Type: ISTD
Sublist File: 8270TCL+6.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\HP2ABNv2.m
Misc Info: wg874362,wg873638, ICAL12135

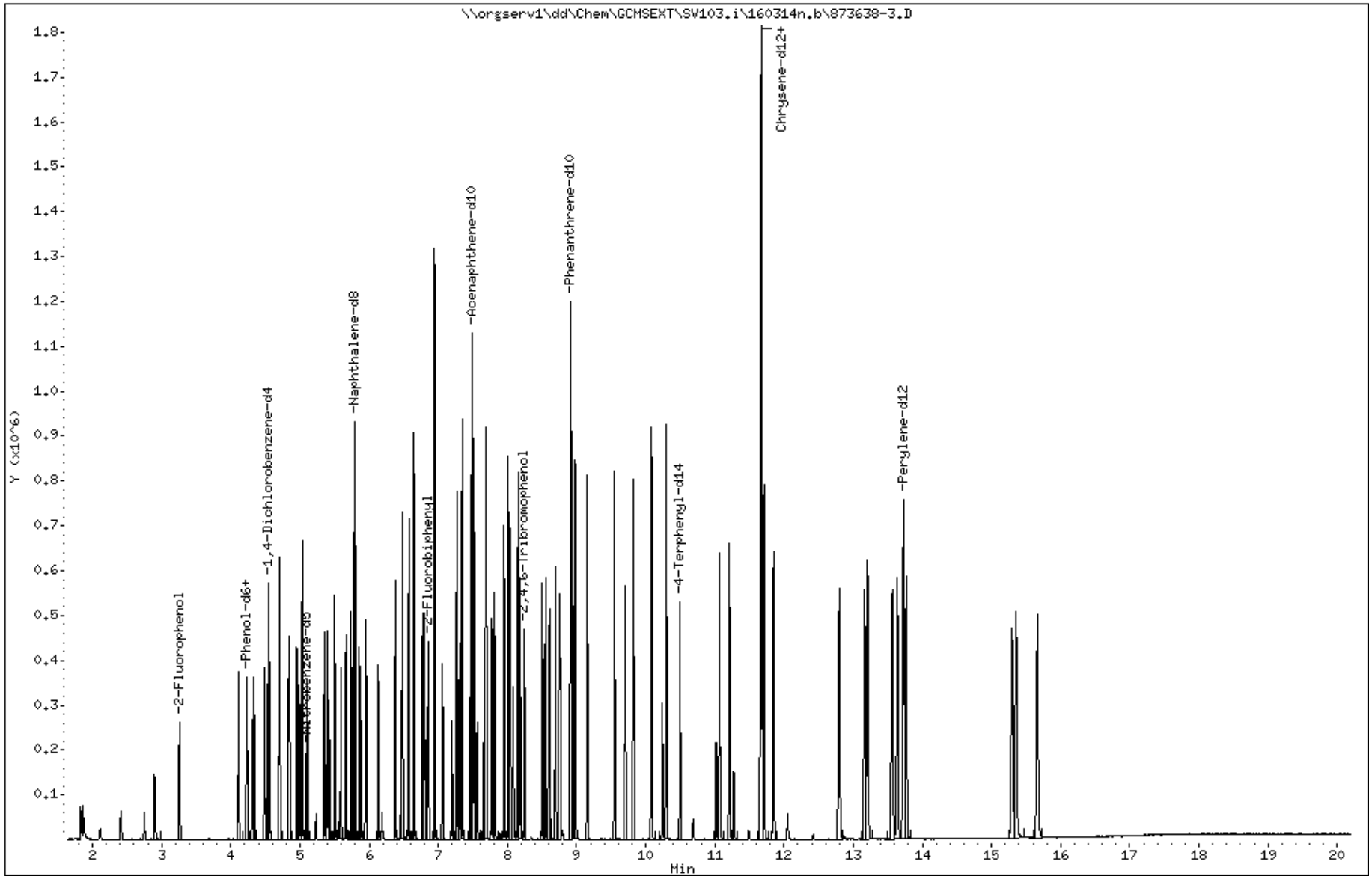
SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5	Aniline	40.0	16.1	40.18	40-140
7	Phenol	40.0	13.0	32.40	30-130
8	Bis(2-chloroethyl)	40.0	26.3	65.87	40-140
9	2-Chlorophenol	40.0	29.2	72.88	30-130
10	1,3-Dichlorobenzen	40.0	25.9	64.73	40-140
12	1,4-Dichlorobenzen	40.0	26.0	65.07	40-140
14	1,2-Dichlorobenzen	40.0	26.9	67.24	40-140
16	Bis(2-chloroisopro	40.0	18.8	47.14	40-140
15	2-Methylphenol	40.0	26.8	66.89	30-130
17	Acetophenone	80.0	30.9	38.68*	40-140
19	3-Methylphenol/4-M	40.0	25.2	63.08	30-130
21	Hexachloroethane	40.0	25.6	64.03	40-140
23	Nitrobenzene	40.0	25.3	63.19	40-140
26	Isophorone	40.0	29.0	72.46	40-140
28	2-Nitrophenol	40.0	33.0	82.39	30-130
29	2,4-Dimethylphenol	40.0	30.3	75.73	30-130
30	Bis(2-chloroethoxy	40.0	29.3	73.19	40-140
32	2,4-Dichlorophenol	40.0	32.1	80.25	30-130
33	1,2,4-Trichloroben	40.0	28.2	70.44	40-140
35	Naphthalene	40.0	27.0	67.64	40-140
38	4-Chloroaniline	40.0	25.4	63.55	40-140
40	Hexachlorobutadien	40.0	28.9	72.21	40-140
44	2-Methylnaphthalen	40.0	28.8	71.92	40-140
48	2,4,6-Trichlorophe	40.0	34.5	86.25	30-130
49	2,4,5-Trichlorophe	40.0	33.2	82.90	30-130
52	2-Chloronaphthalen	40.0	30.9	77.23	40-140
55	Dimethyl phthalate	40.0	28.4	71.01	40-140
58	Acenaphthylene	40.0	30.3	75.87	40-140
57	2,6-Dinitrotoluene	40.0	34.7	86.78	40-140
62	Acenaphthene	40.0	27.0	67.55	40-140
63	2,4-Dinitrophenol	40.0	28.6	71.61	30-130
65	Dibenzofuran	40.0	28.0	69.92	40-140
64	4-Nitrophenol	40.0	15.1	37.80	30-130
66	2,4-Dinitrotoluene	40.0	30.5	76.36	40-140
69	Diethyl phthalate	40.0	29.1	72.66	40-140
70	Fluorene	40.0	28.7	71.73	40-140
75	Azobenzene	40.0	24.5	61.16	40-140
78	4-Bromophenyl phen	40.0	32.0	79.92	40-140
79	Hexachlorobenzene	40.0	32.4	81.13	40-140
83	Pentachlorophenol	40.0	30.2	75.52	30-130

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
86 Phenanthrene	40.0	27.0	67.63	40-140
87 Anthracene	40.0	27.8	69.38	40-140
90 Di-n-butylphthalat	40.0	27.9	69.76	40-140
93 Fluoranthene	40.0	28.5	71.22	40-140
95 Pyrene	40.0	28.3	70.66	40-140
98 Butyl benzyl phtha	40.0	28.3	70.71	40-140
100 Benzo(a)anthracene	40.0	27.2	67.99	40-140
101 3,3'-Dichlorobenzi	80.0	31.1	38.85*	40-140
103 Chrysene	40.0	27.3	68.37	40-140
104 Bis(2-ethylhexyl)p	40.0	26.9	67.35	40-140
105 Di-n-octylphthalat	40.0	27.9	69.68	40-140
106 Benzo(b)fluoranthe	40.0	27.0	67.59	40-140
107 Benzo(k)fluoranthe	40.0	27.5	68.77	40-140
109 Benzo(a)pyrene	40.0	29.3	73.16	40-140
112 Indeno(1,2,3-cd)py	40.0	28.1	70.22	40-140
113 Dibenzo(a,h)anthra	40.0	27.9	69.75	40-140
114 Benzo(ghi)perylene	40.0	27.7	69.28	40-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorophenol	50.0	24.6	49.25	21-120
$ 6 Phenol-d6	50.0	16.7	33.41	10-120
$ 22 Nitrobenzene-d5	25.0	17.7	70.81	23-120
$ 50 2-Fluorobiphenyl	25.0	20.2	80.84	15-120
$ 76 2,4,6-Tribromophen	50.0	41.5	83.02	10-120
$ 96 4-Terphenyl-d14	25.0	18.8	75.44	33-120

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Client ID:
Sample Info: wg873638-3,32,nytcl,als
Purge Volume: 1000.0
Column phase: RTx-5

Instrument: SV103.i
Operator: als
Column diameter: 0.32



Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

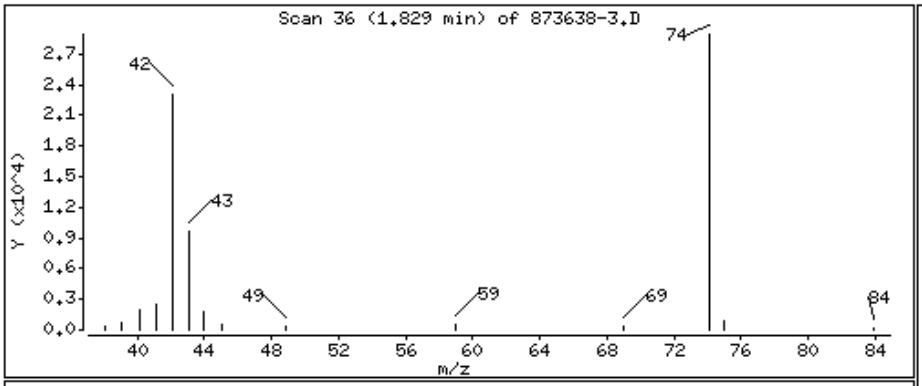
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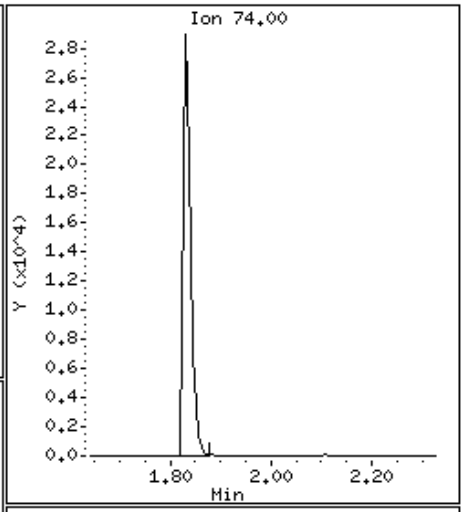
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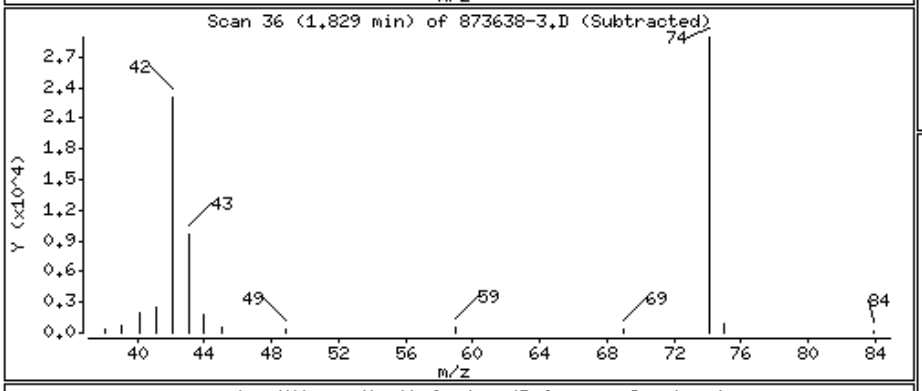
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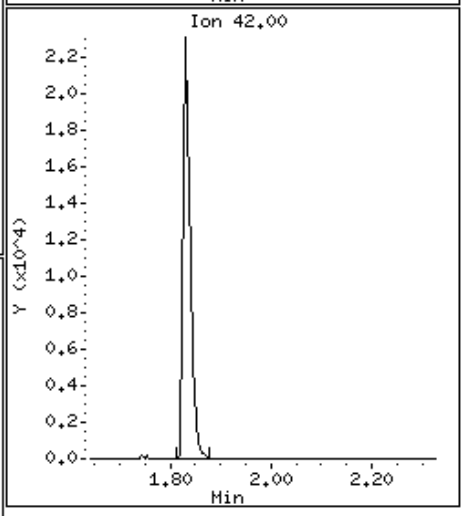
1 n-Nitrosodimethylamine

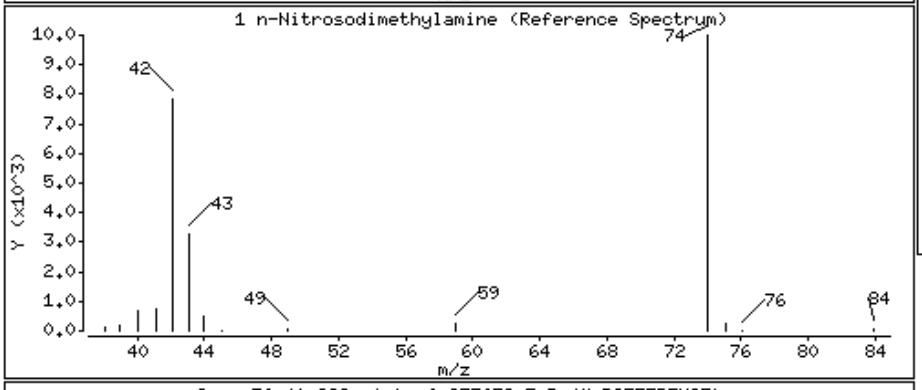
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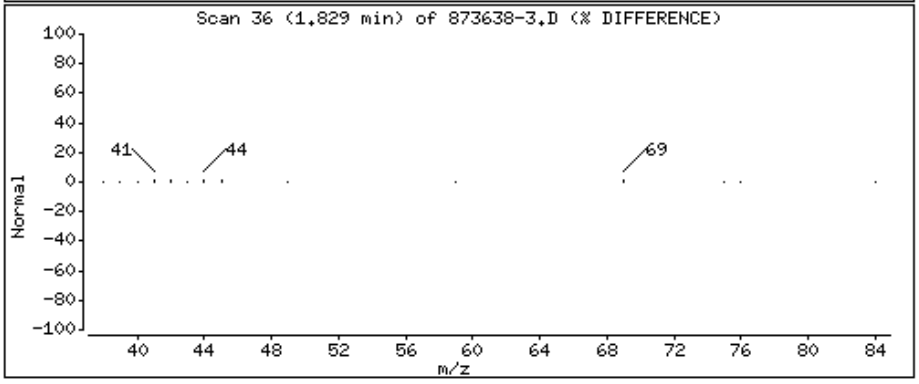












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Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

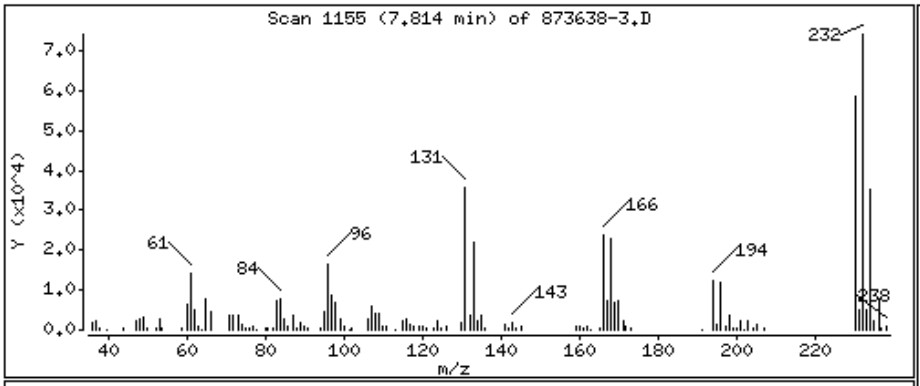
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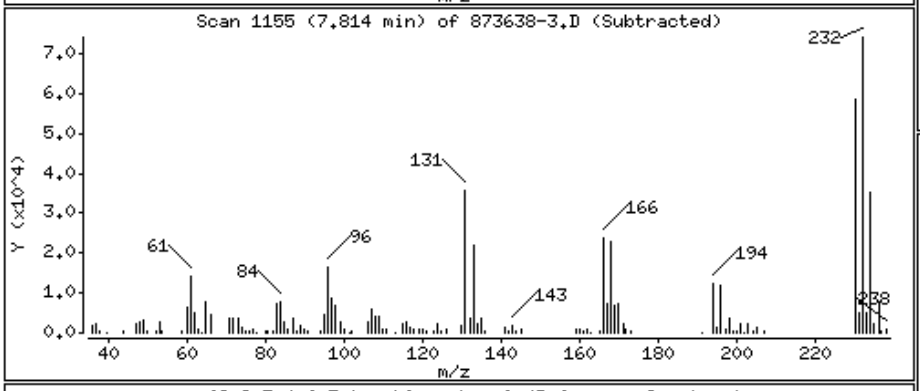
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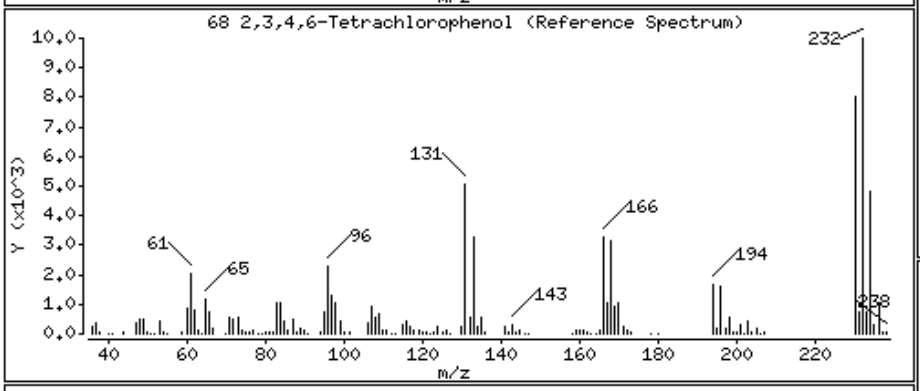
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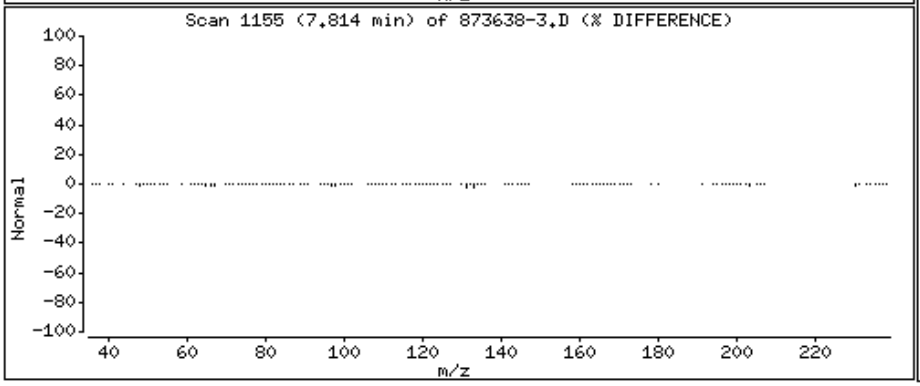
68 2,3,4,6-Tetrachlorophenol

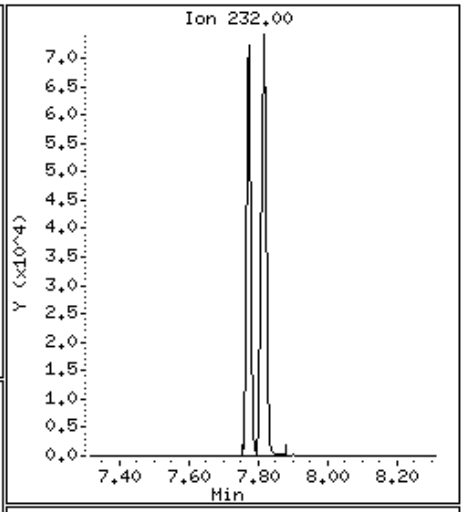
Concentration: 34.0 ug/L

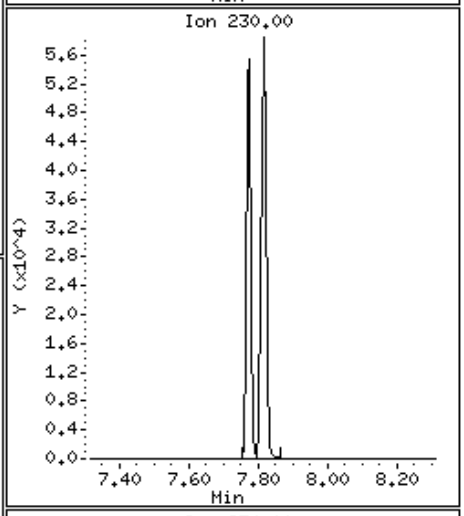


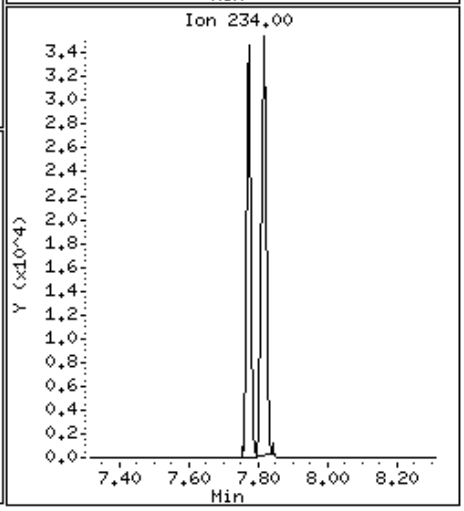












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

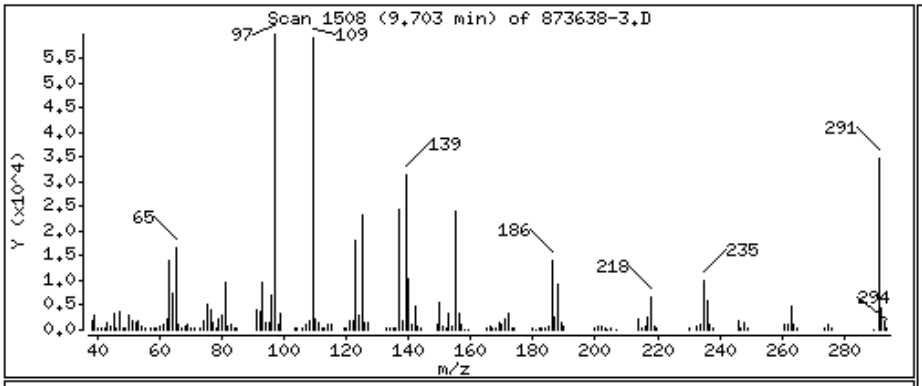
Operator: als

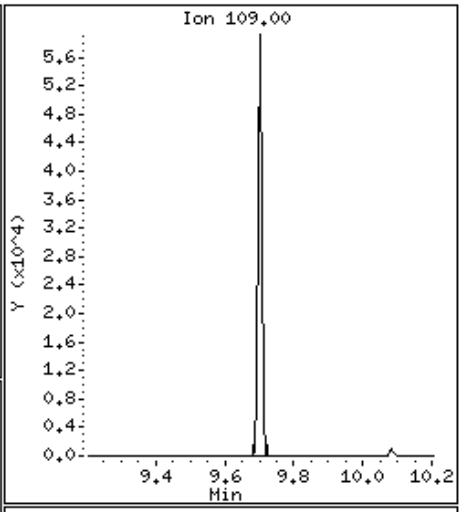
Column phase: RTx-5

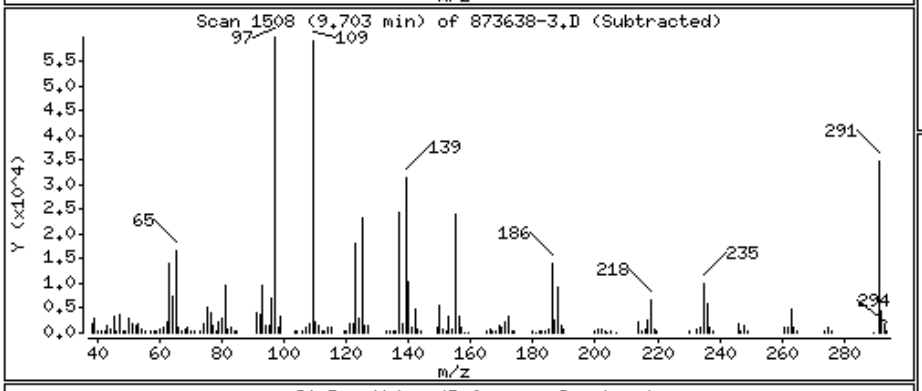
Column diameter: 0.32

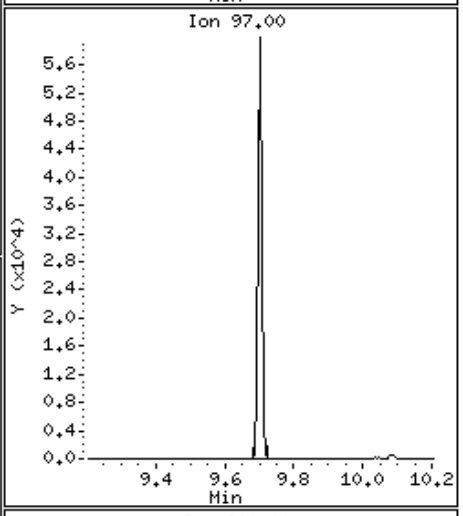
91 Parathion

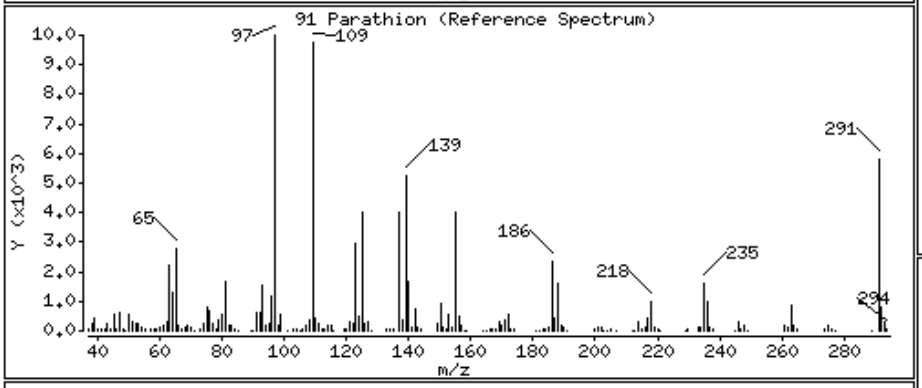
Concentration: 43.2 ug/L

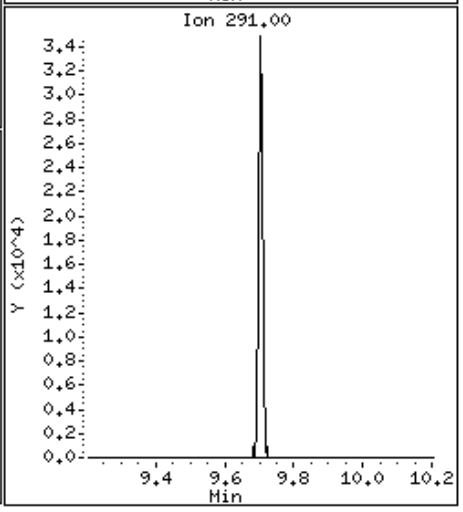


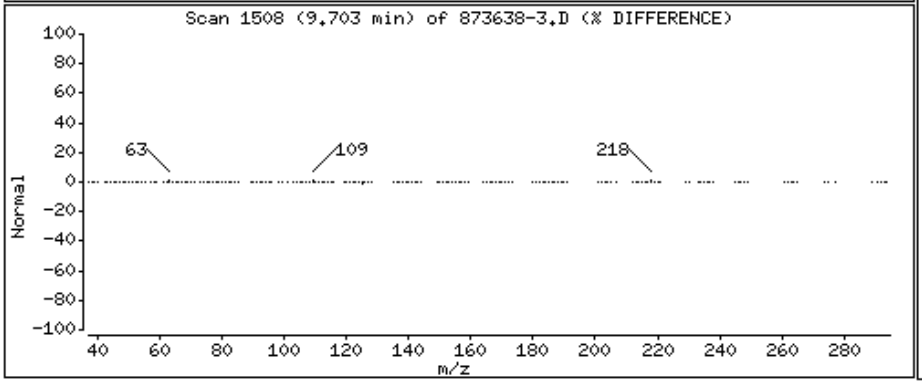












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytol,als

Purge Volume: 1000.0

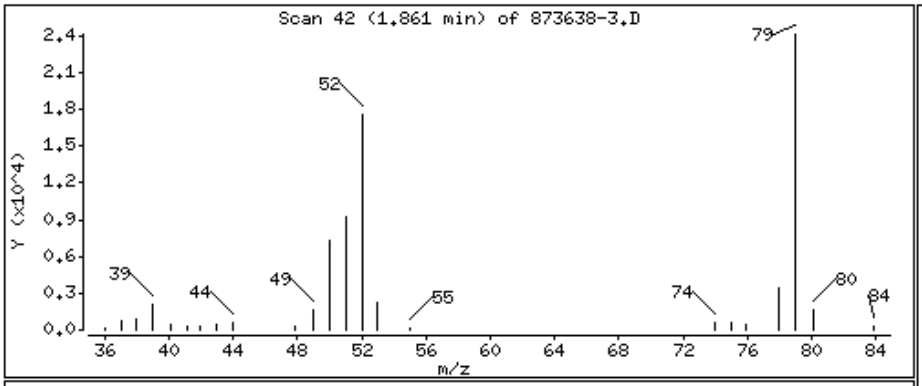
Operator: als

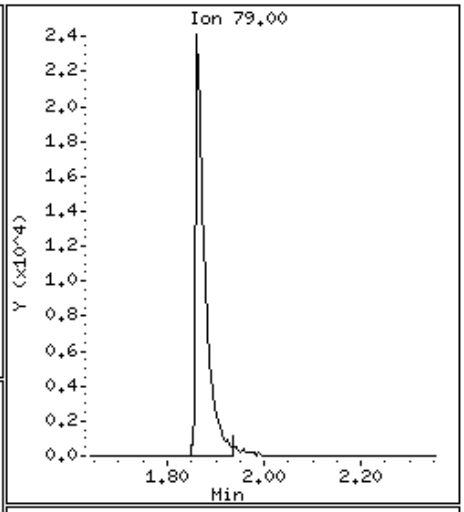
Column phase: RTx-5

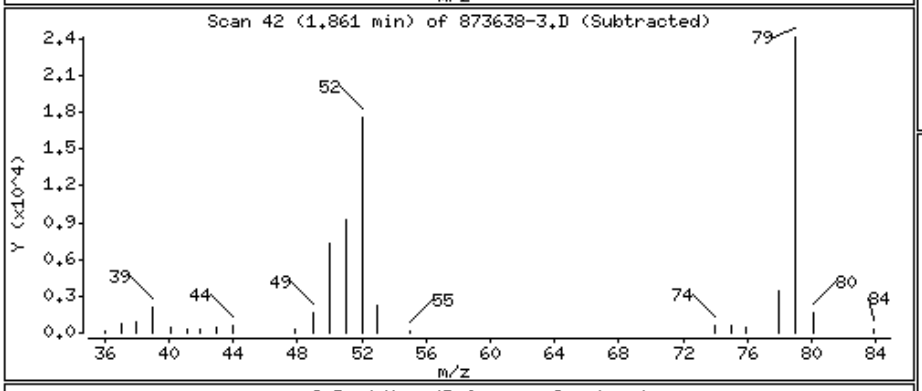
Column diameter: 0.32

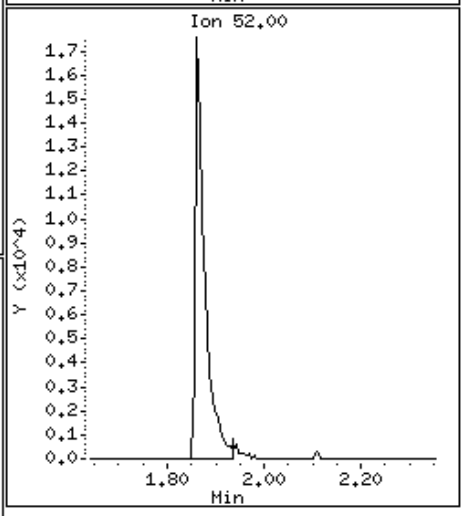
2 Pyridine

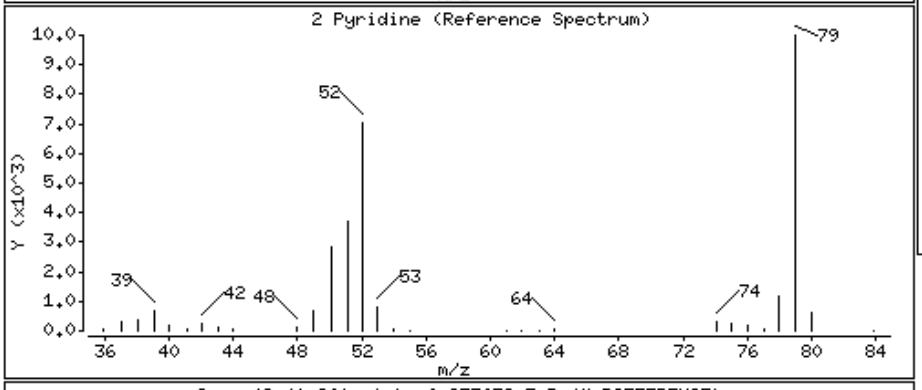
Concentration: 9.78 ug/L

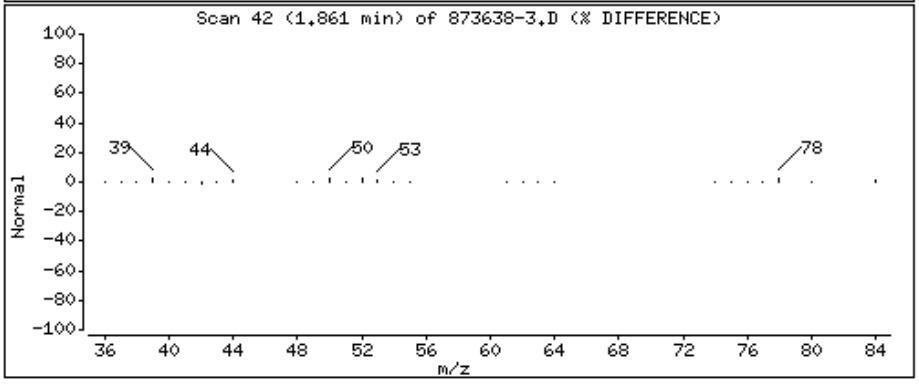












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

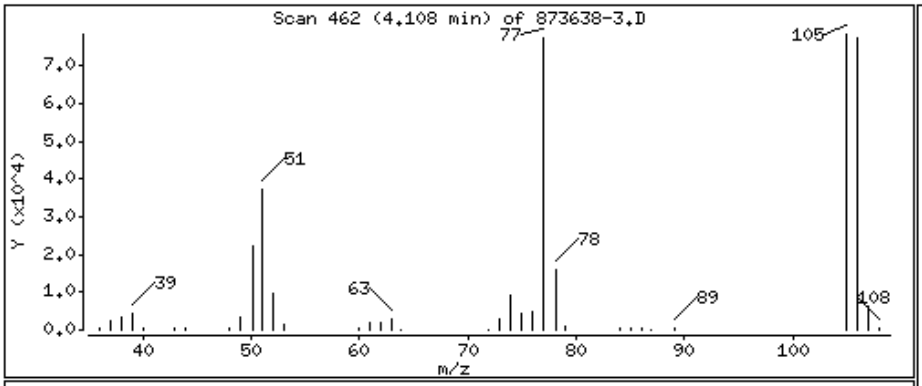
Operator: als

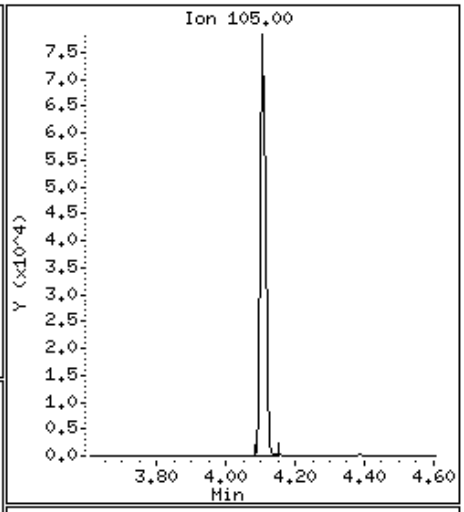
Column phase: RTx-5

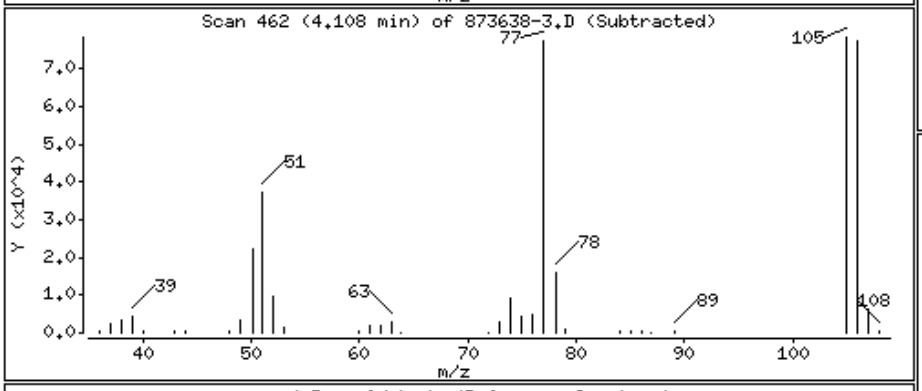
Column diameter: 0.32

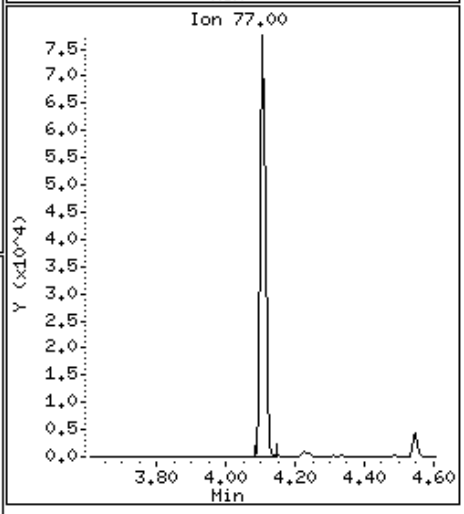
4 Benzaldehyde

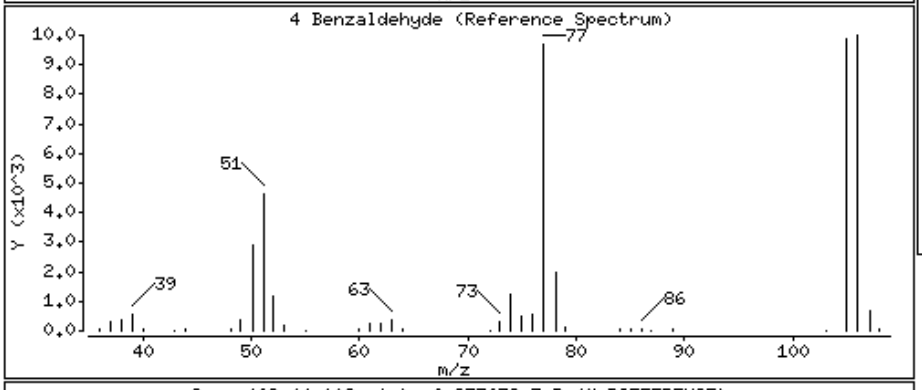
Concentration: 28.8 ug/L

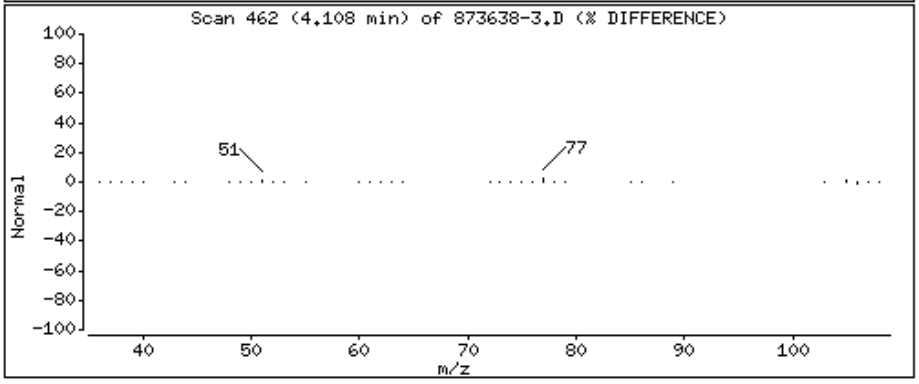












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

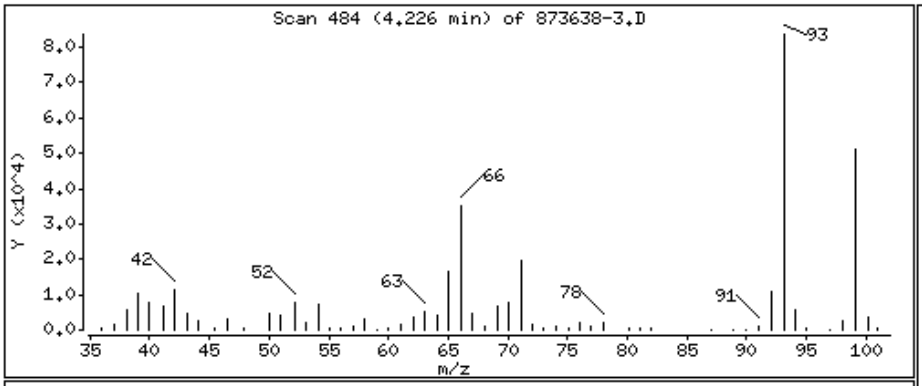
Operator: als

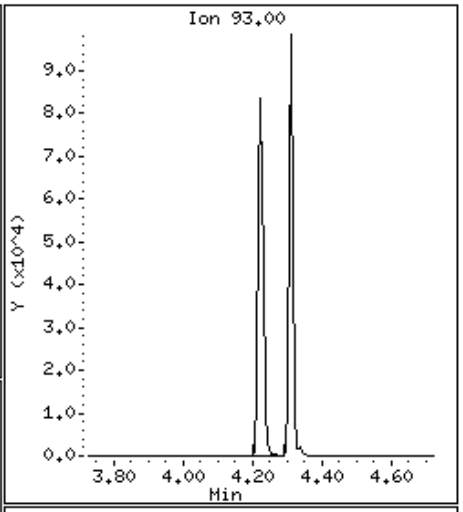
Column phase: RTx-5

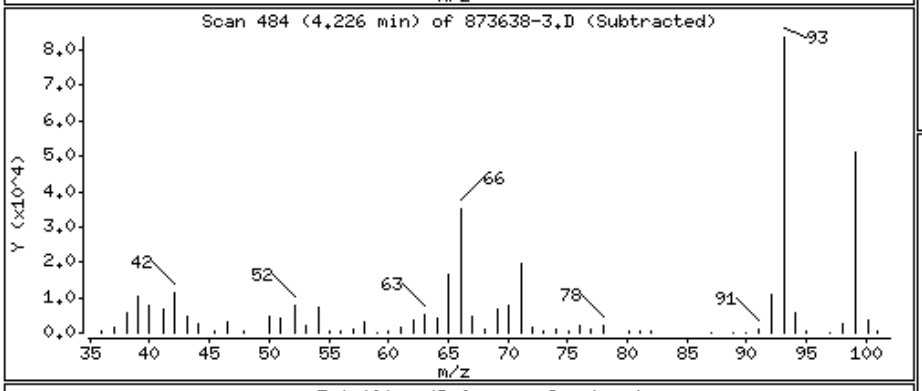
Column diameter: 0.32

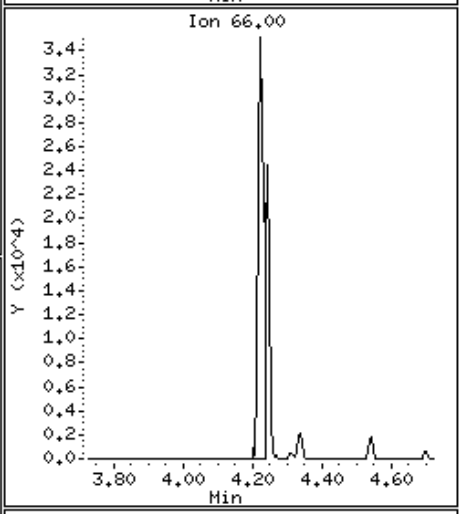
5 Aniline

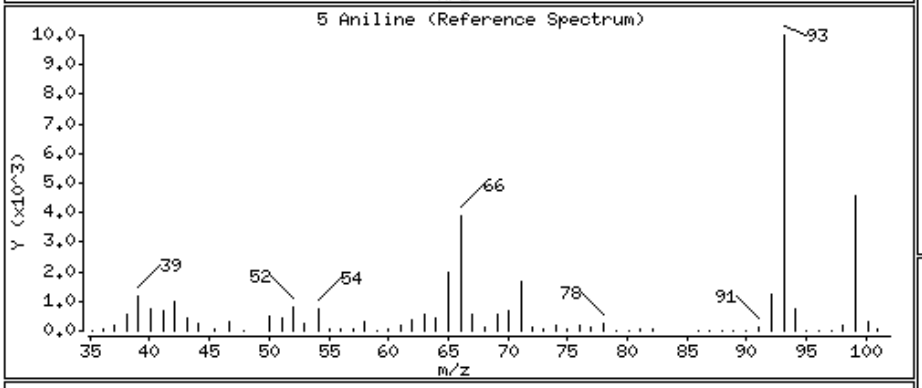
Concentration: 16.1 ug/L

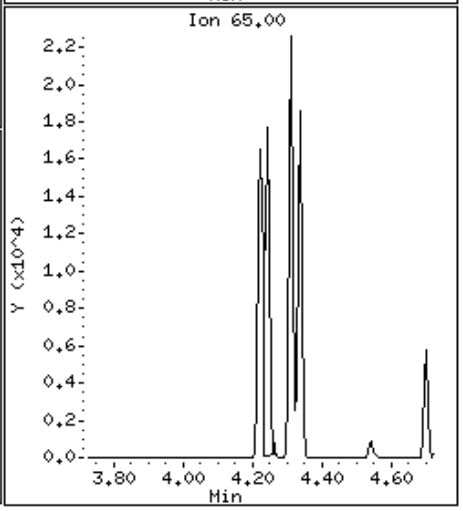


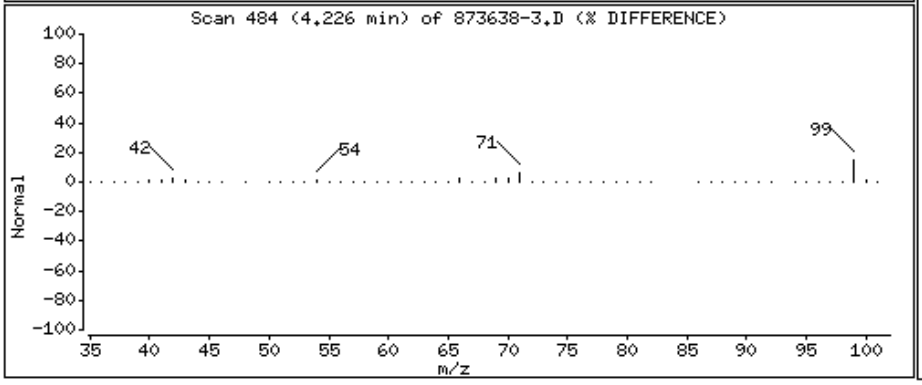












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

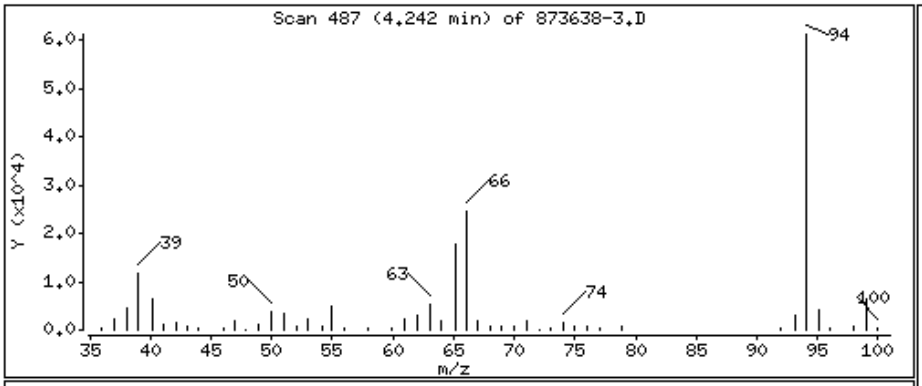
Operator: als

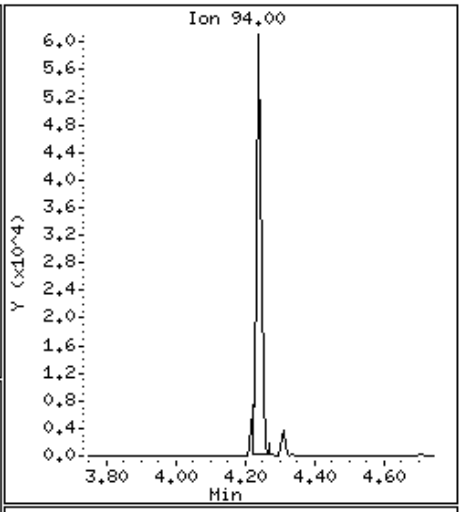
Column phase: RTx-5

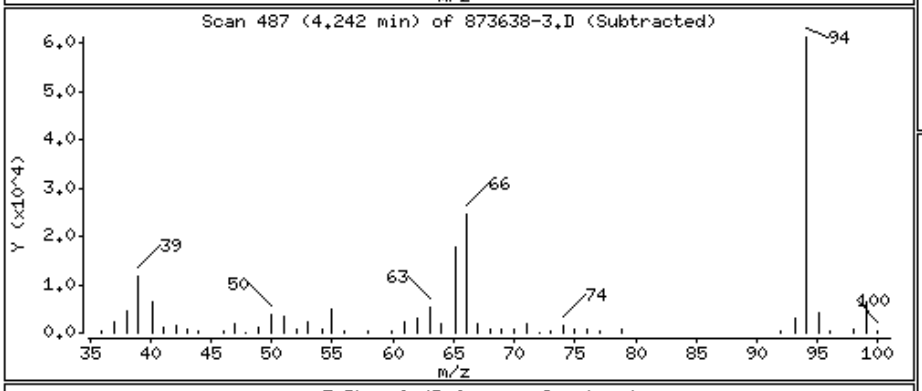
Column diameter: 0.32

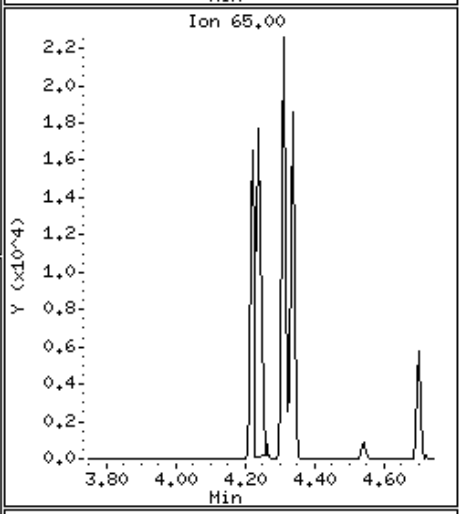
7 Phenol

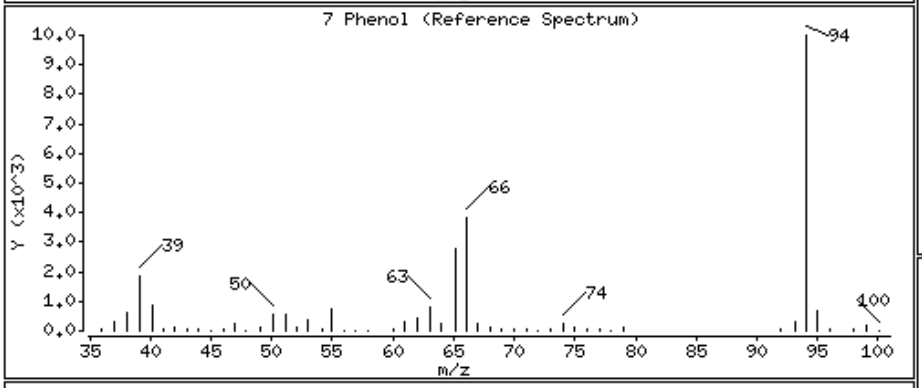
Concentration: 13.0 ug/L

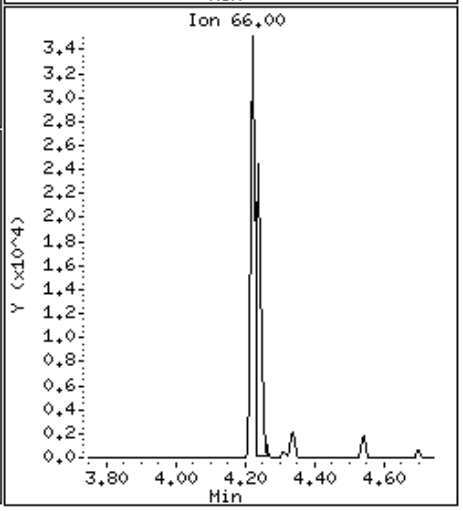


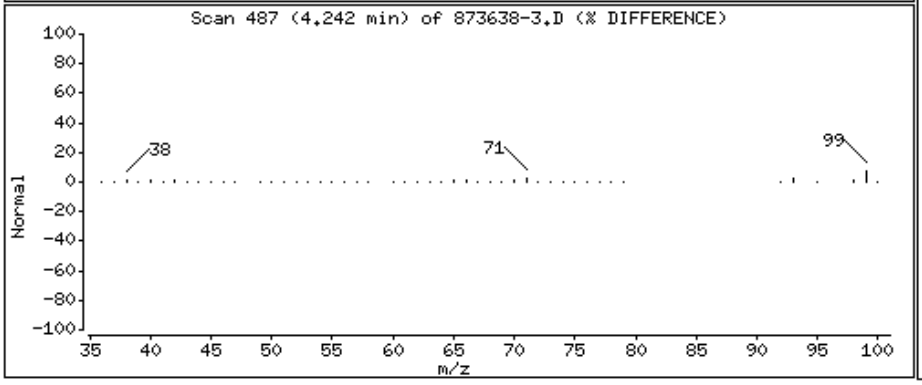












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

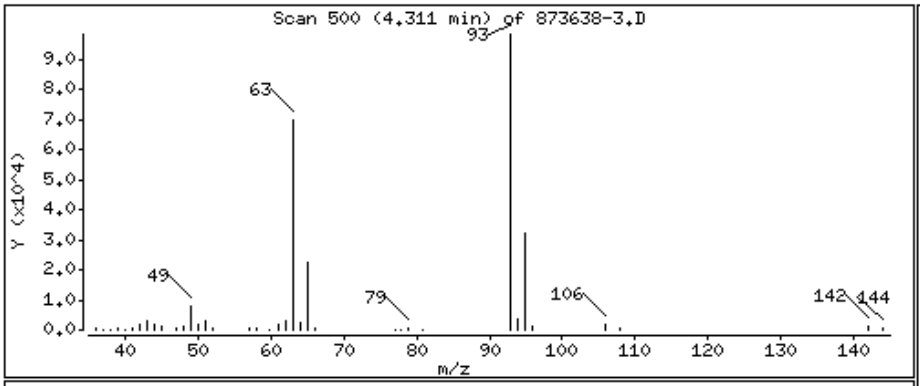
Operator: als

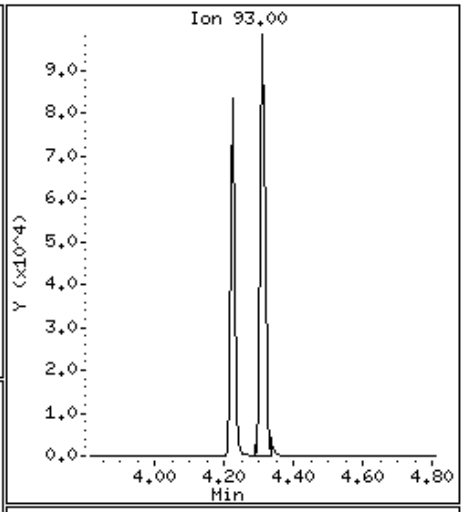
Column phase: RTx-5

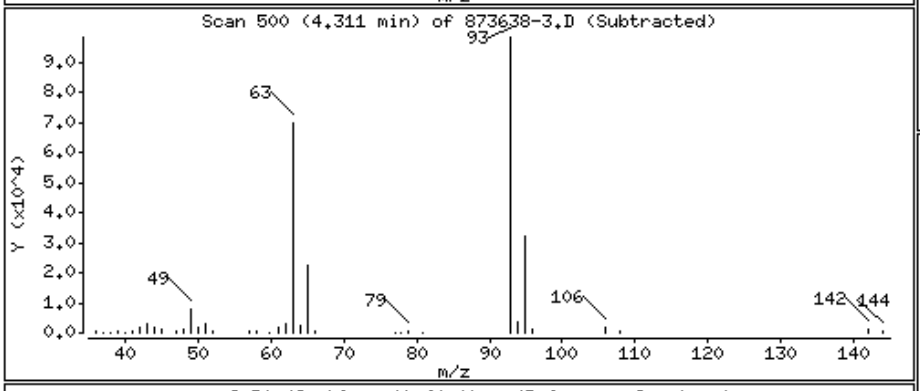
Column diameter: 0.32

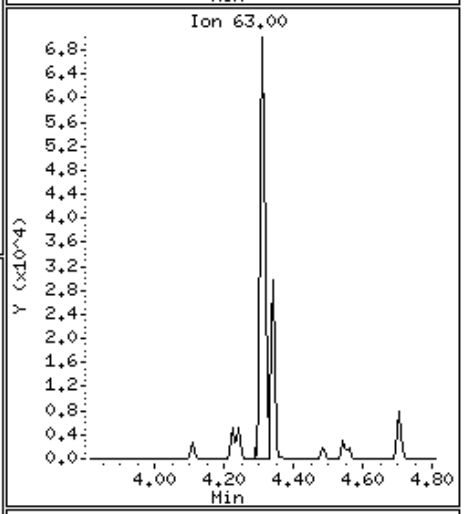
8 Bis(2-chloroethyl)ether

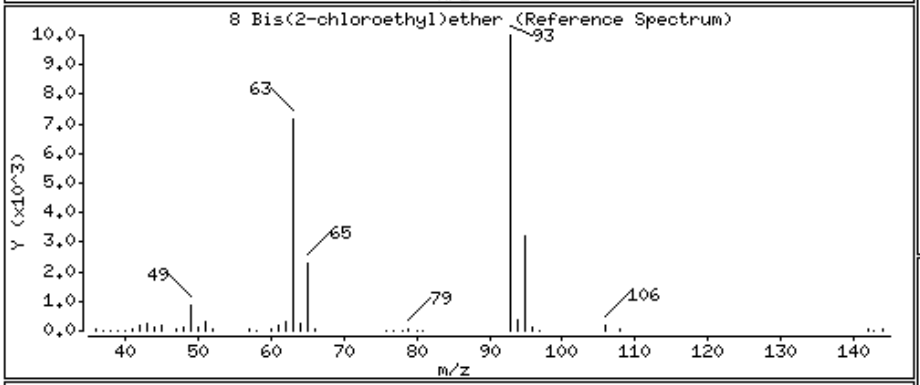
Concentration: 26.3 ug/L

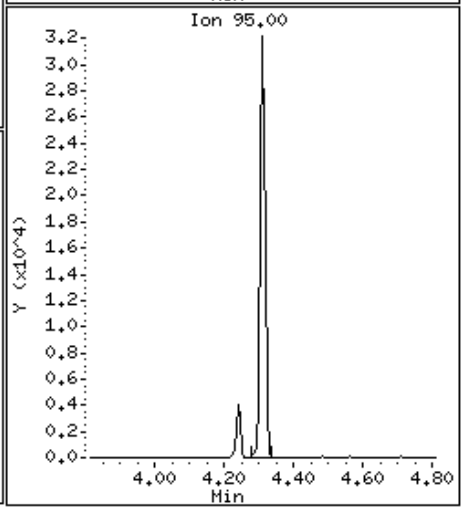


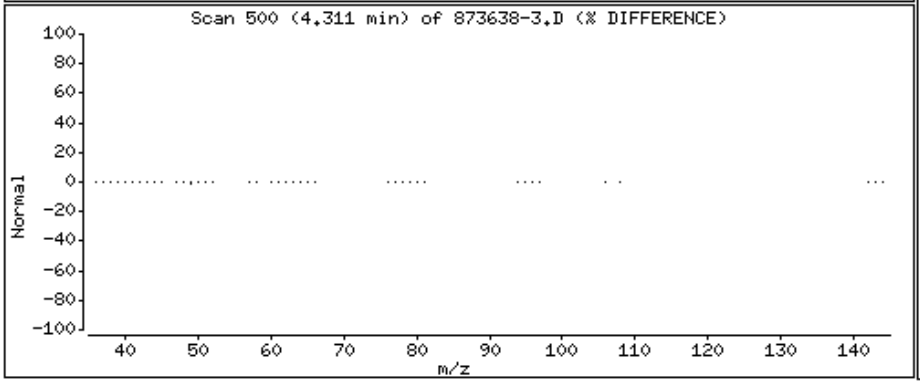












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

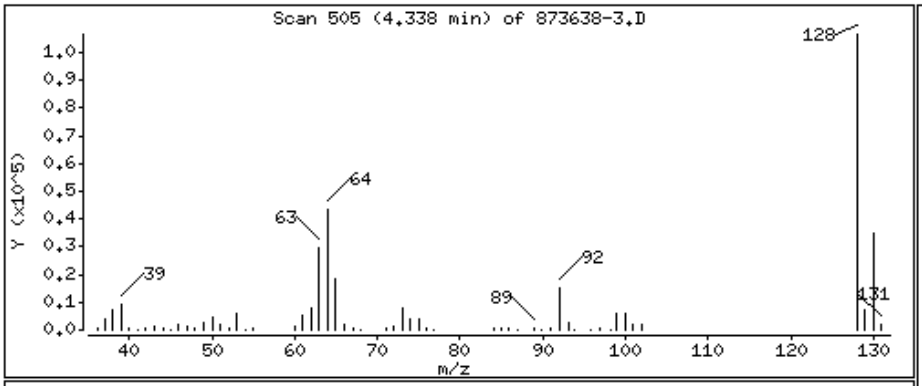
Operator: als

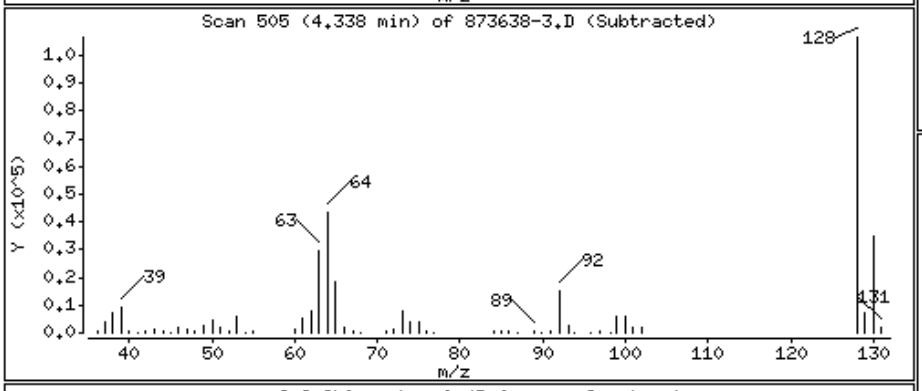
Column phase: RTx-5

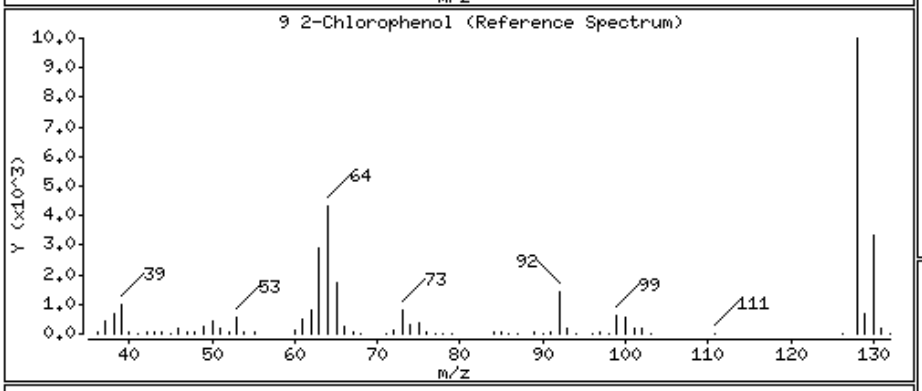
Column diameter: 0.32

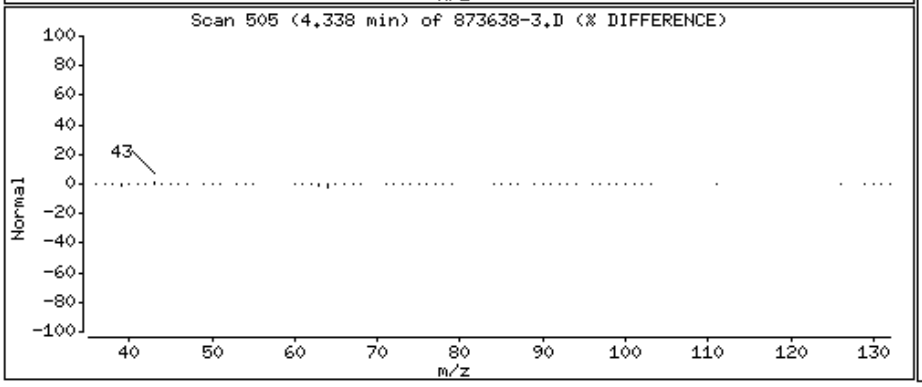
9 2-Chlorophenol

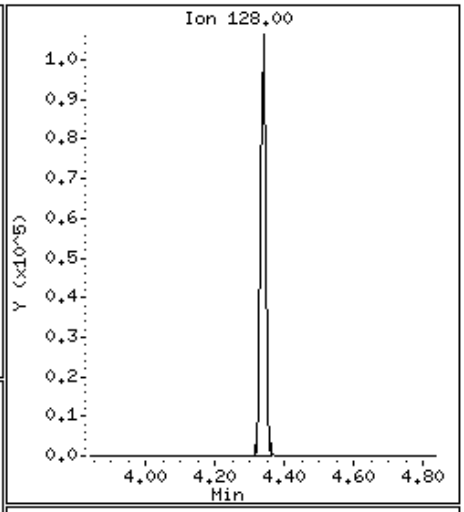
Concentration: 29.2 ug/L

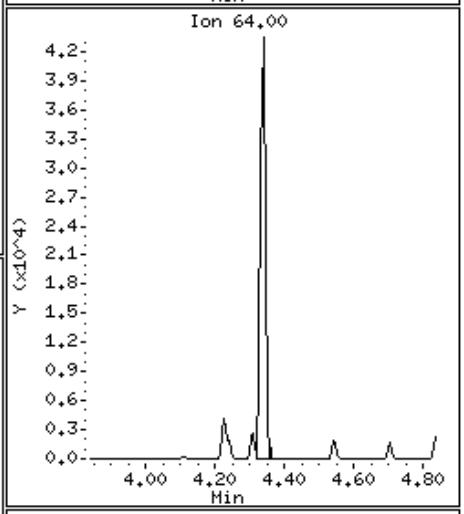


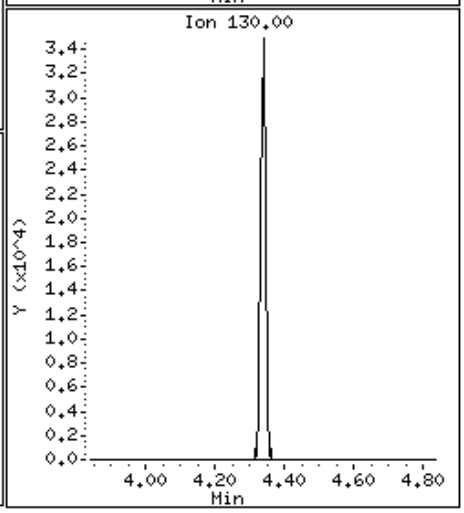












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

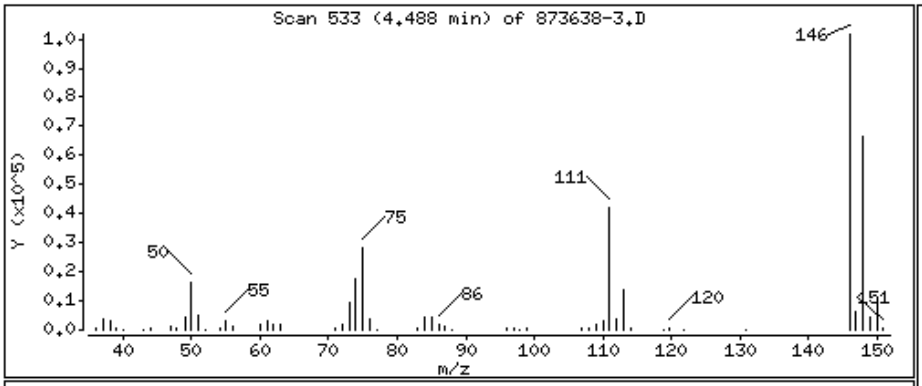
Operator: als

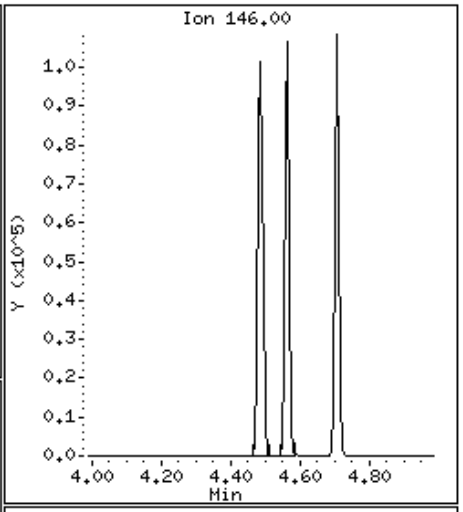
Column phase: RTx-5

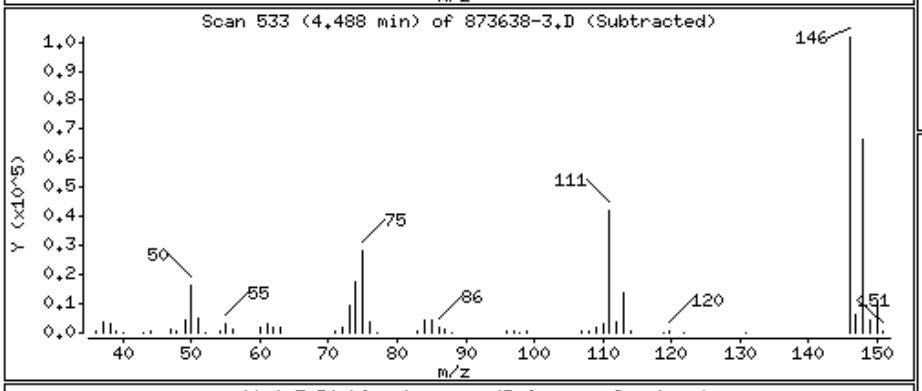
Column diameter: 0.32

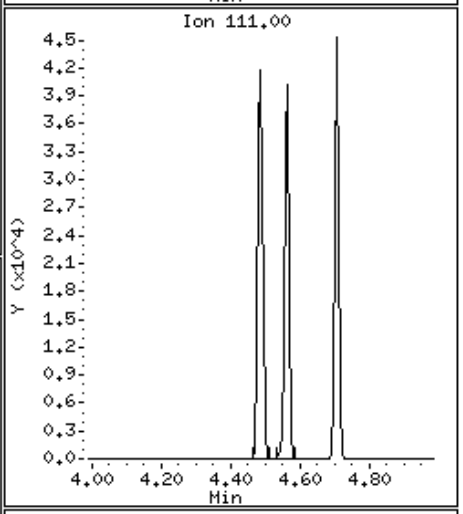
10 1,3-Dichlorobenzene

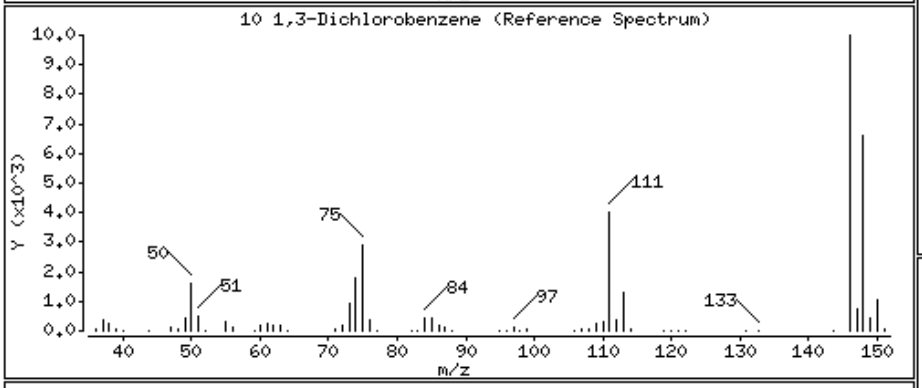
Concentration: 25.9 ug/L

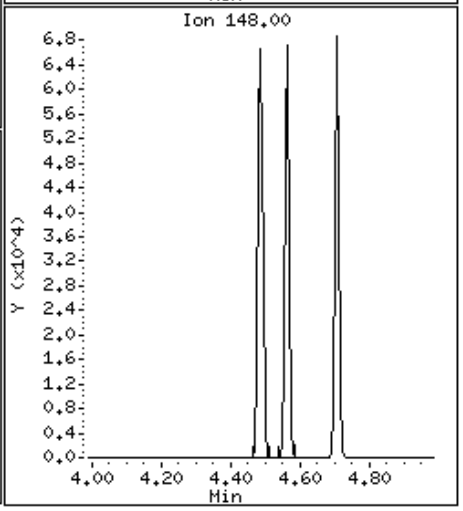


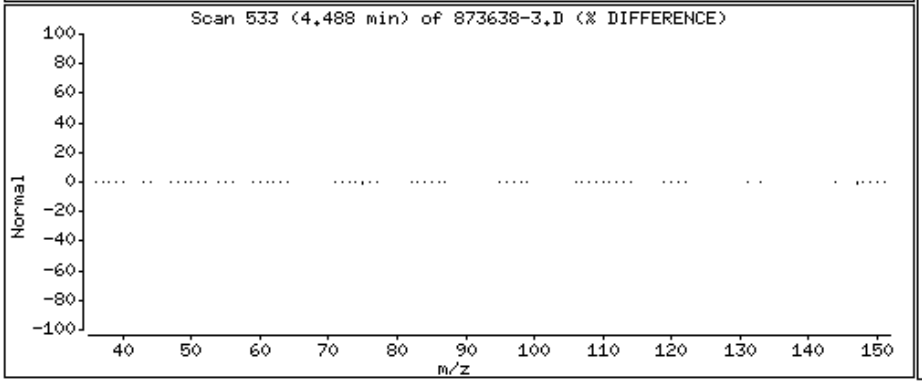












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

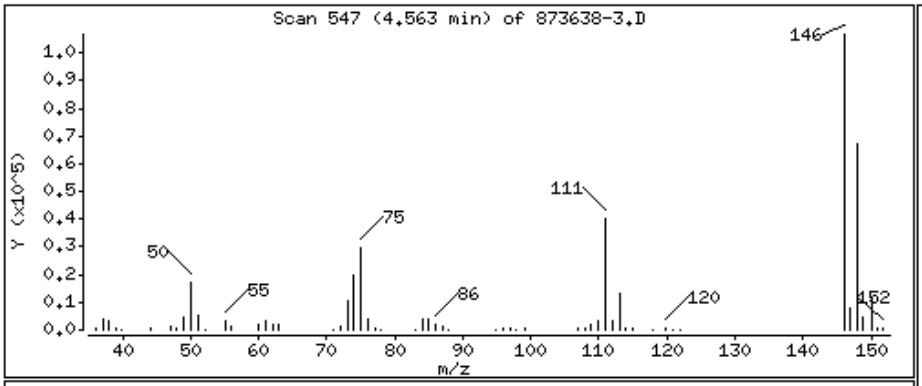
Operator: als

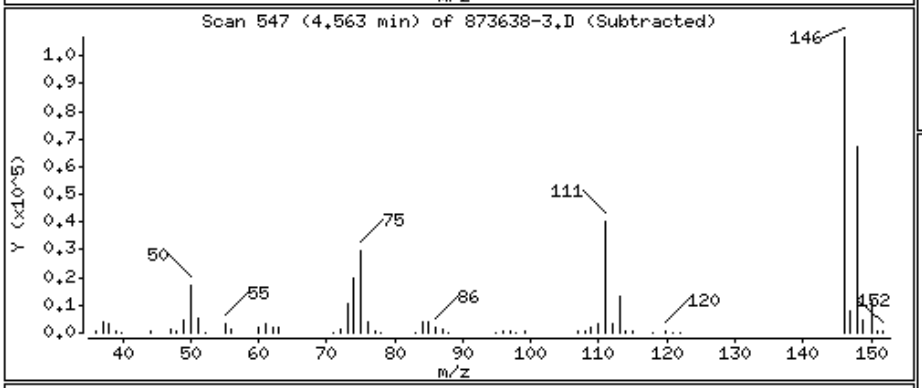
Column phase: RTx-5

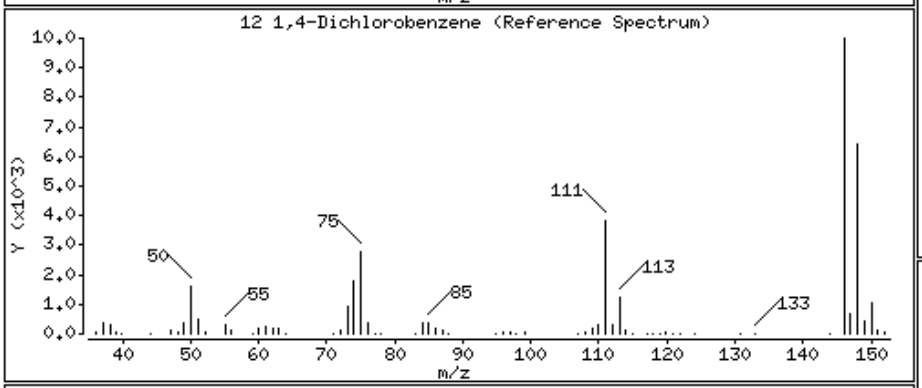
Column diameter: 0.32

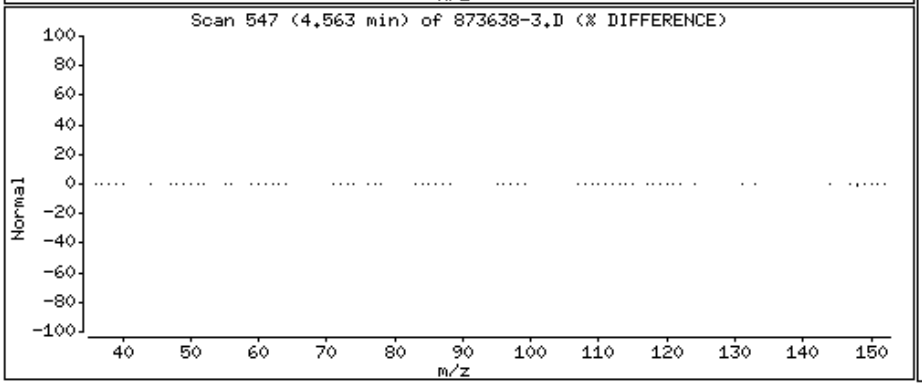
12 1,4-Dichlorobenzene

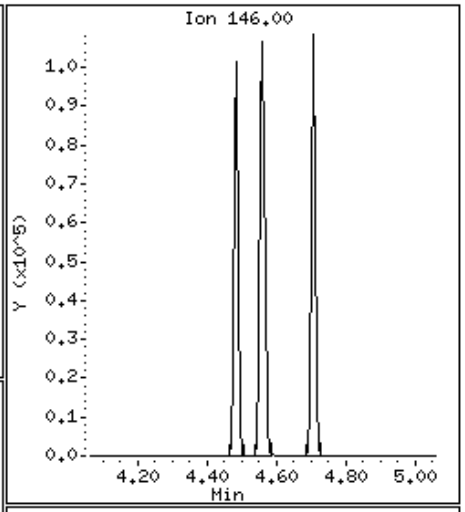
Concentration: 26.0 ug/L

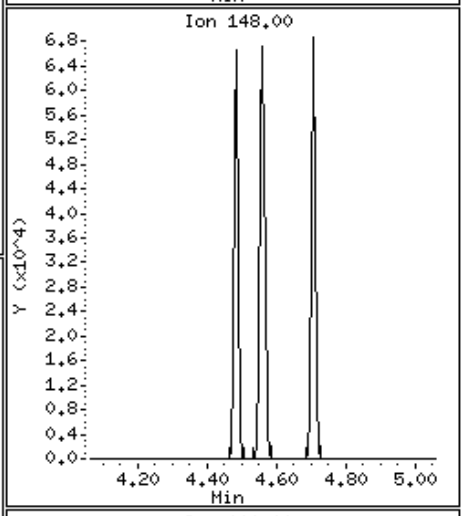


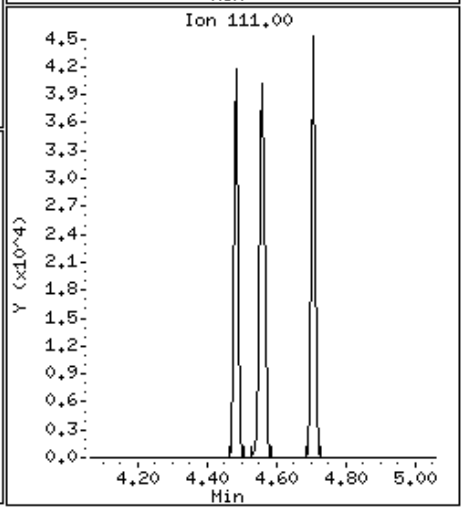












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

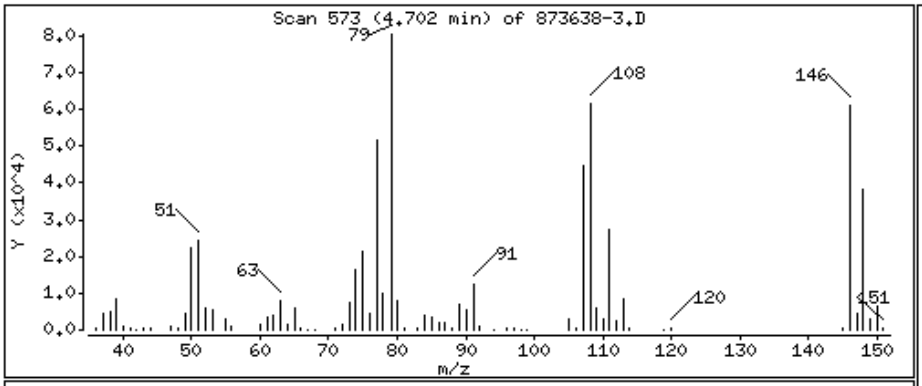
Operator: als

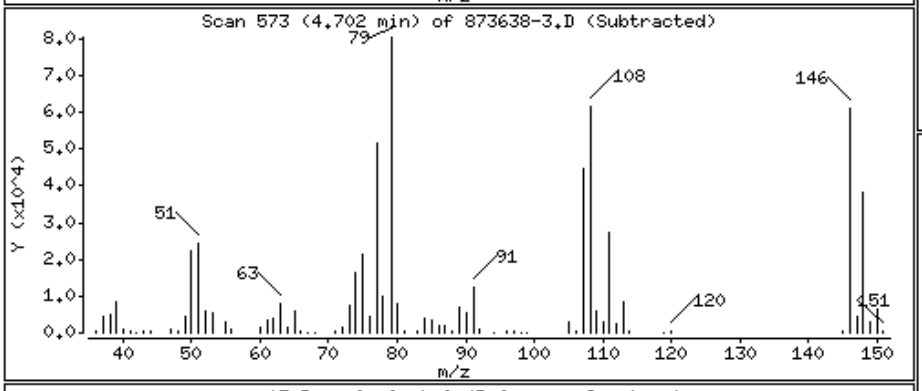
Column phase: RTx-5

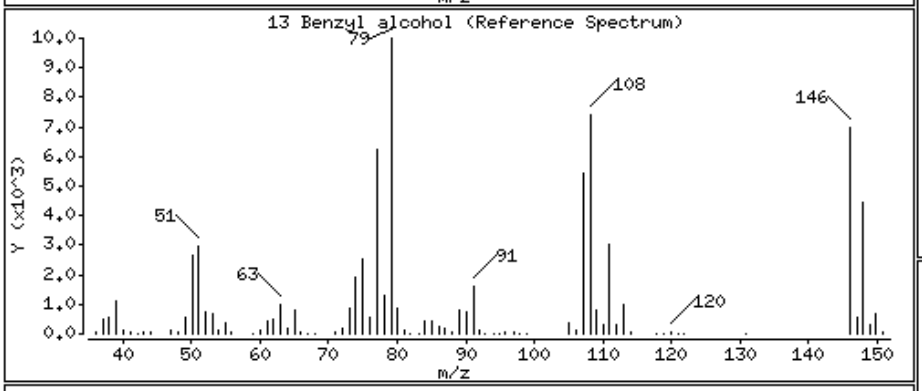
Column diameter: 0.32

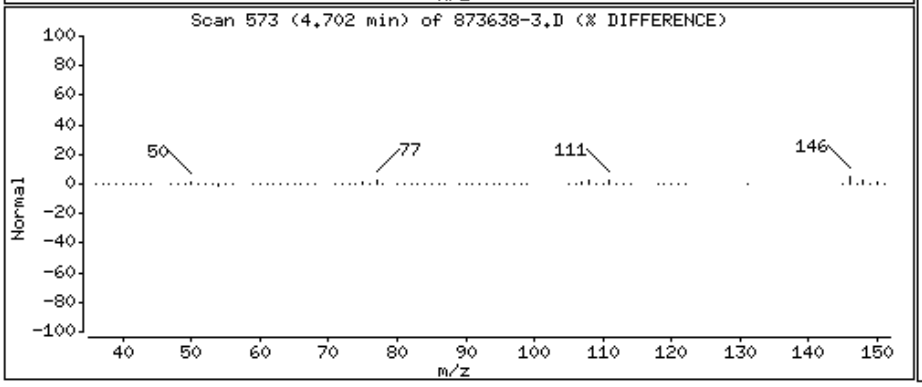
13 Benzyl alcohol

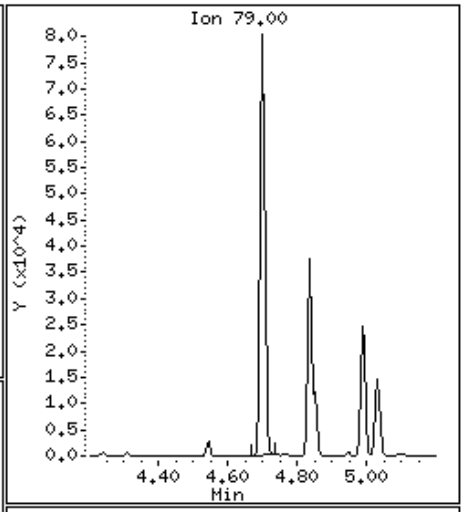
Concentration: 24.4 ug/L

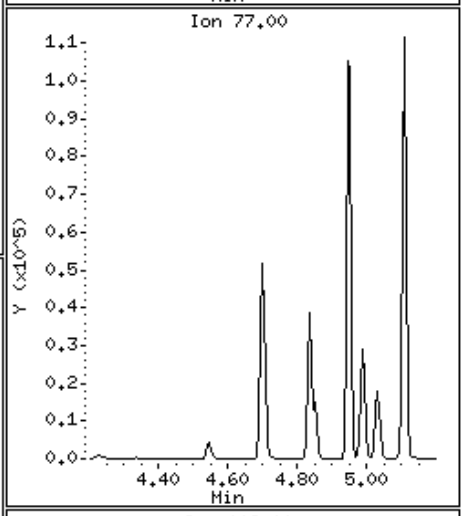


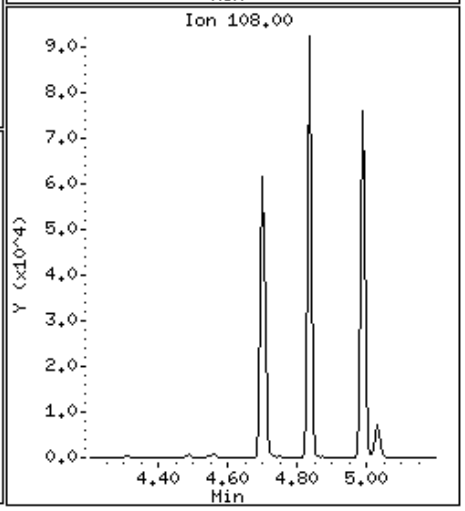












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

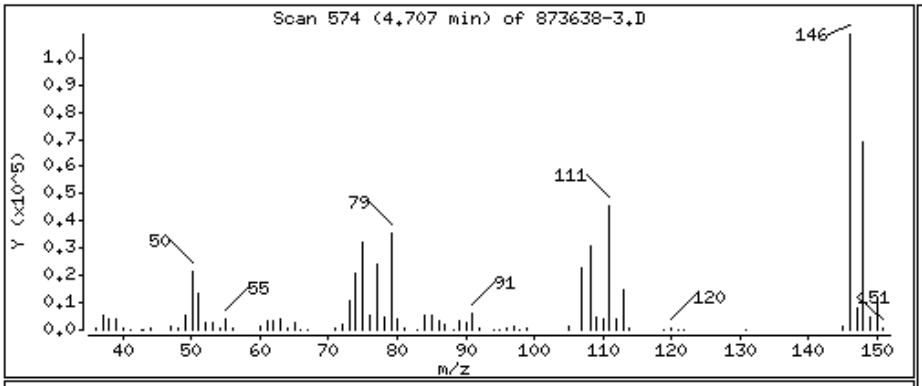
Operator: als

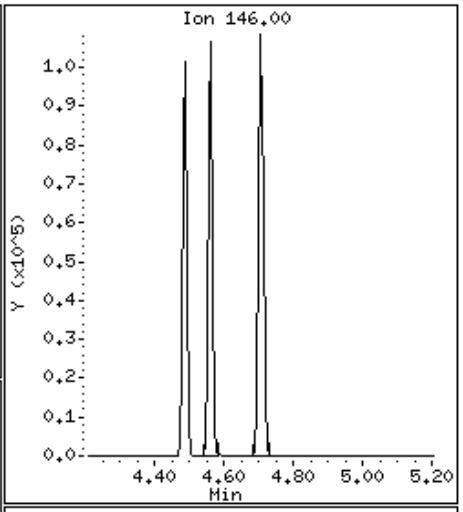
Column phase: RTx-5

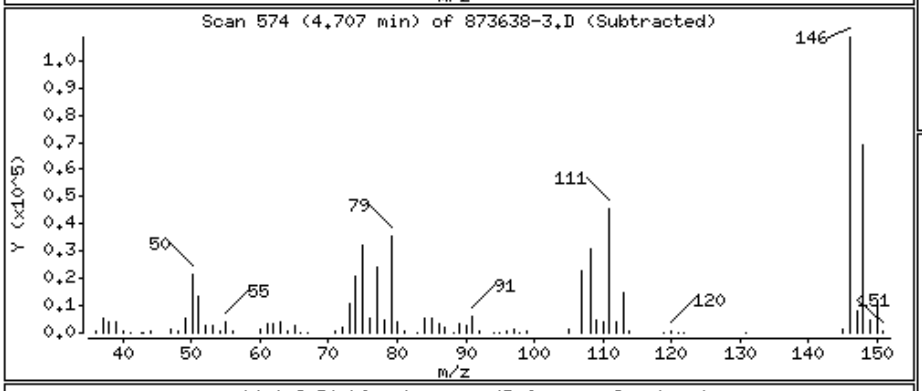
Column diameter: 0.32

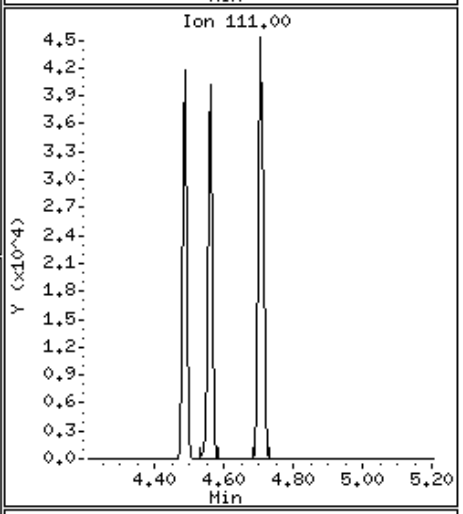
14 1,2-Dichlorobenzene

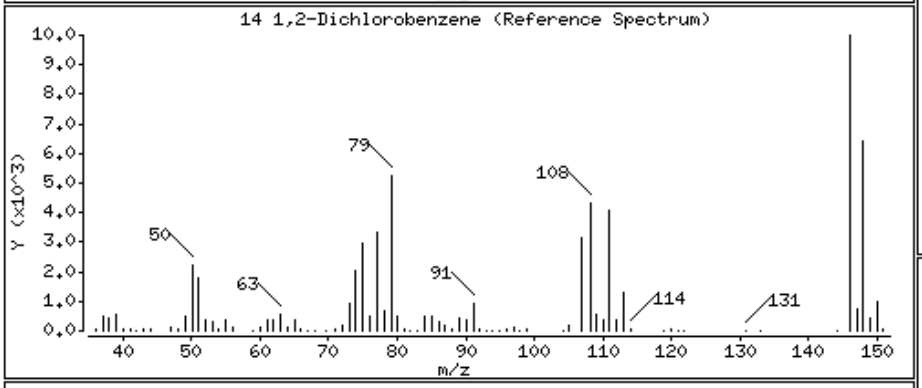
Concentration: 26.9 ug/L

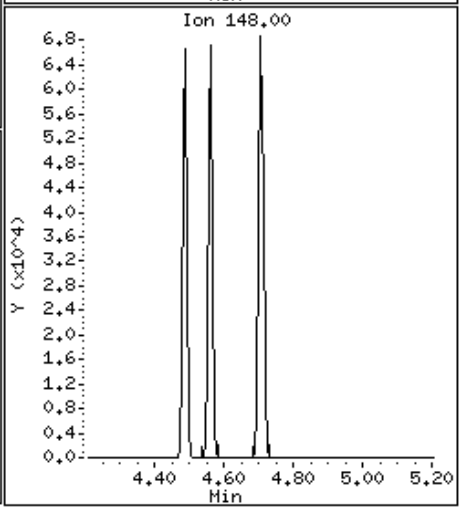


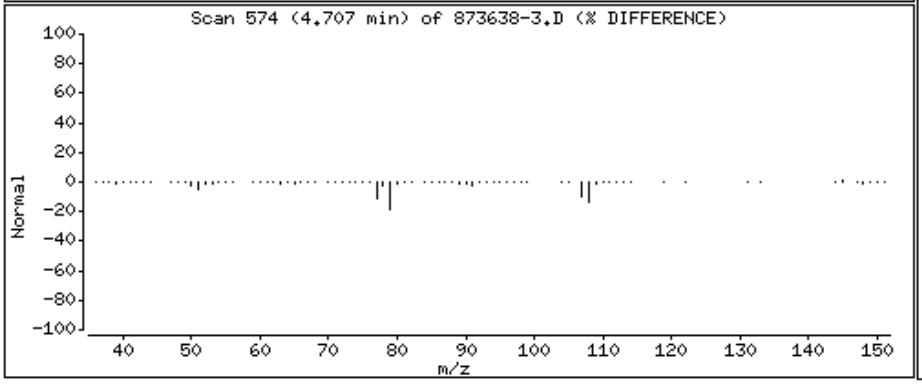












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

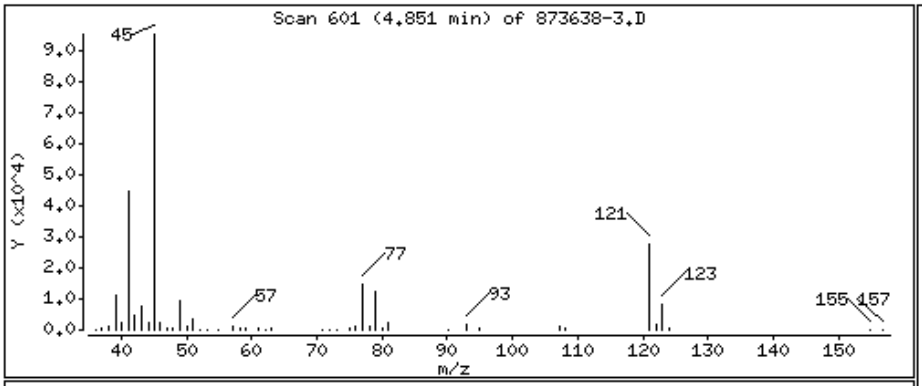
Operator: als

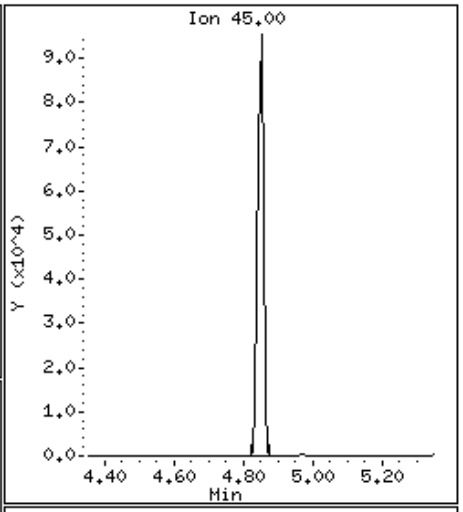
Column phase: RTx-5

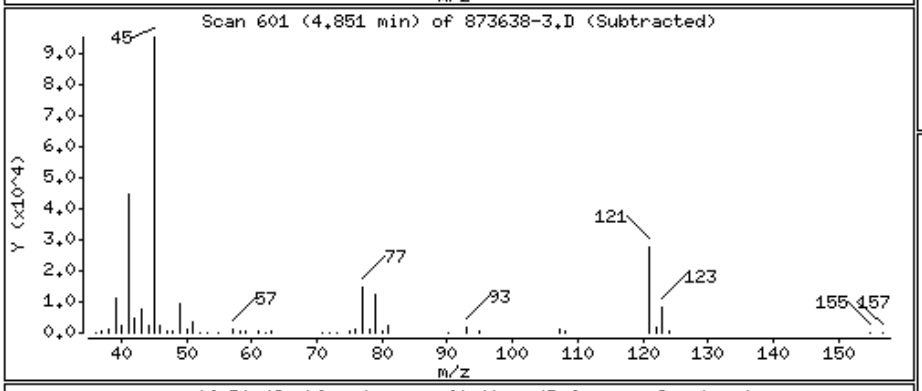
Column diameter: 0.32

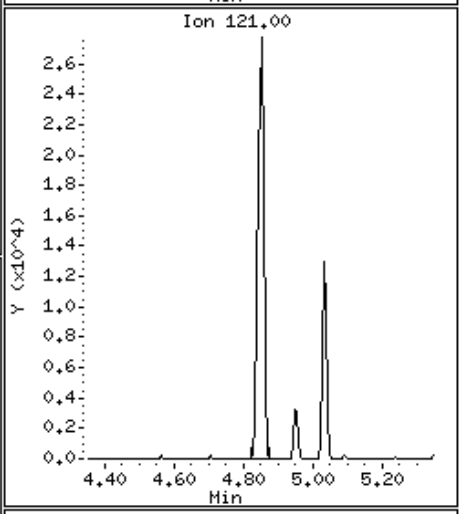
16 Bis(2-chloroisopropyl)ether

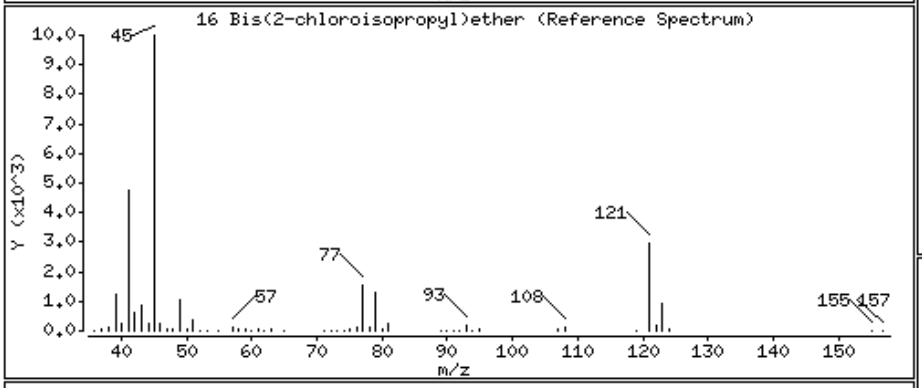
Concentration: 18.8 ug/L

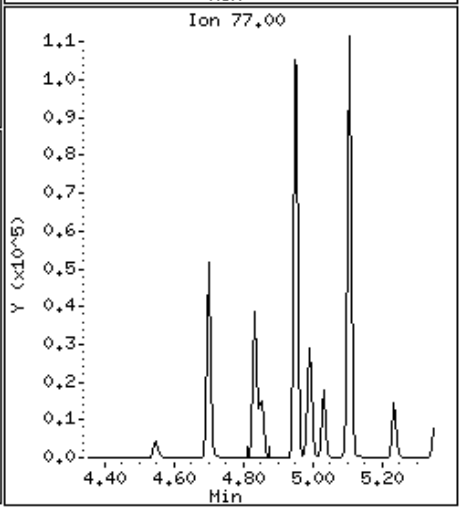


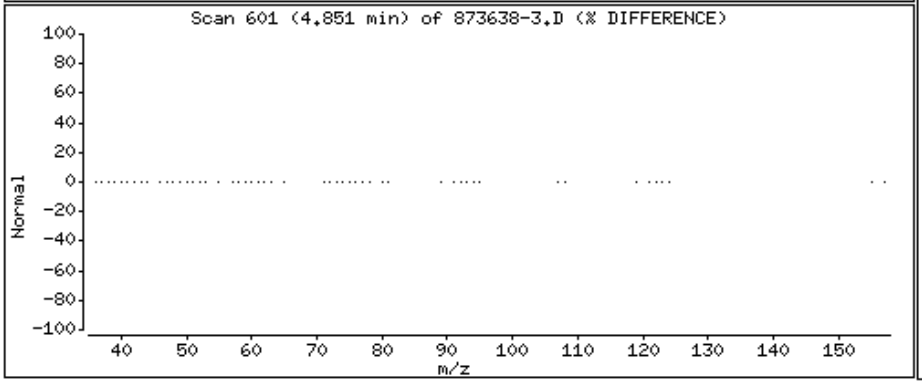












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

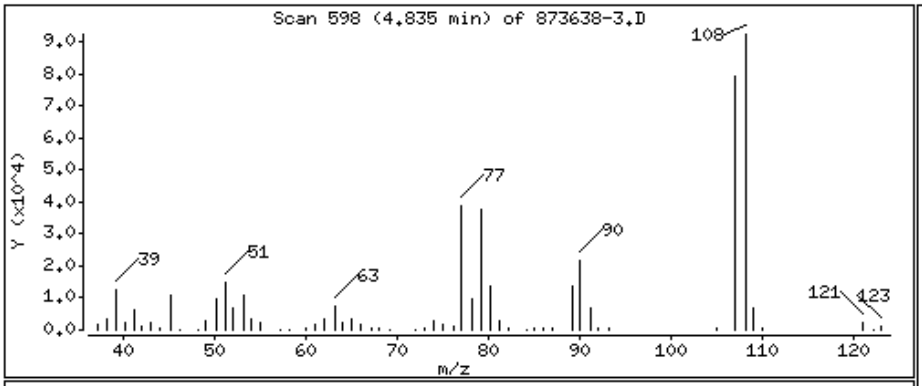
Operator: als

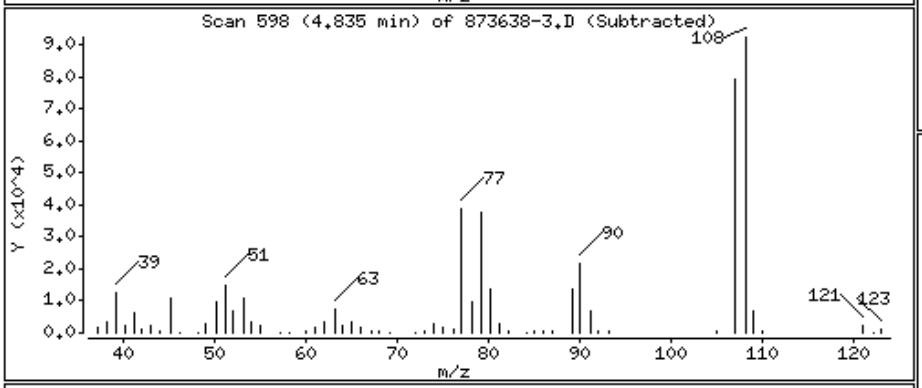
Column phase: RTx-5

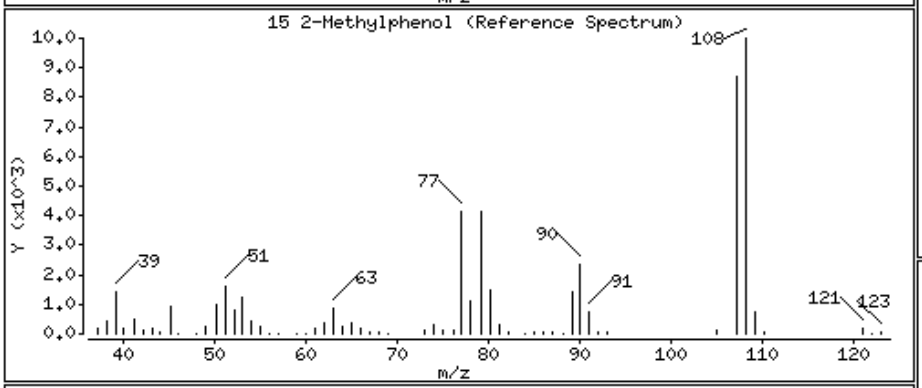
Column diameter: 0.32

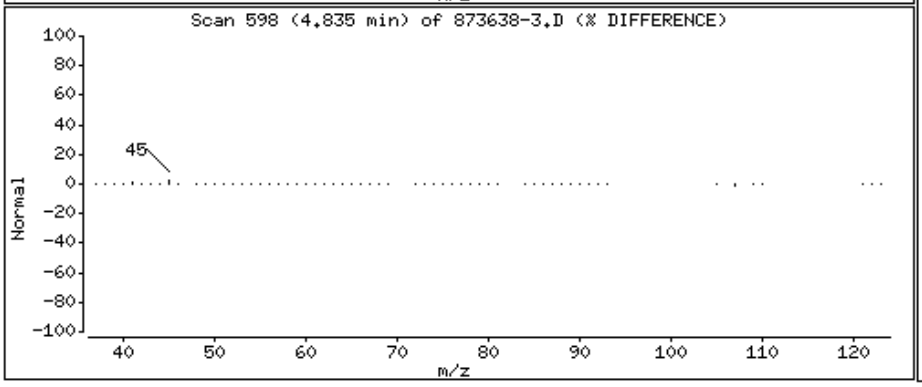
15 2-Methylphenol

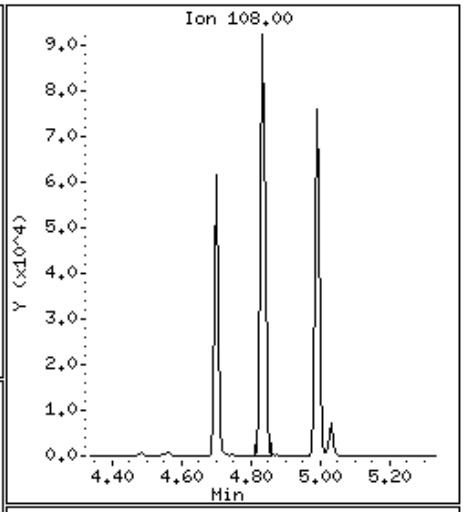
Concentration: 26.8 ug/L

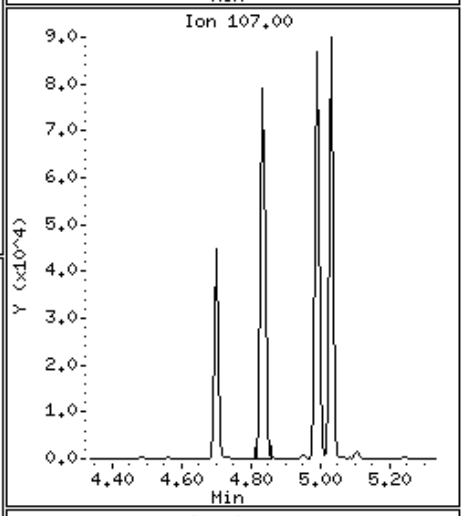


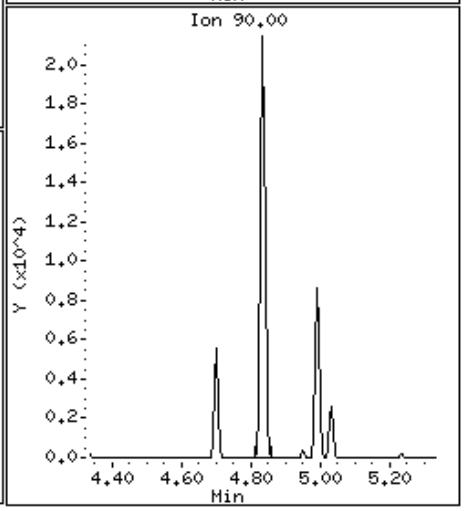












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

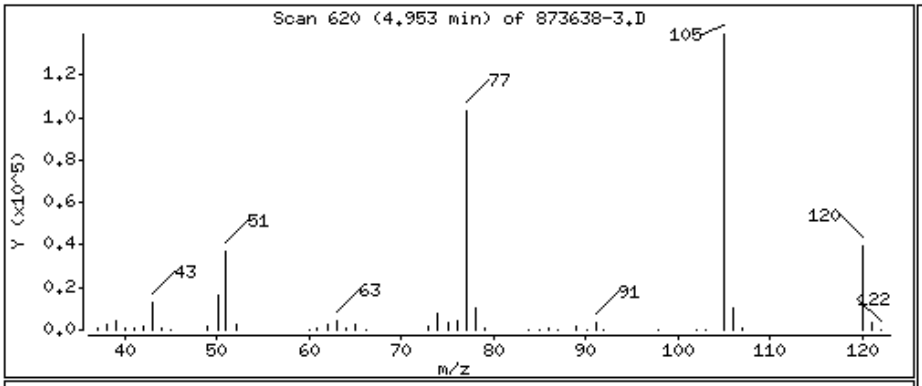
Operator: als

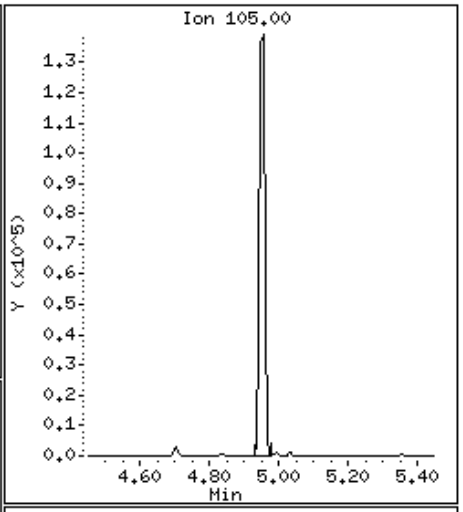
Column phase: RTx-5

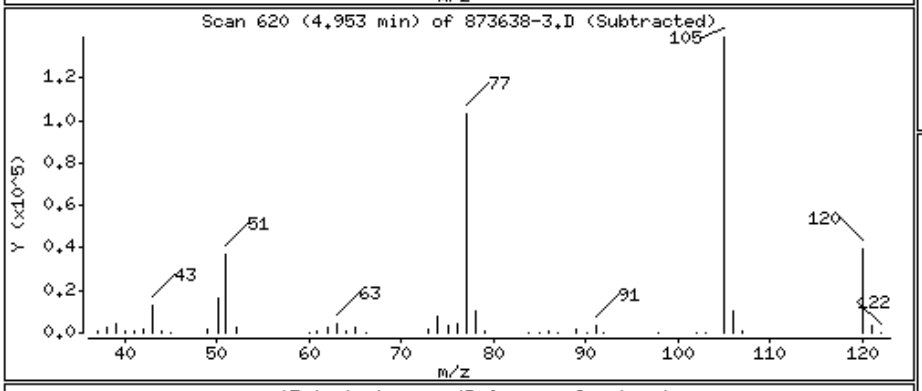
Column diameter: 0.32

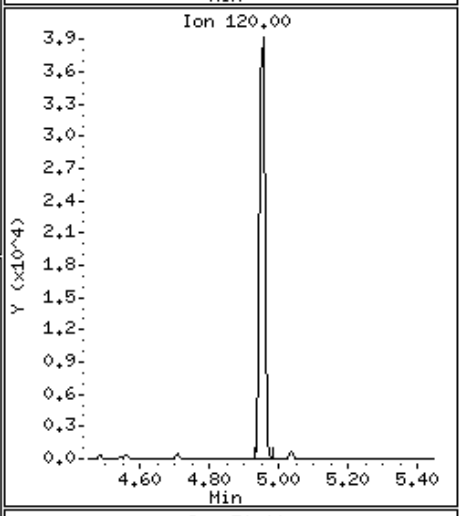
17 Acetophenone

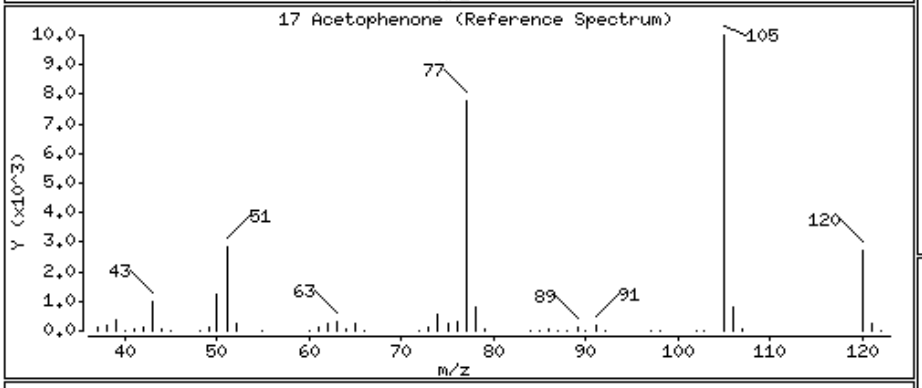
Concentration: 30.9 ug/L

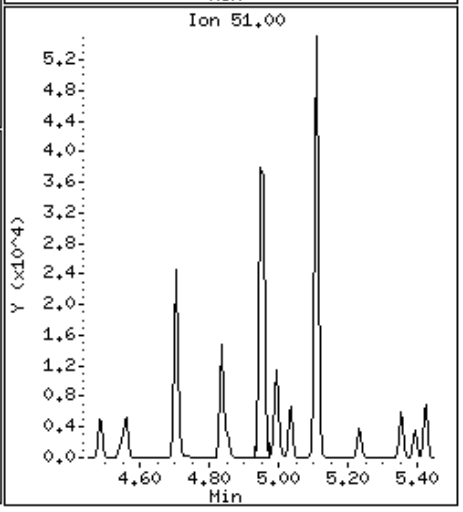


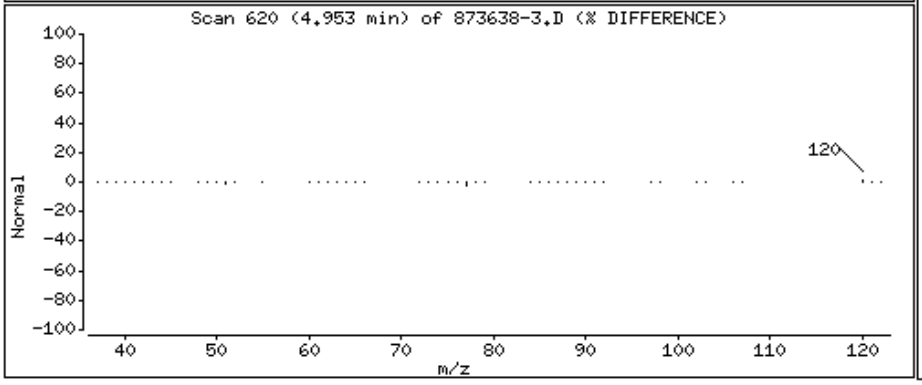












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

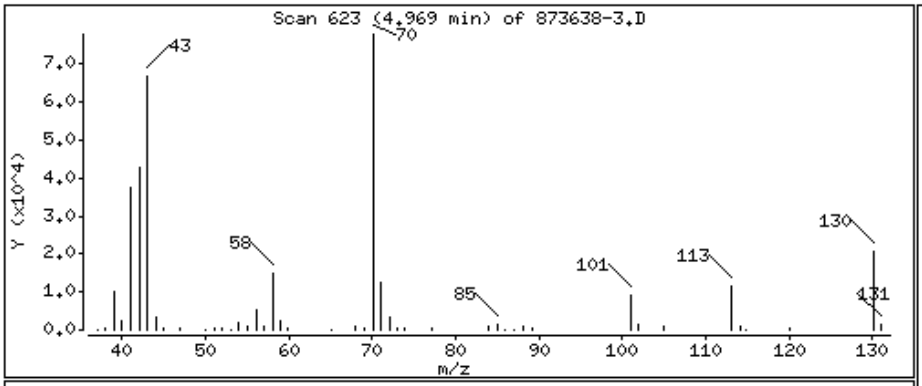
Operator: als

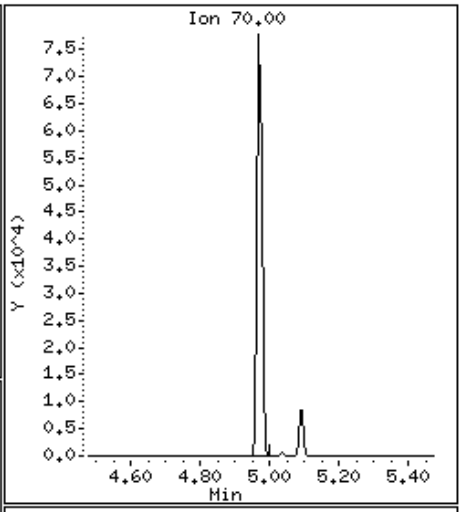
Column phase: RTx-5

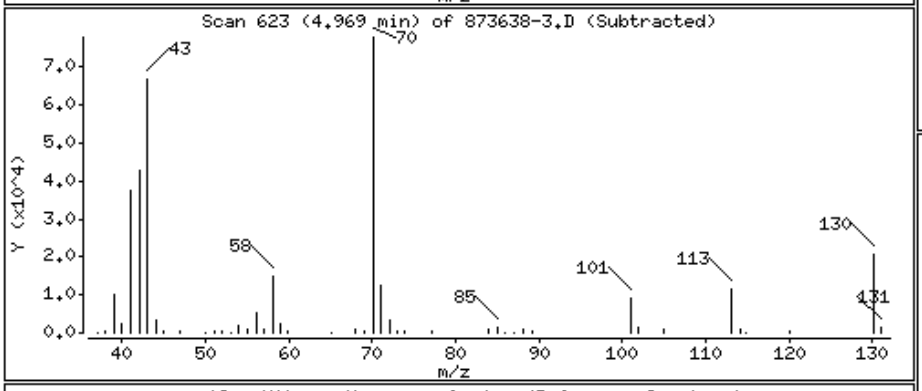
Column diameter: 0.32

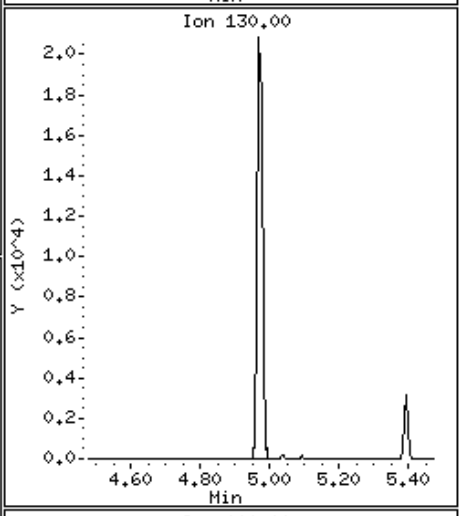
18 n-Nitrosodi-n-propylamine

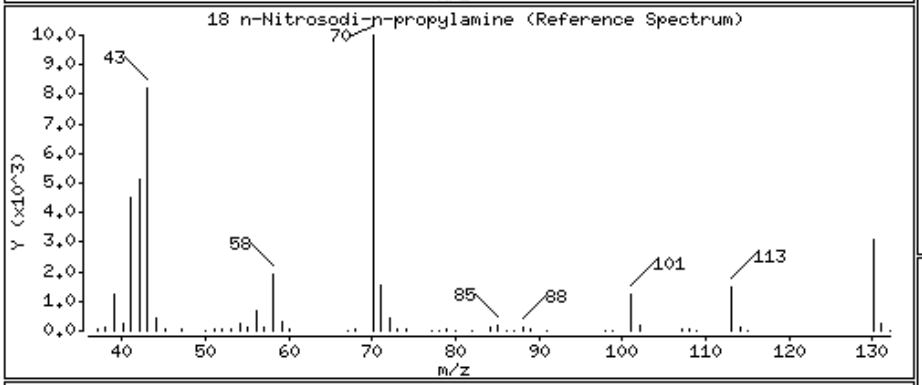
Concentration: 27.5 ug/L

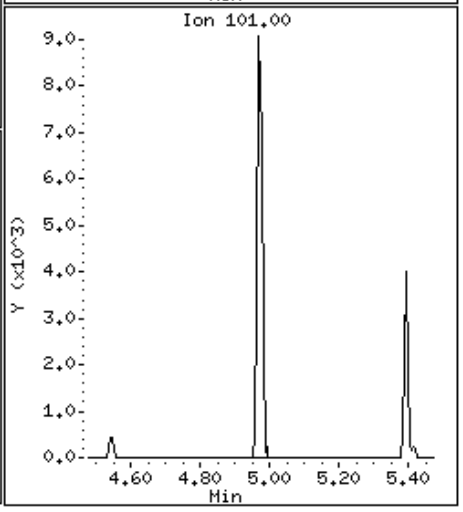


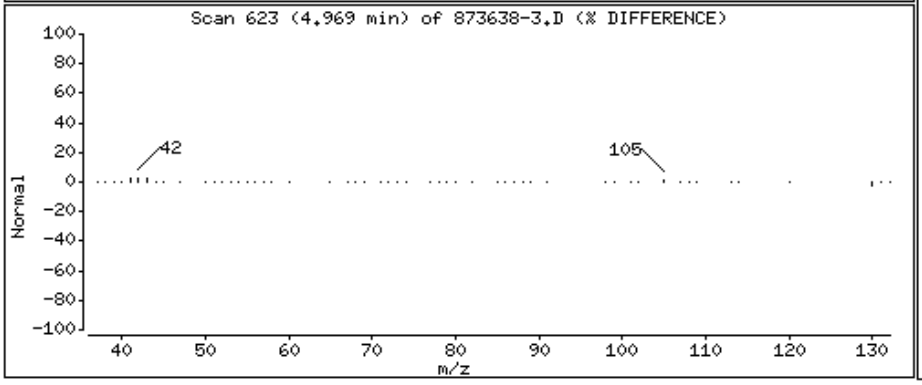












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

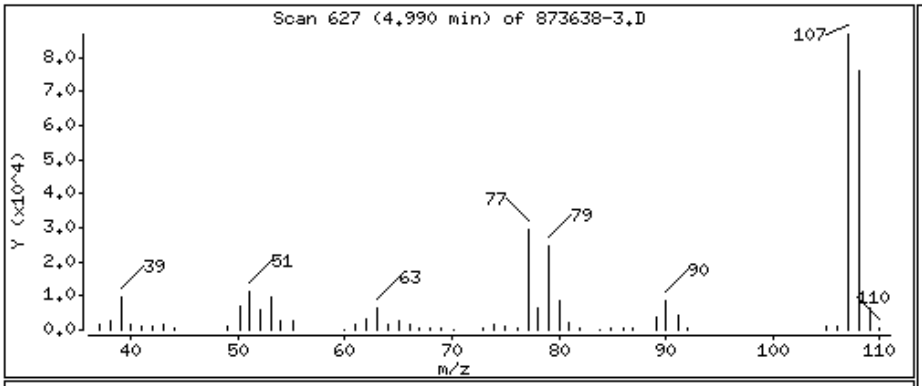
Operator: als

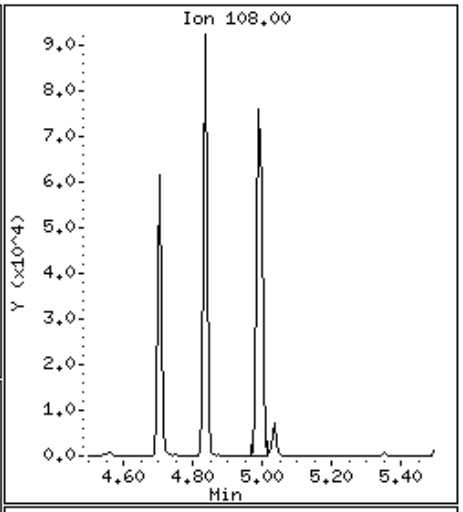
Column phase: RTx-5

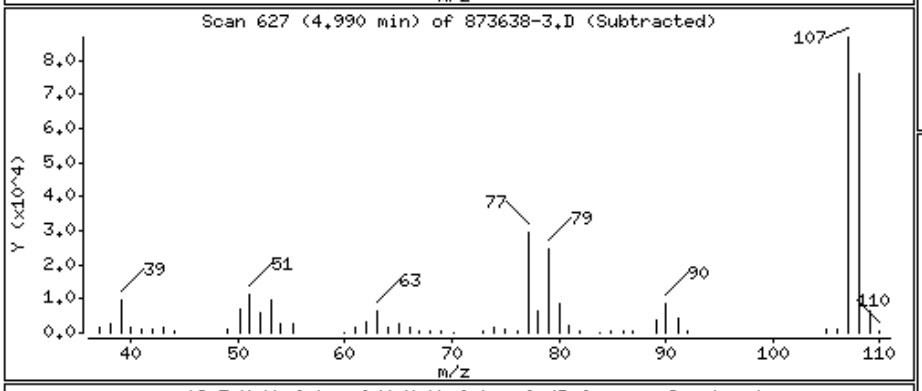
Column diameter: 0.32

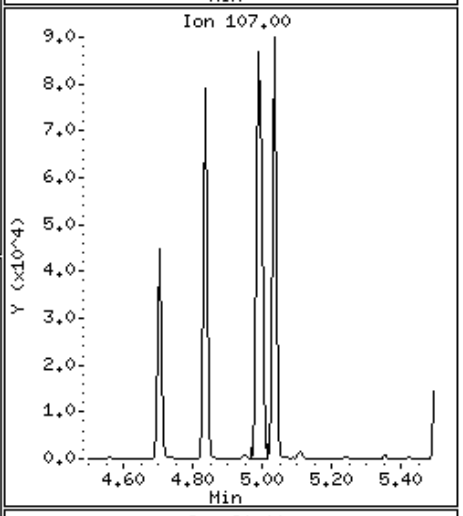
19 3-Methylphenol/4-Methylphenol

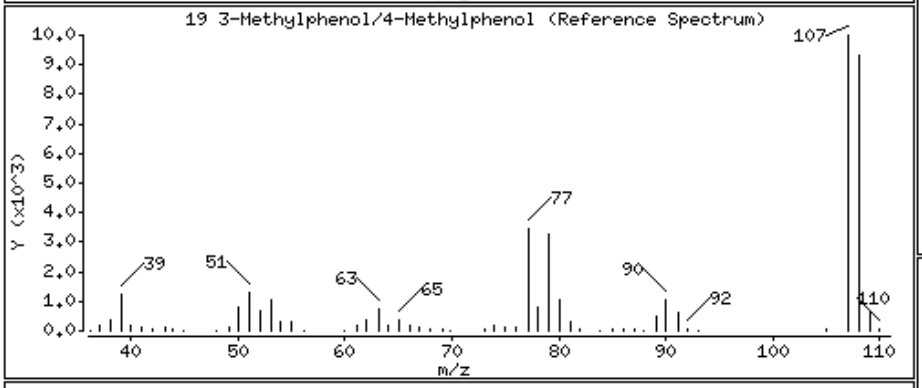
Concentration: 25.2 ug/L

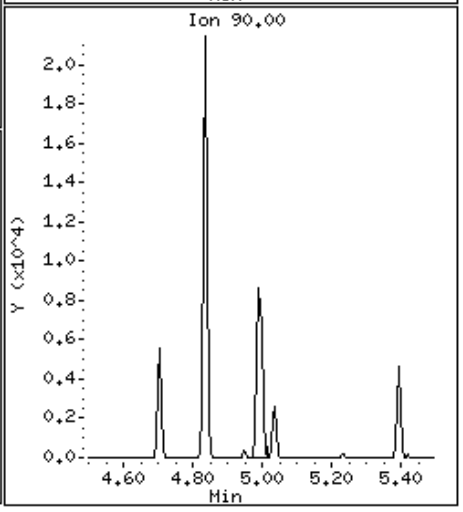


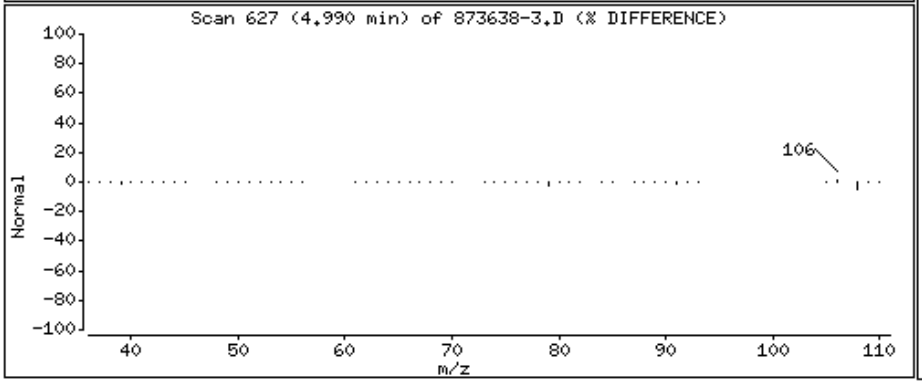












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

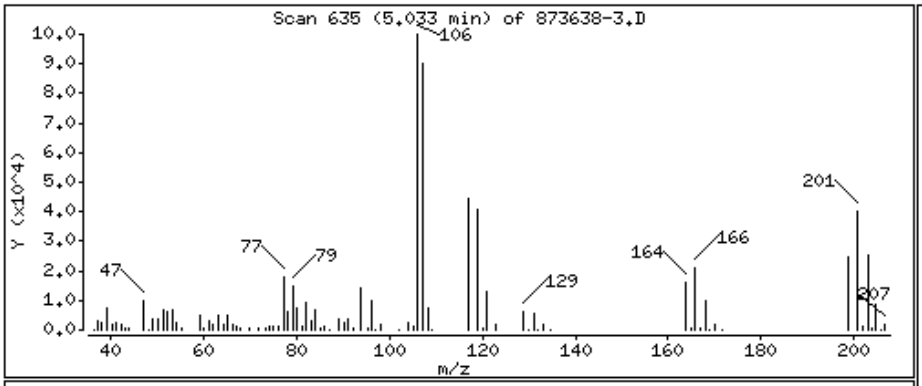
Operator: als

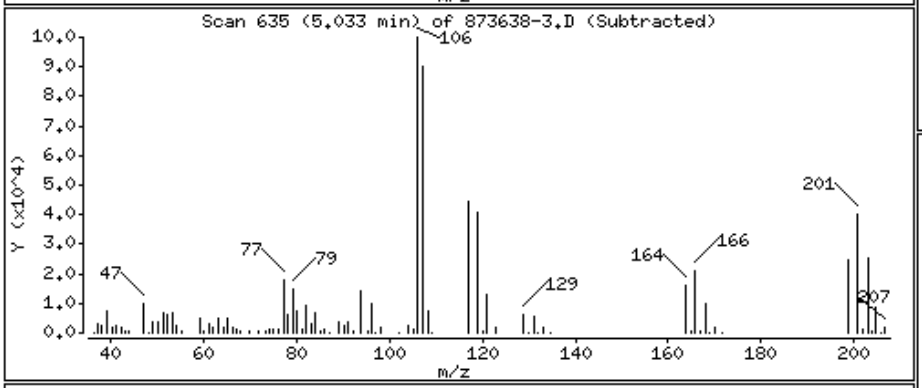
Column phase: RTx-5

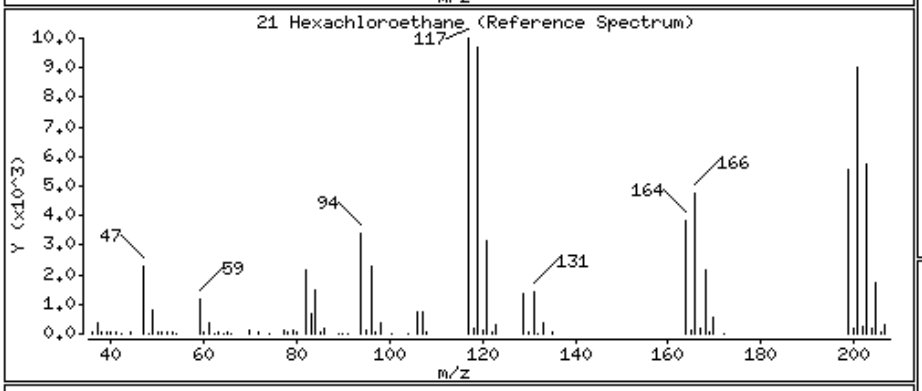
Column diameter: 0.32

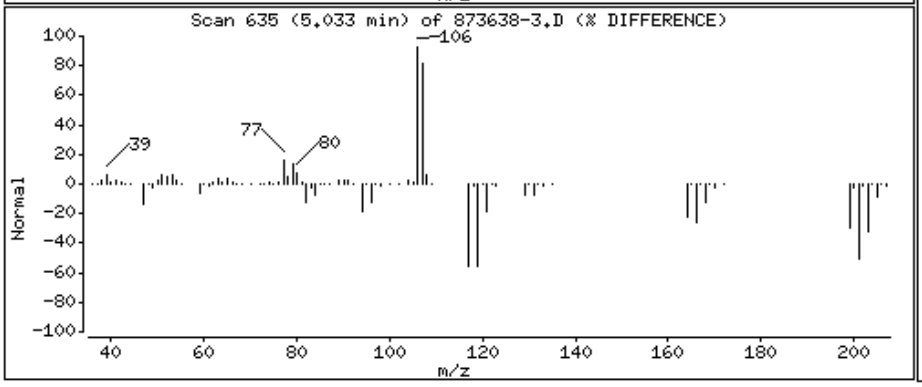
21 Hexachloroethane

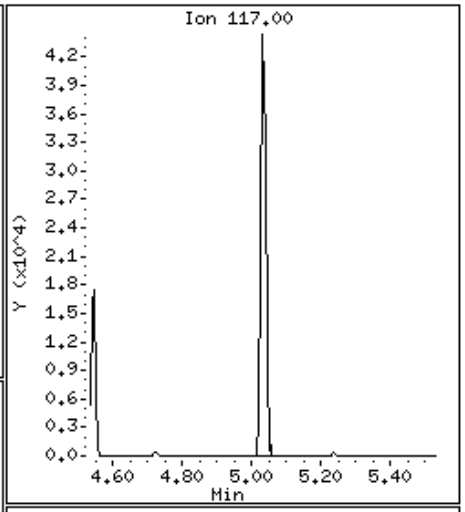
Concentration: 25.6 ug/L

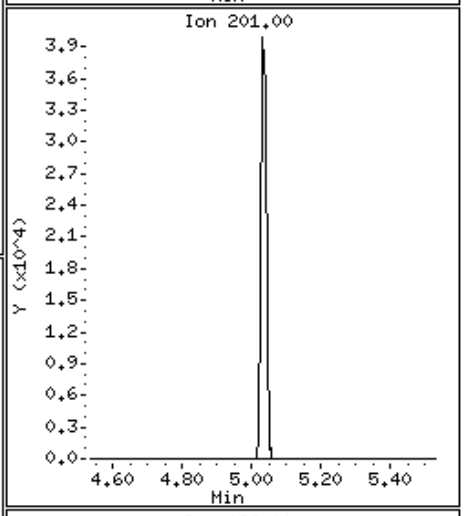


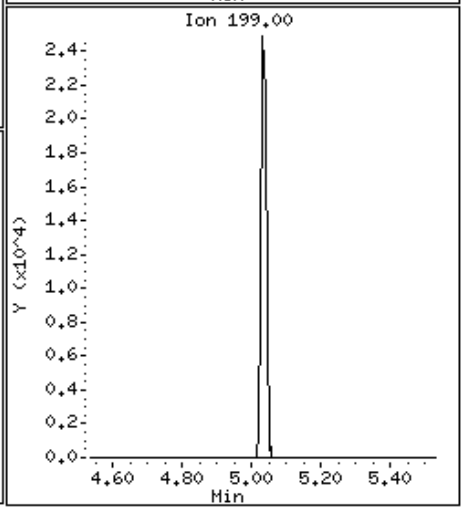












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

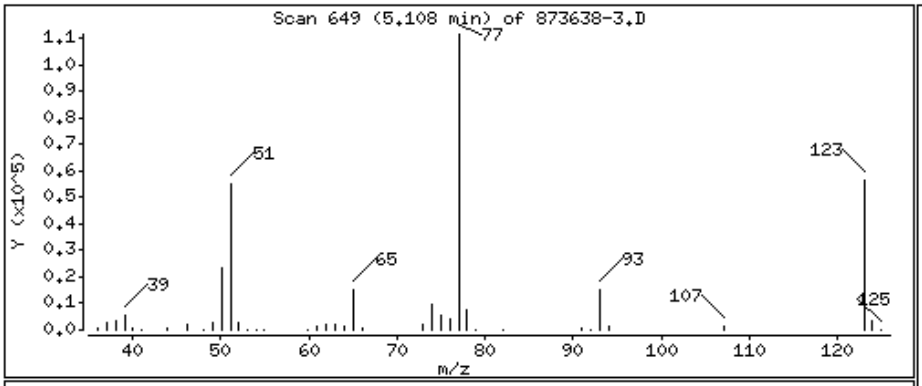
Operator: als

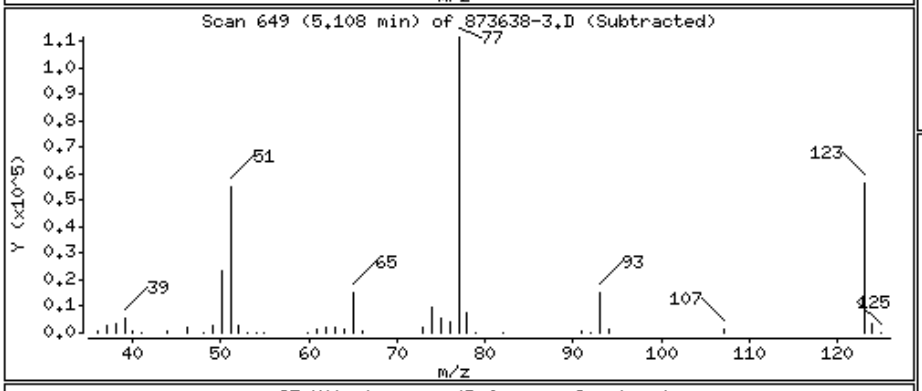
Column phase: RTx-5

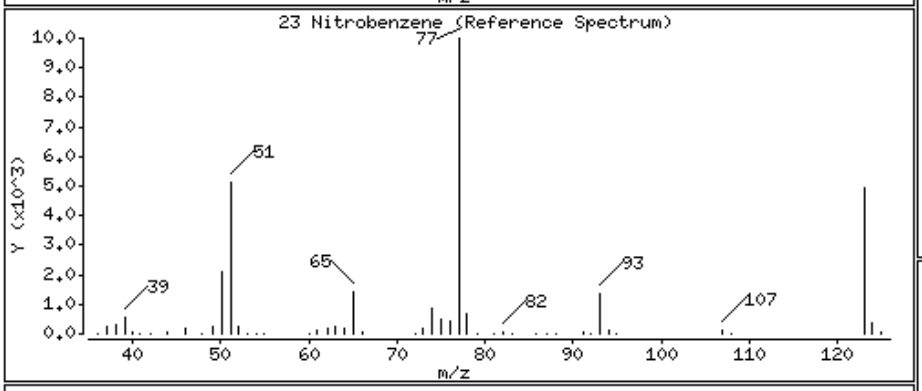
Column diameter: 0.32

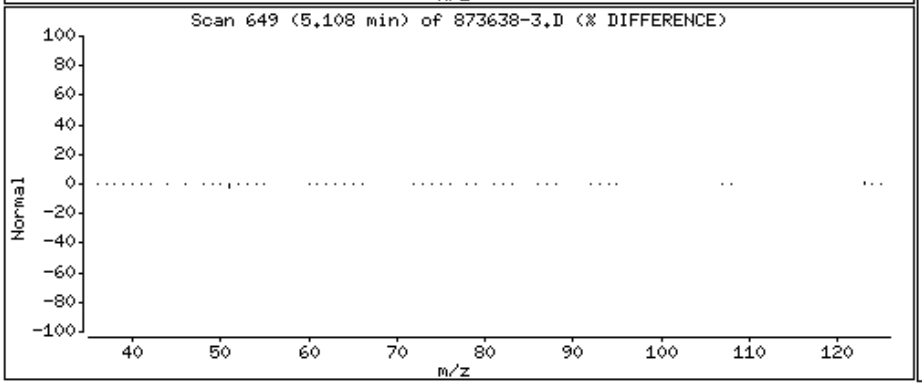
23 Nitrobenzene

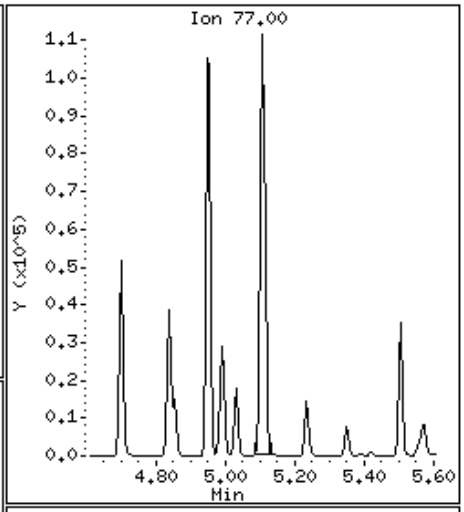
Concentration: 25.3 ug/L

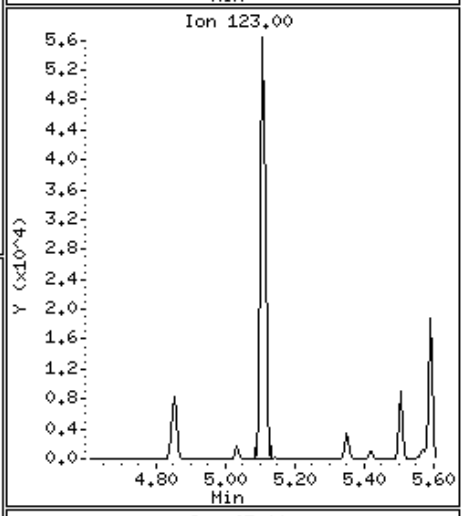


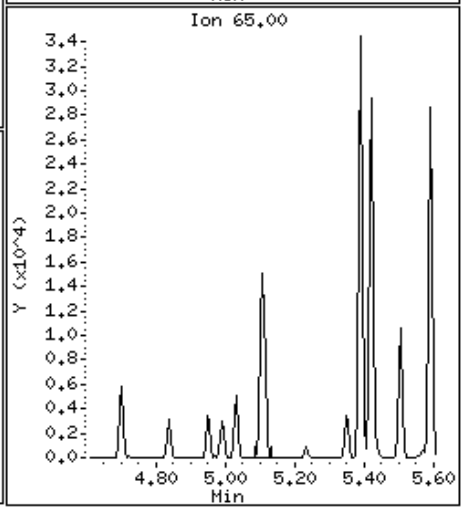












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

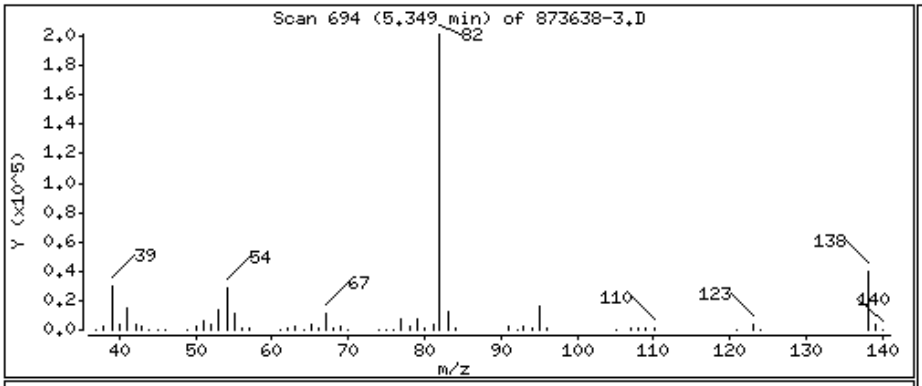
Operator: als

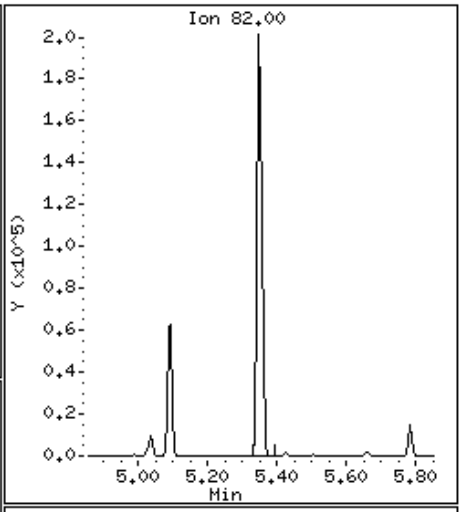
Column phase: RTx-5

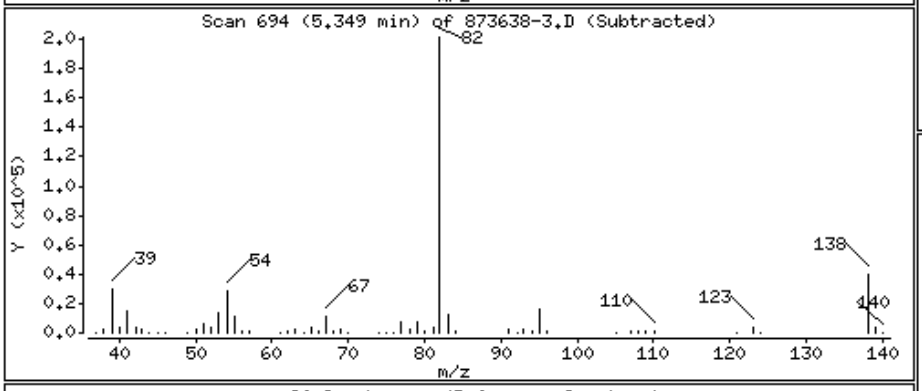
Column diameter: 0.32

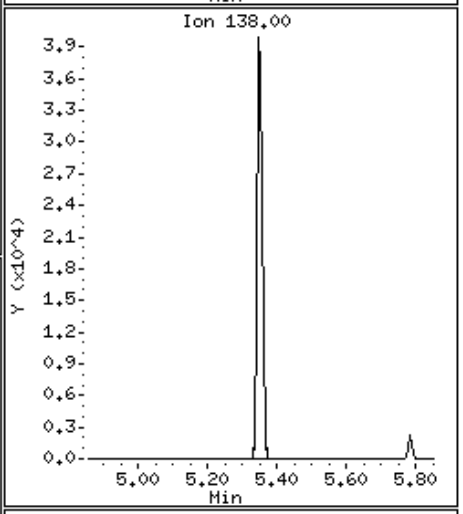
26 Isophorone

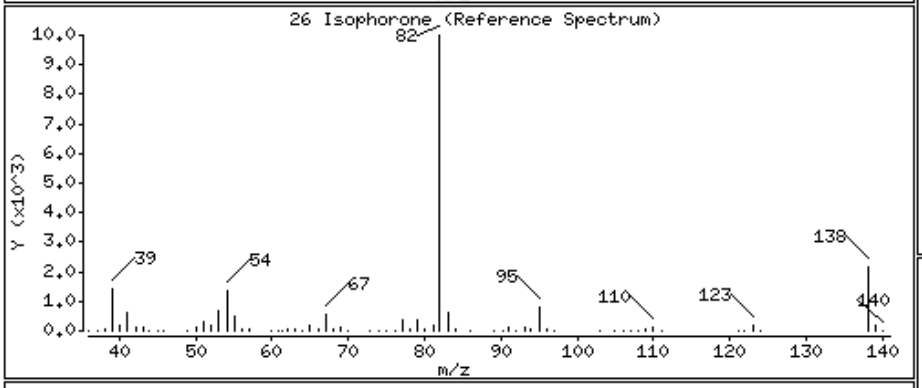
Concentration: 29.0 ug/L

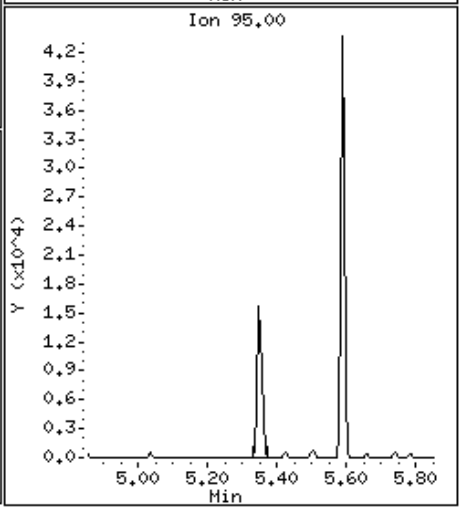


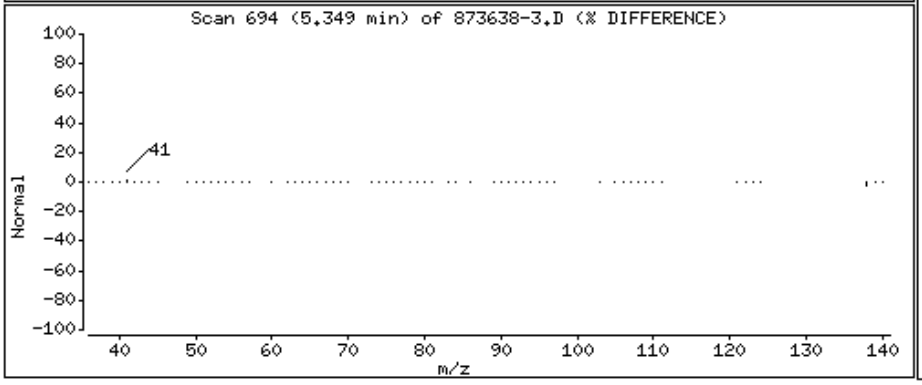












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

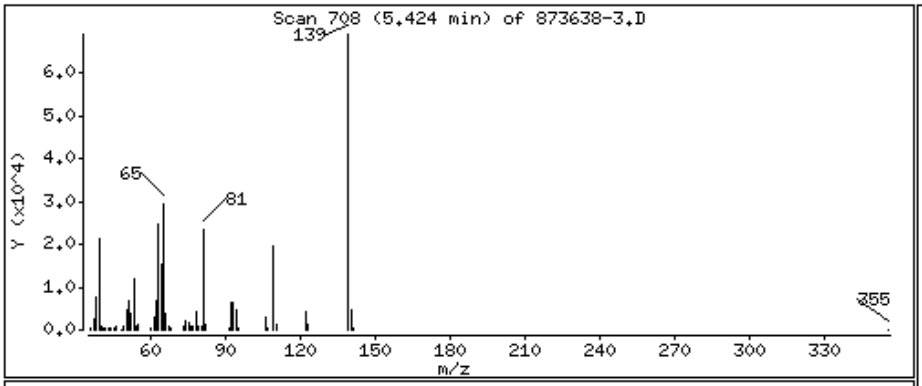
Operator: als

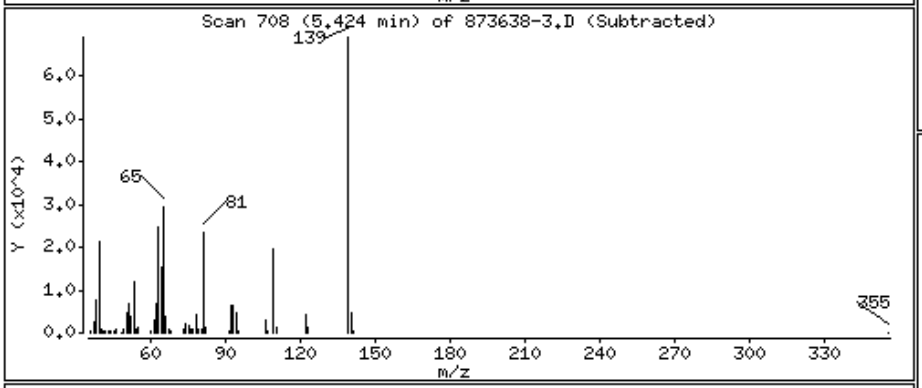
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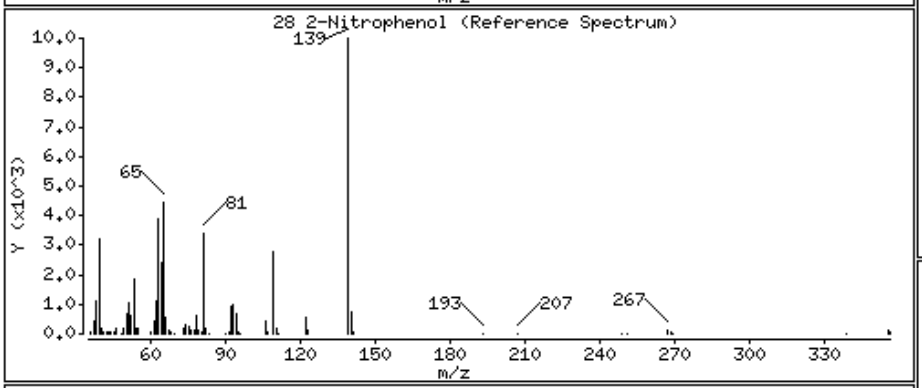
Column diameter: 0.32

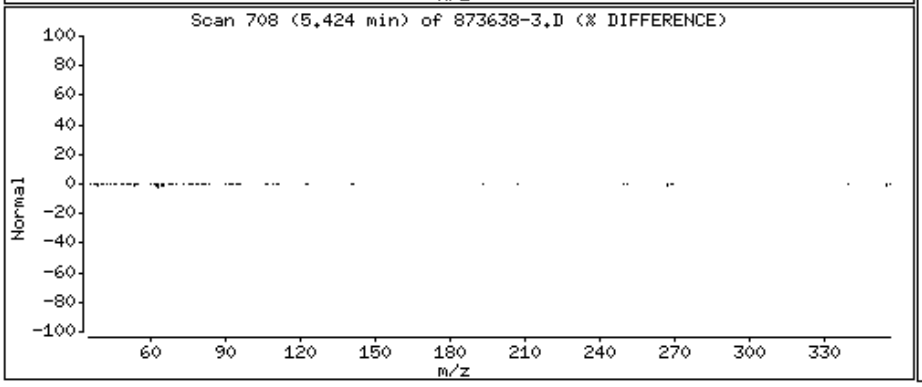
28 2-Nitrophenol

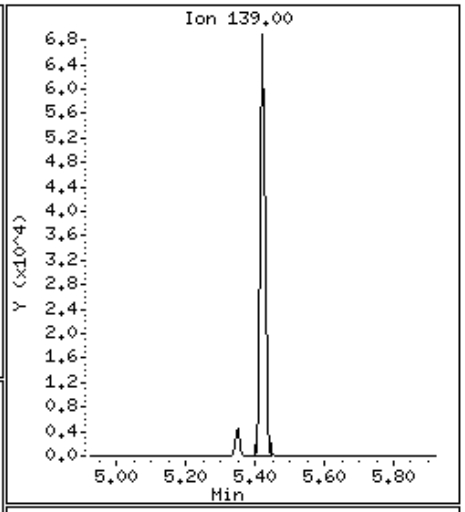
Concentration: 33.0 ug/L

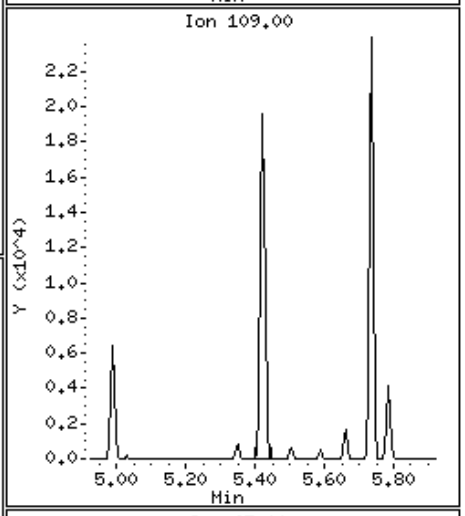


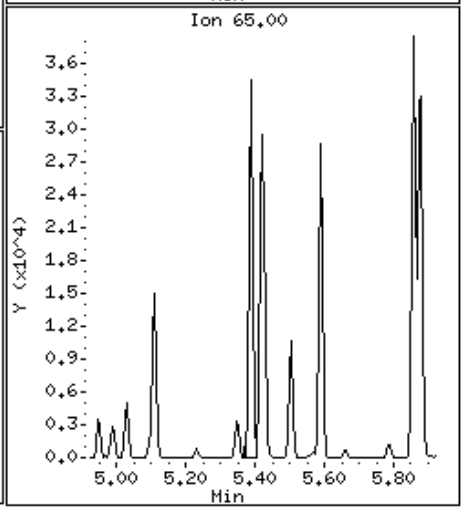












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

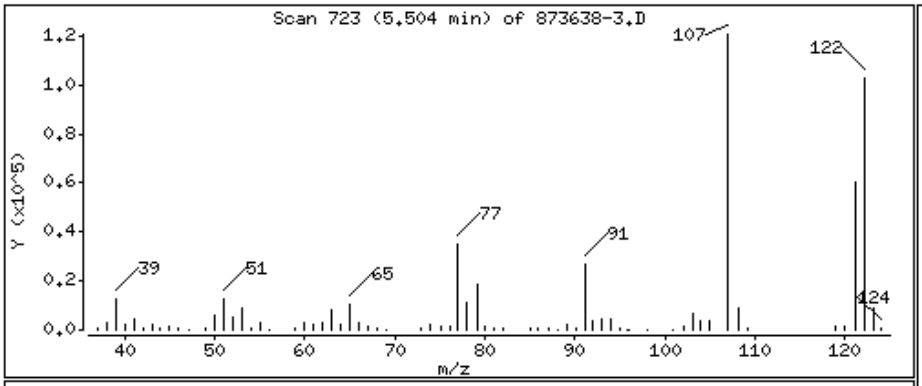
Operator: als

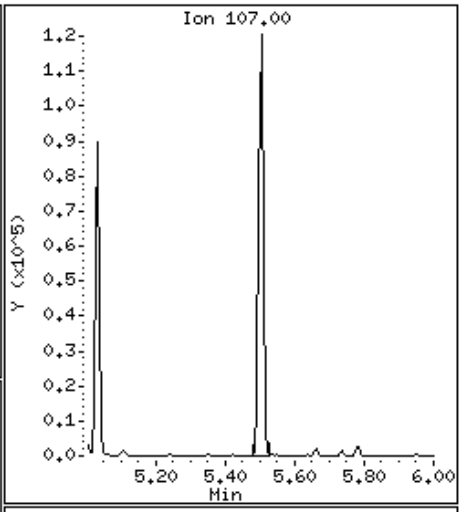
Column phase: RTx-5

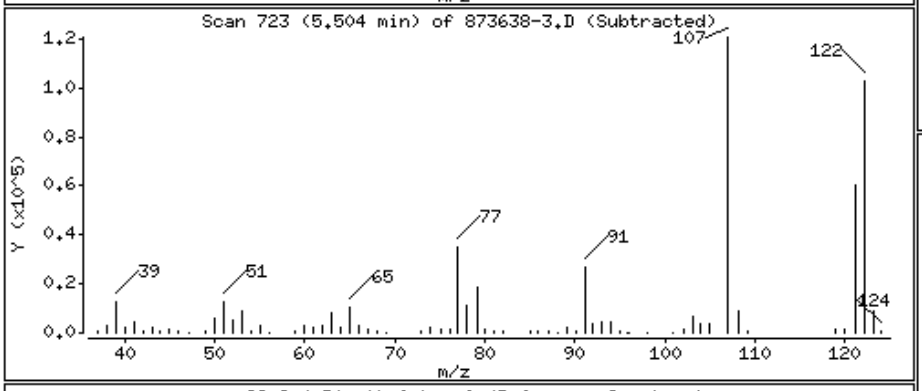
Column diameter: 0.32

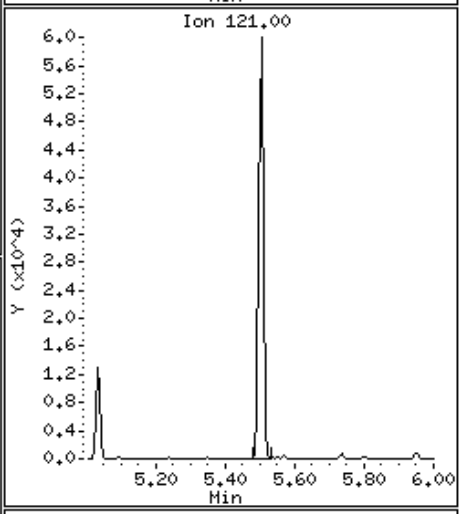
29 2,4-Dimethylphenol

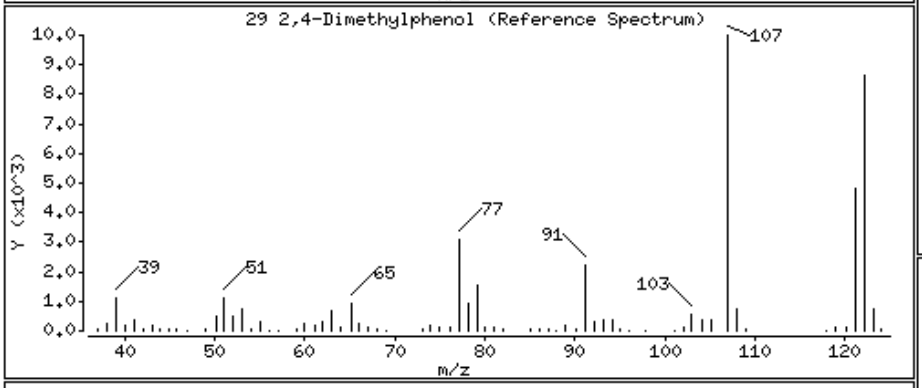
Concentration: 30.3 ug/L

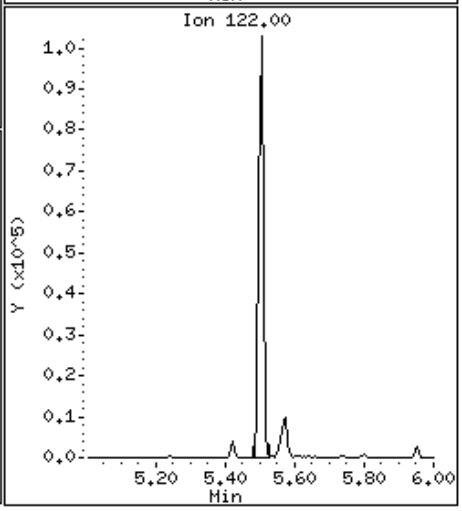


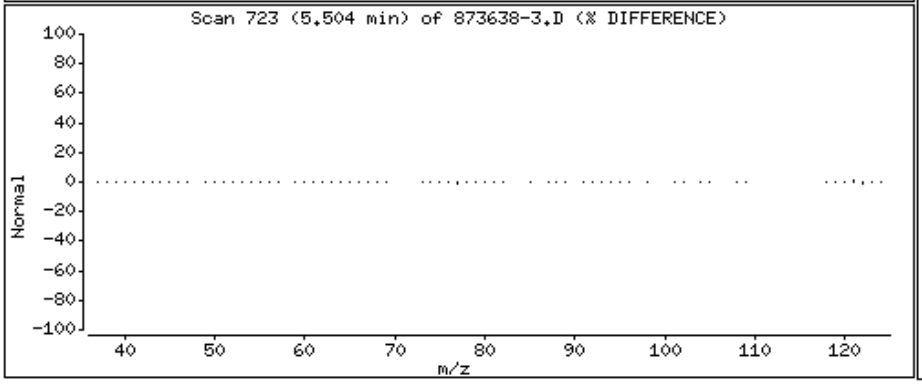












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

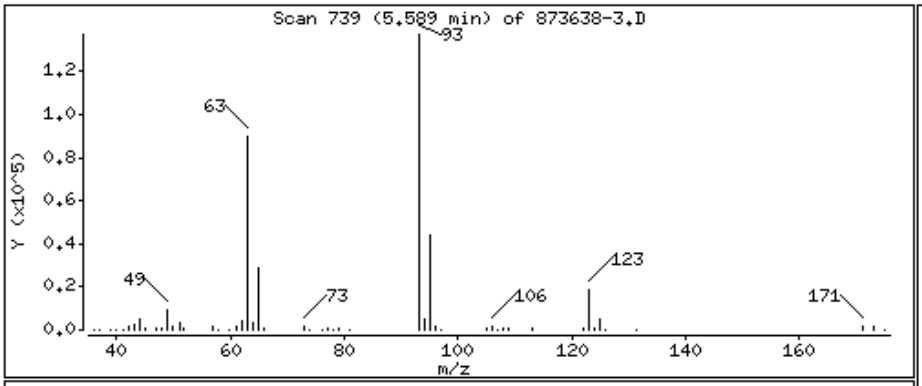
Operator: als

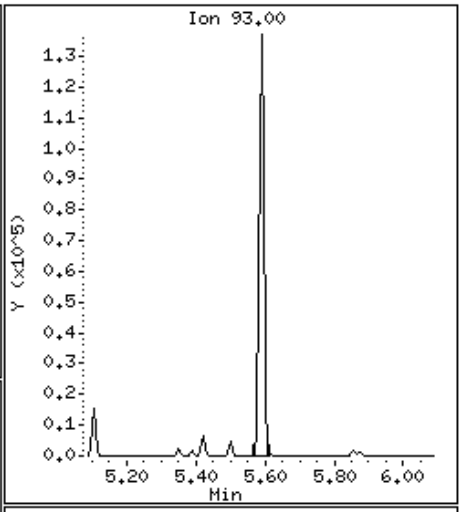
Column phase: RTx-5

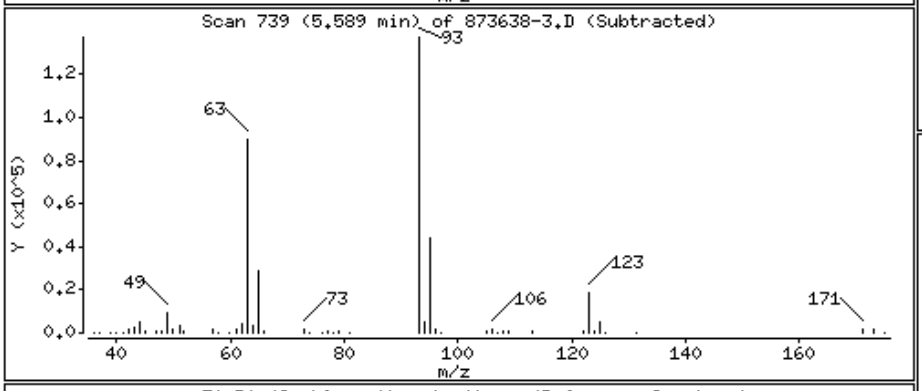
Column diameter: 0.32

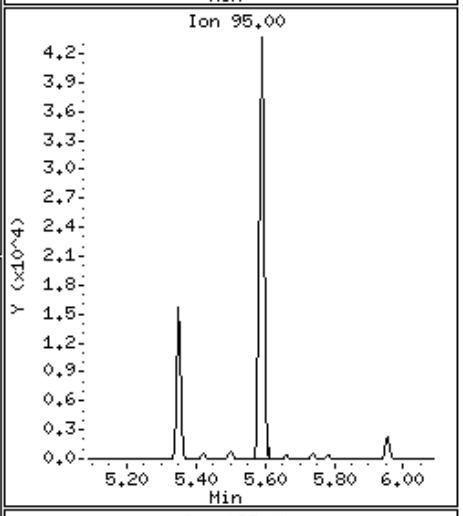
30 Bis(2-chloroethoxy)methane

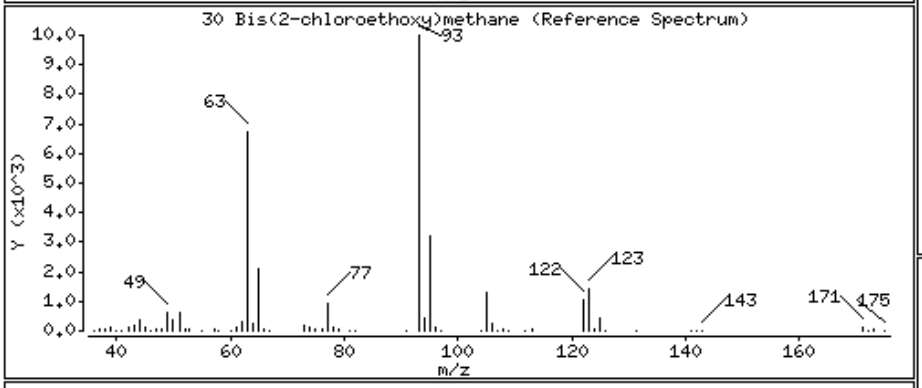
Concentration: 29.3 ug/L

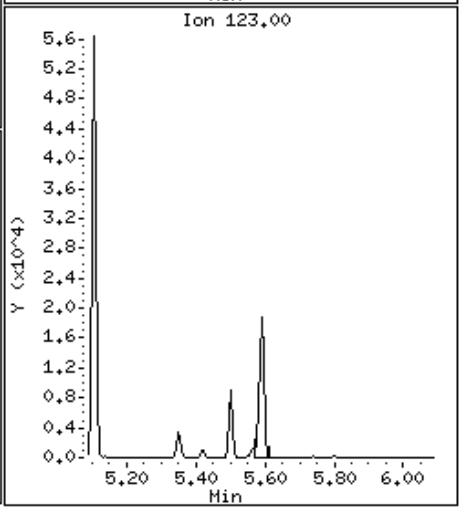


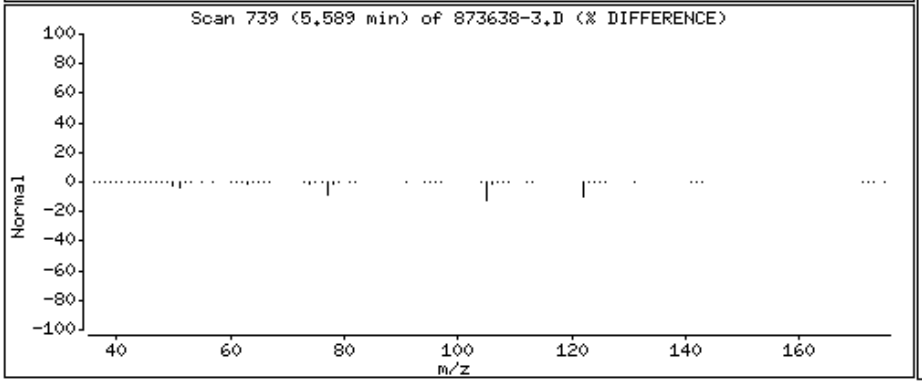












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

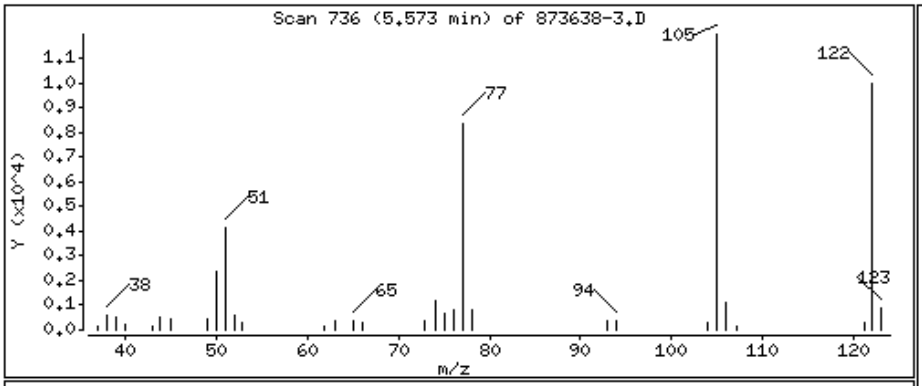
Operator: als

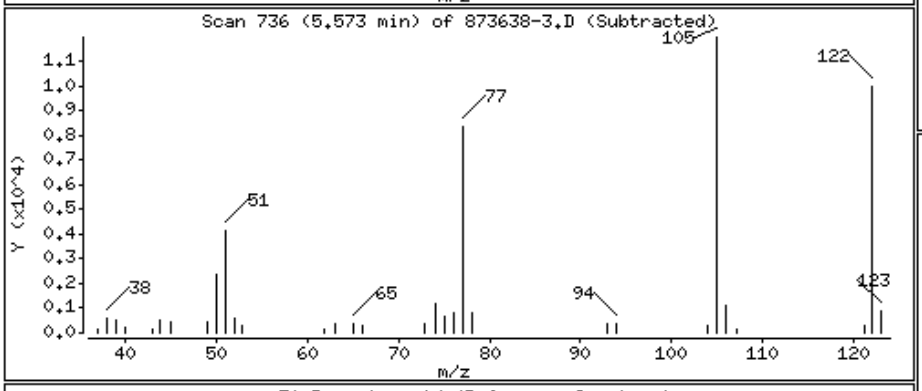
Column phase: RTx-5

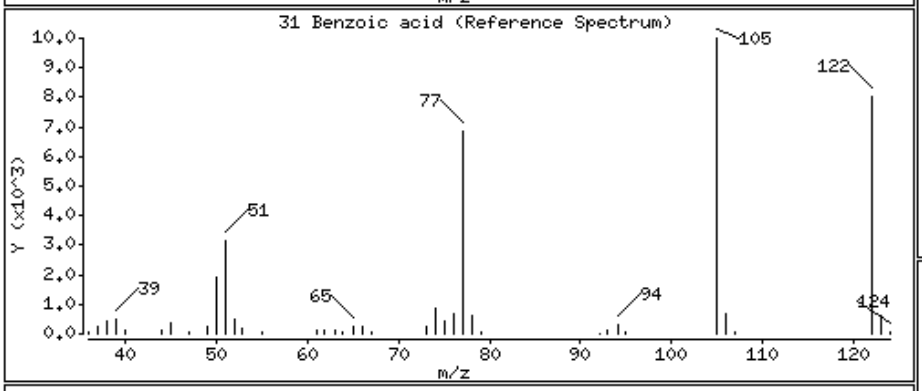
Column diameter: 0.32

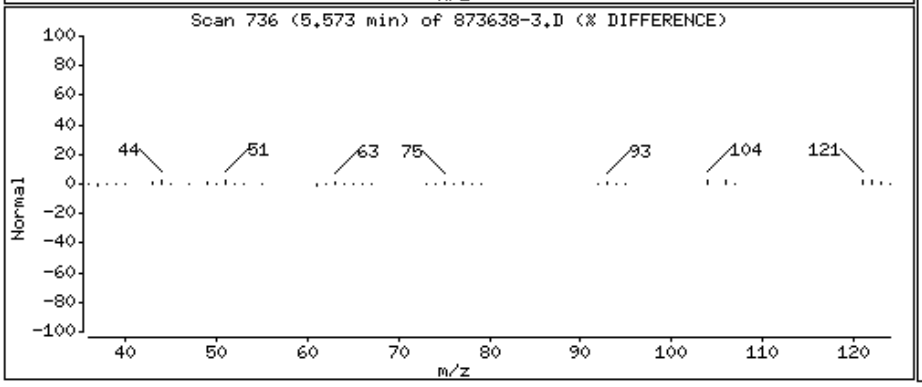
31 Benzoic acid

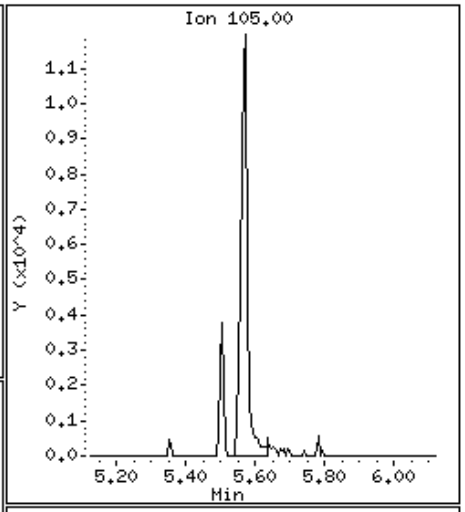
Concentration: 13.0 ug/L

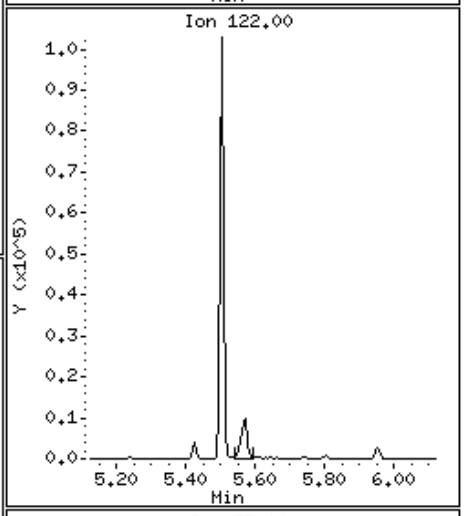


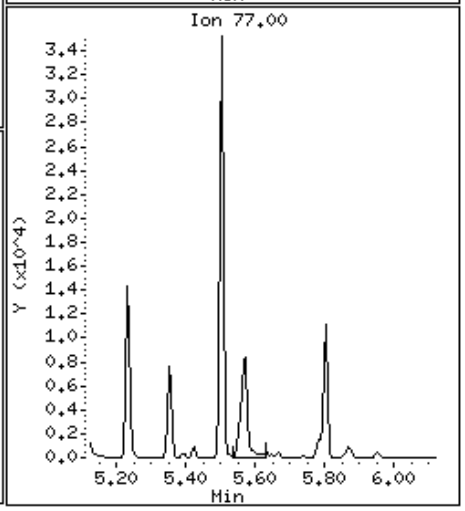












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

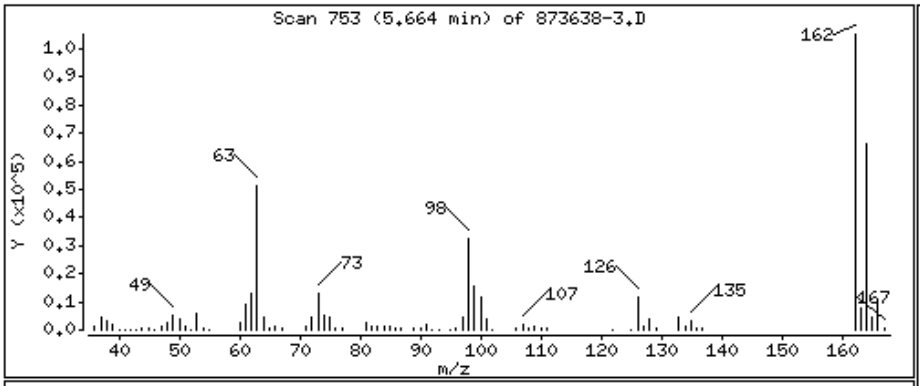
Operator: als

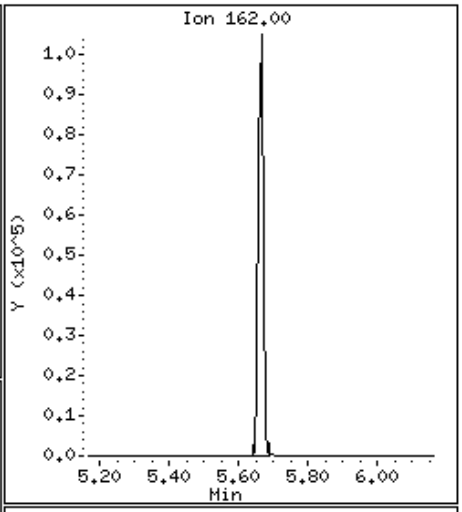
Column phase: RTx-5

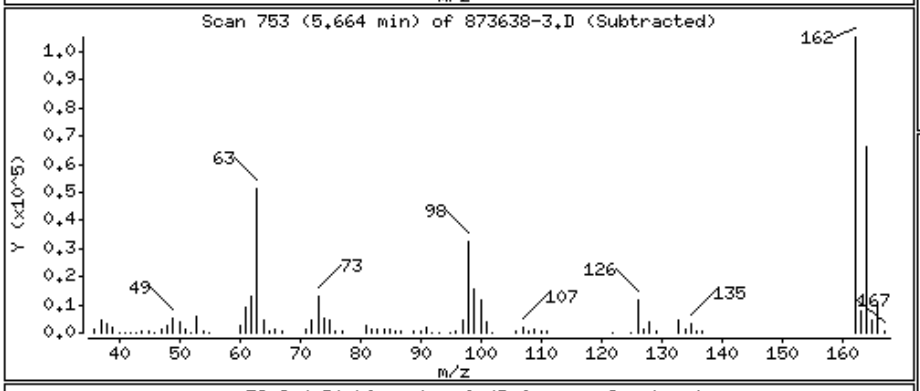
Column diameter: 0.32

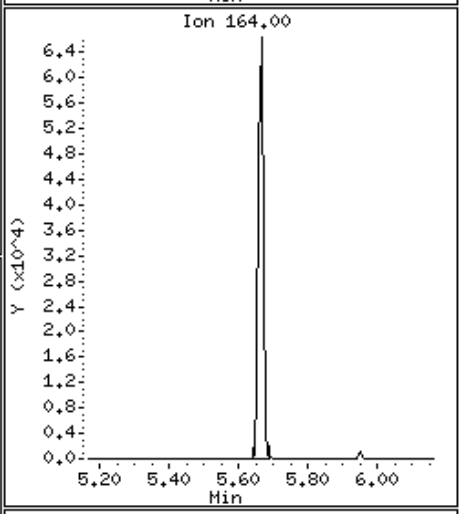
32 2,4-Dichlorophenol

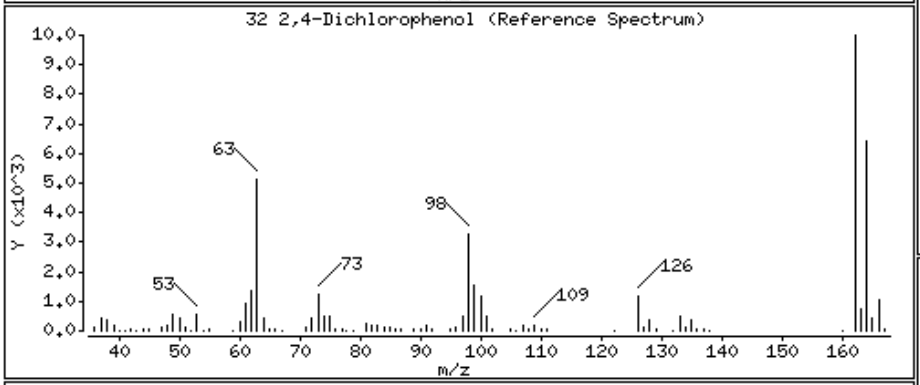
Concentration: 32.1 ug/L

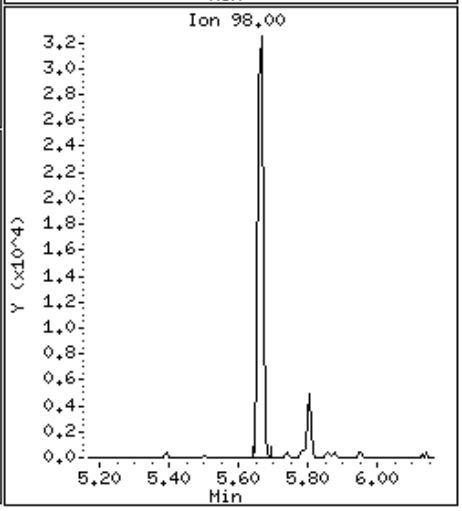


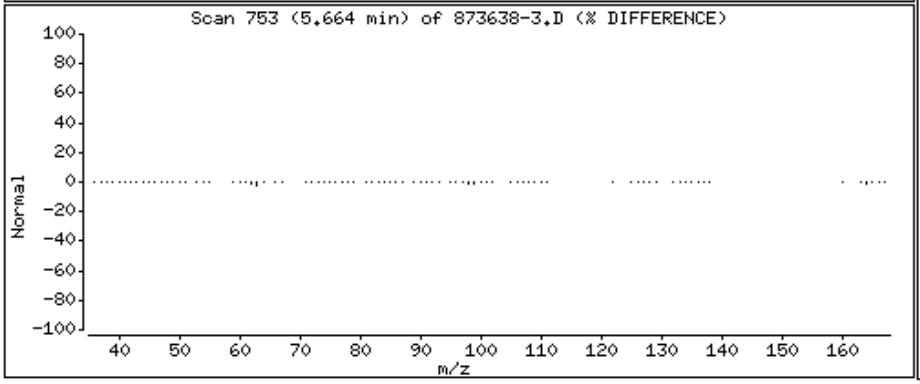












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

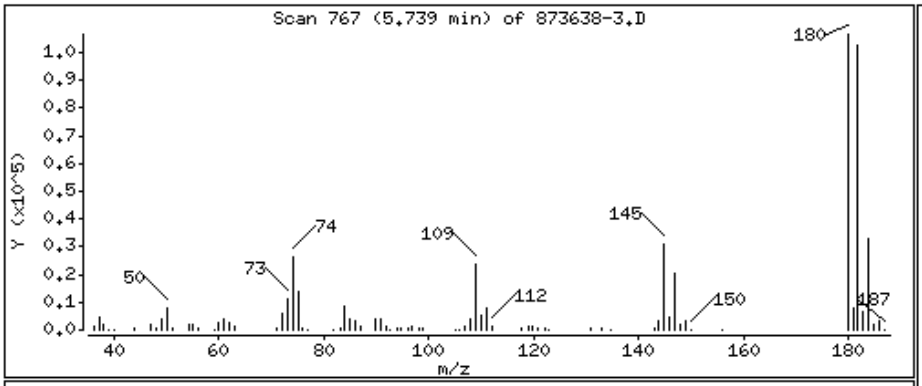
Operator: als

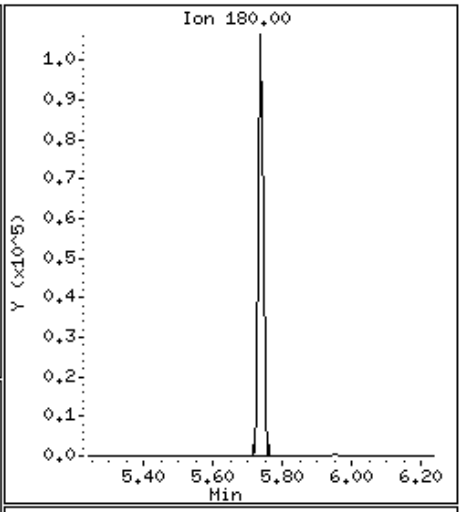
Column phase: RTx-5

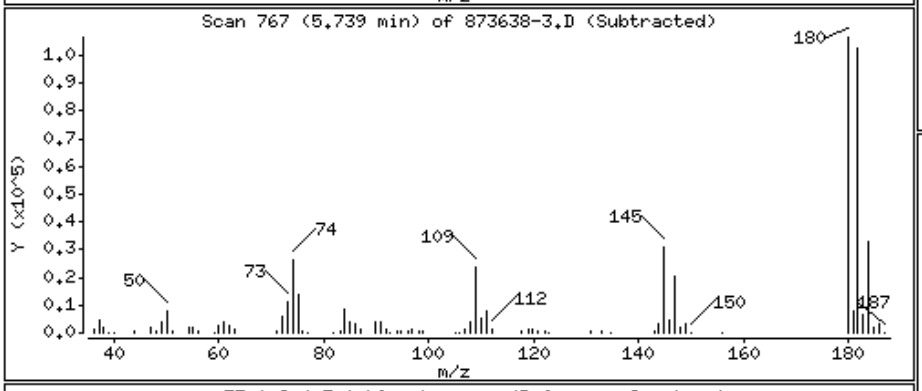
Column diameter: 0.32

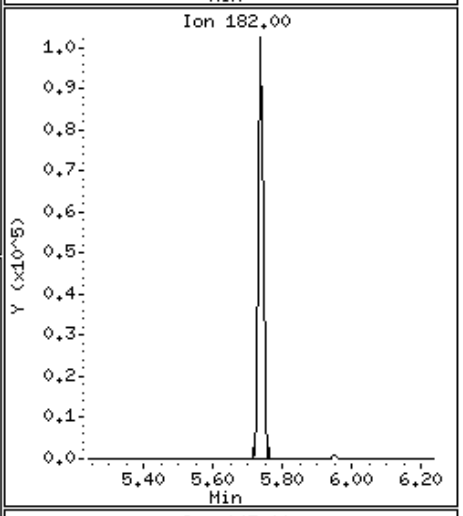
33 1,2,4-Trichlorobenzene

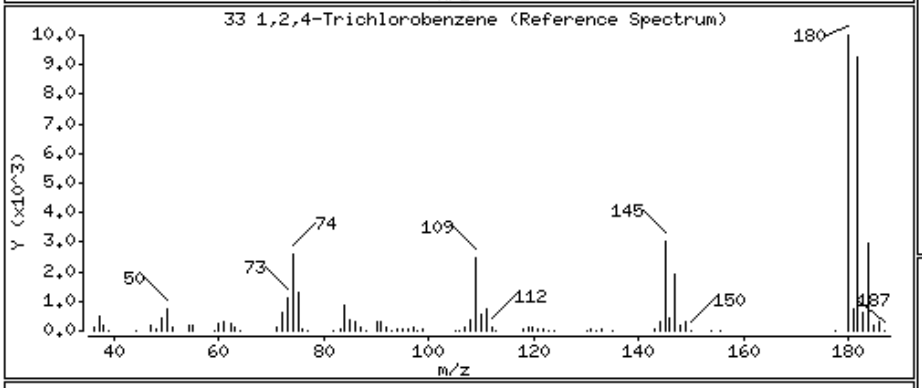
Concentration: 28.2 ug/L

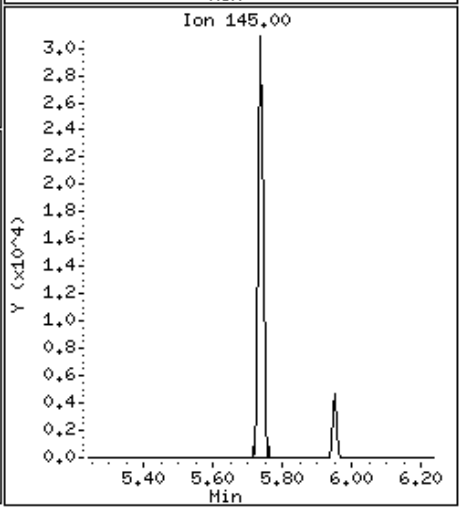


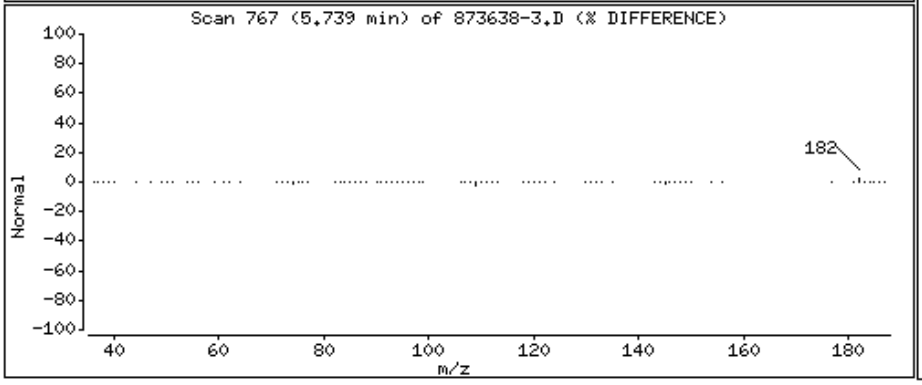












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

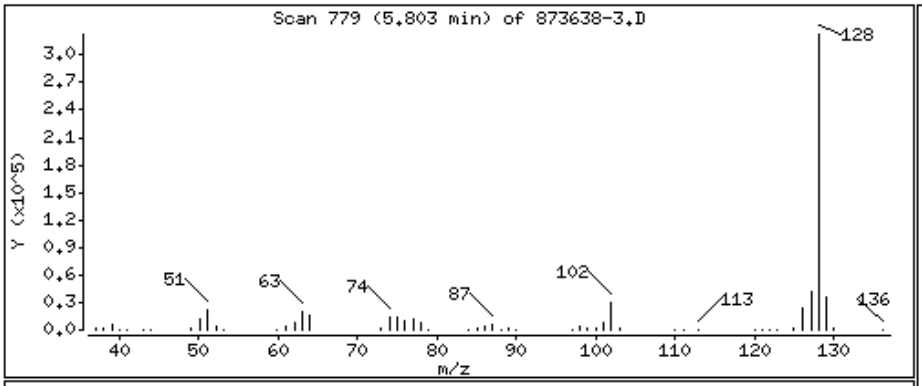
Operator: als

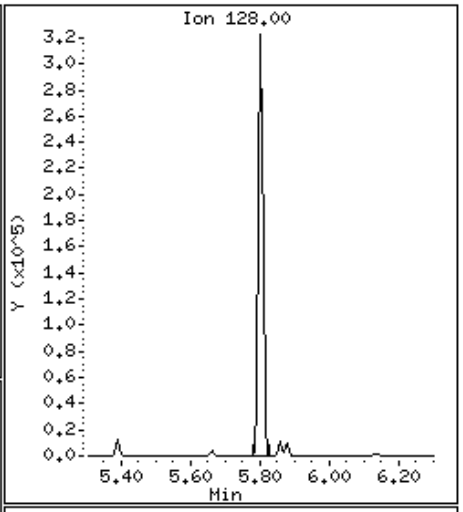
Column phase: RTx-5

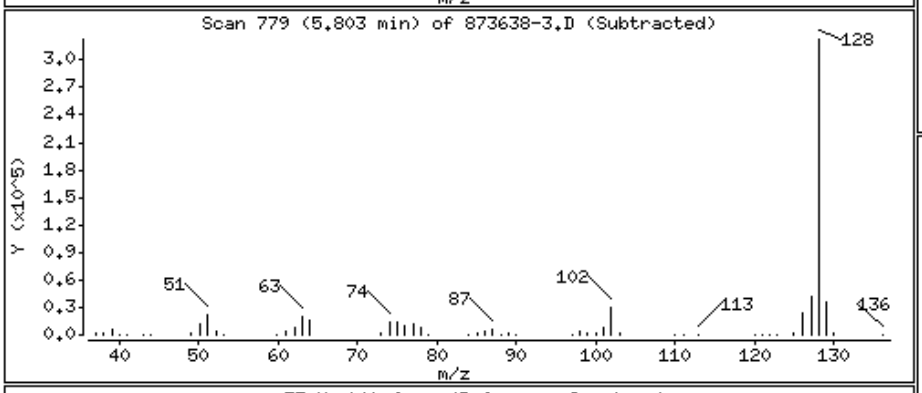
Column diameter: 0.32

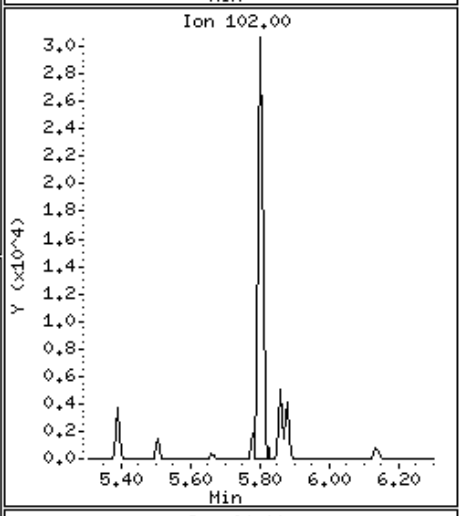
35 Naphthalene

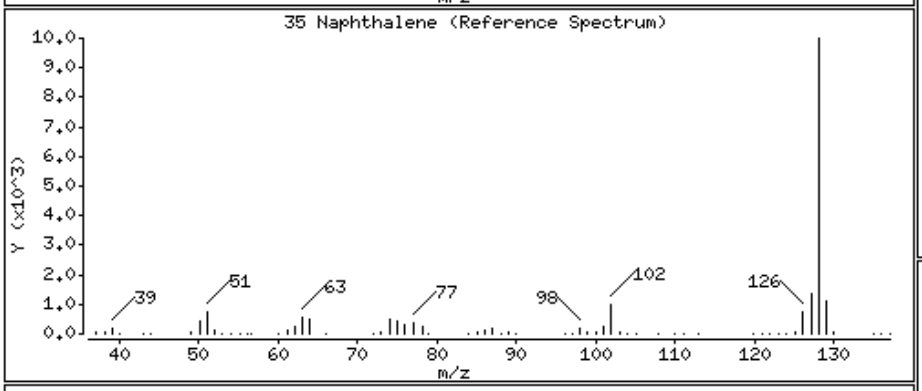
Concentration: 27.0 ug/L

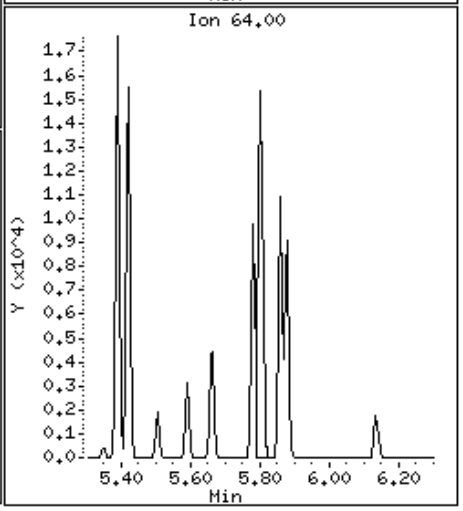


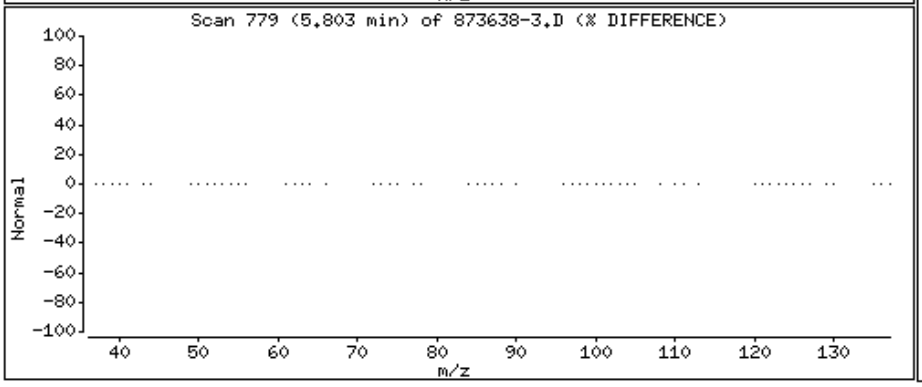












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

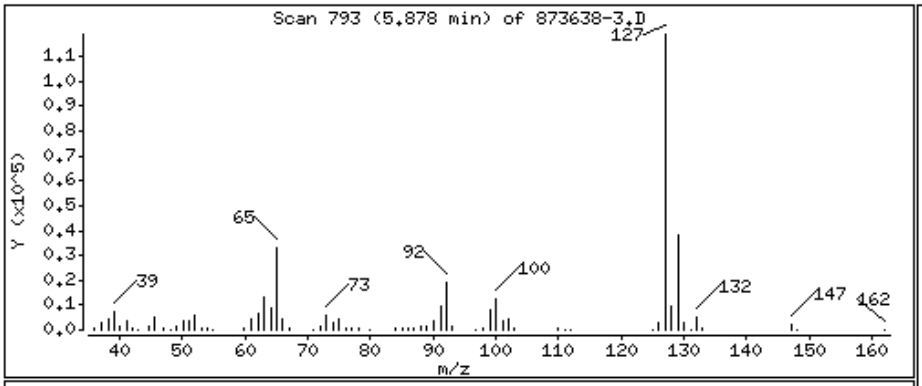
Operator: als

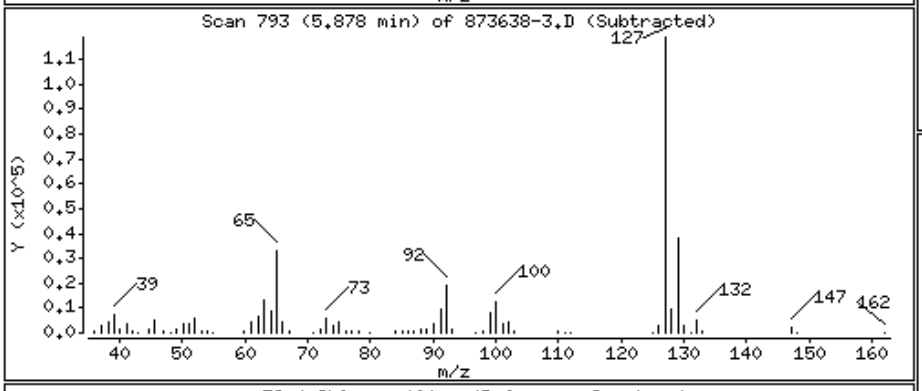
Column phase: RTx-5

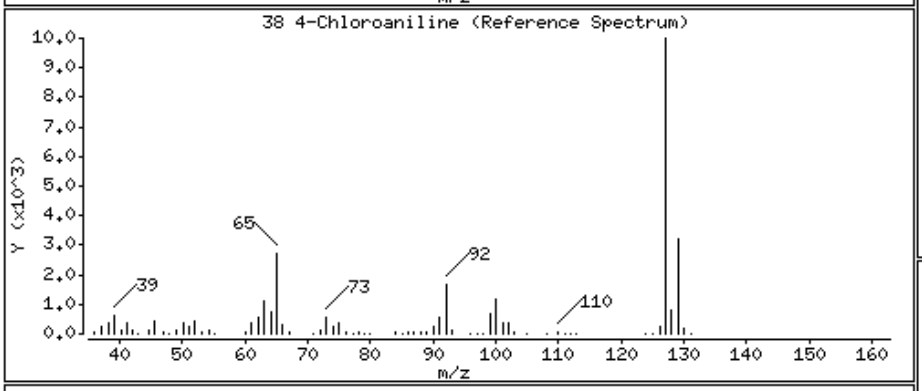
Column diameter: 0.32

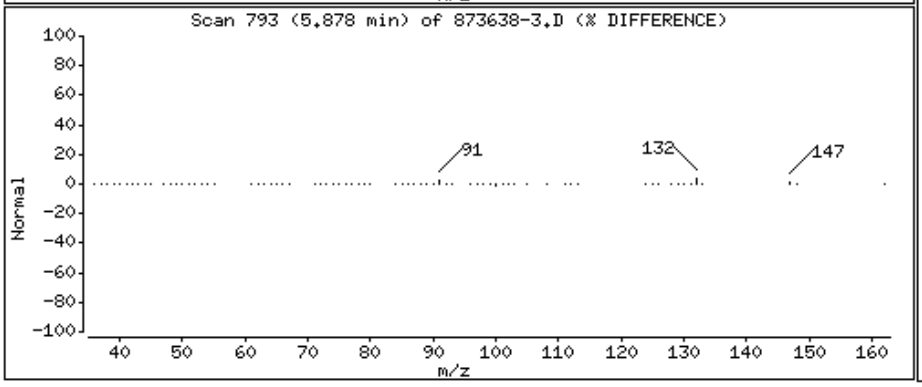
38 4-Chloroaniline

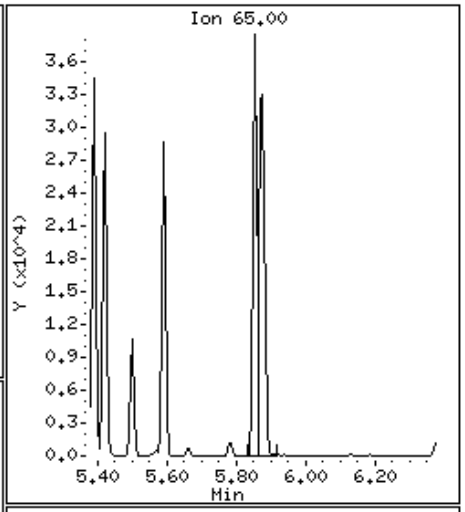
Concentration: 25.4 ug/L

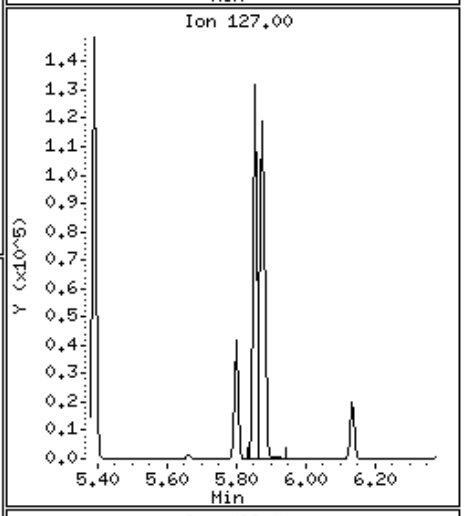


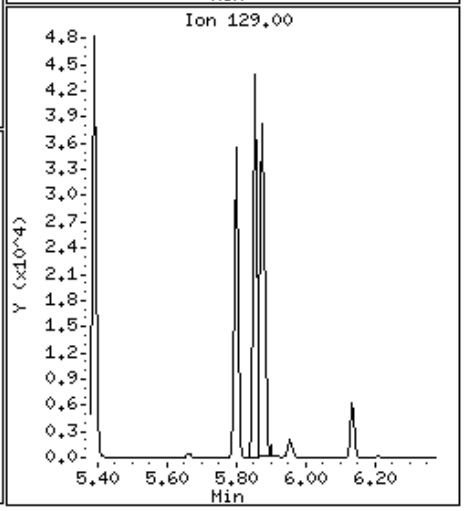












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

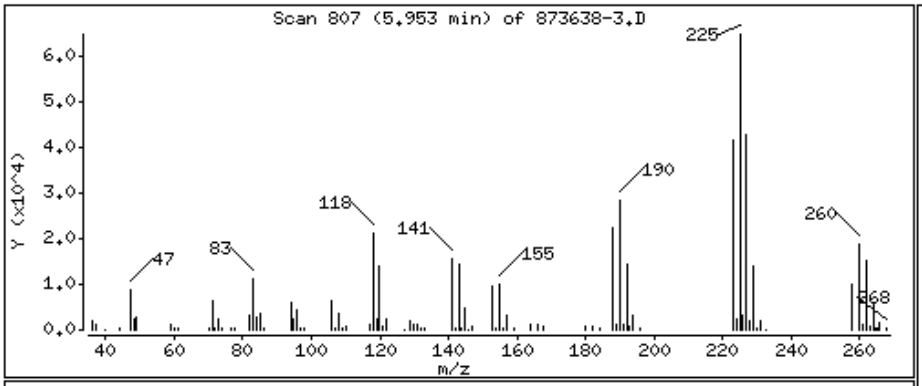
Operator: als

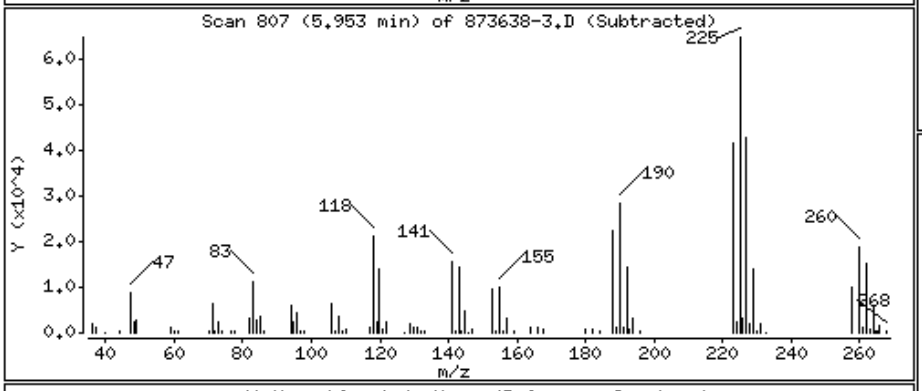
Column phase: RTx-5

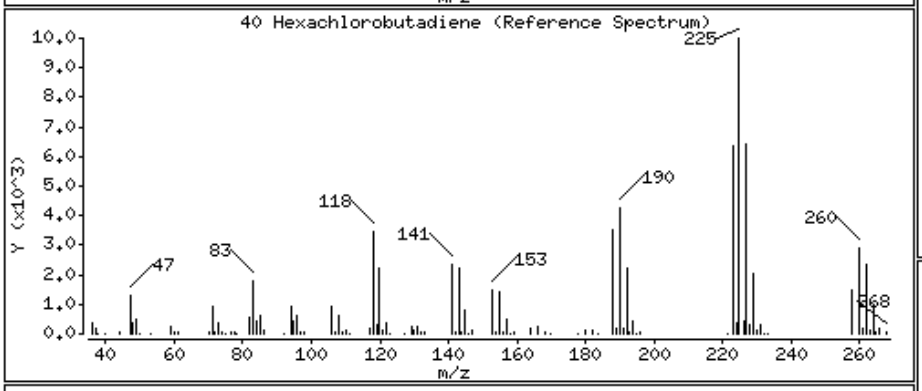
Column diameter: 0.32

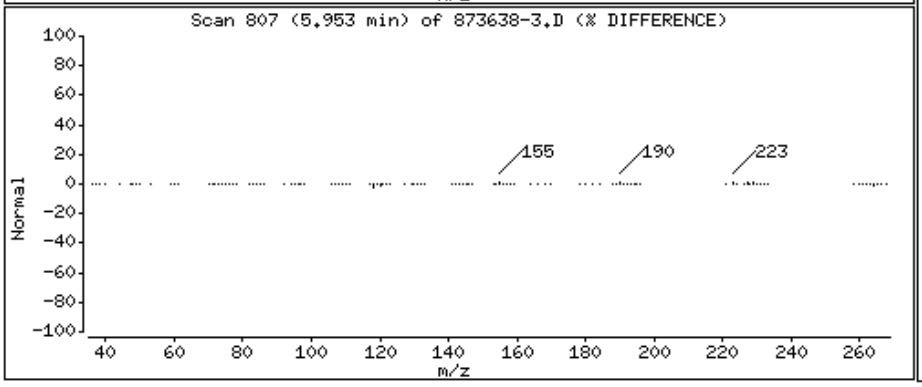
40 Hexachlorobutadiene

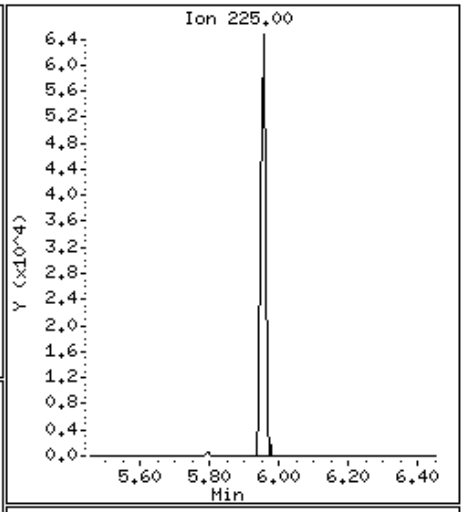
Concentration: 28.9 ug/L

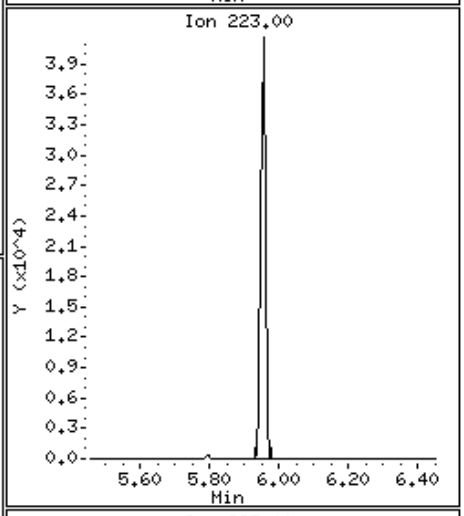


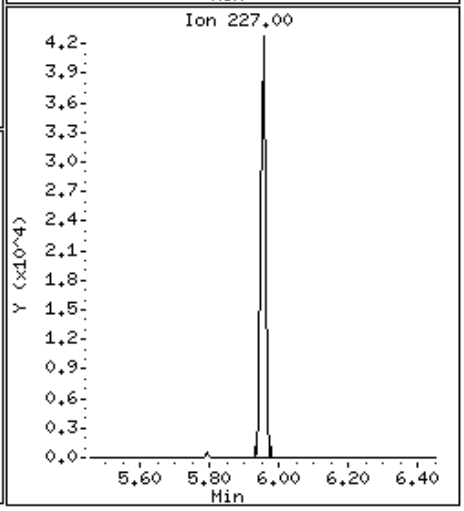












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

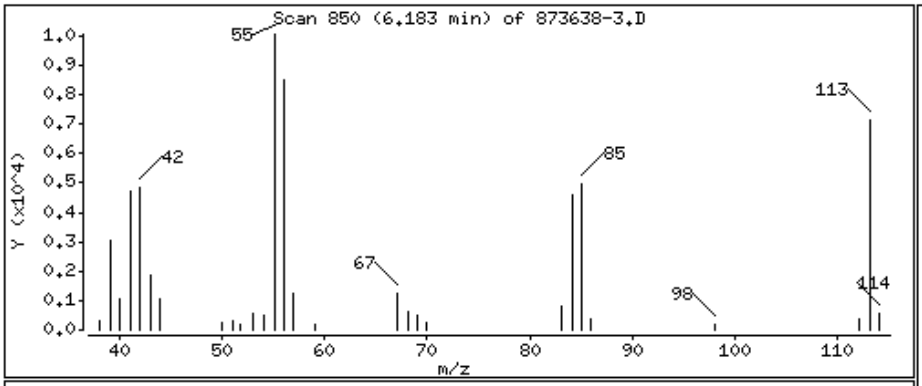
Operator: als

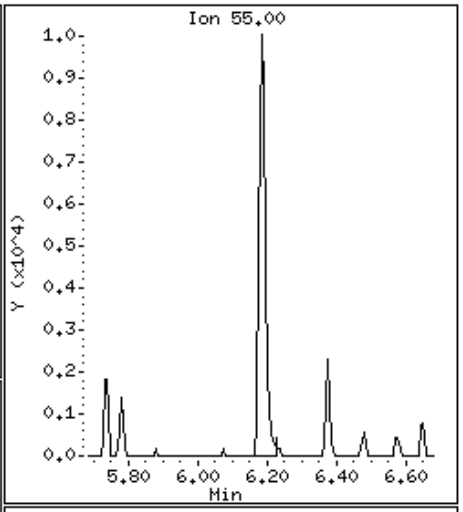
Column phase: RTx-5

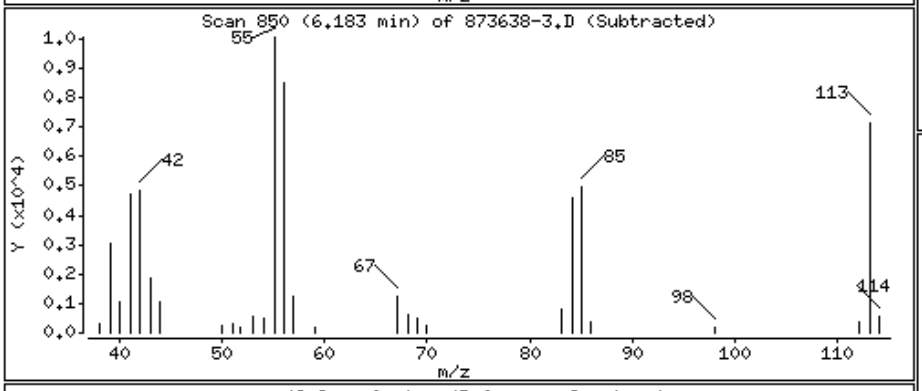
Column diameter: 0.32

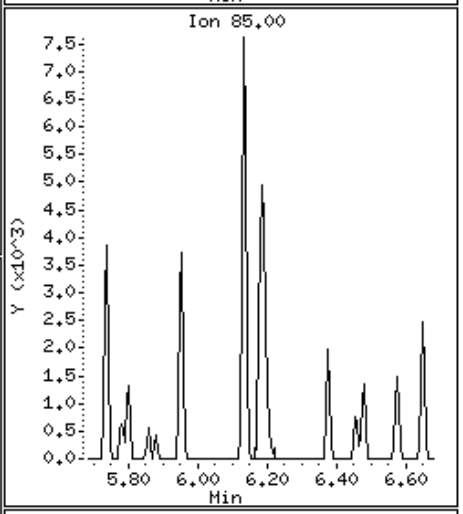
42 Caprolactam

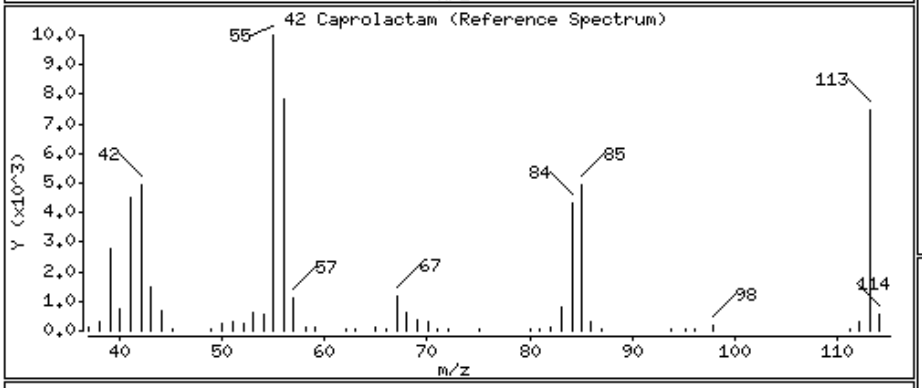
Concentration: 6.92 ug/L

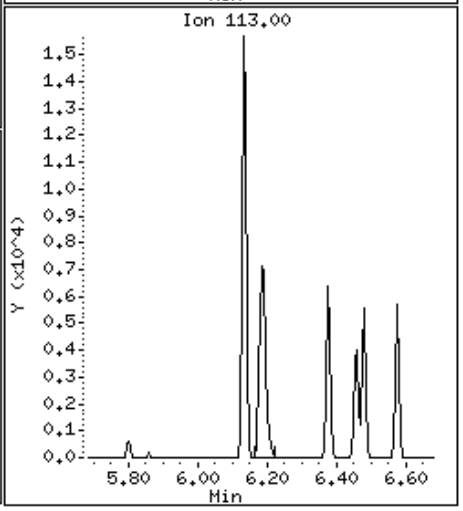


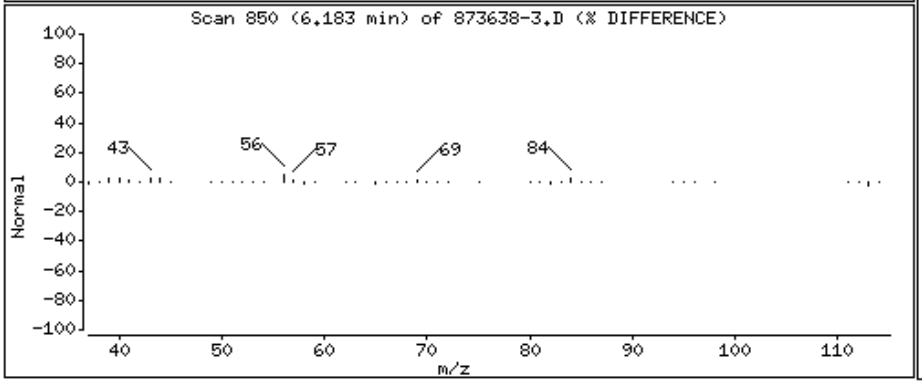












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

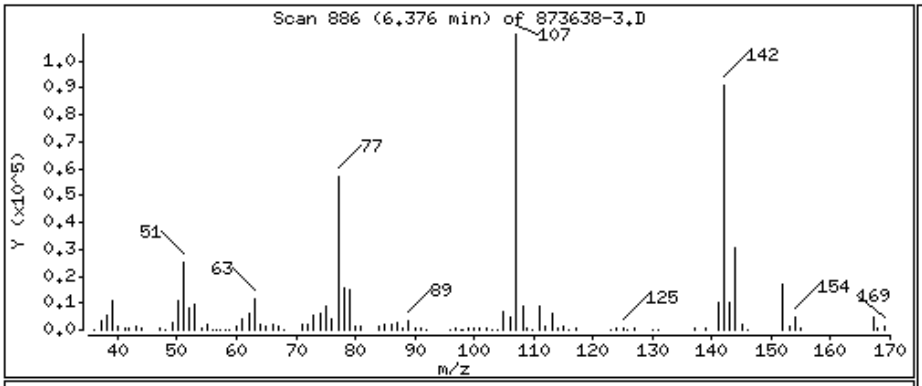
Operator: als

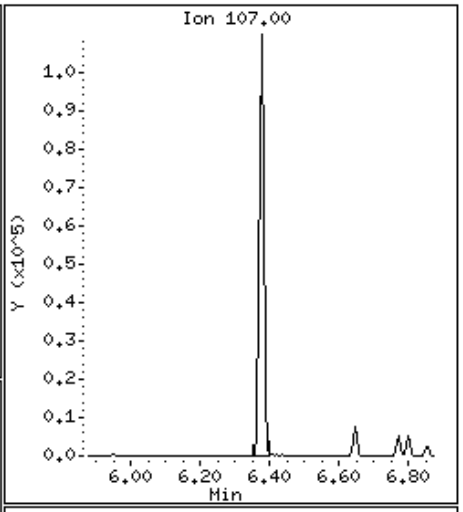
Column phase: RTx-5

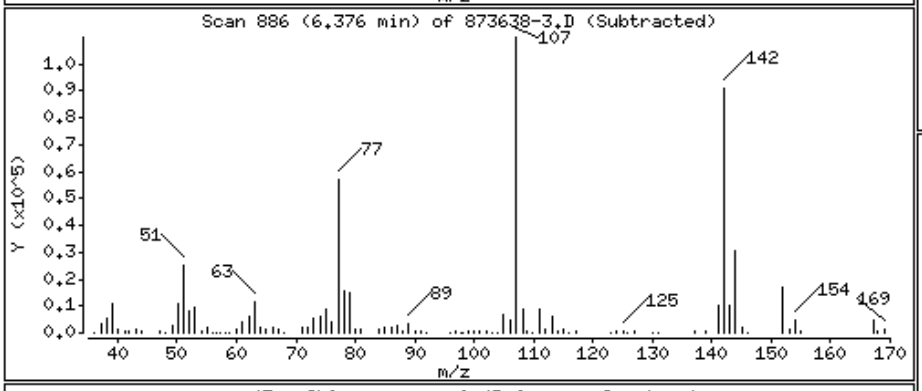
Column diameter: 0.32

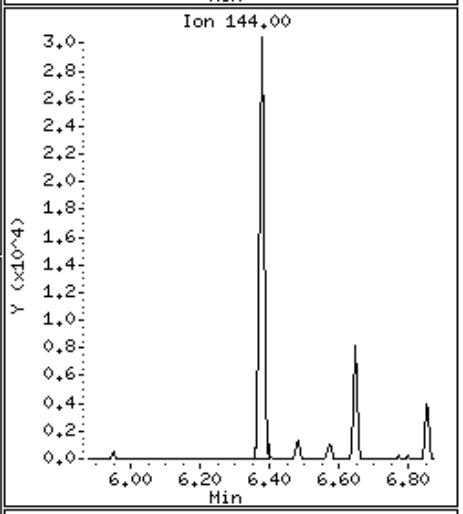
43 p-Chloro-m-cresol

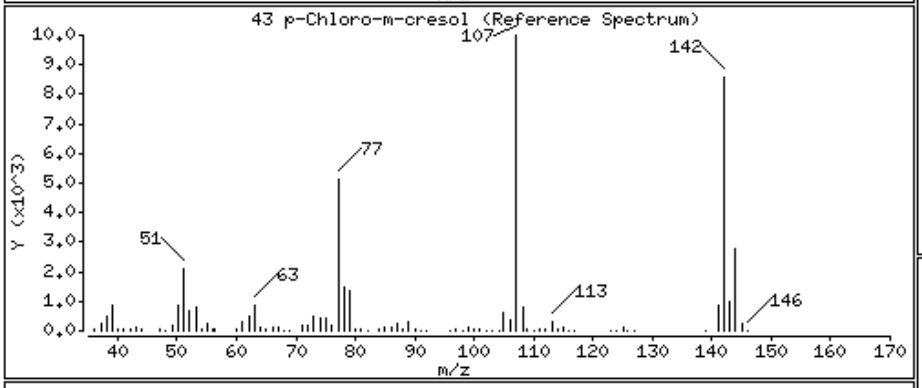
Concentration: 30.8 ug/L

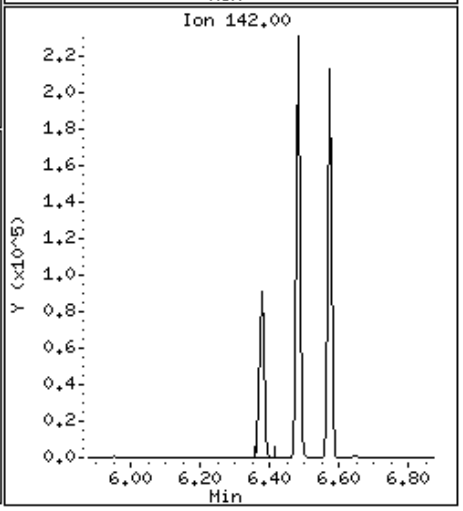


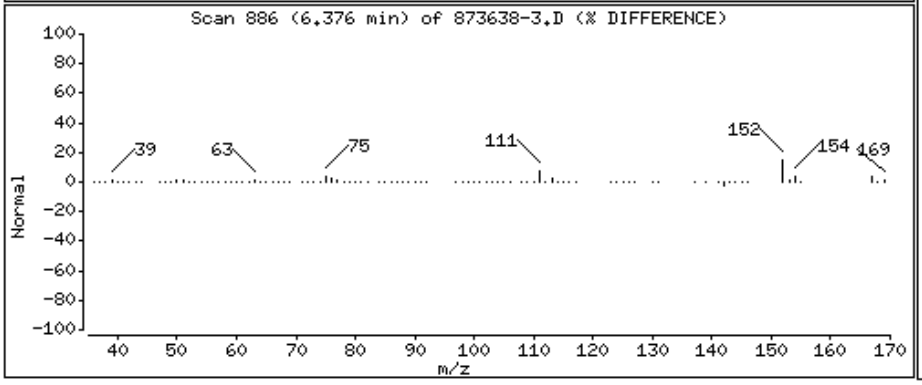












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

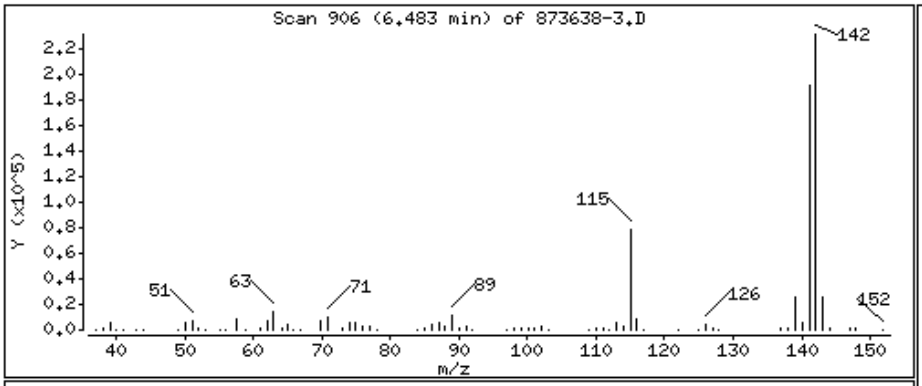
Operator: als

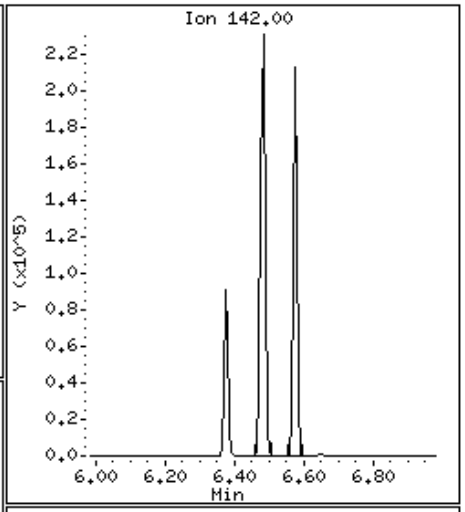
Column phase: RTx-5

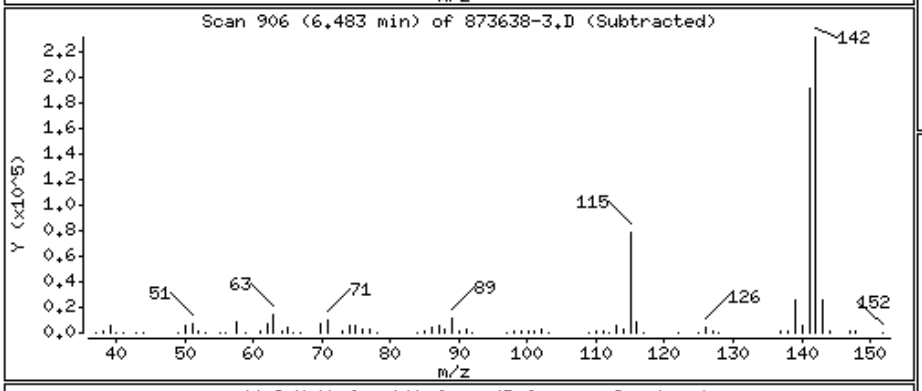
Column diameter: 0.32

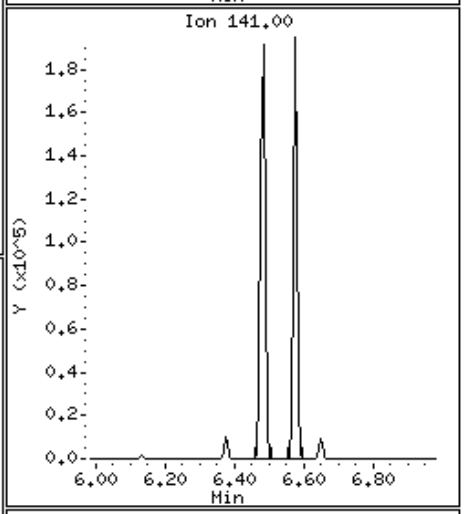
44 2-Methylnaphthalene

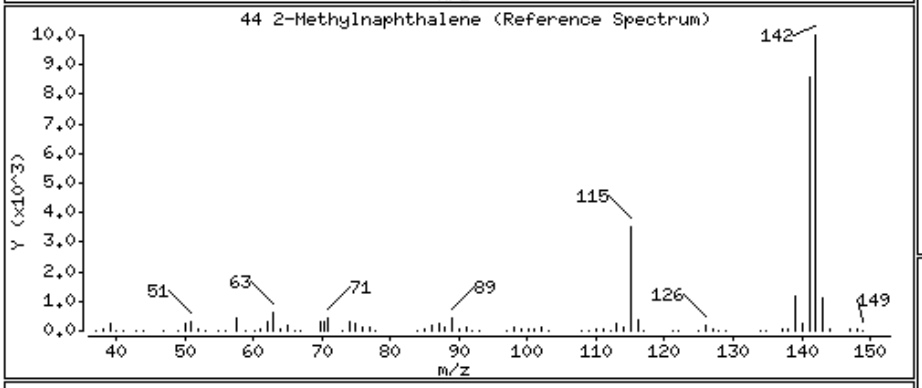
Concentration: 28.8 ug/L

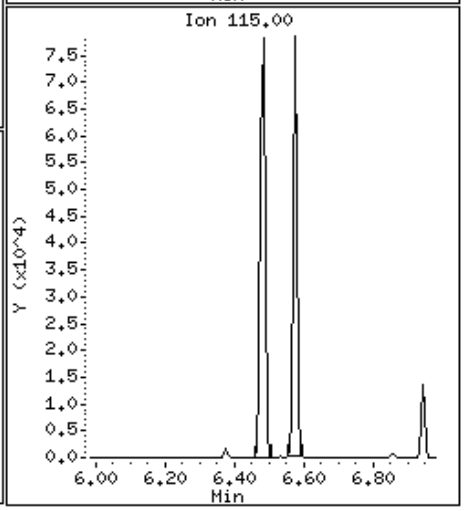


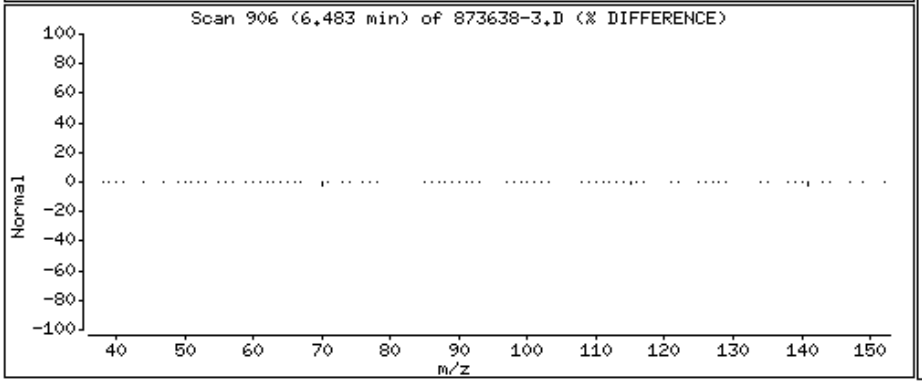












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

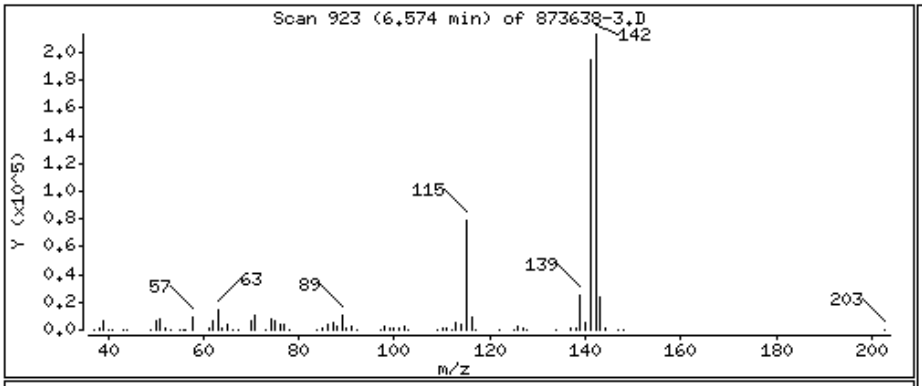
Operator: als

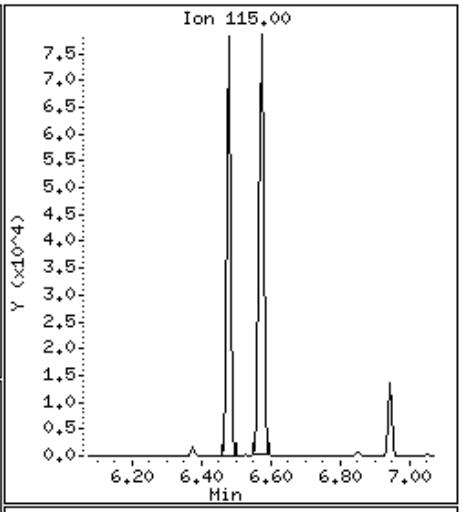
Column phase: RTx-5

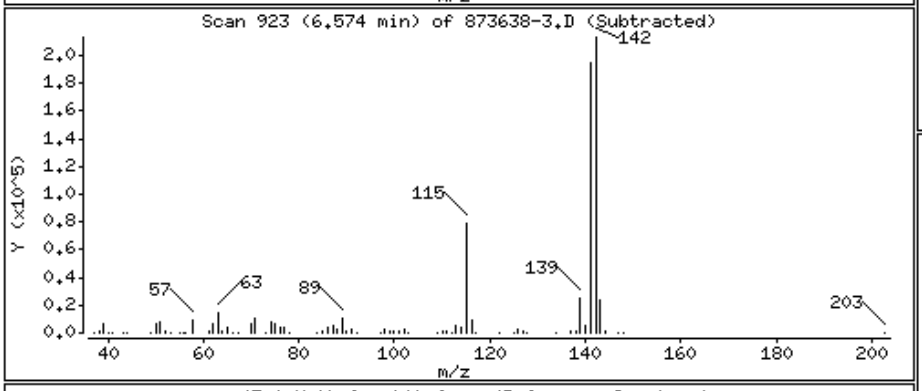
Column diameter: 0.32

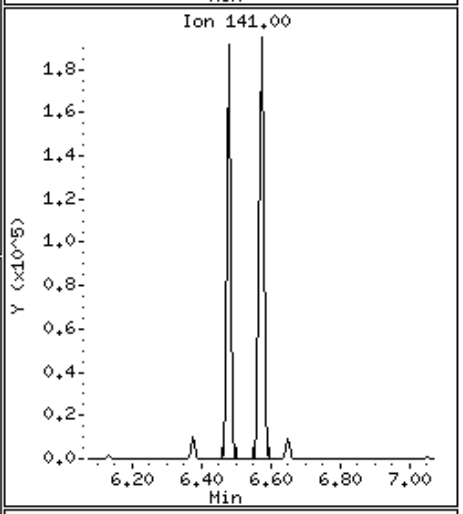
45 1-Methylnaphthalene

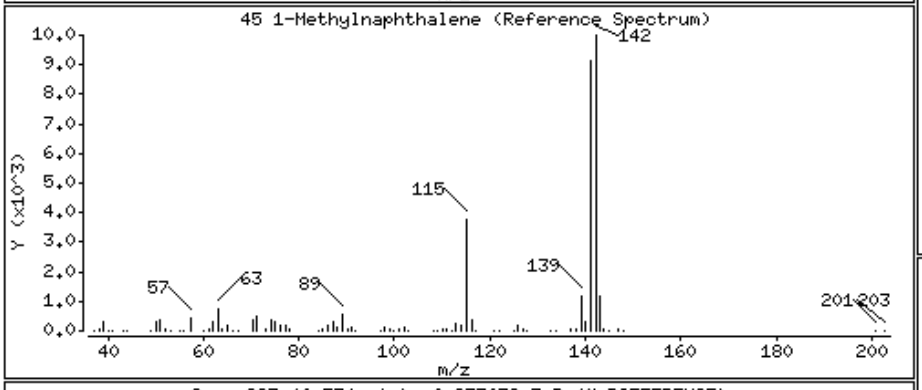
Concentration: 28.9 ug/L

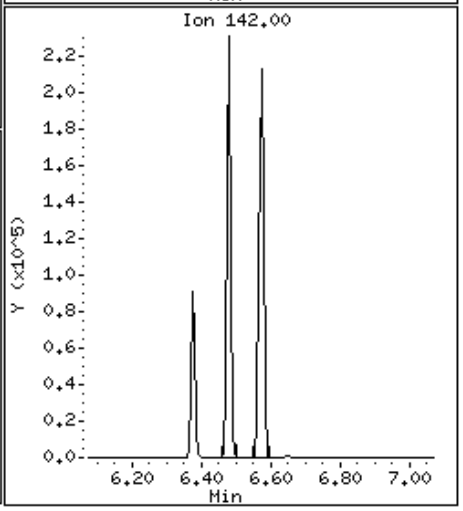


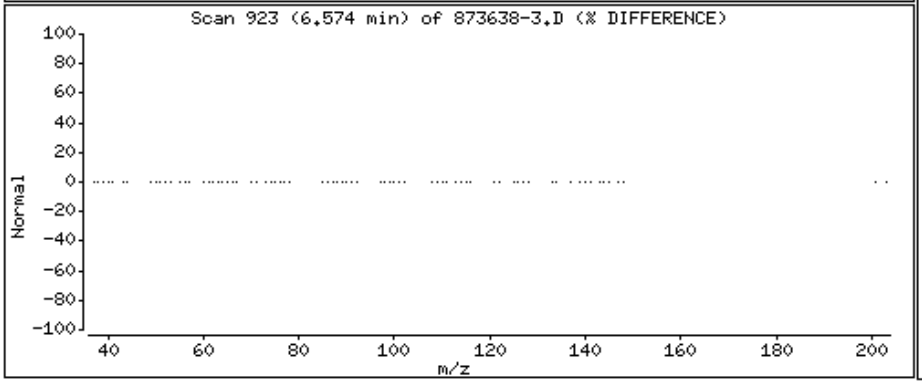












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

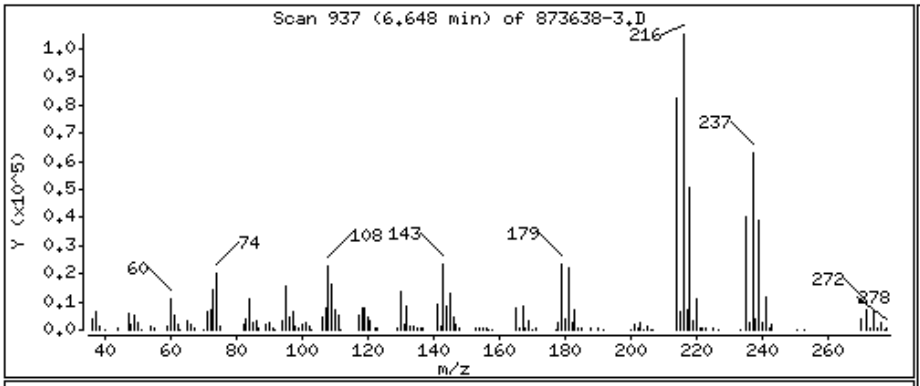
Operator: als

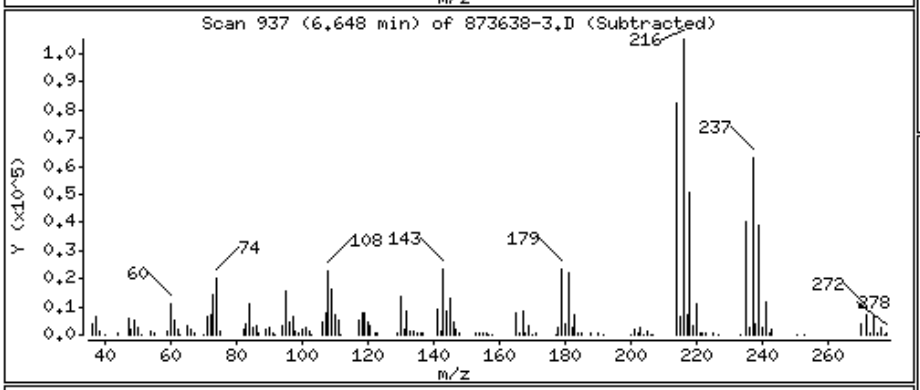
Column phase: RTx-5

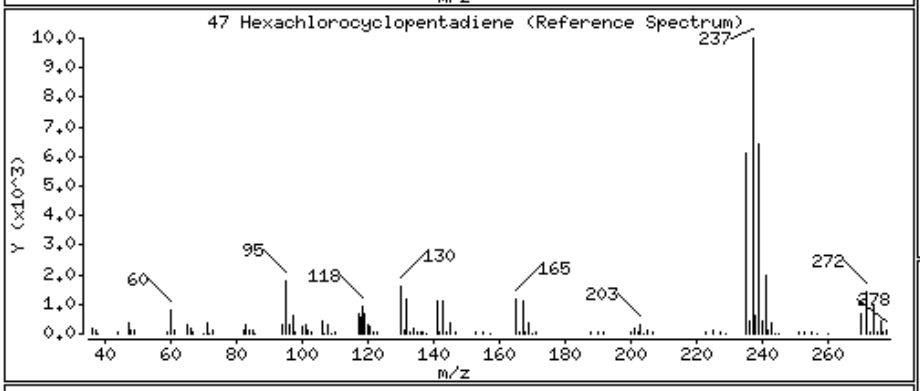
Column diameter: 0.32

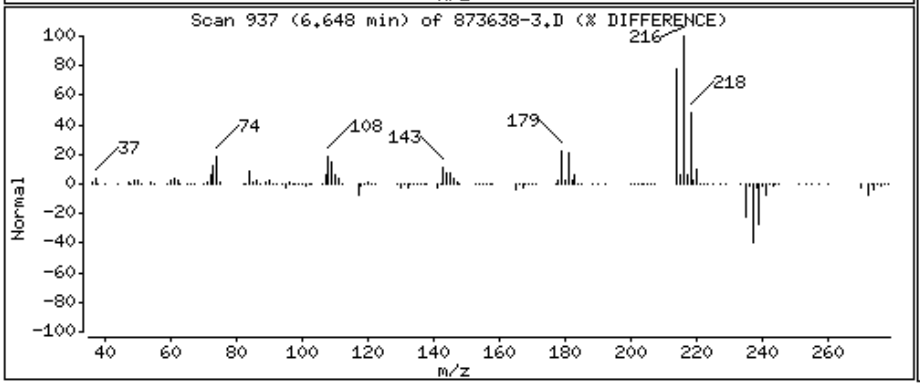
47 Hexachlorocyclopentadiene

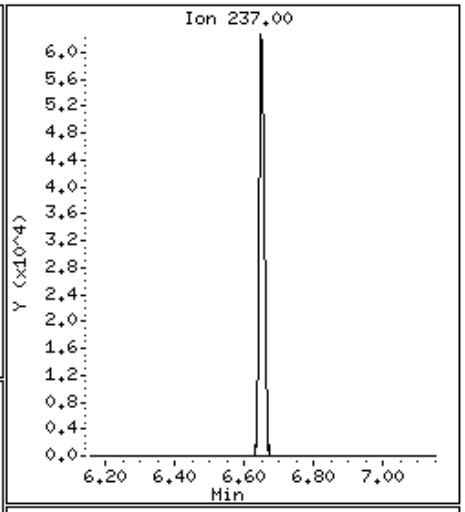
Concentration: 28.0 ug/L

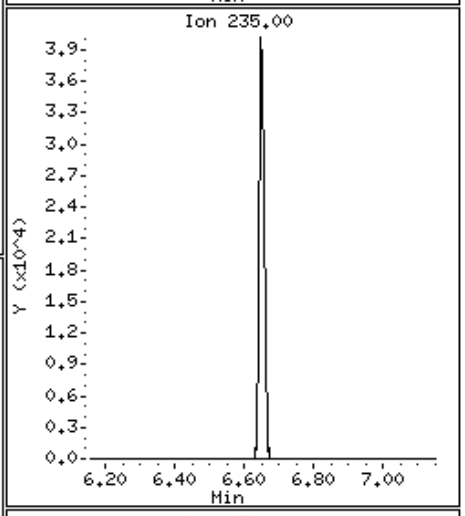


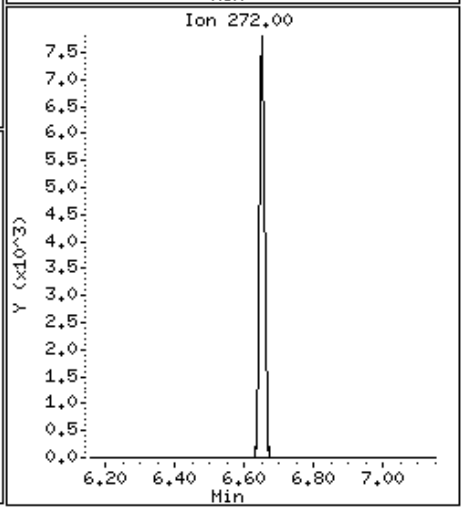












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

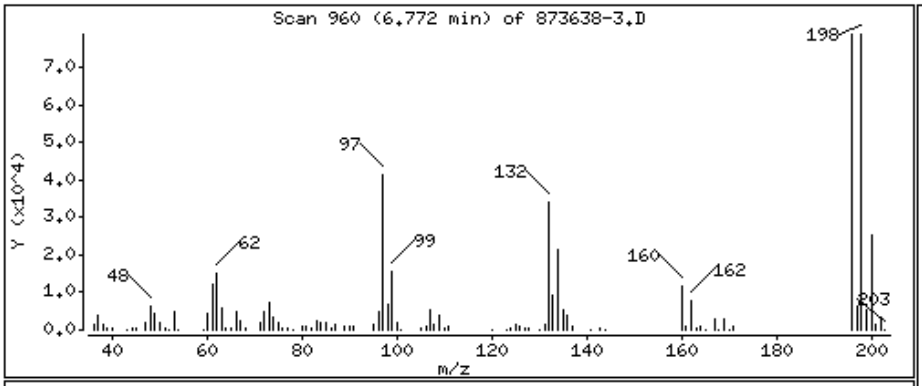
Operator: als

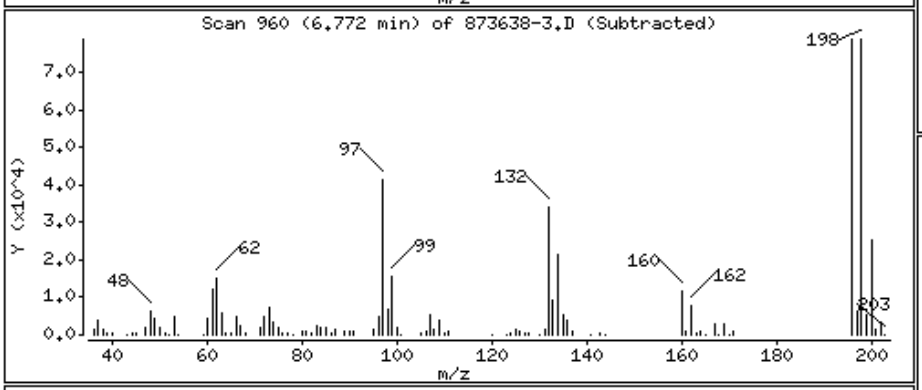
Column phase: RTx-5

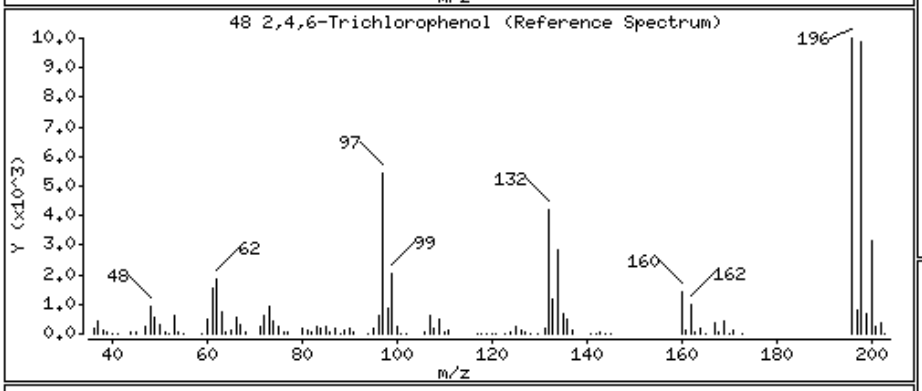
Column diameter: 0.32

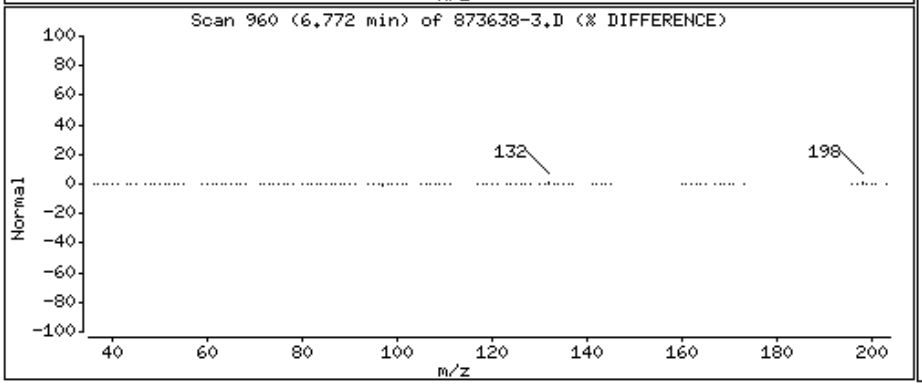
48 2,4,6-Trichlorophenol

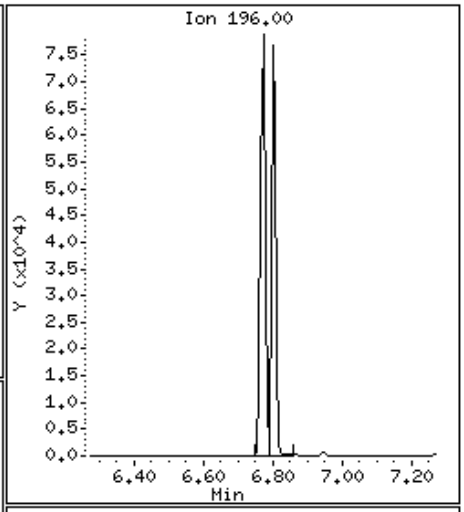
Concentration: 34.5 ug/L

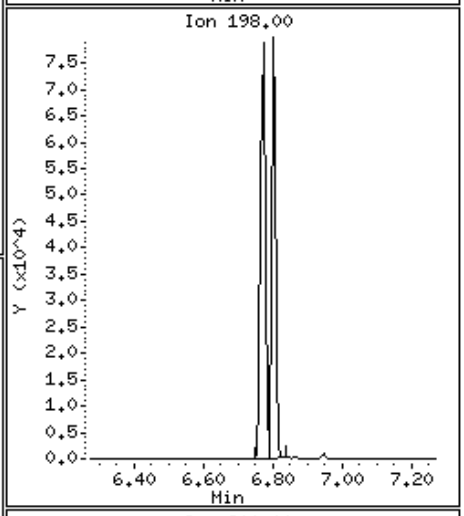


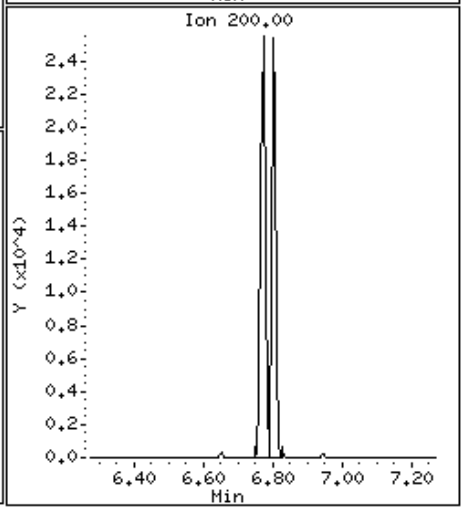












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

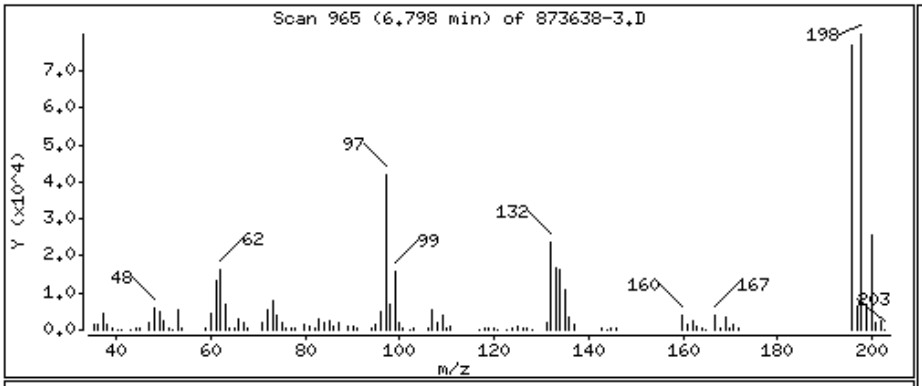
Operator: als

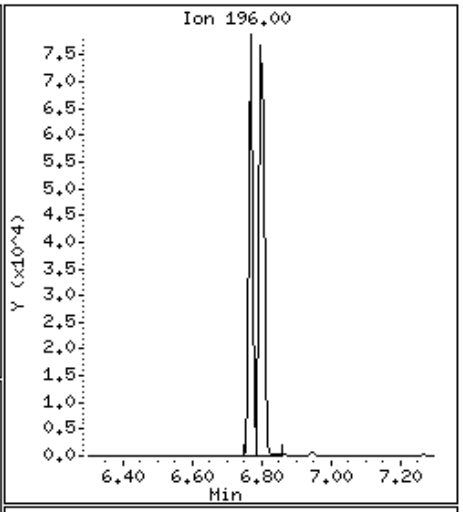
Column phase: RTx-5

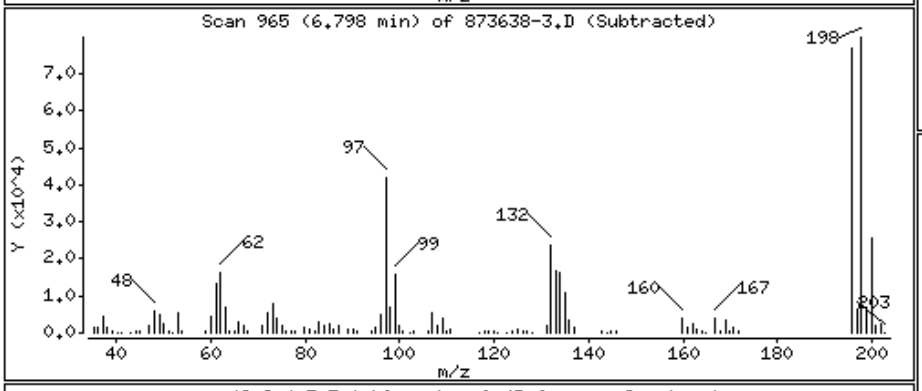
Column diameter: 0.32

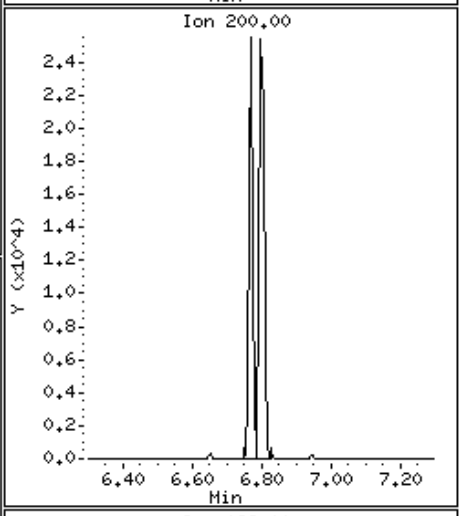
49 2,4,5-Trichlorophenol

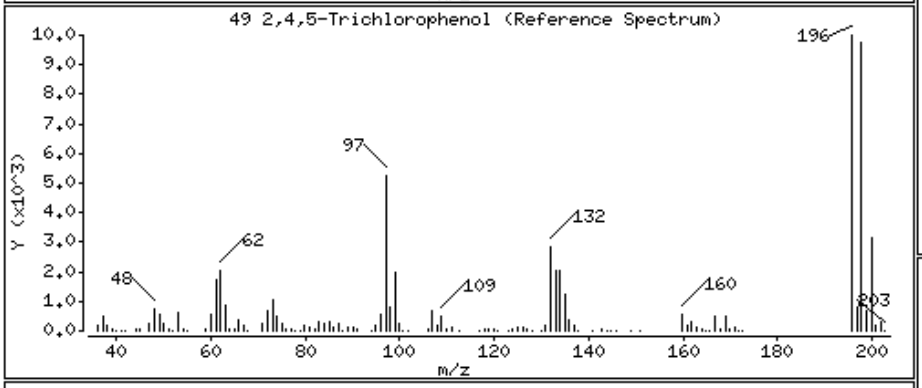
Concentration: 33.2 ug/L

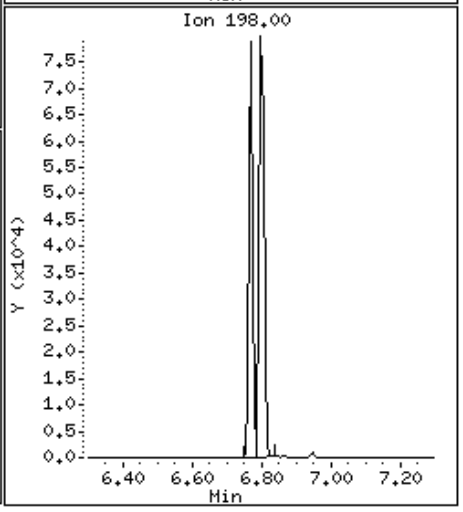


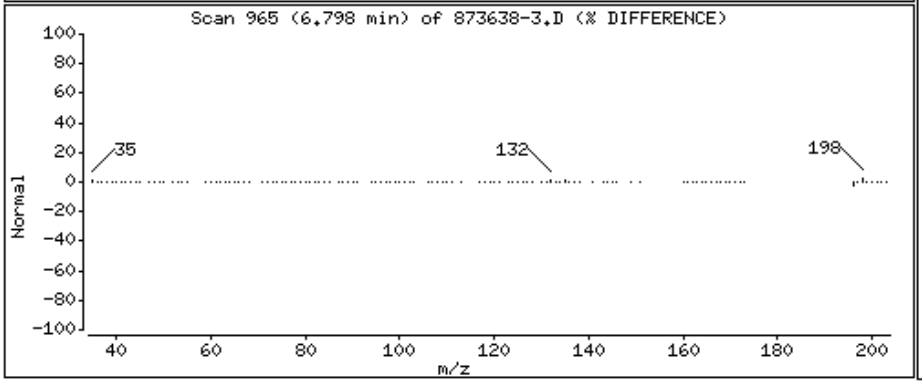












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

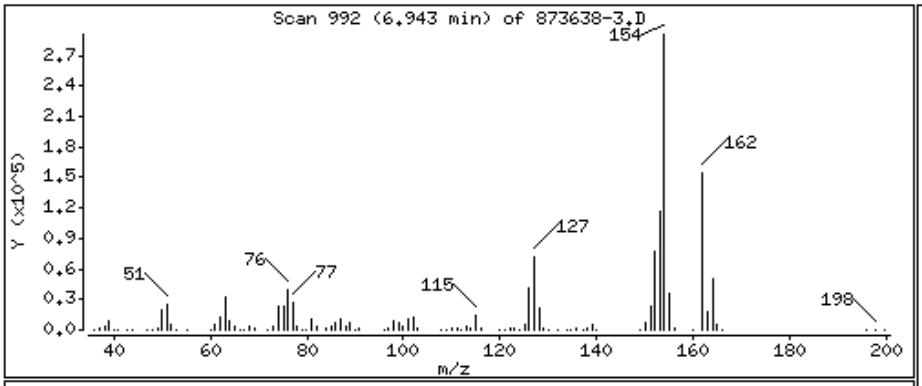
Operator: als

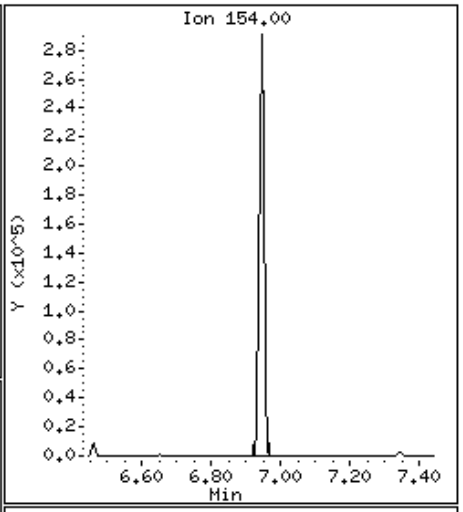
Column phase: RTx-5

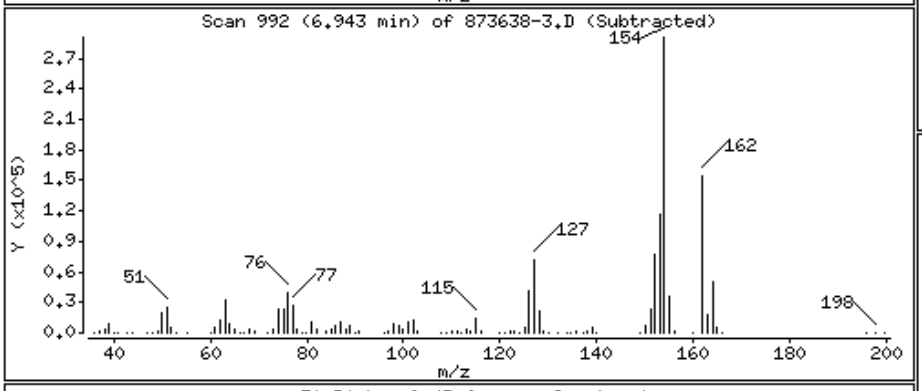
Column diameter: 0.32

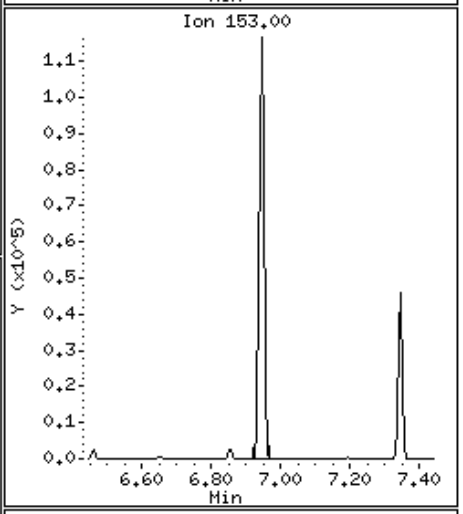
51 Biphenyl

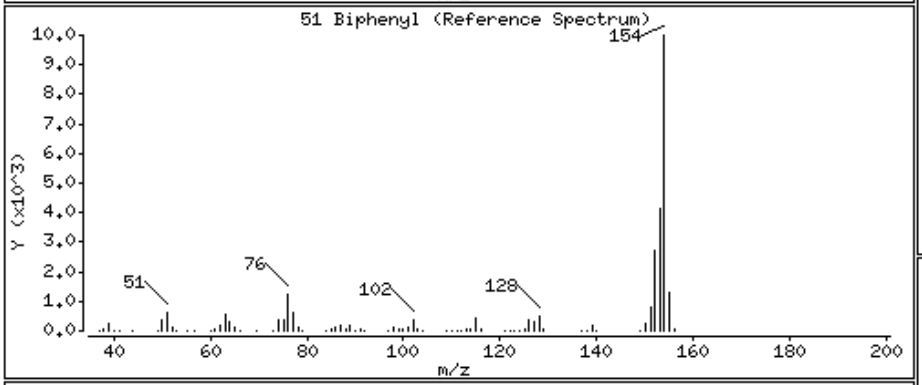
Concentration: 26.8 ug/L

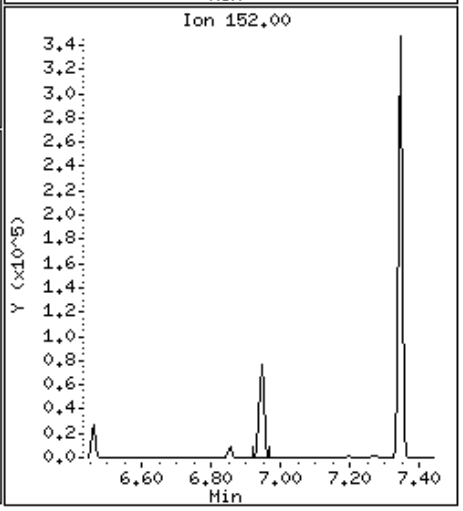


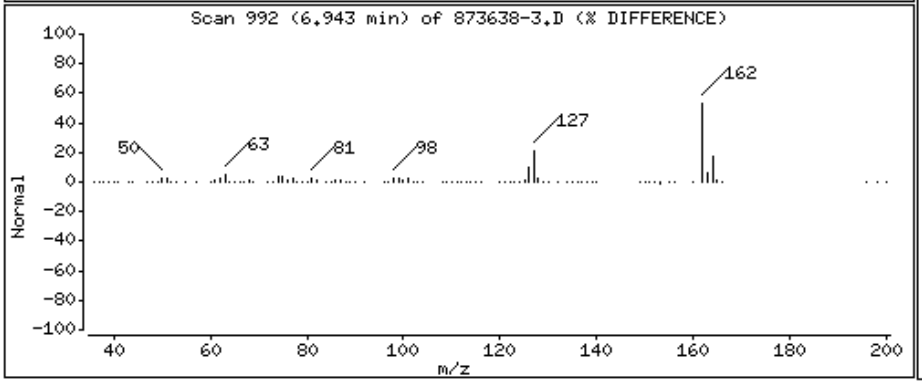












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

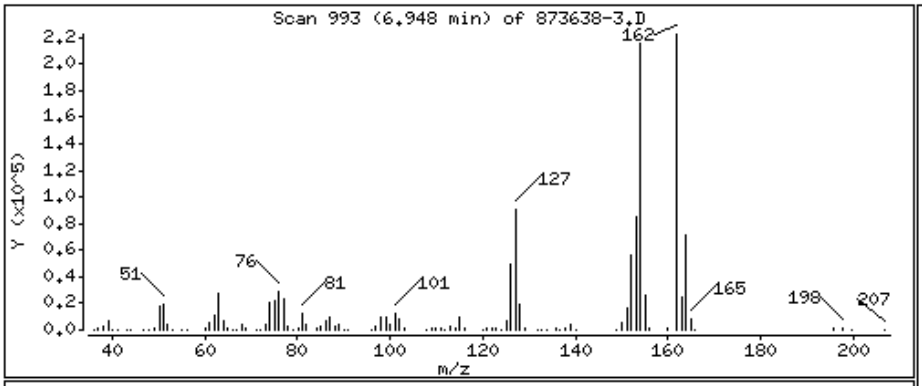
Operator: als

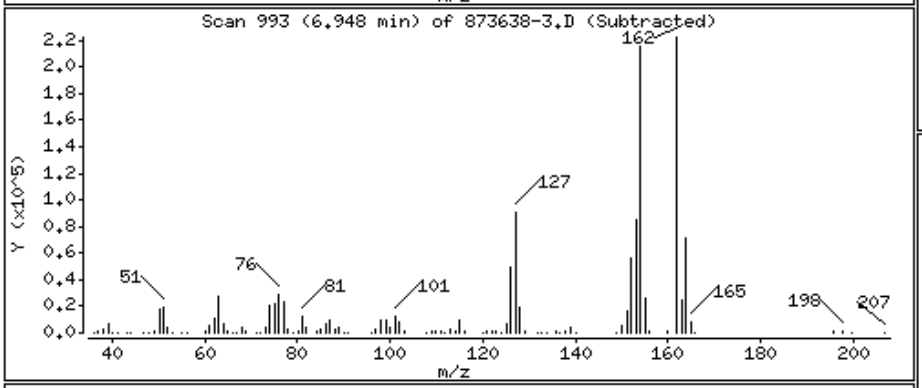
Column phase: RTx-5

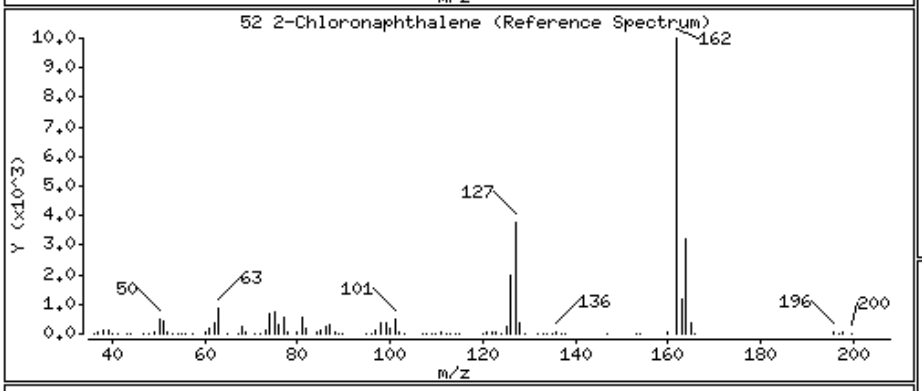
Column diameter: 0.32

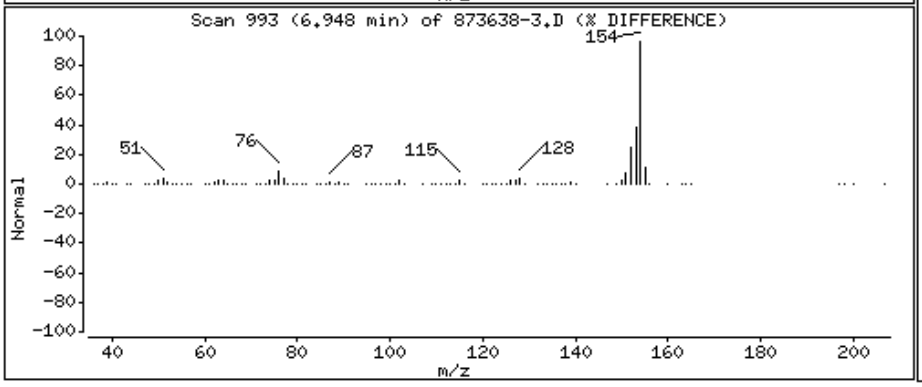
52 2-Chloronaphthalene

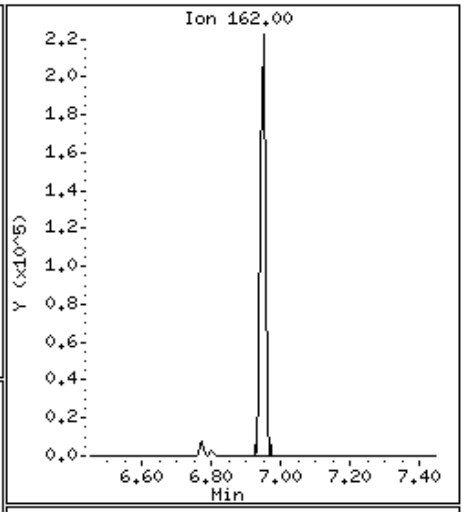
Concentration: 30.9 ug/L

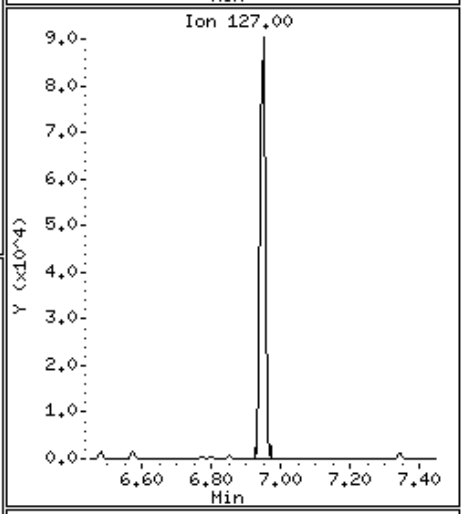


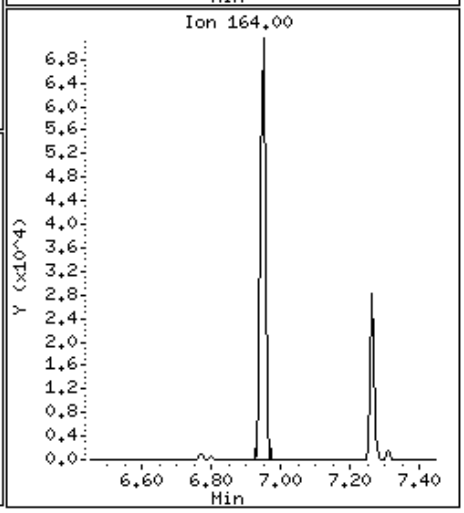












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

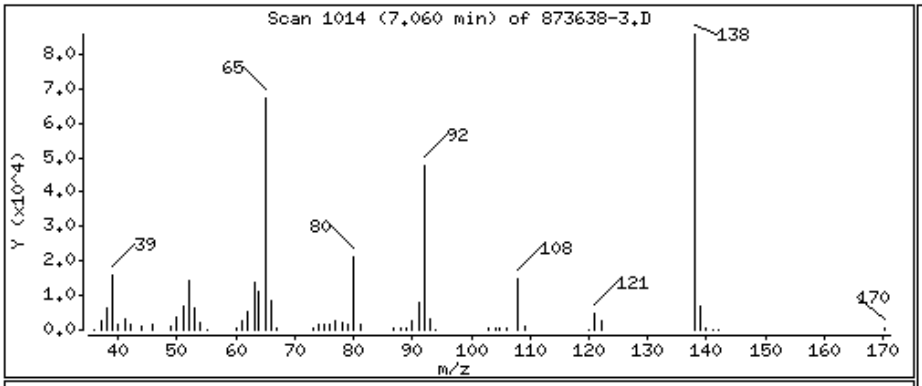
Operator: als

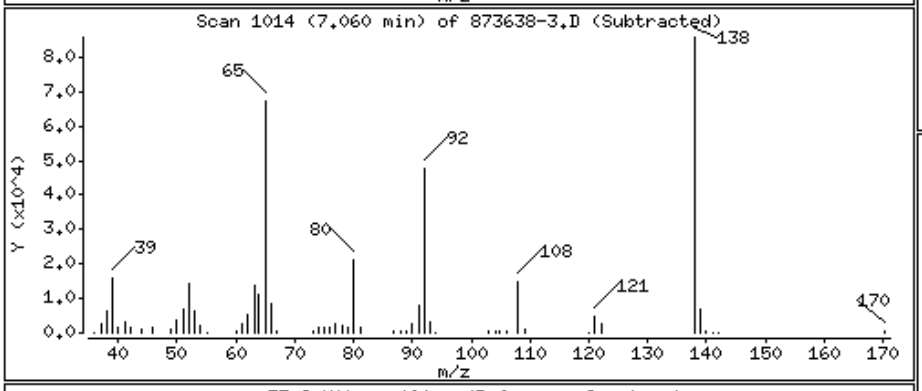
Column phase: RTx-5

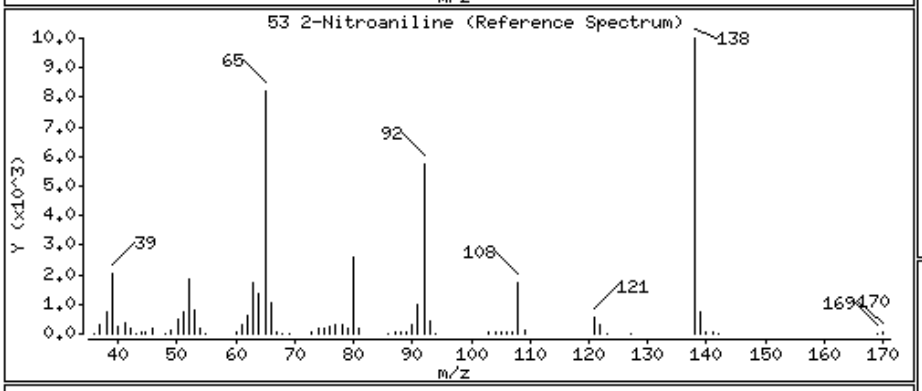
Column diameter: 0.32

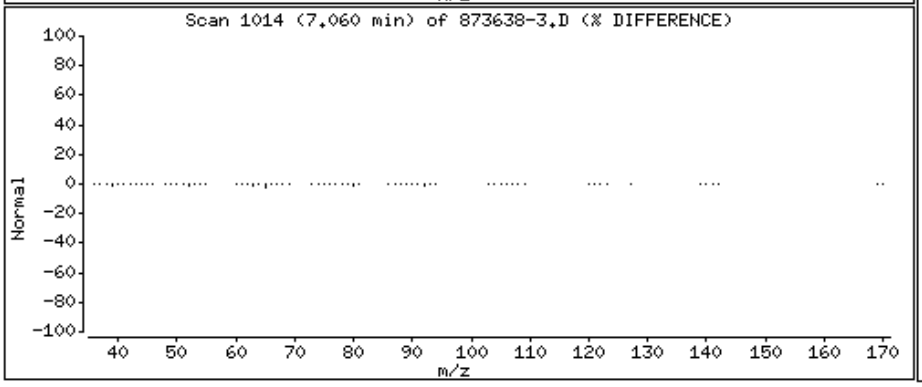
53 2-Nitroaniline

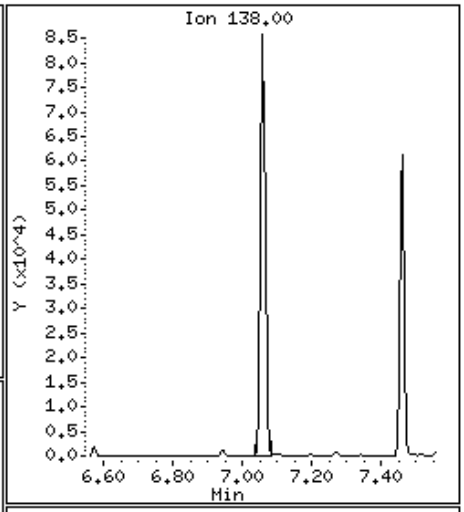
Concentration: 34.7 ug/L

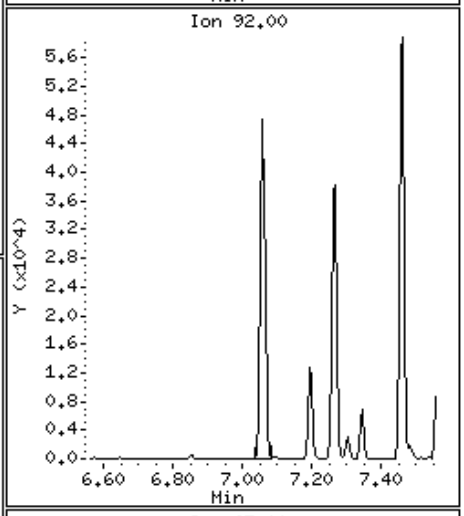


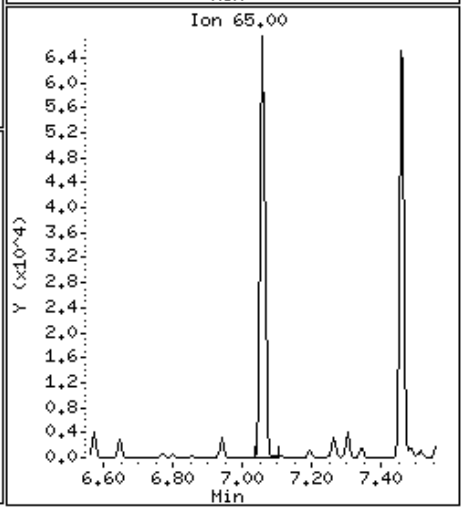












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

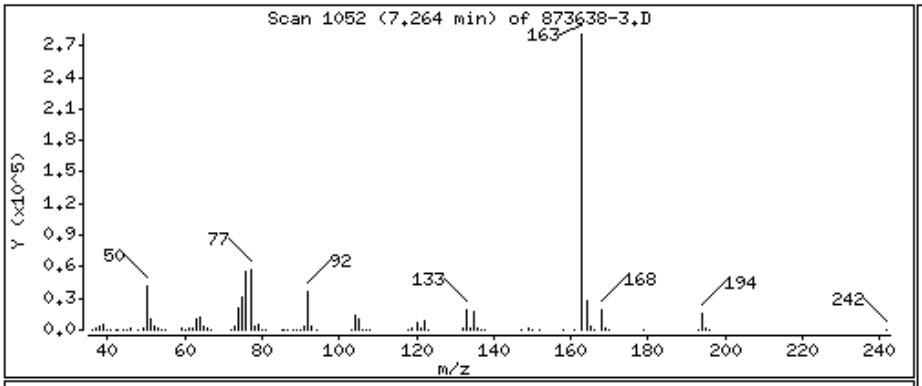
Operator: als

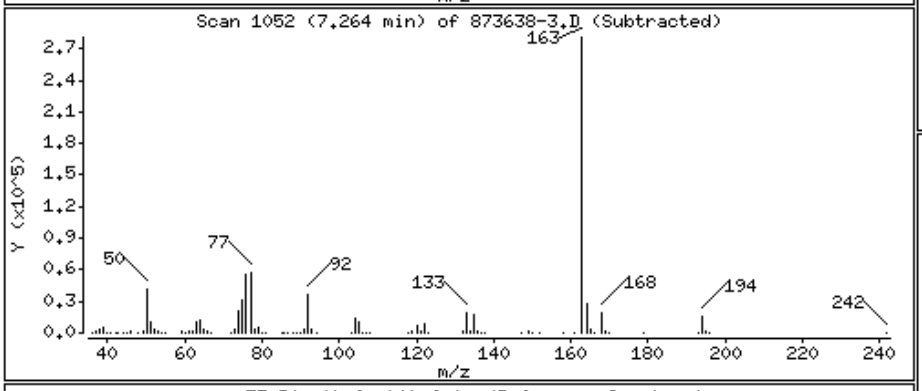
Column phase: RTx-5

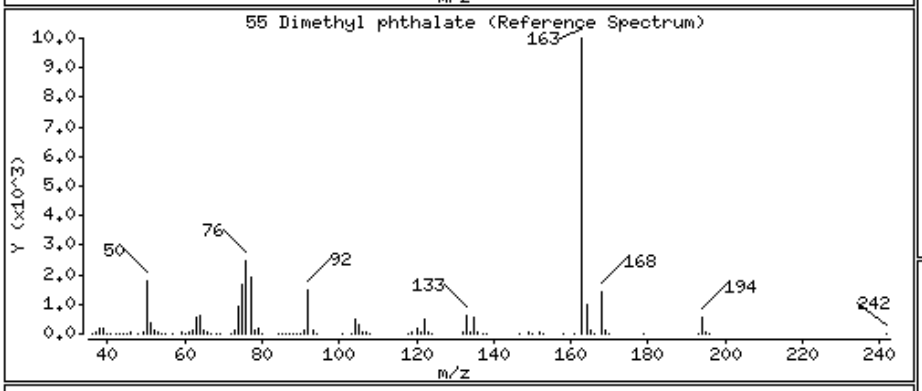
Column diameter: 0.32

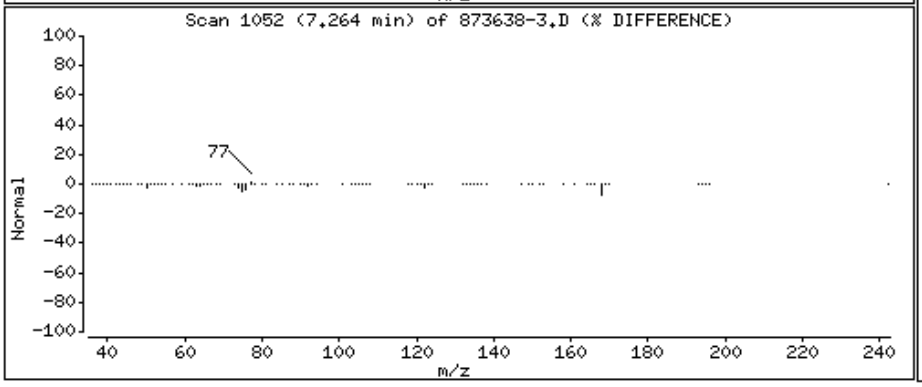
55 Dimethyl phthalate

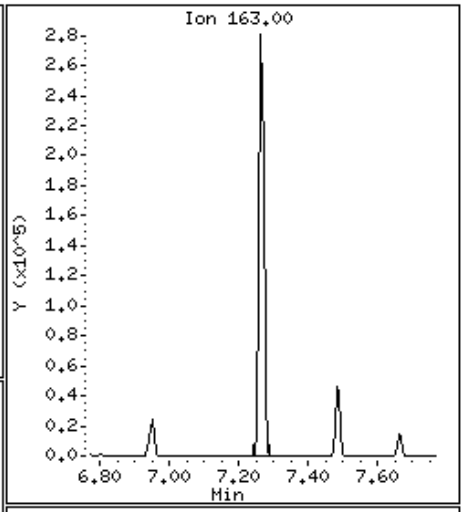
Concentration: 28.4 ug/L

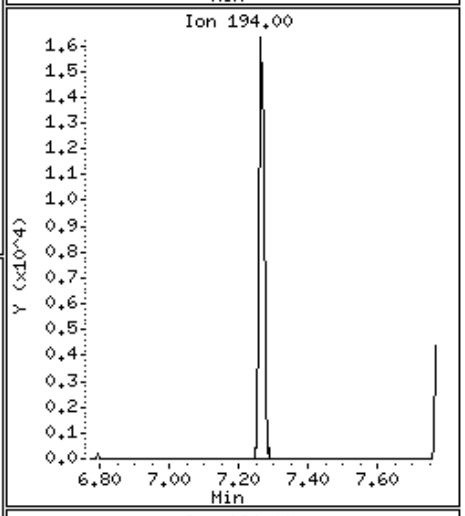


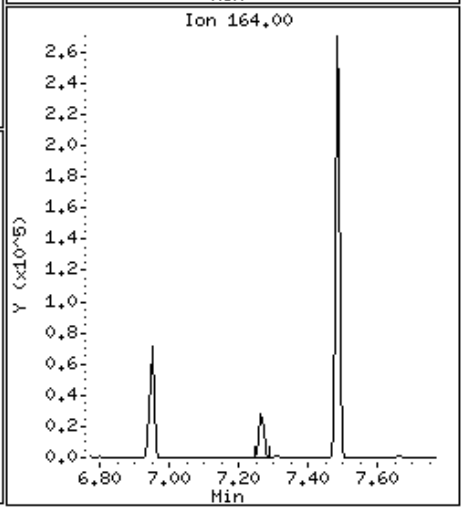












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytol,als

Purge Volume: 1000.0

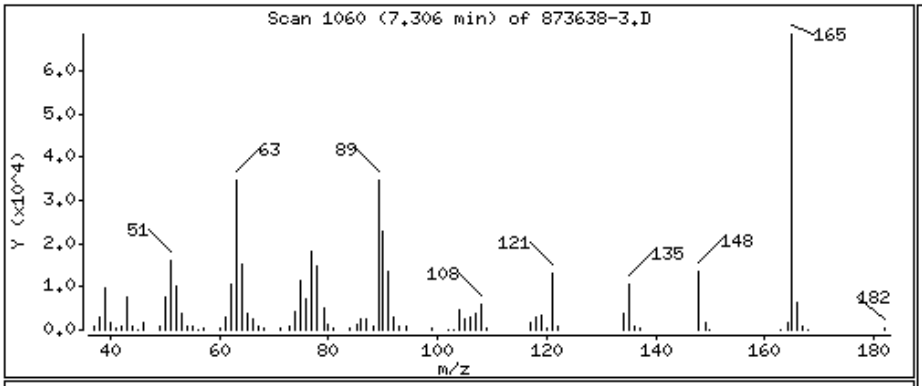
Operator: als

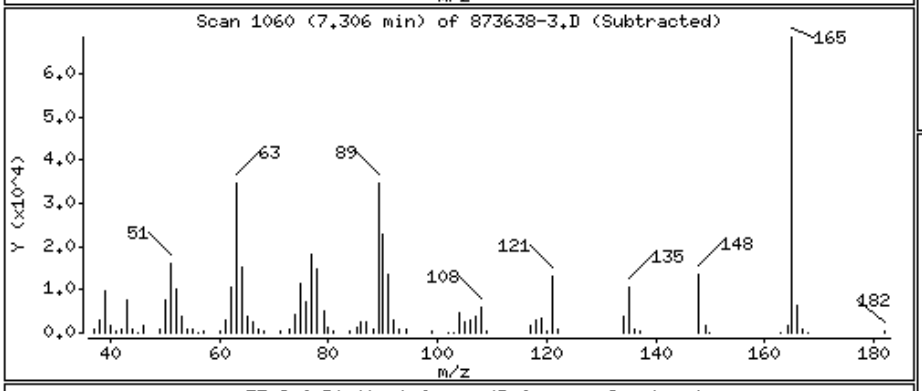
Column phase: RTx-5

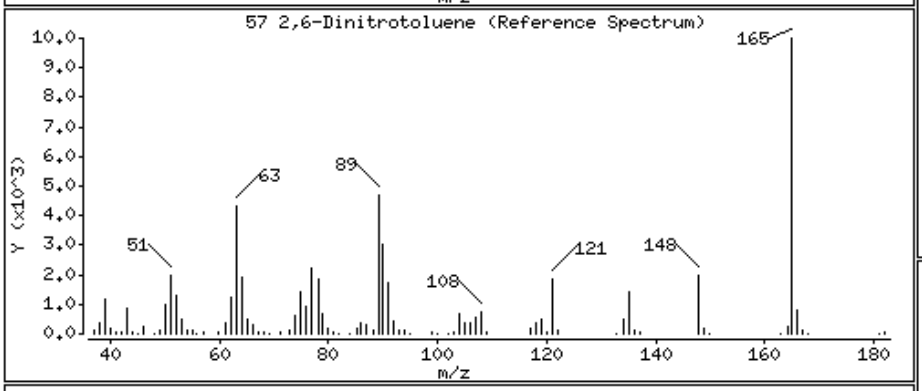
Column diameter: 0.32

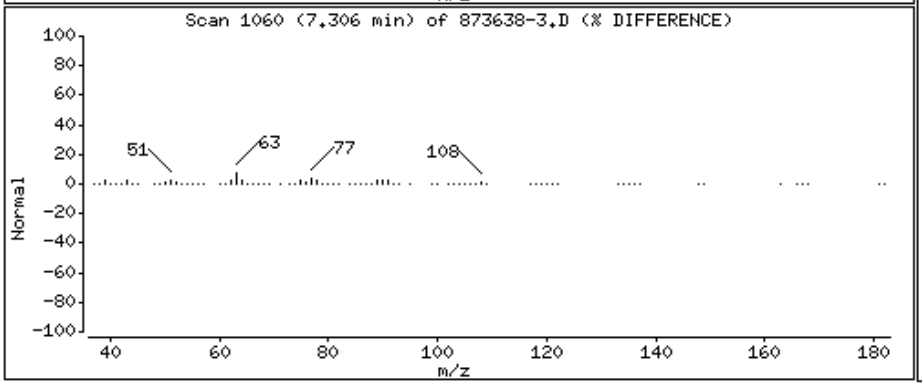
57 2,6-Dinitrotoluene

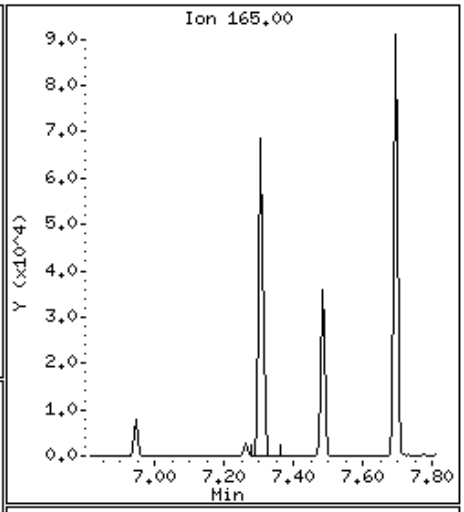
Concentration: 34.7 ug/L

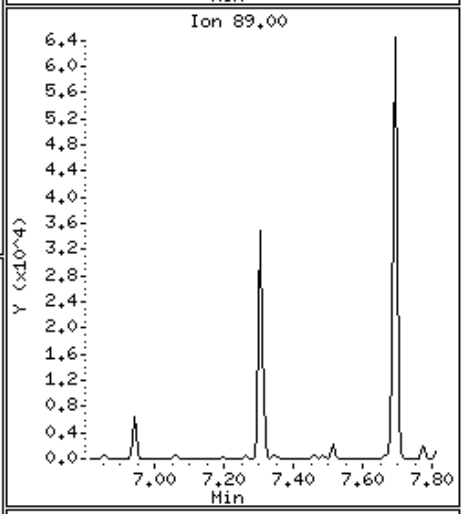


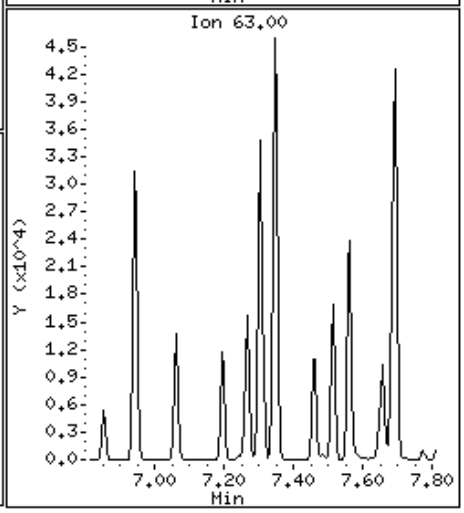












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

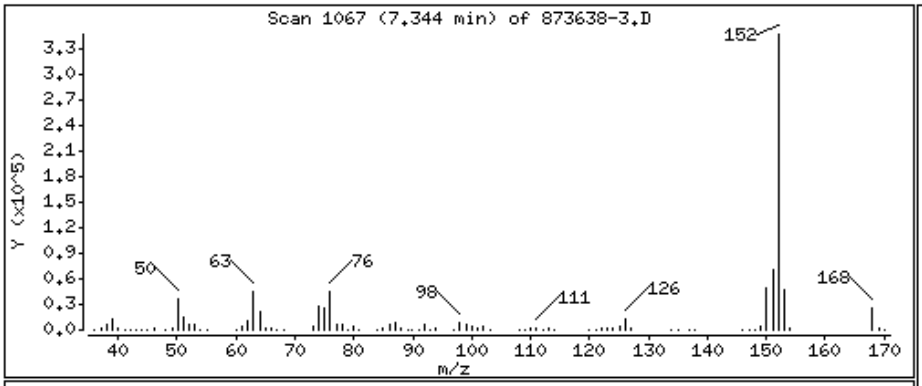
Operator: als

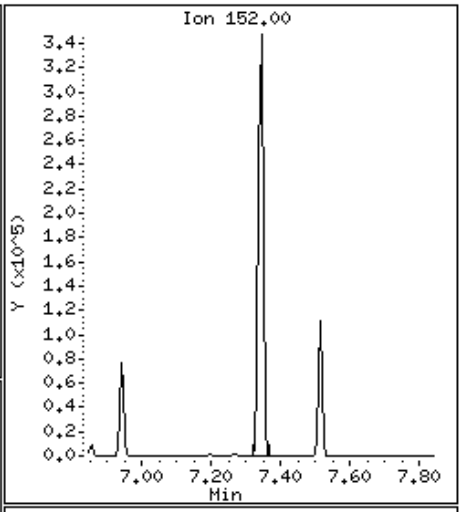
Column phase: RTx-5

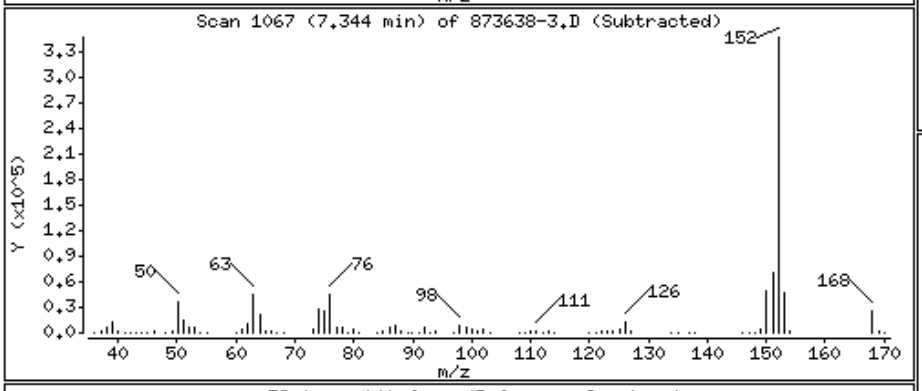
Column diameter: 0.32

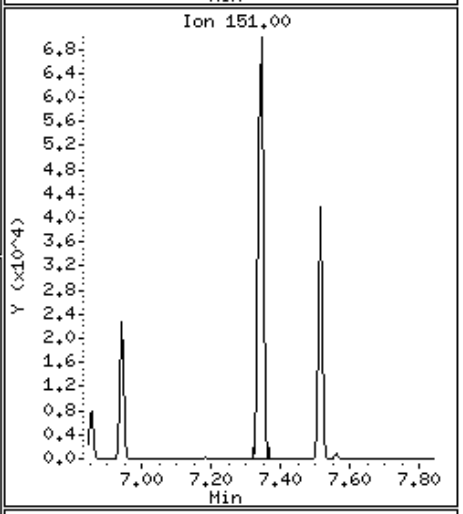
58 Acenaphthylene

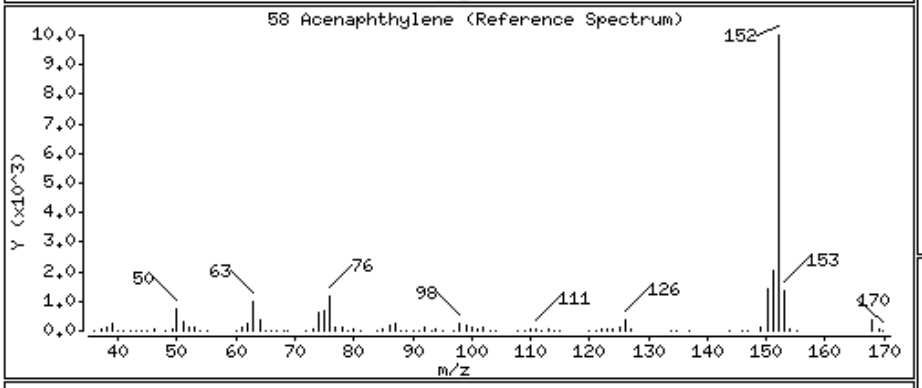
Concentration: 30.3 ug/L

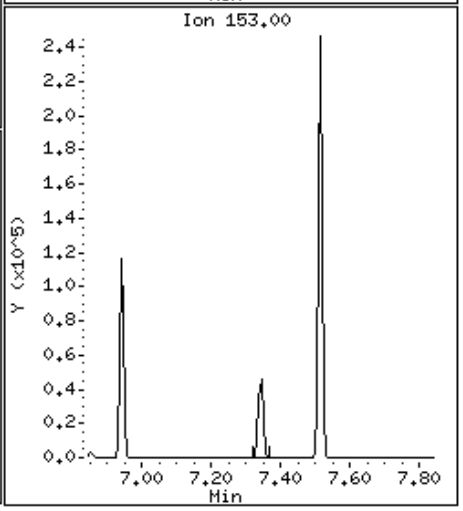


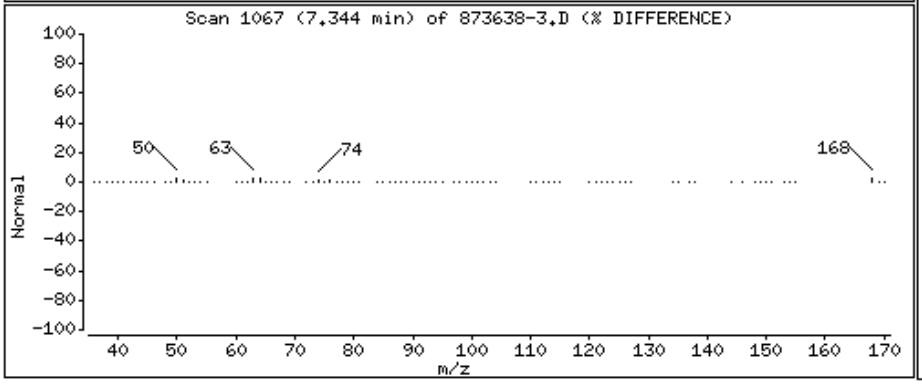












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

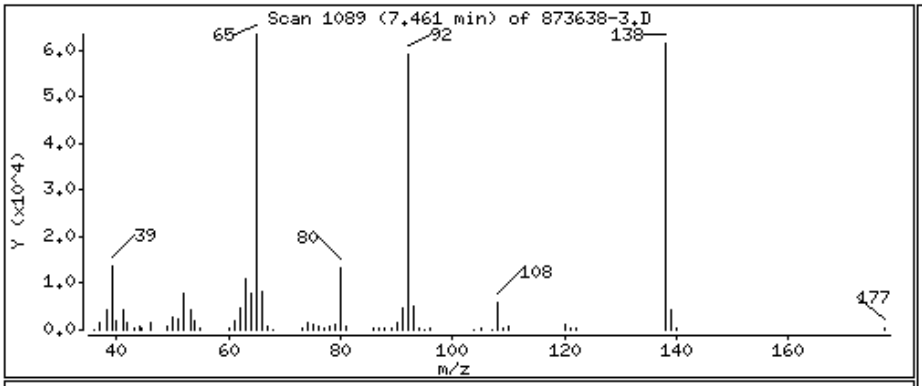
Operator: als

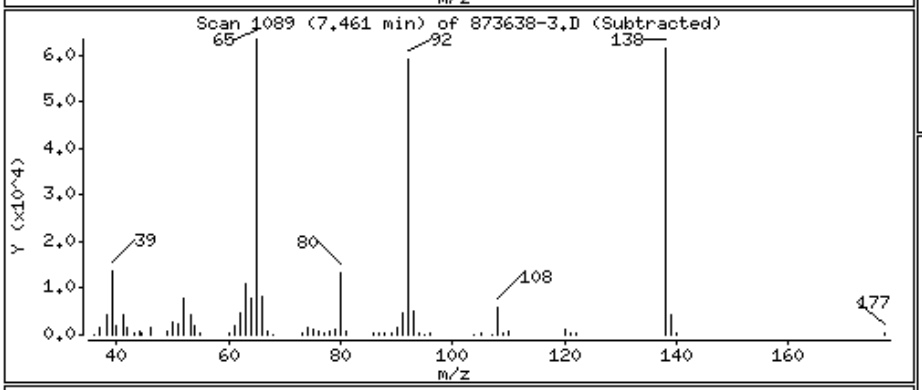
Column phase: RTx-5

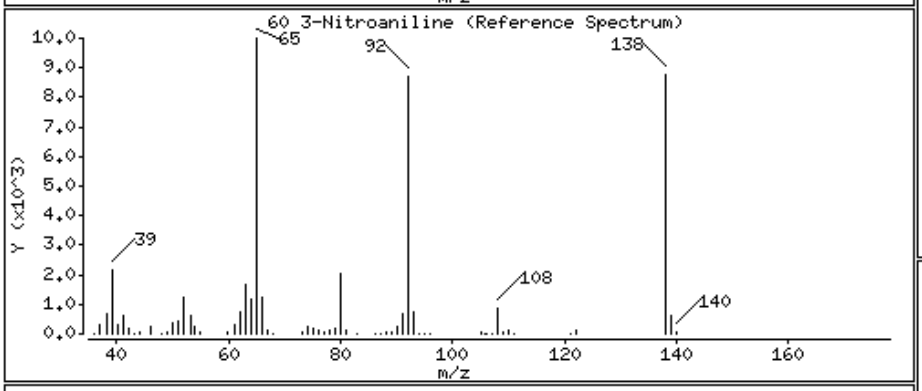
Column diameter: 0.32

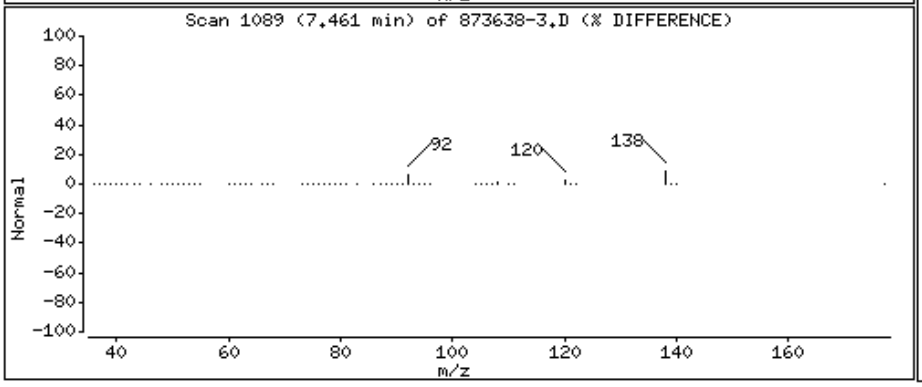
60 3-Nitroaniline

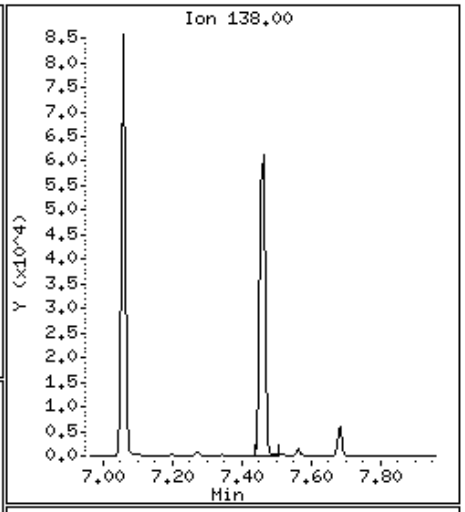
Concentration: 26.0 ug/L

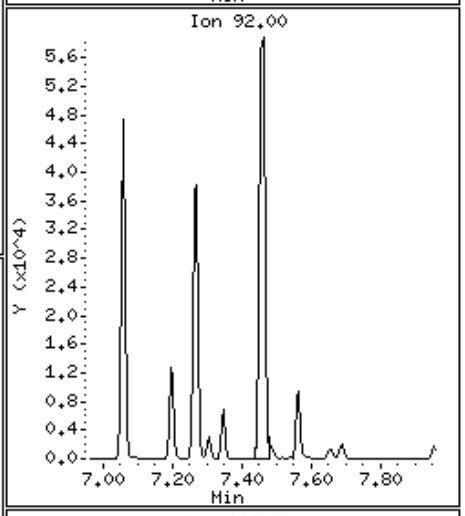


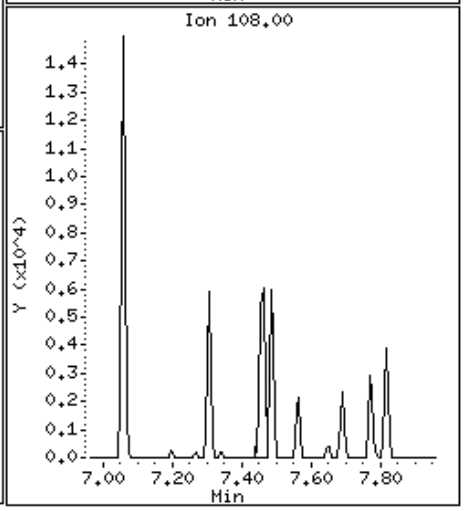












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

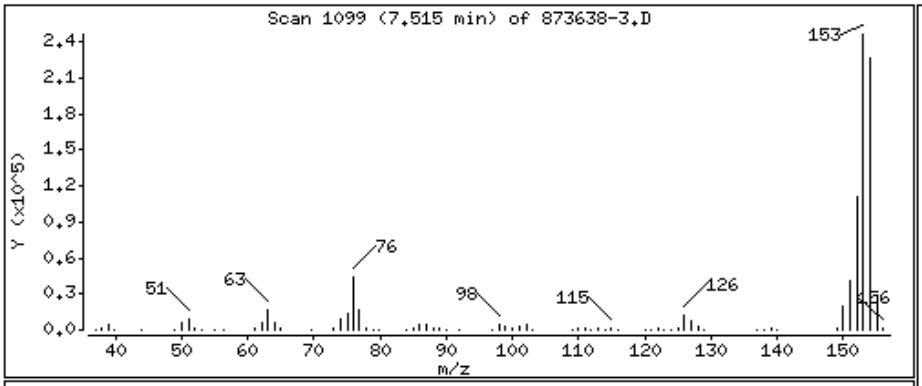
Operator: als

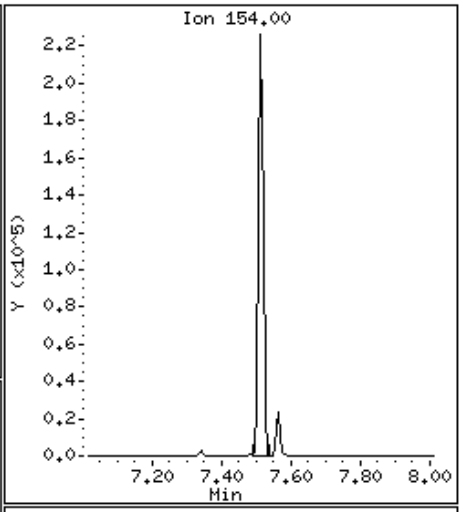
Column phase: RTx-5

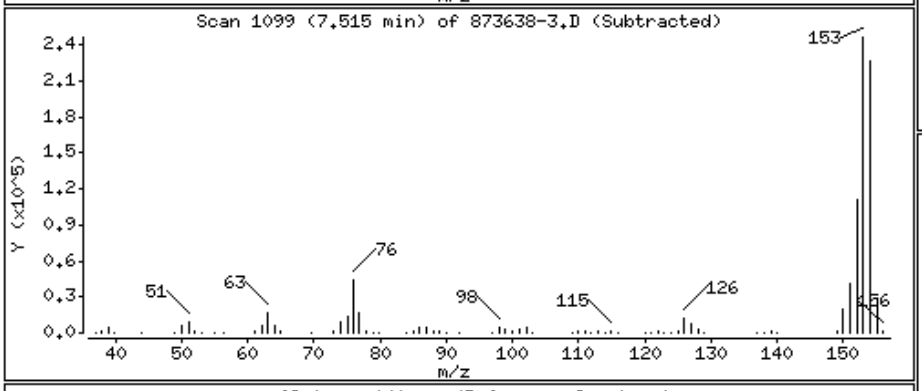
Column diameter: 0.32

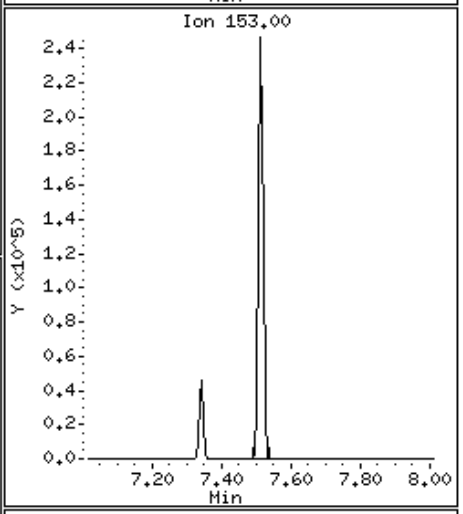
62 Acenaphthene

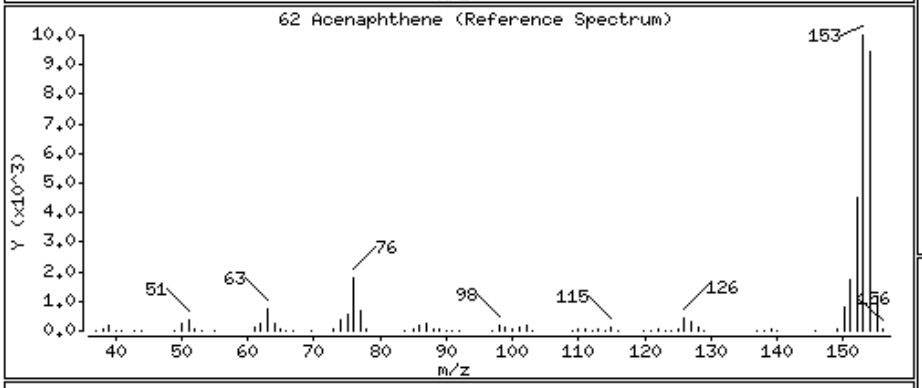
Concentration: 27.0 ug/L

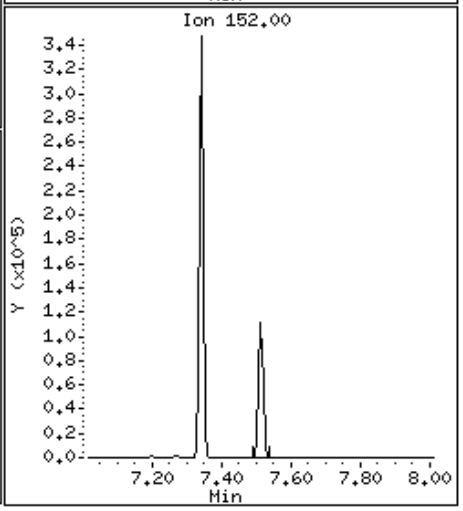


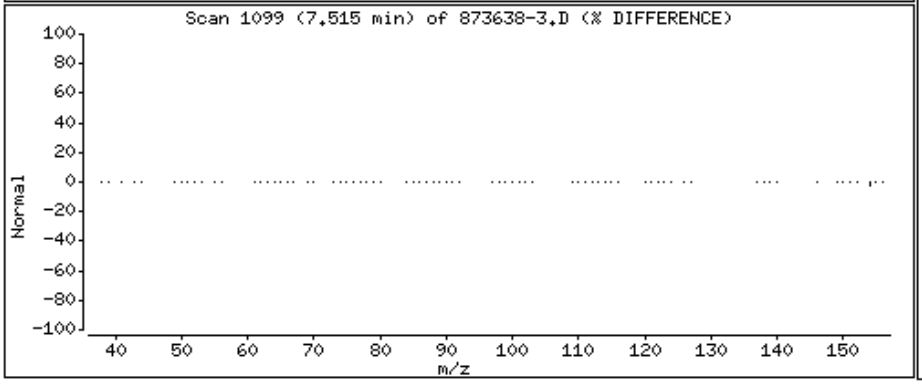












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

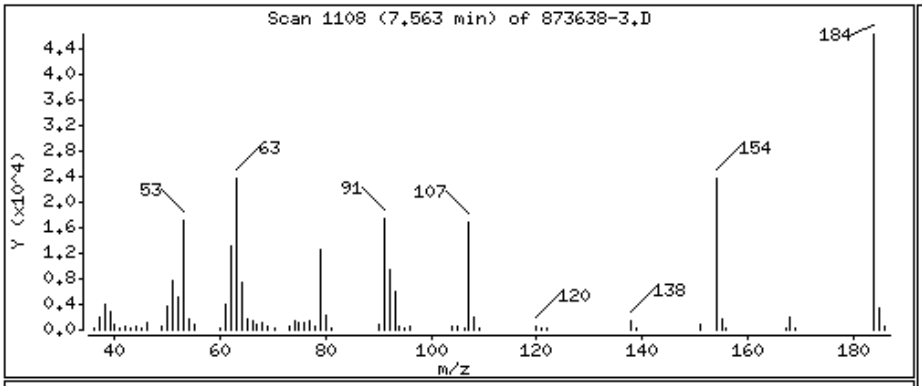
Operator: als

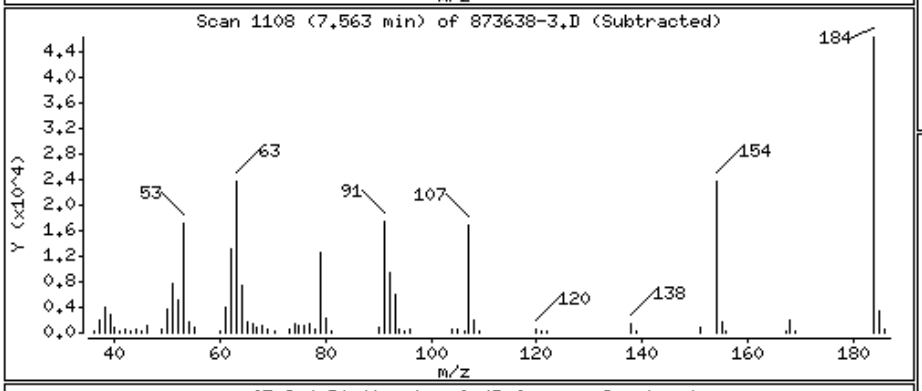
Column phase: RTx-5

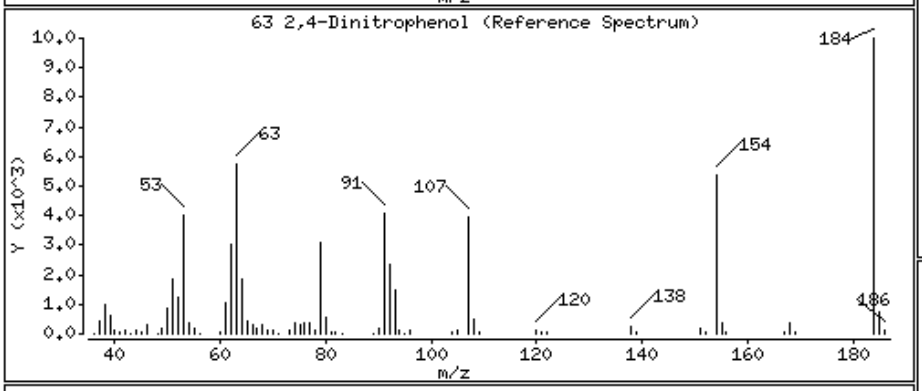
Column diameter: 0.32

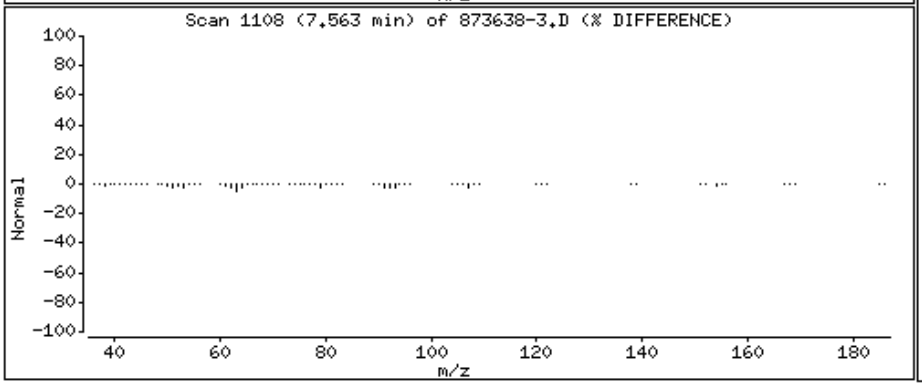
63 2,4-Dinitrophenol

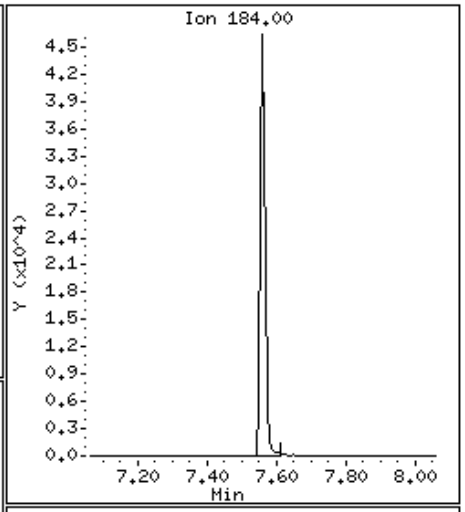
Concentration: 28.6 ug/L

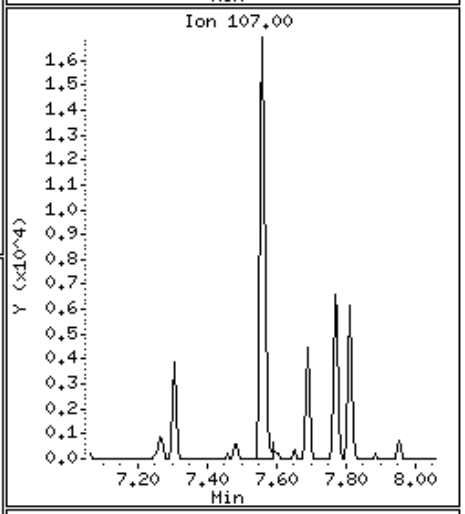


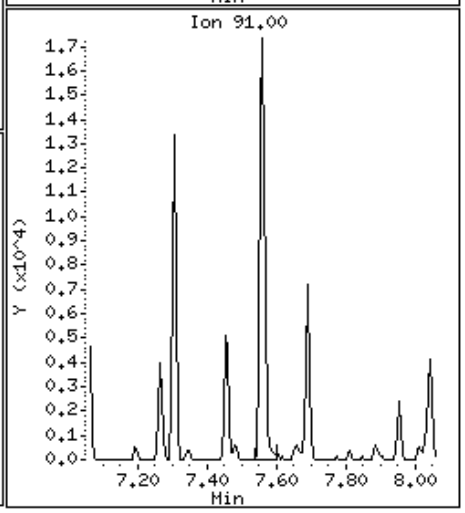












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytol,als

Purge Volume: 1000.0

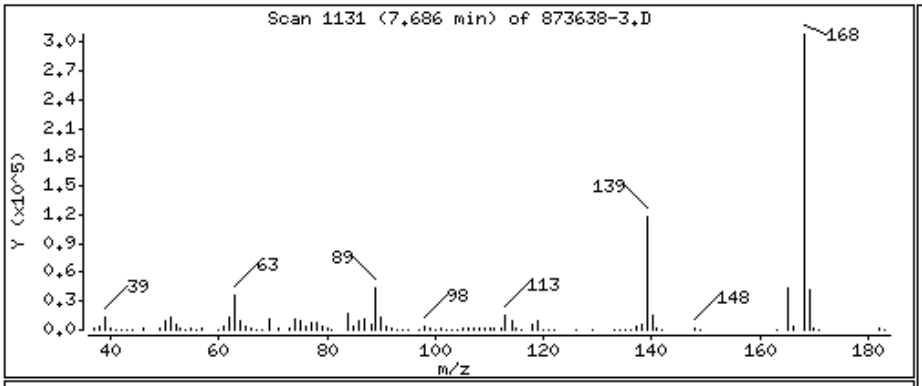
Operator: als

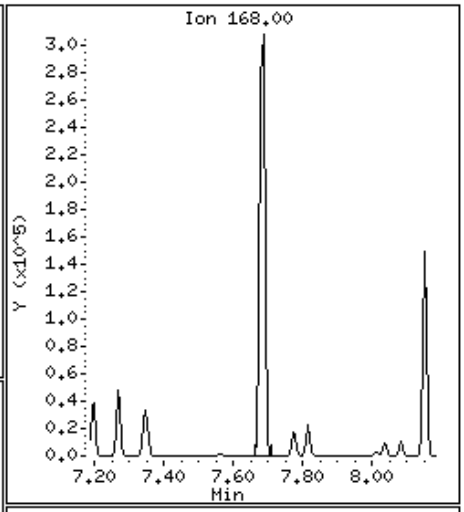
Column phase: RTx-5

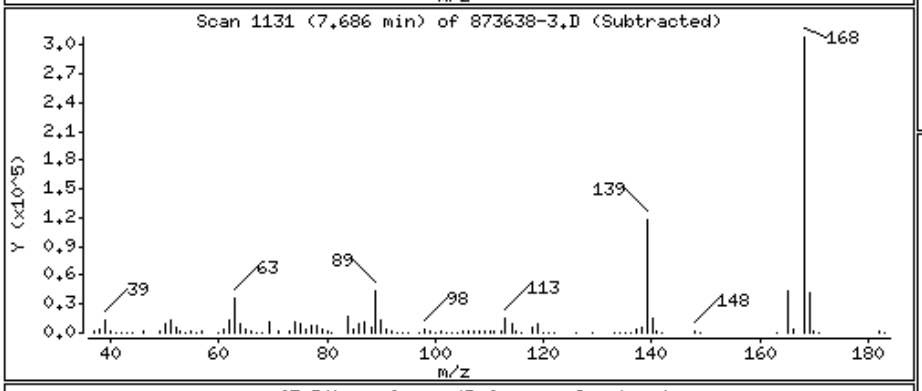
Column diameter: 0.32

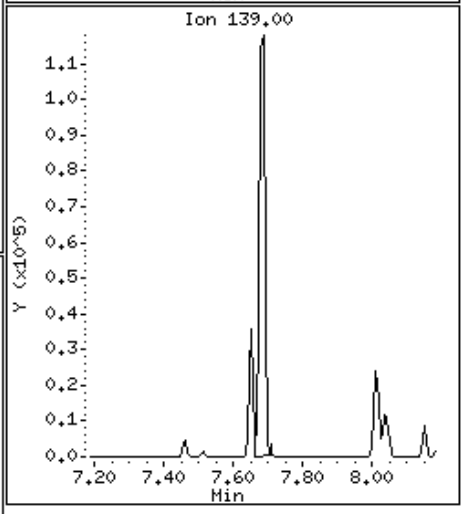
65 Dibenzofuran

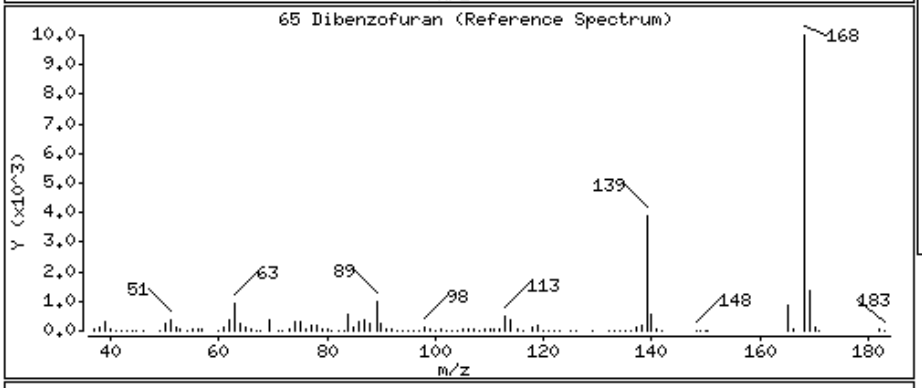
Concentration: 28.0 ug/L

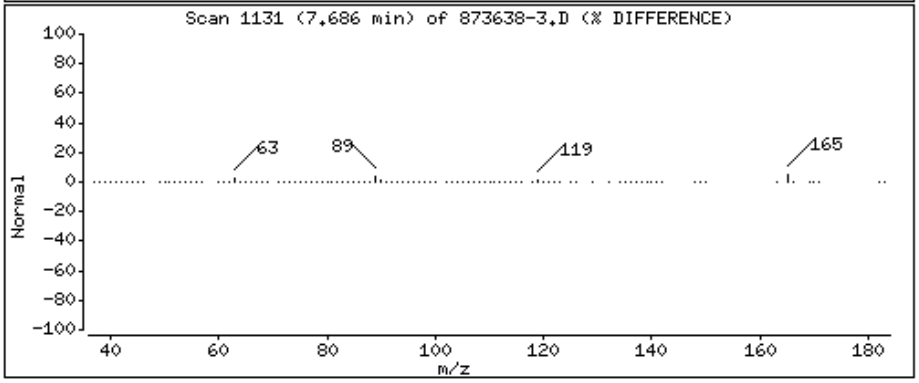












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytol,als

Purge Volume: 1000.0

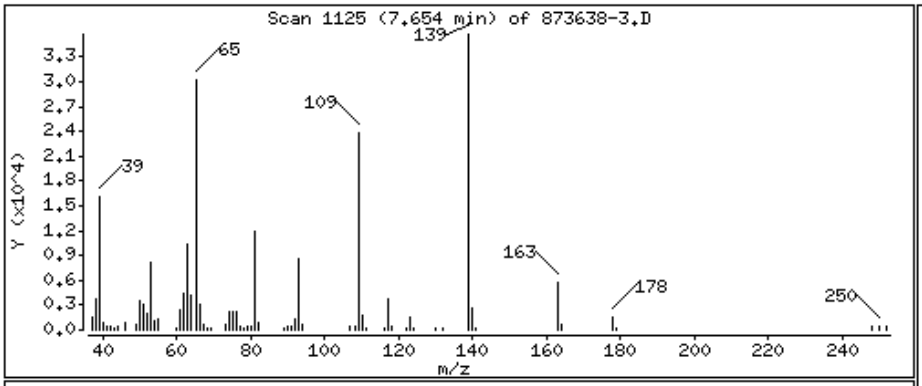
Operator: als

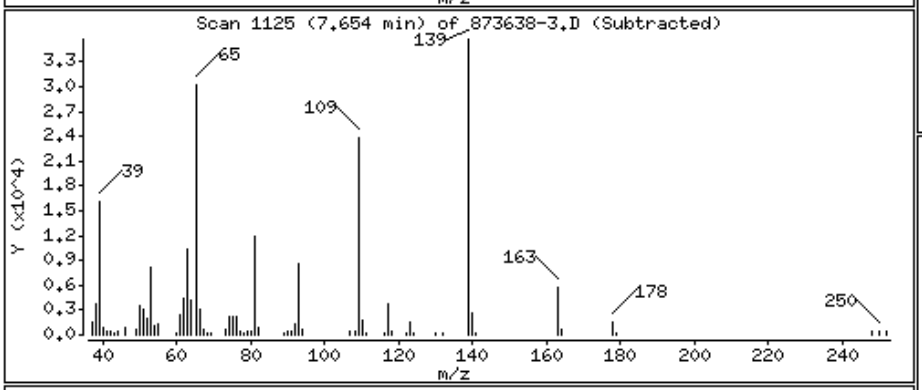
Column phase: RTx-5

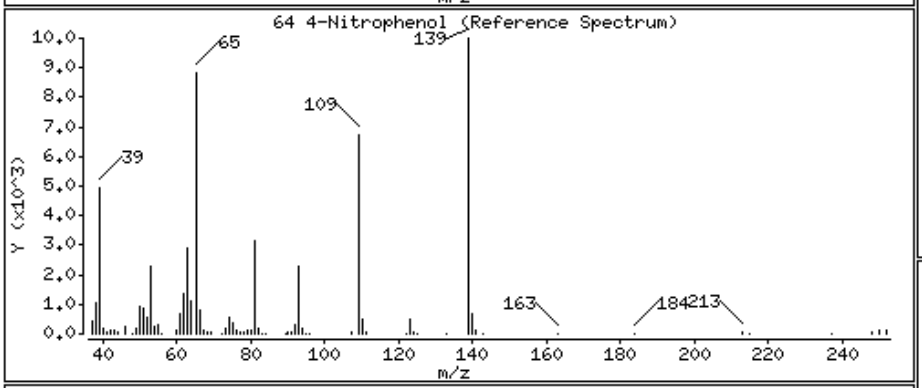
Column diameter: 0.32

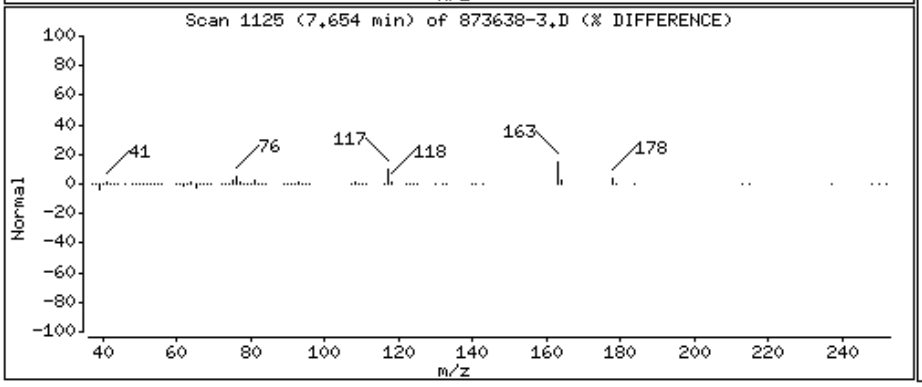
64 4-Nitrophenol

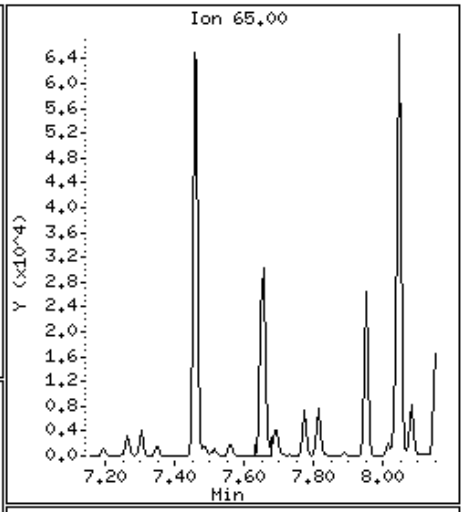
Concentration: 15.1 ug/L

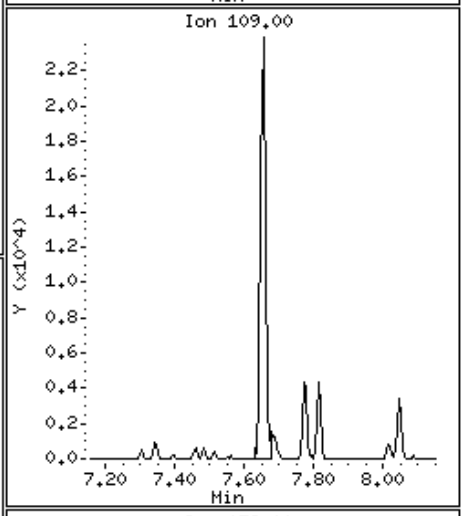


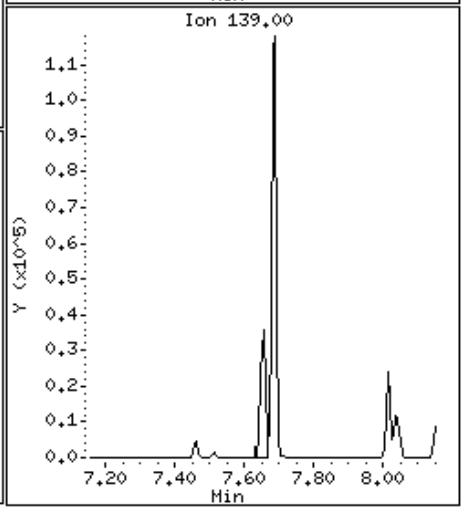












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytol,als

Purge Volume: 1000.0

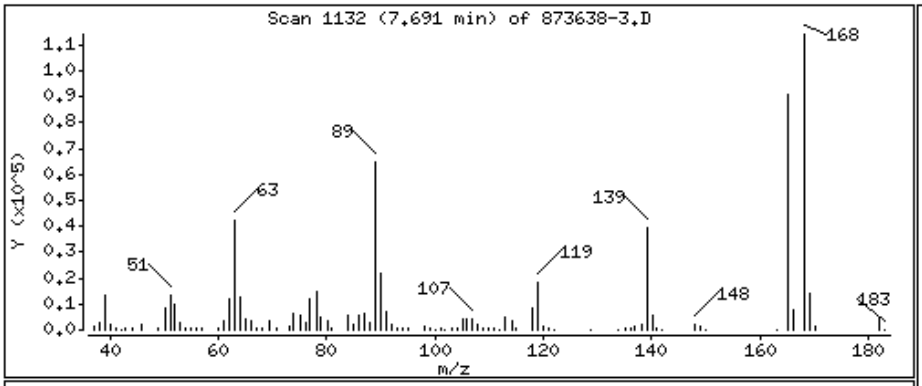
Operator: als

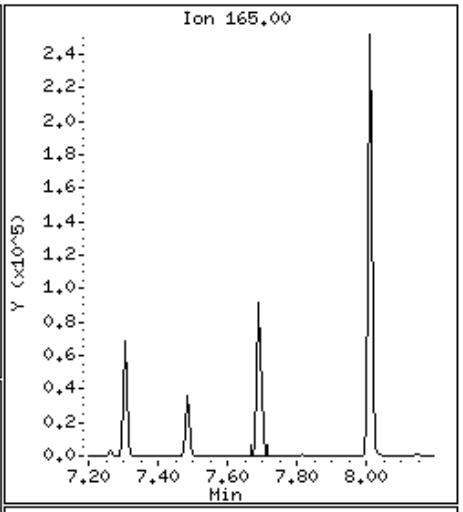
Column phase: RTx-5

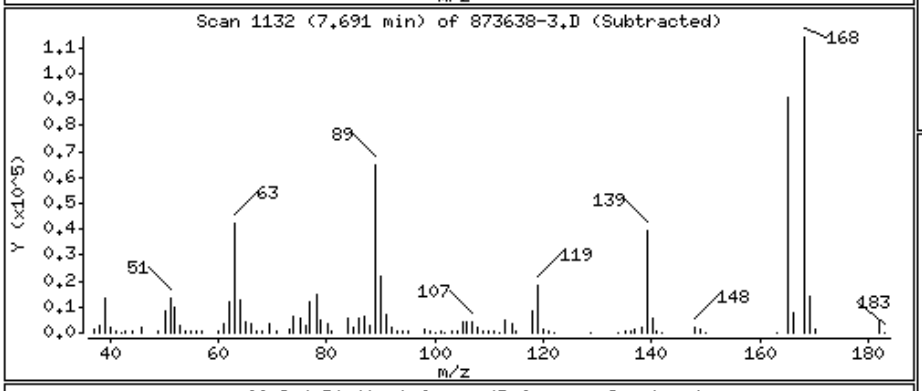
Column diameter: 0.32

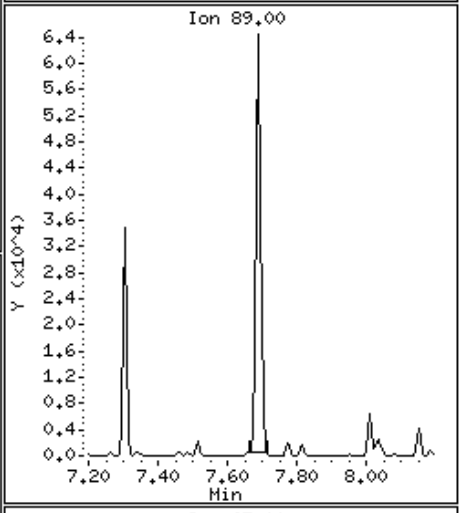
66 2,4-Dinitrotoluene

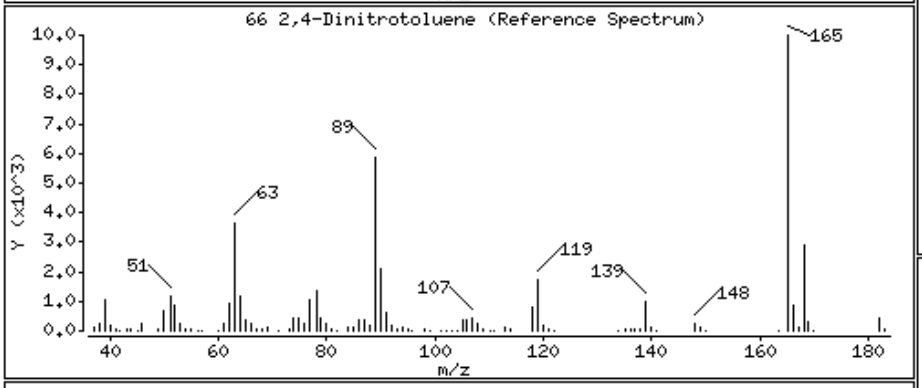
Concentration: 30.5 ug/L

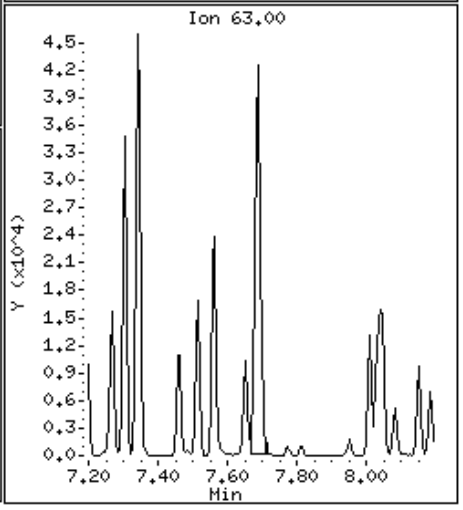


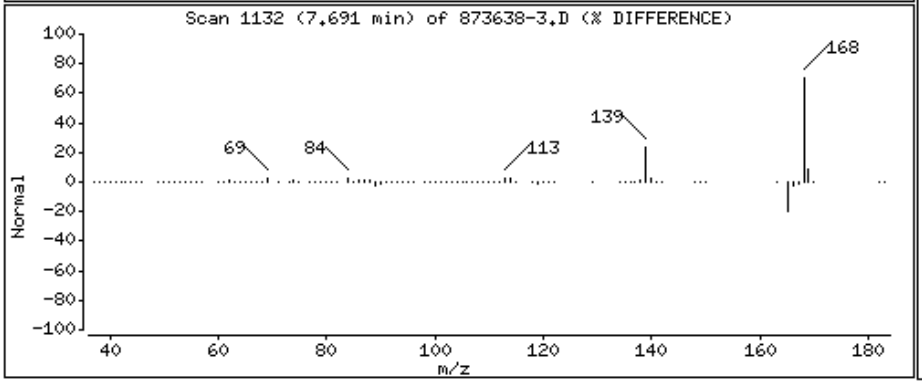












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

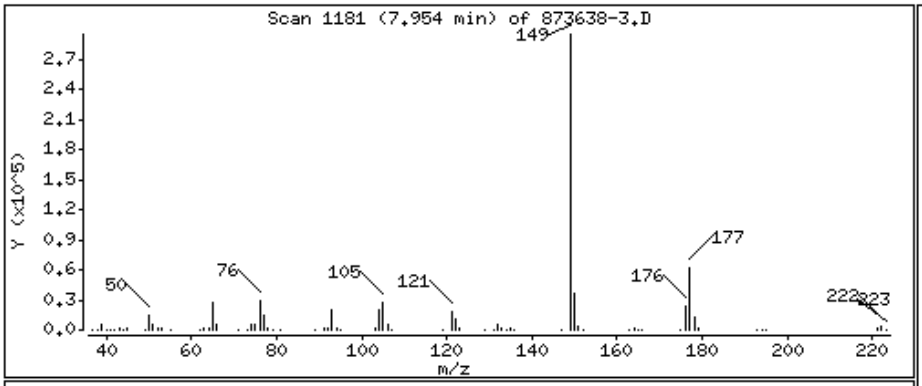
Operator: als

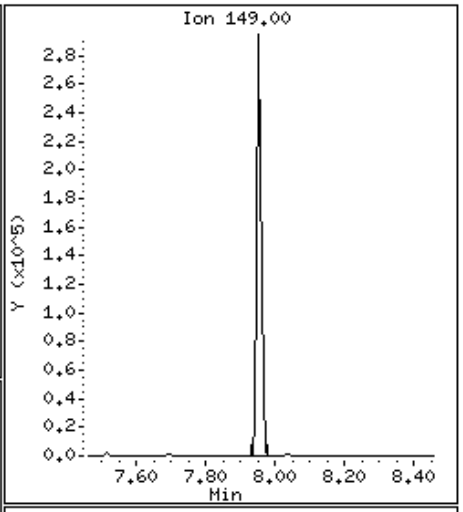
Column phase: RTx-5

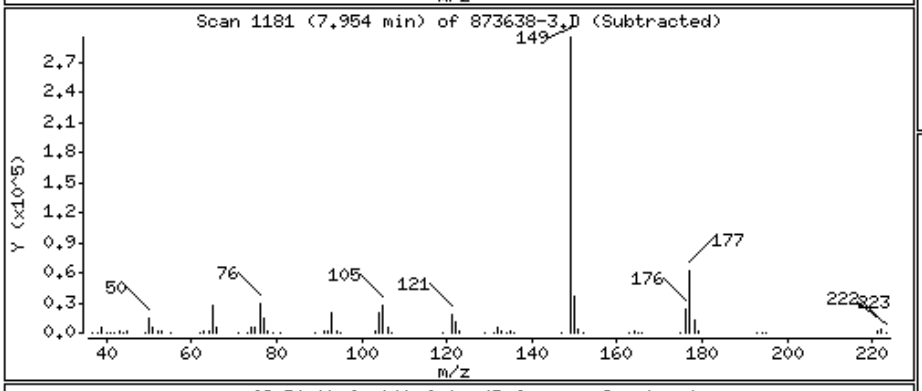
Column diameter: 0.32

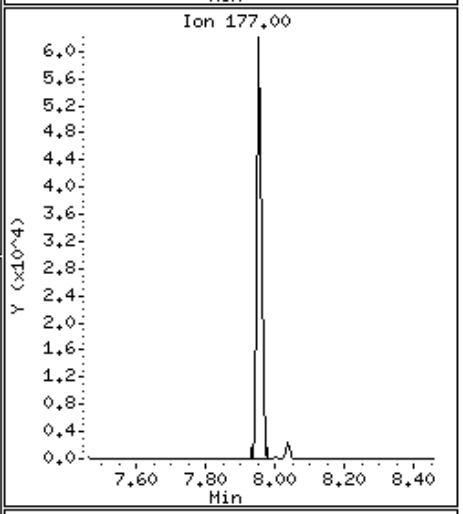
69 Diethyl phthalate

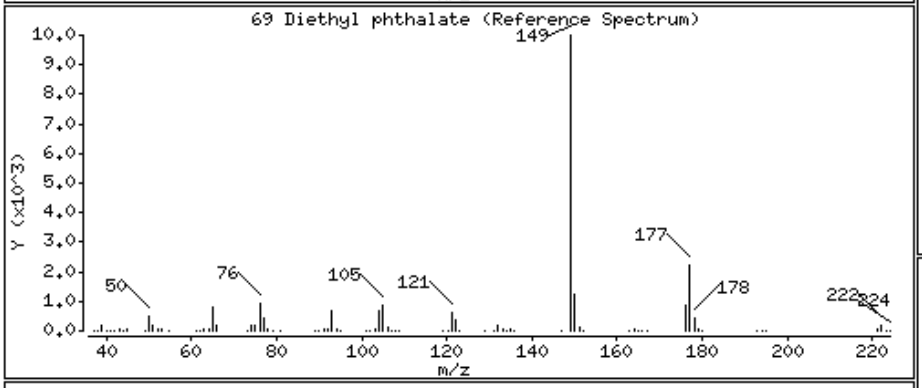
Concentration: 29.1 ug/L

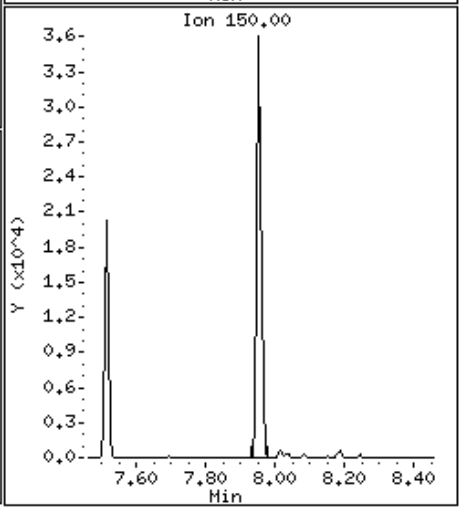


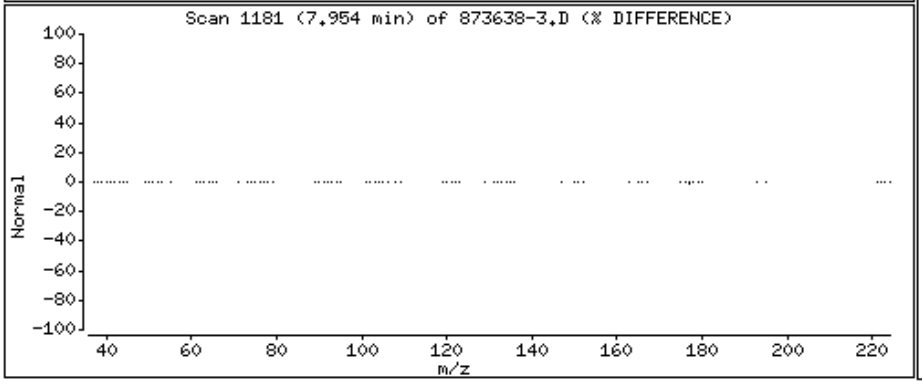












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

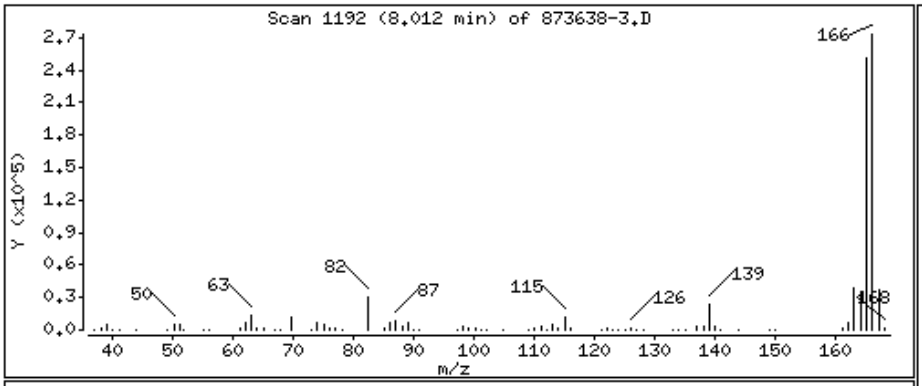
Operator: als

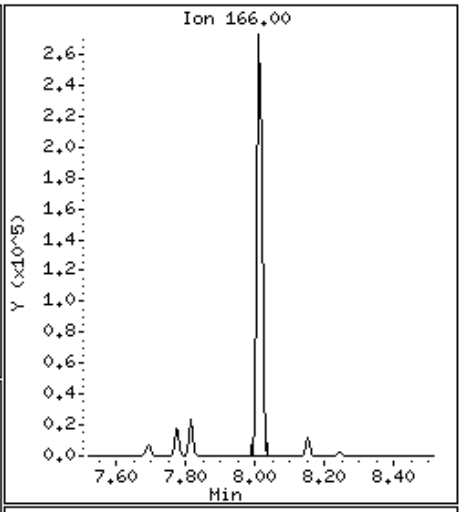
Column phase: RTx-5

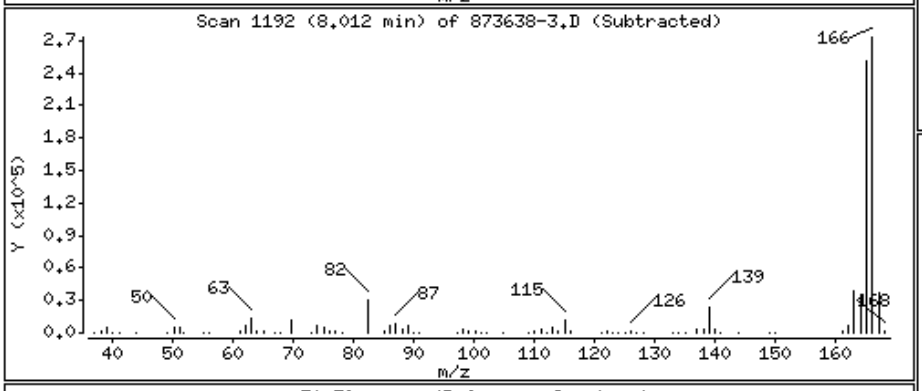
Column diameter: 0.32

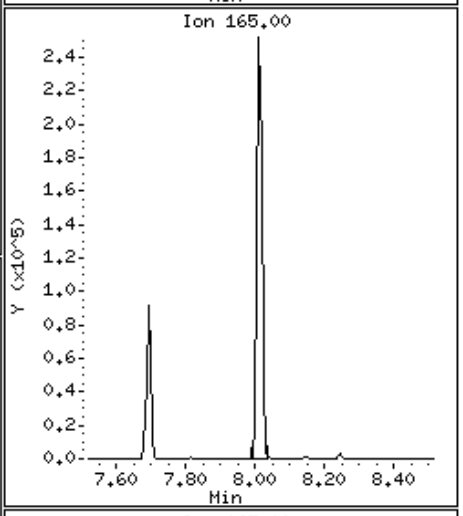
70 Fluorene

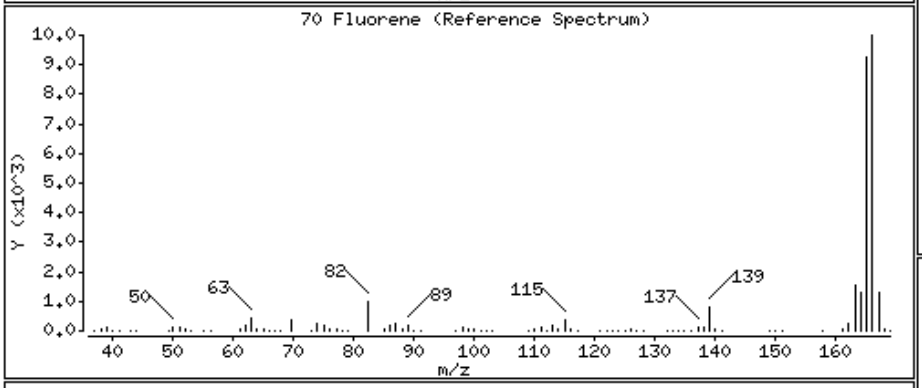
Concentration: 28.7 ug/L

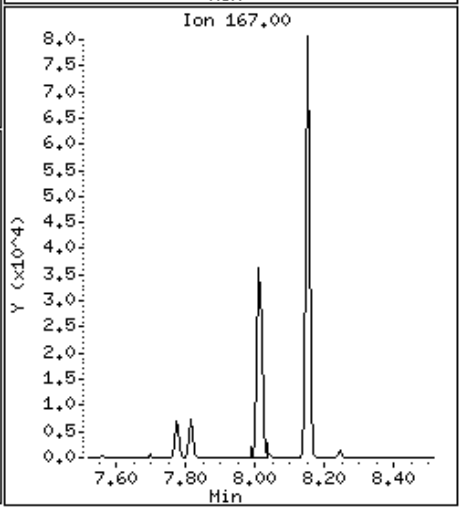


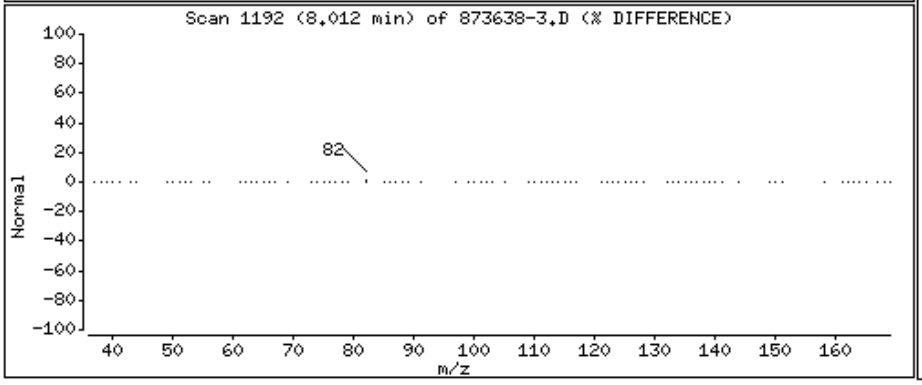












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

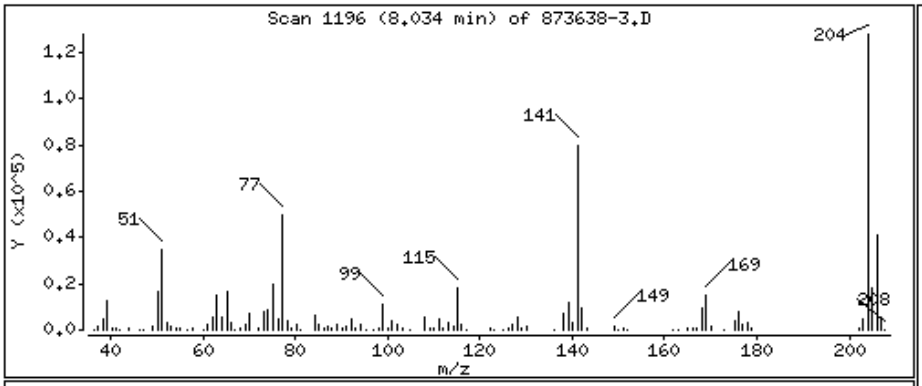
Operator: als

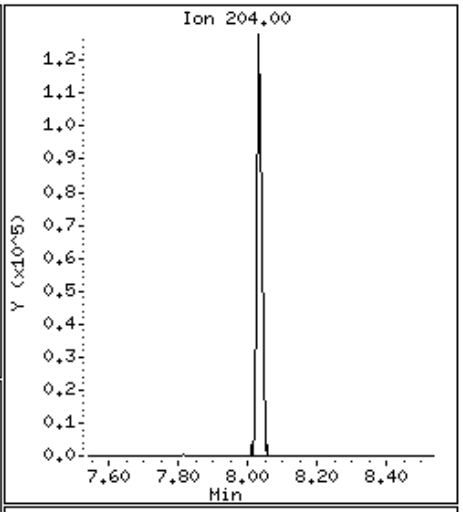
Column phase: RTx-5

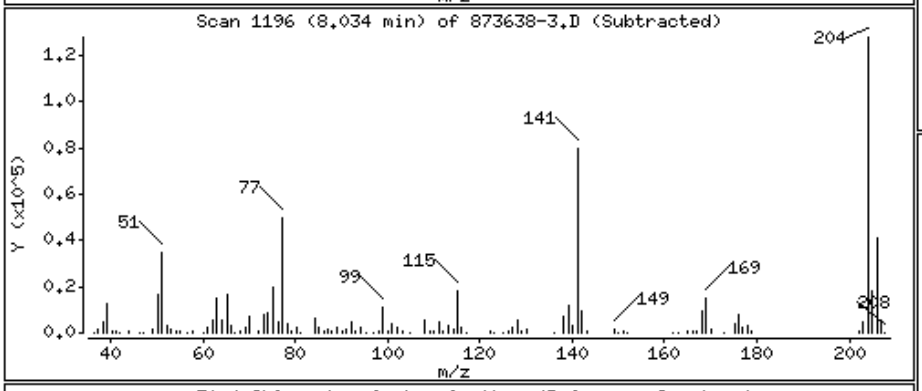
Column diameter: 0.32

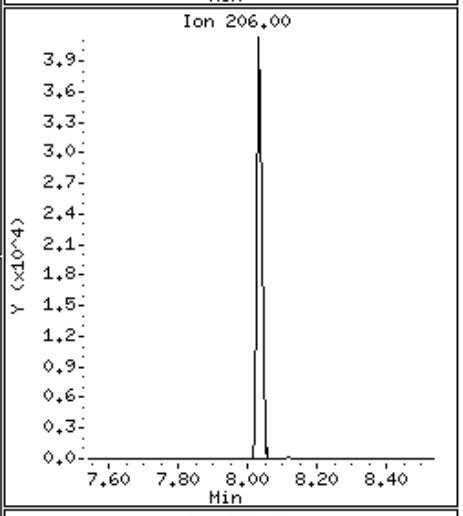
71 4-Chlorophenyl phenyl ether

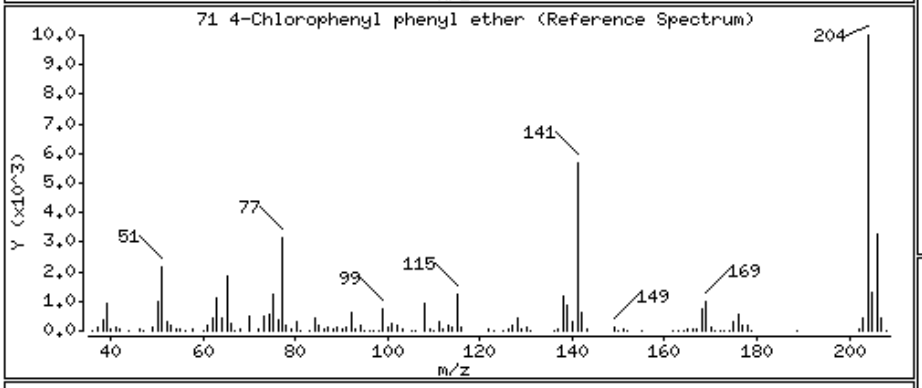
Concentration: 29.8 ug/L

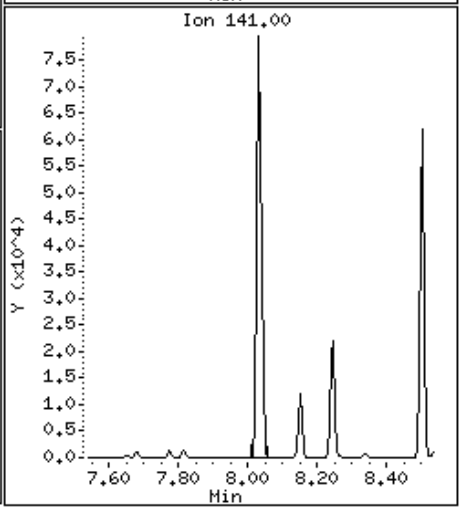


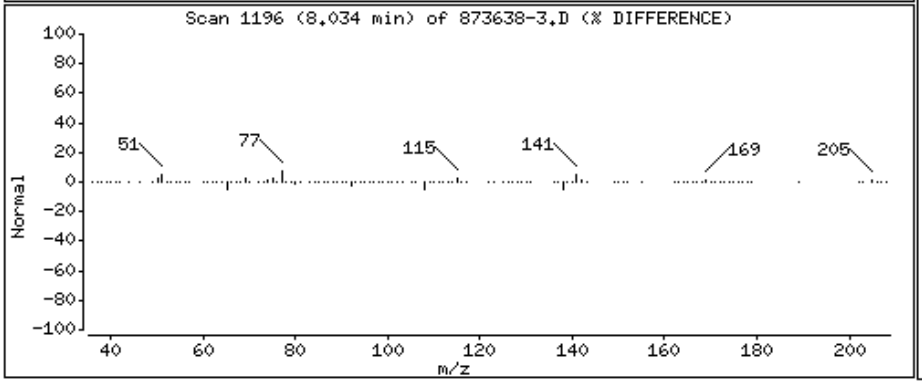












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

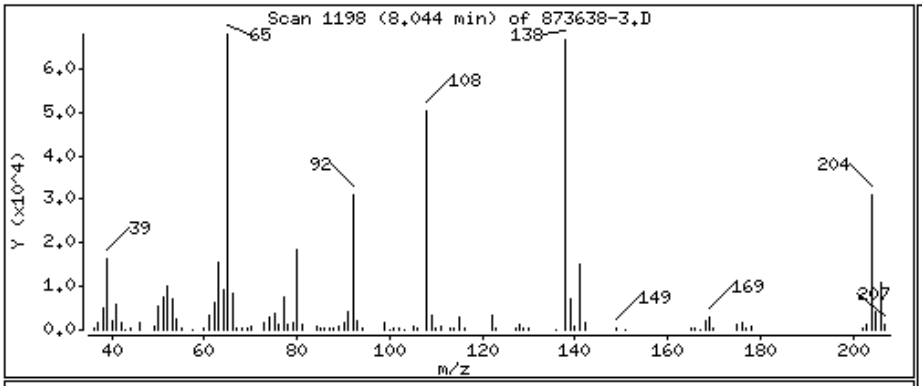
Operator: als

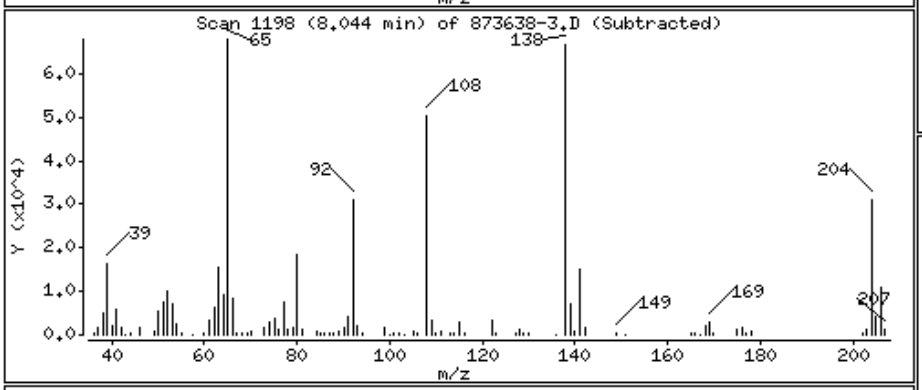
Column phase: RTx-5

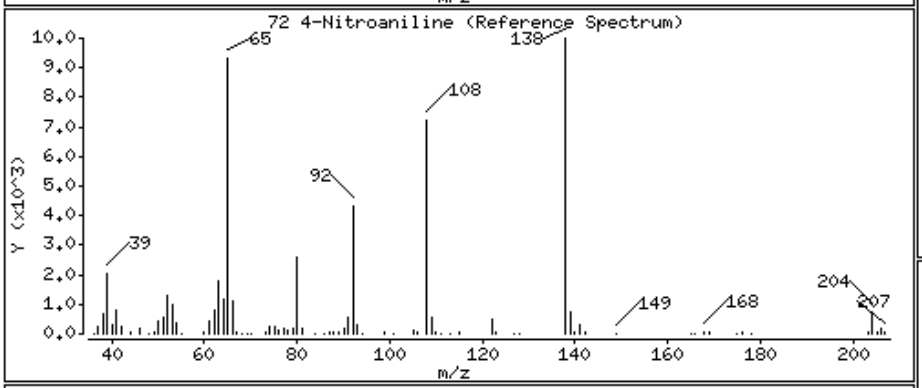
Column diameter: 0.32

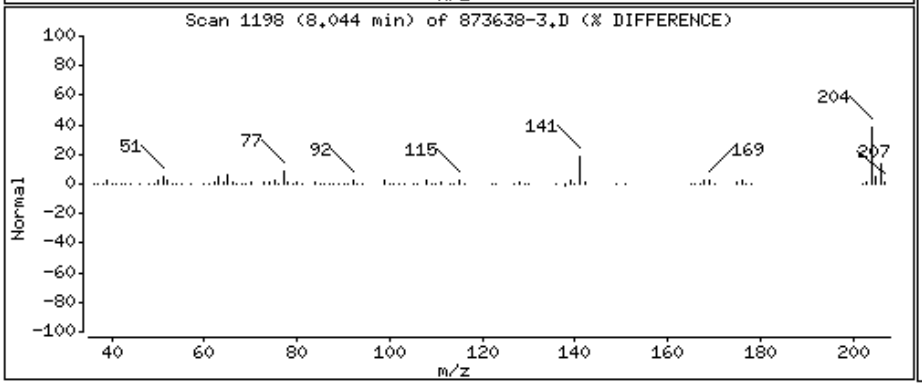
72 4-Nitroaniline

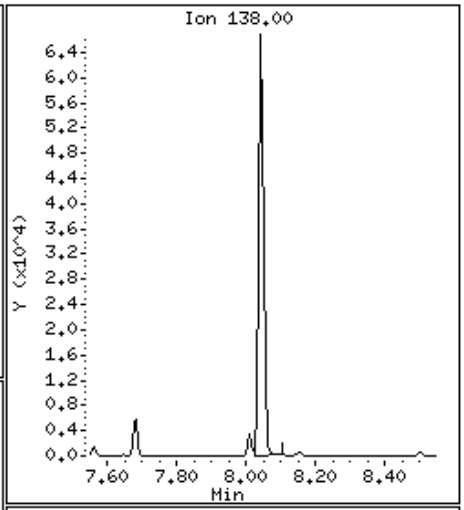
Concentration: 28.4 ug/L

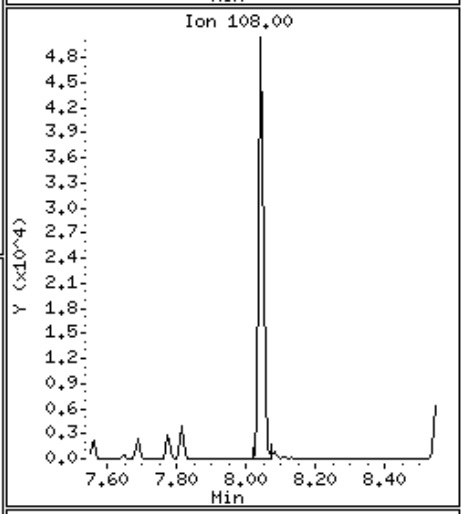


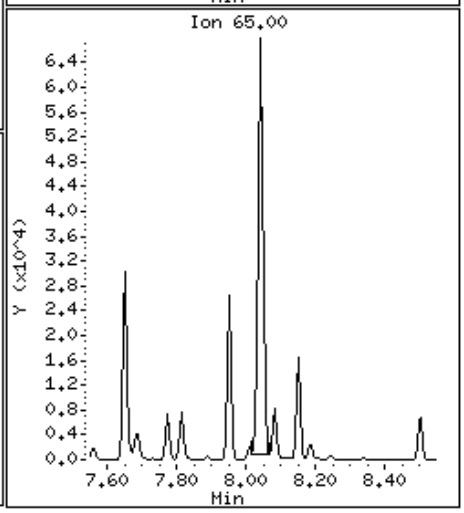












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytol,als

Purge Volume: 1000.0

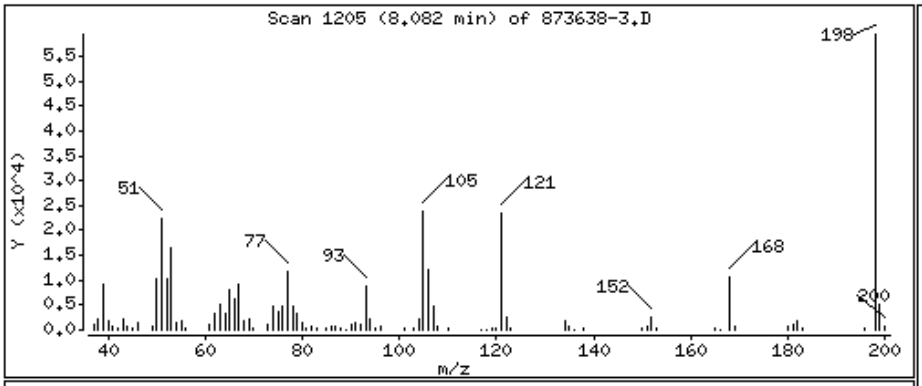
Operator: als

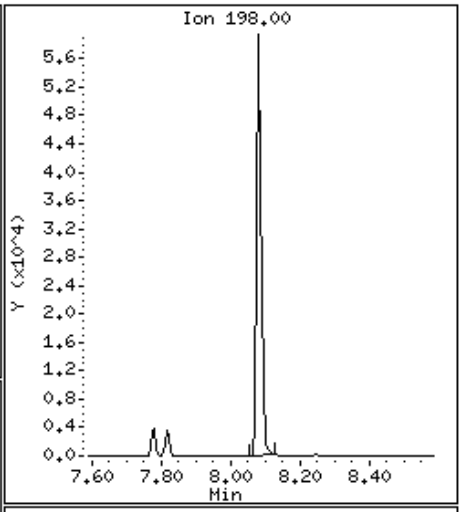
Column phase: RTx-5

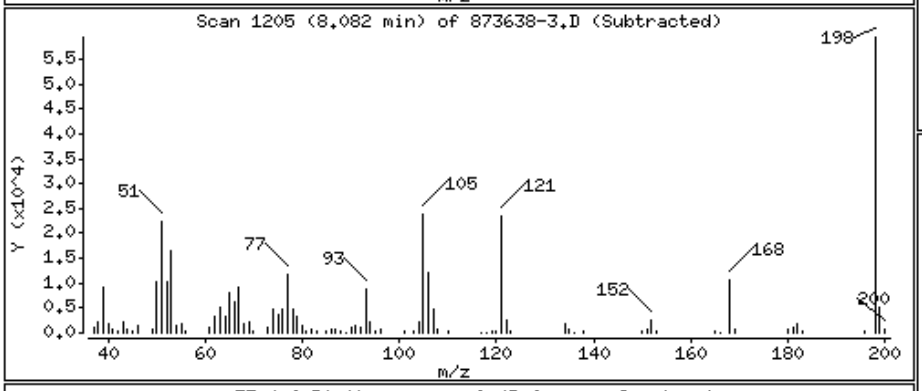
Column diameter: 0.32

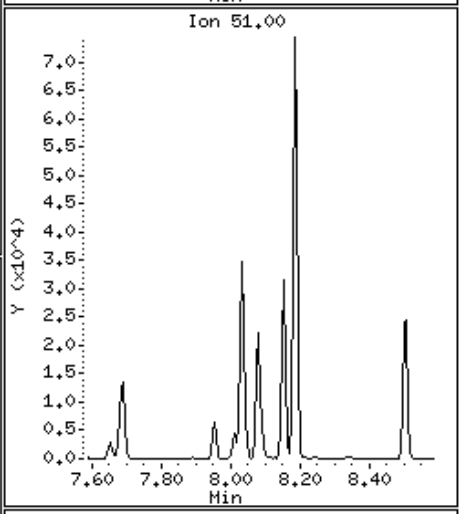
73 4,6-Dinitro-o-cresol

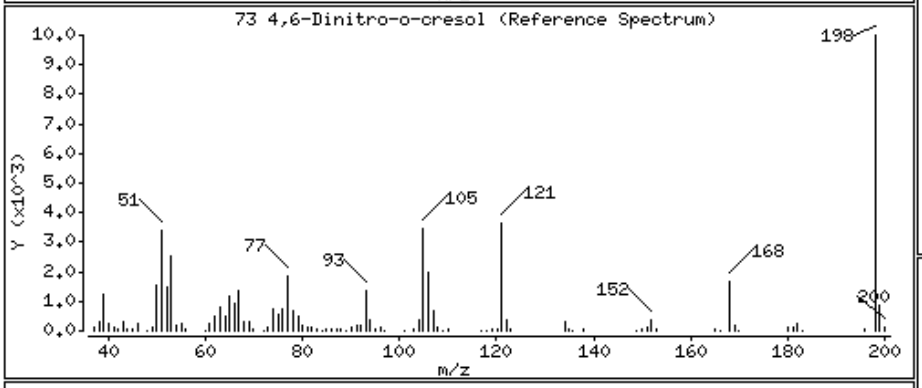
Concentration: 29.6 ug/L

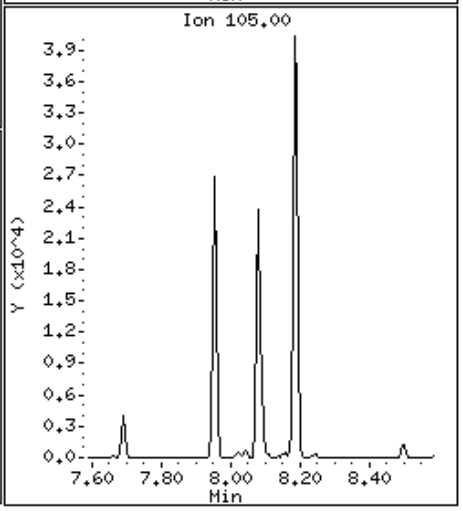


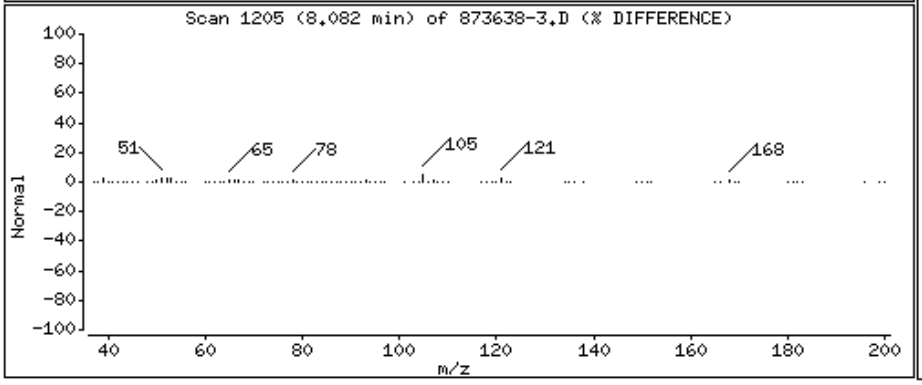












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

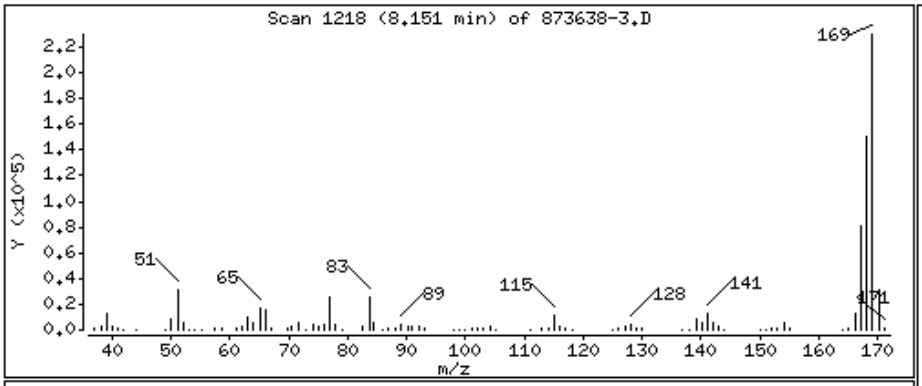
Operator: als

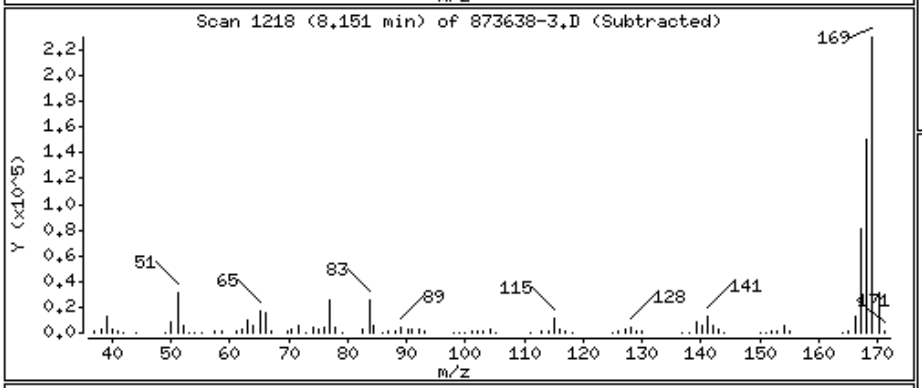
Column phase: RTx-5

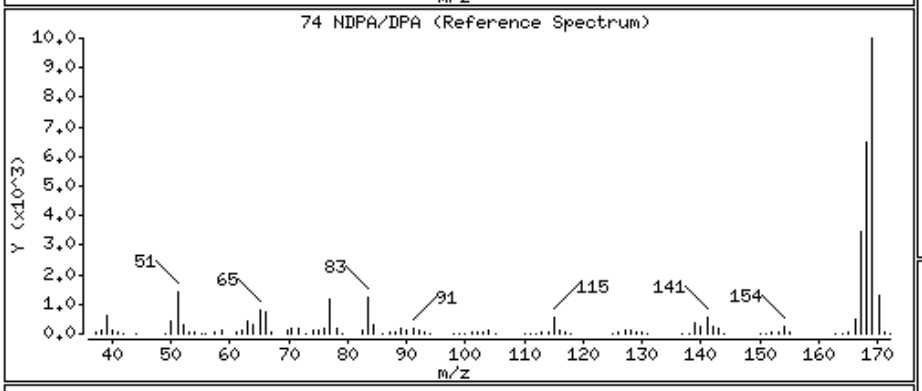
Column diameter: 0.32

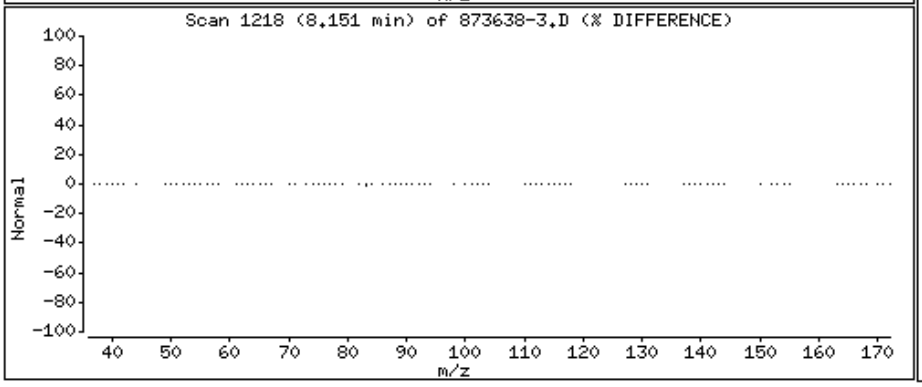
74 NDPA/DPA

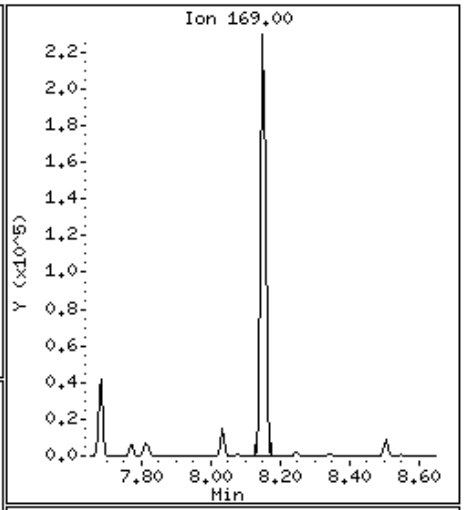
Concentration: 28.5 ug/L

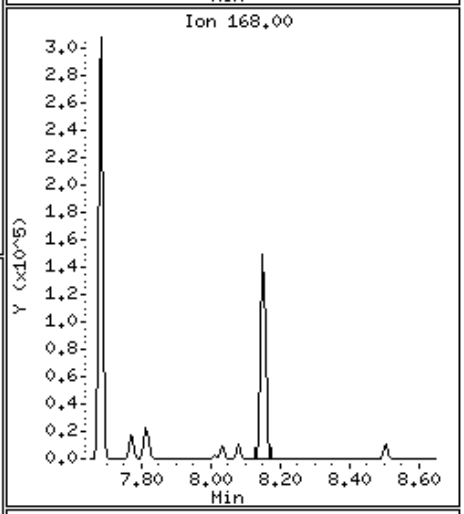


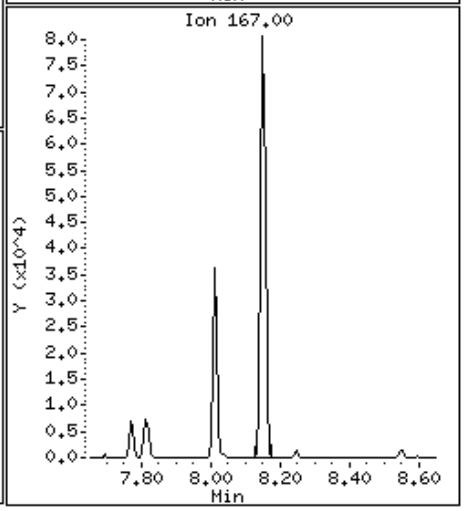












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

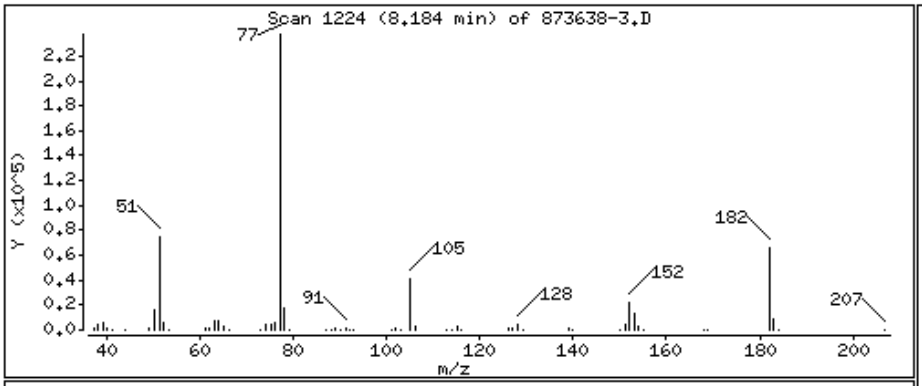
Operator: als

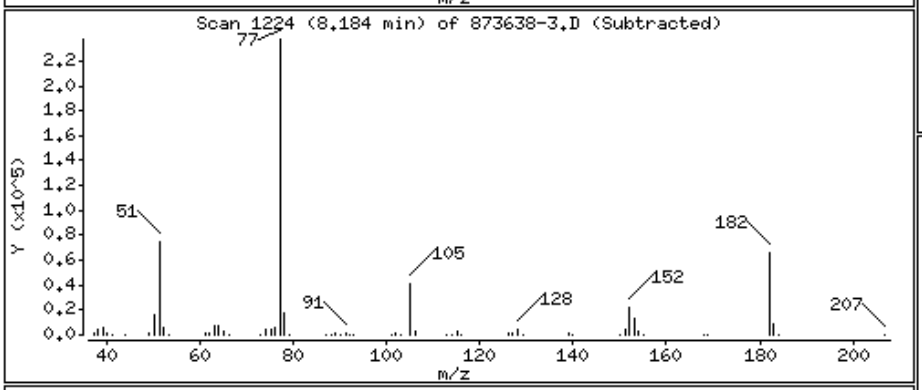
Column phase: RTx-5

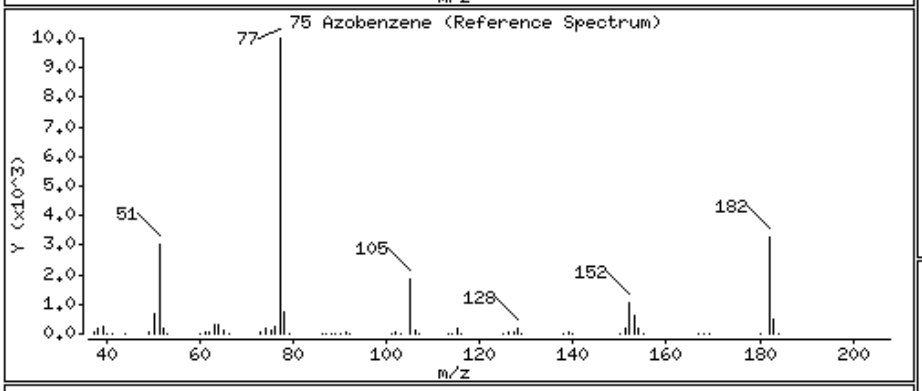
Column diameter: 0.32

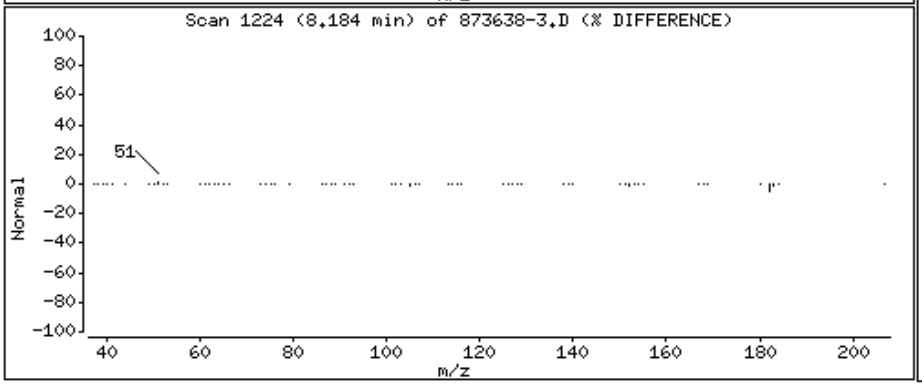
75 Azobenzene

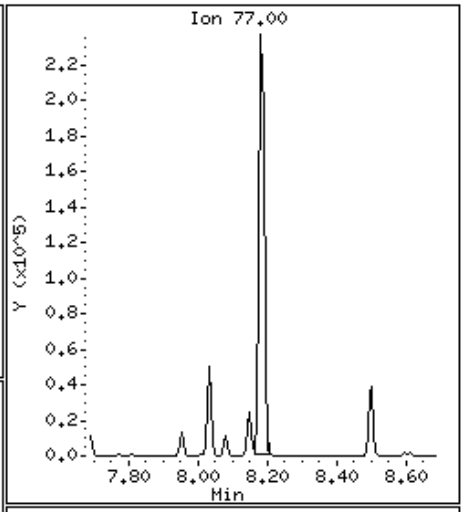
Concentration: 24.5 ug/L

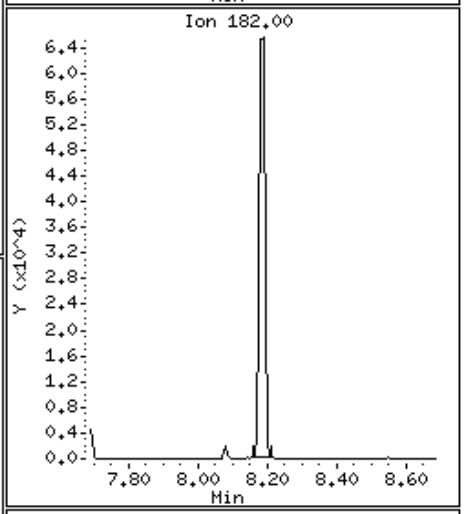


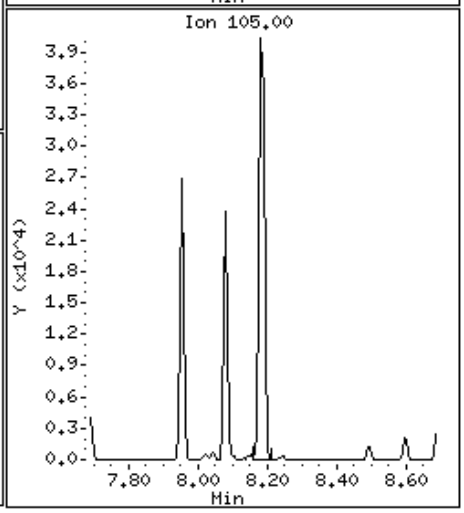












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

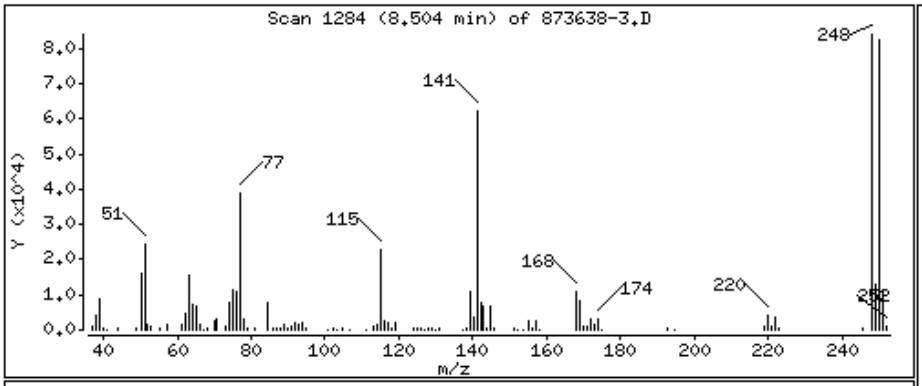
Operator: als

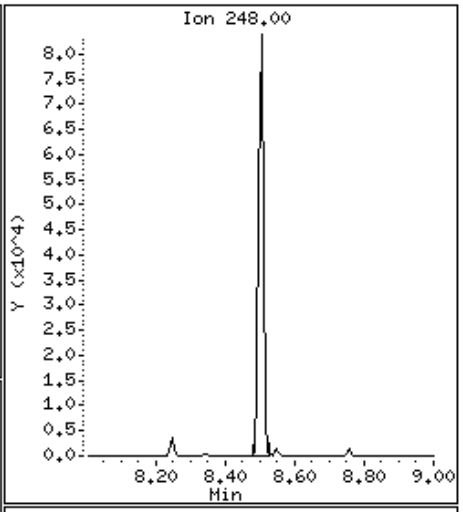
Column phase: RTx-5

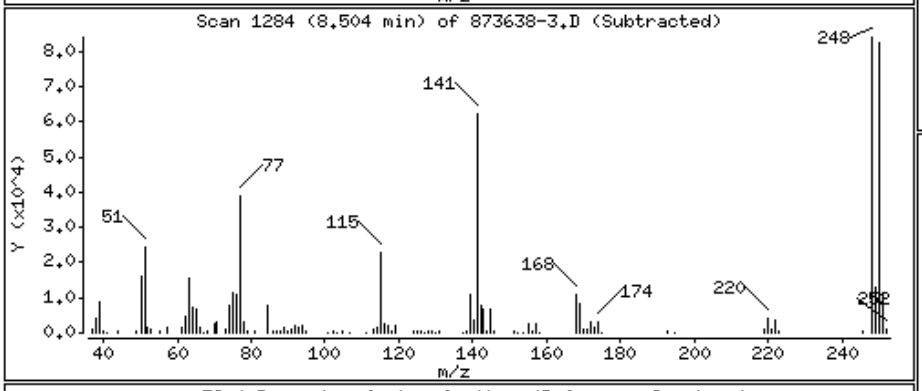
Column diameter: 0.32

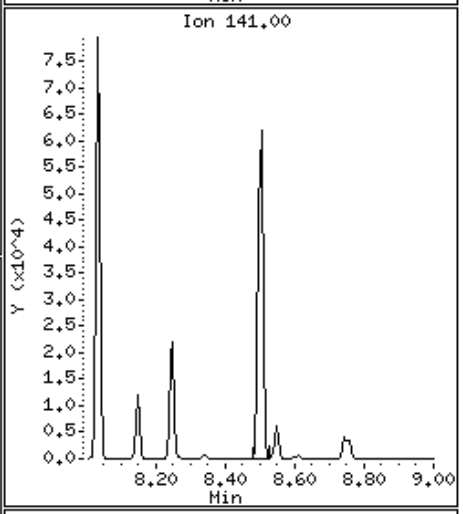
78 4-Bromophenyl phenyl ether

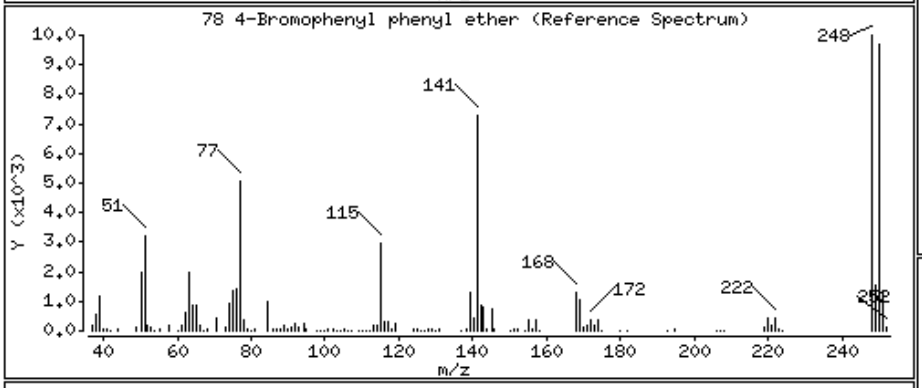
Concentration: 32.0 ug/L

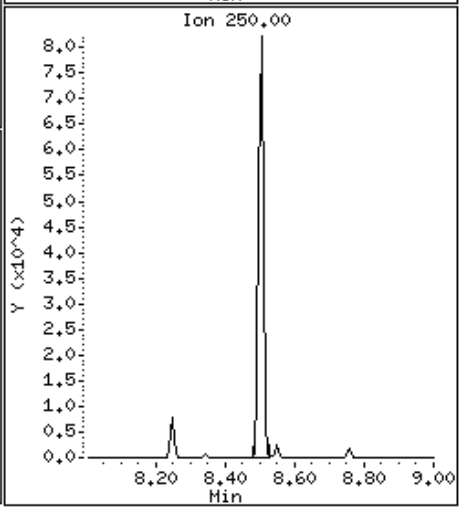


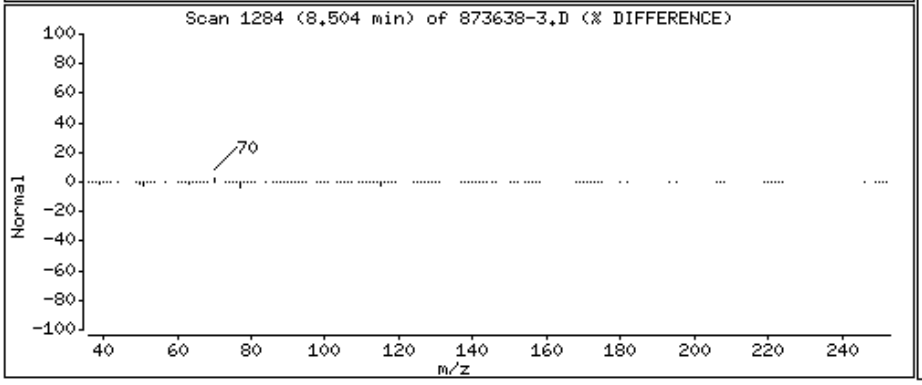












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

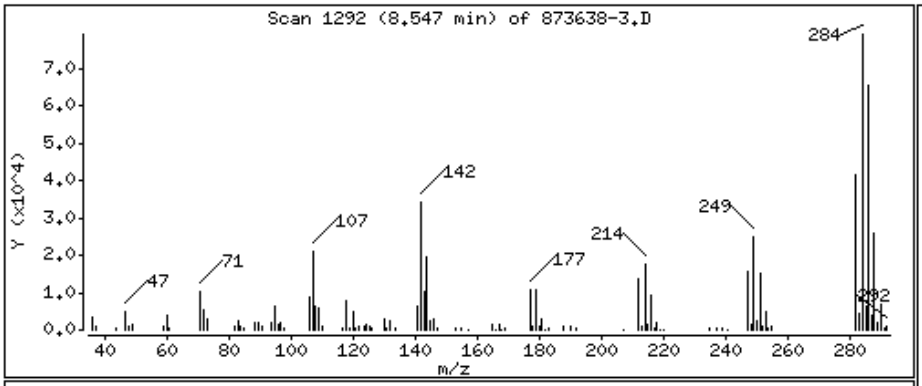
Operator: als

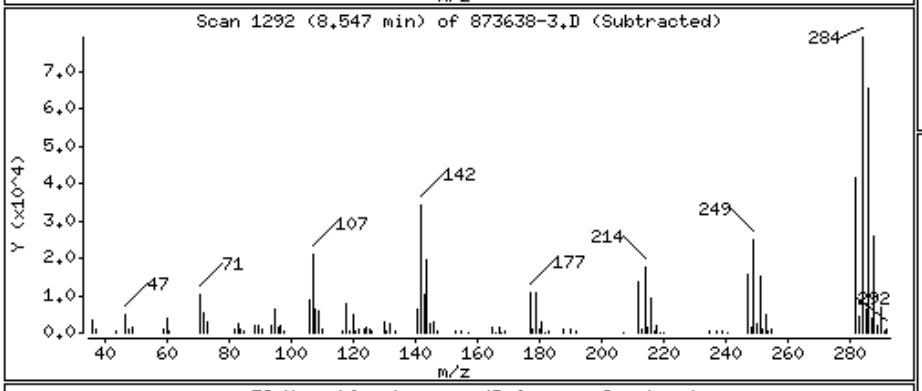
Column phase: RTx-5

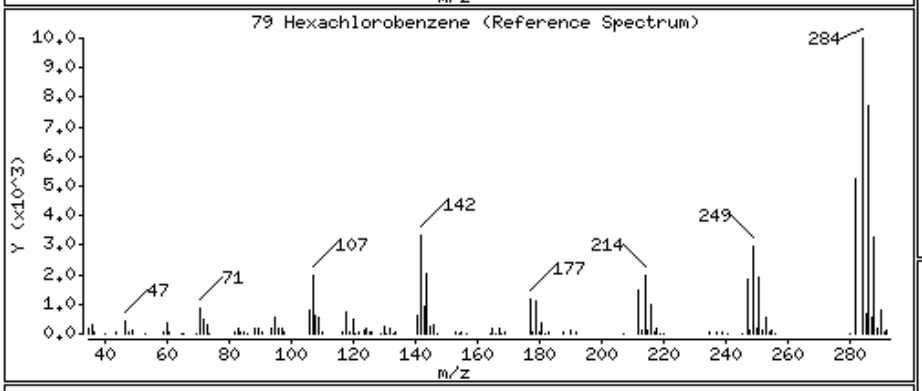
Column diameter: 0.32

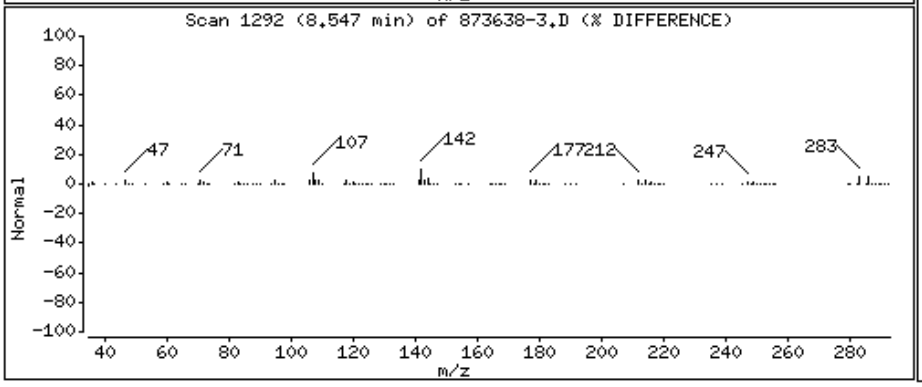
79 Hexachlorobenzene

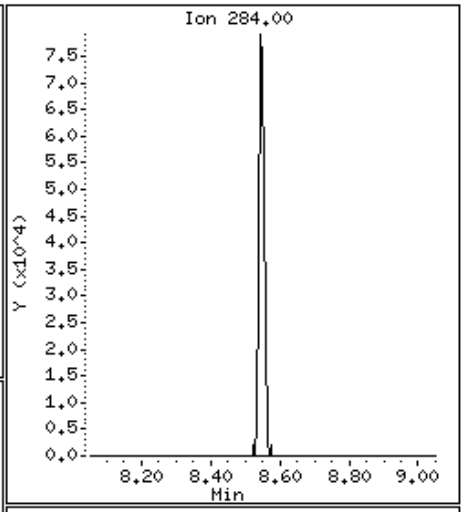
Concentration: 32.4 ug/L

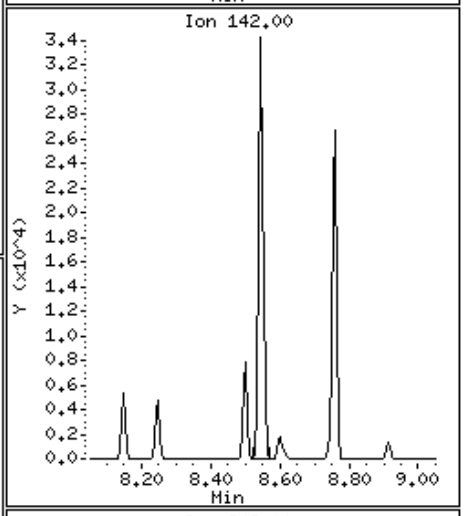


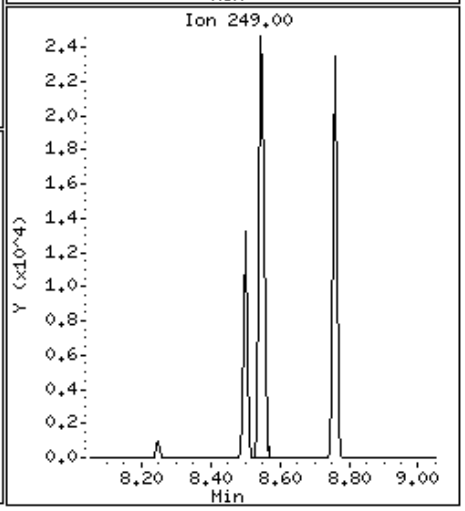












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

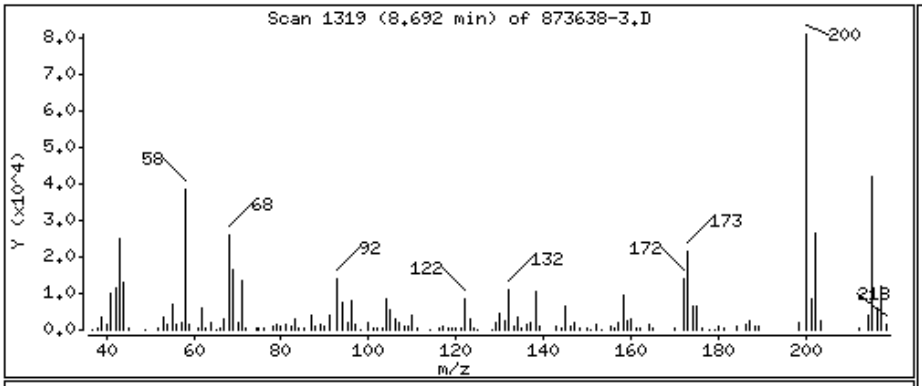
Operator: als

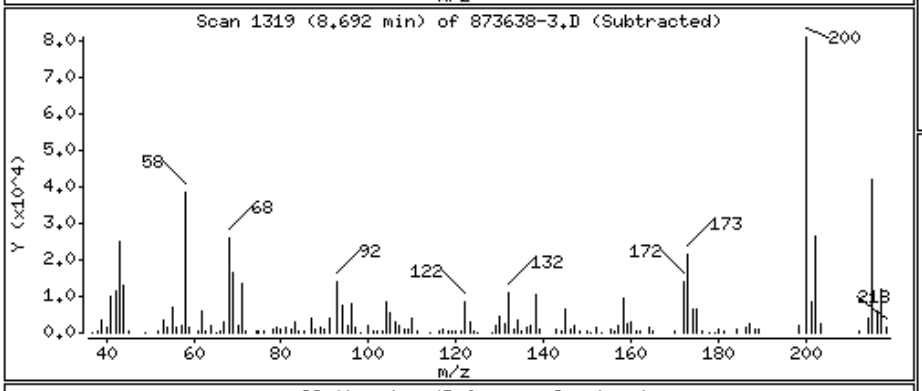
Column phase: RTx-5

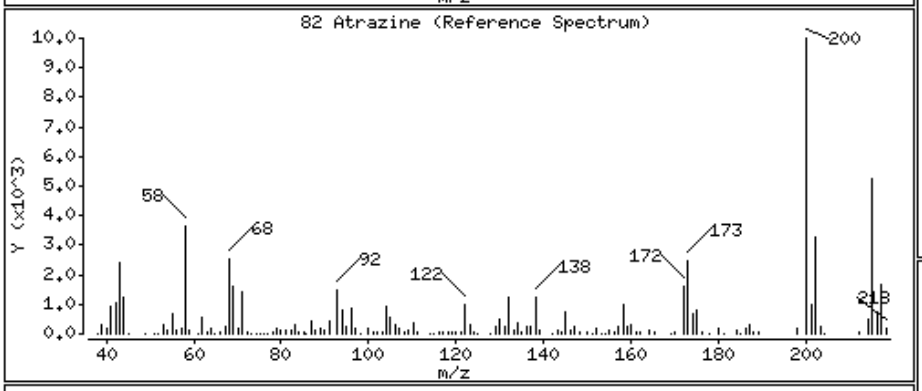
Column diameter: 0.32

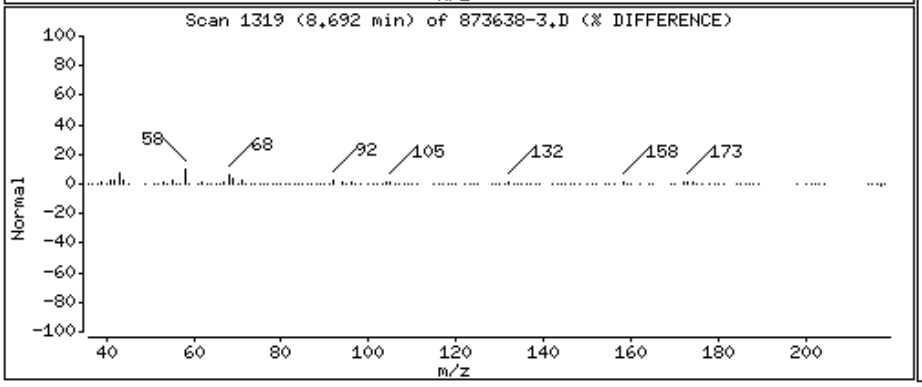
82 Atrazine

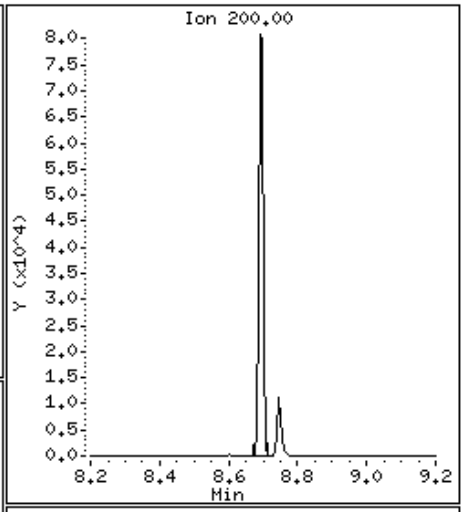
Concentration: 37.1 ug/L

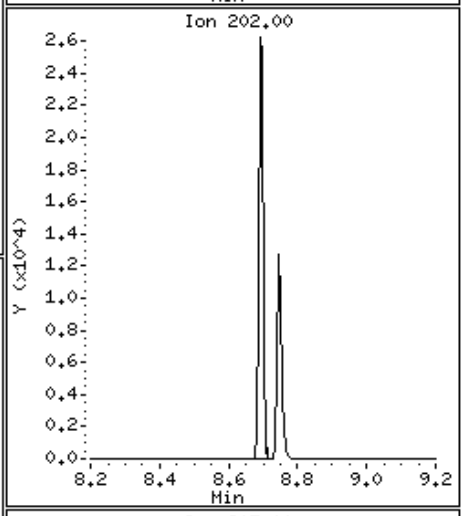


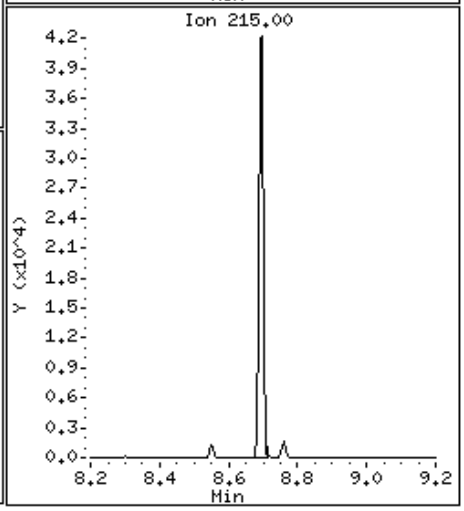












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

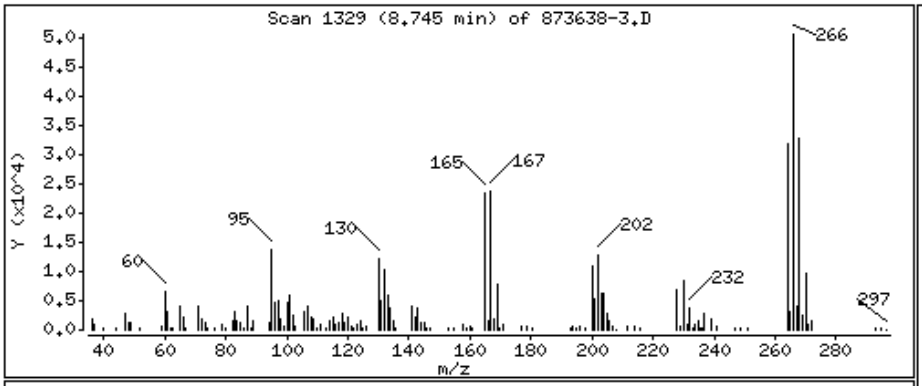
Operator: als

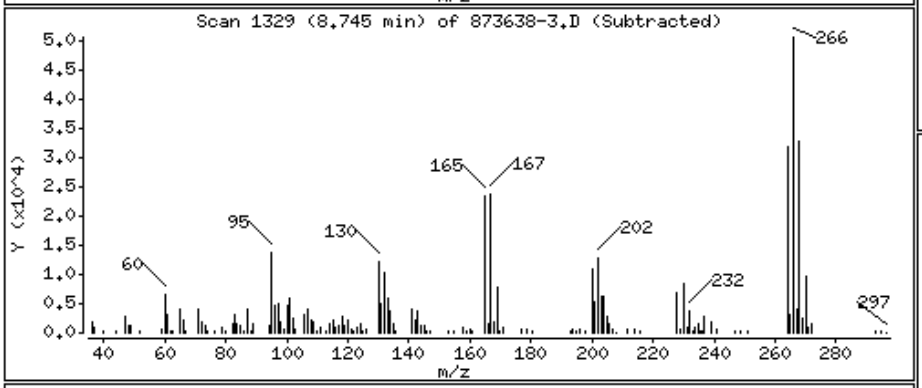
Column phase: RTx-5

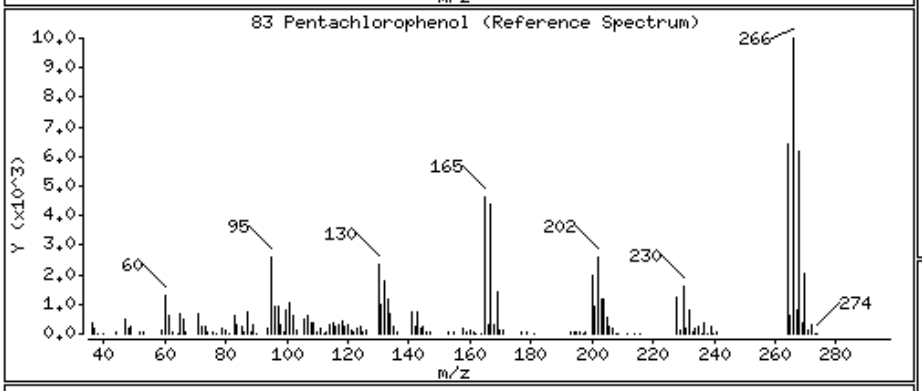
Column diameter: 0.32

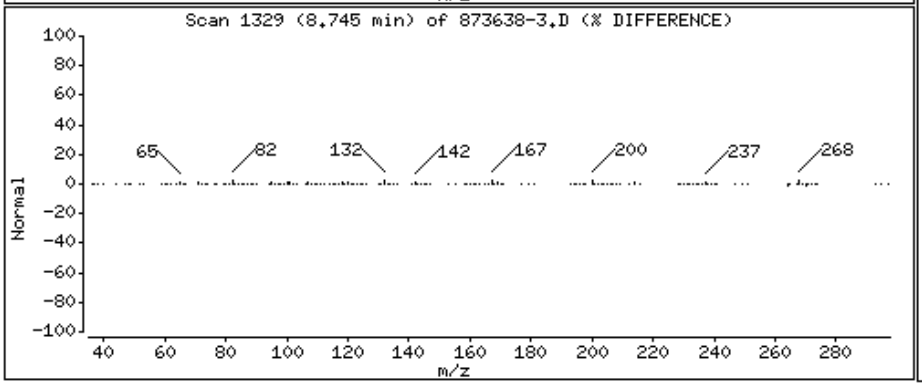
83 Pentachlorophenol

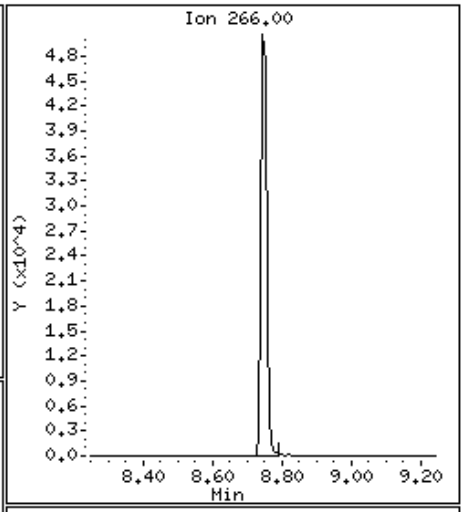
Concentration: 30.2 ug/L

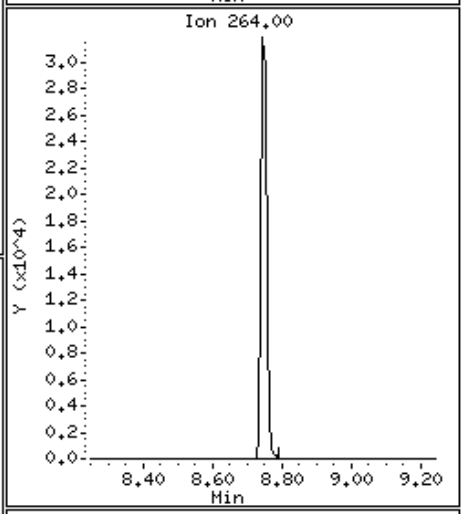


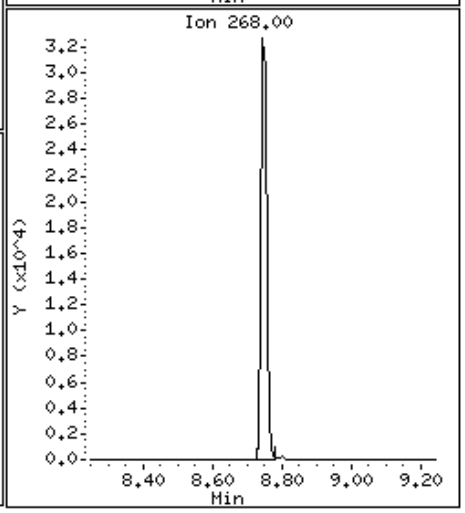












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

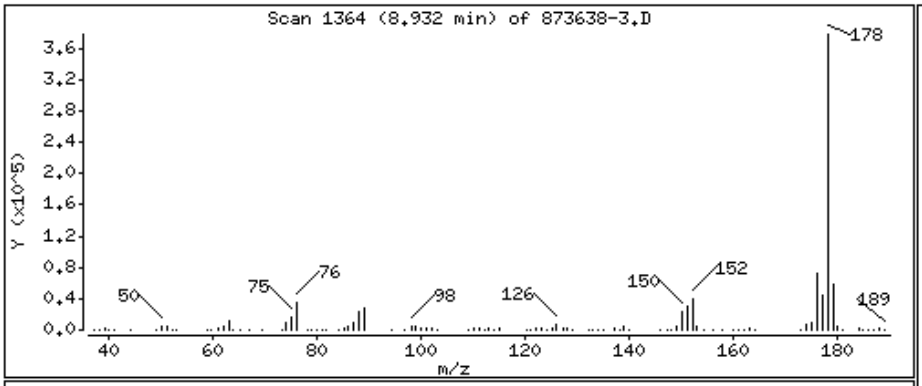
Operator: als

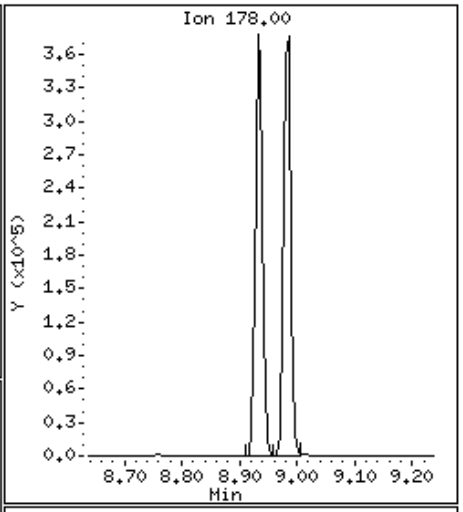
Column phase: RTx-5

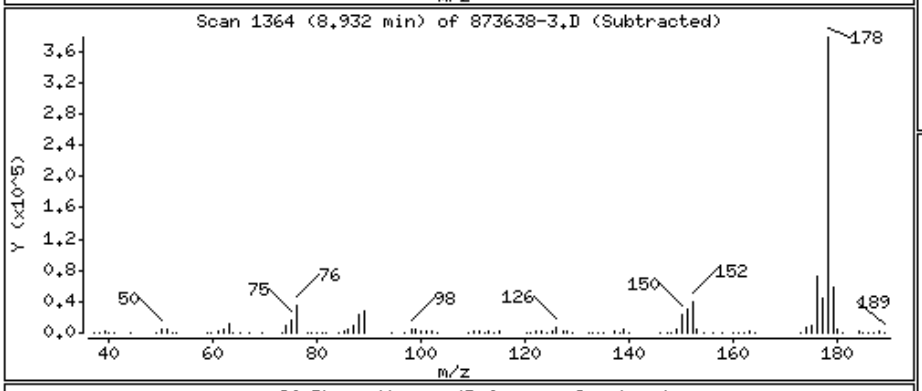
Column diameter: 0.32

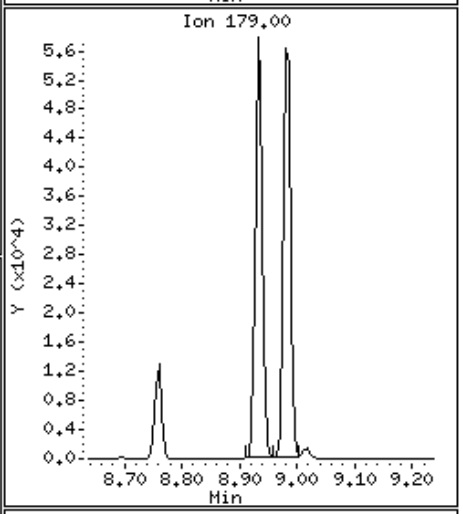
86 Phenanthrene

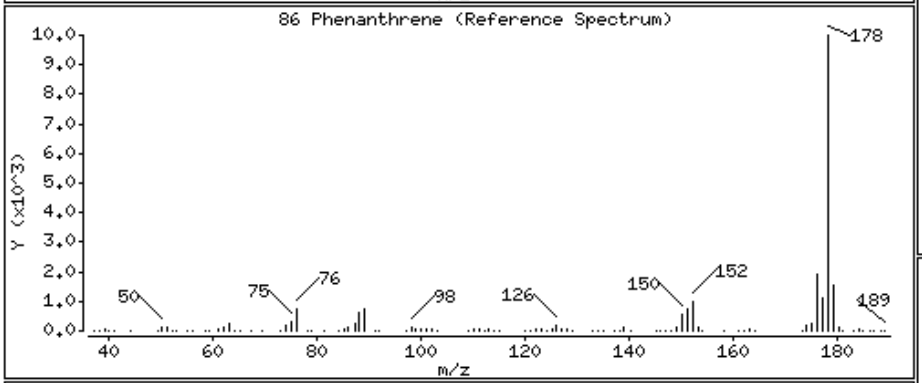
Concentration: 27.0 ug/L

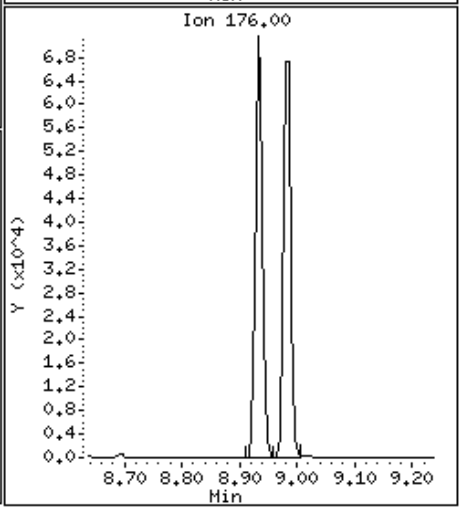


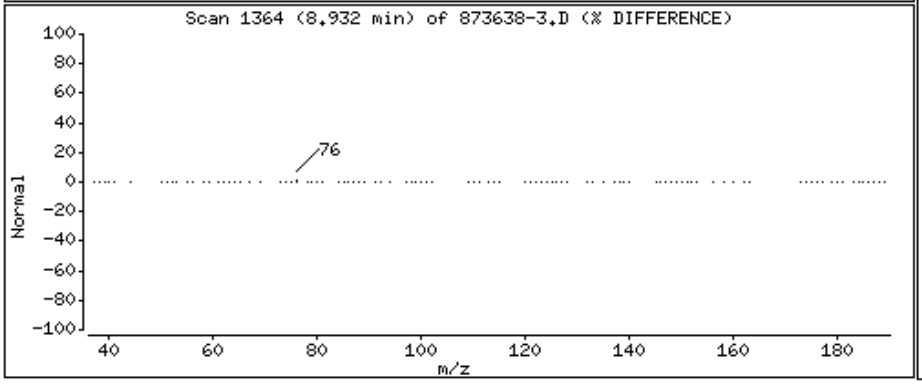












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

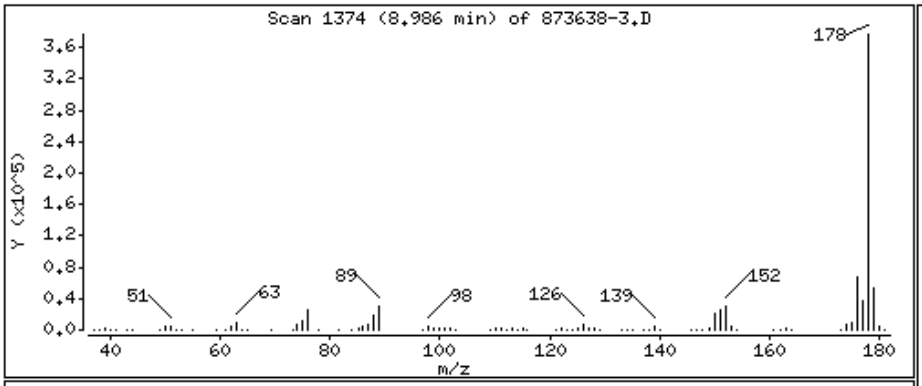
Operator: als

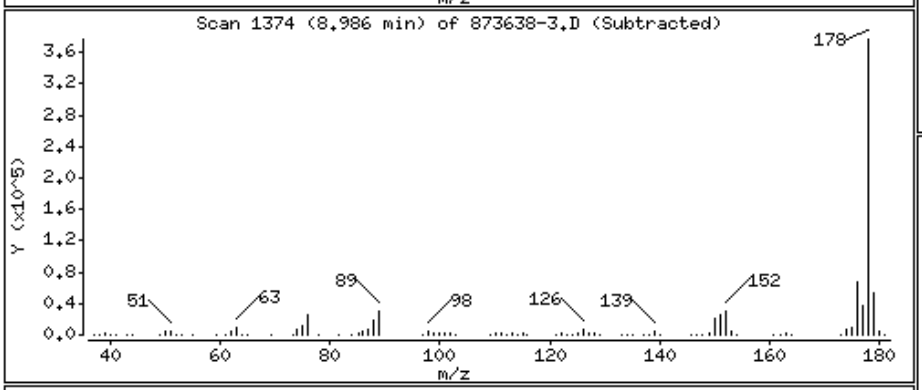
Column phase: RTx-5

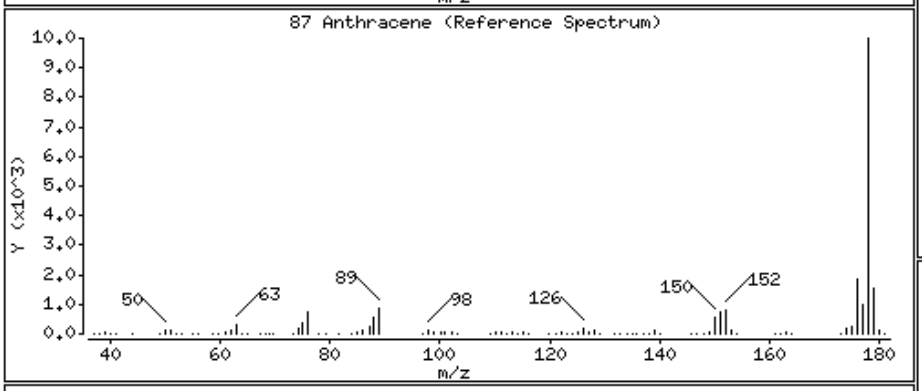
Column diameter: 0.32

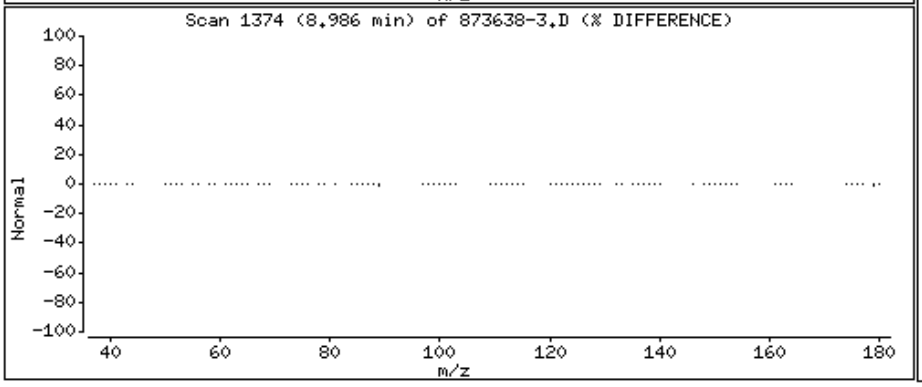
87 Anthracene

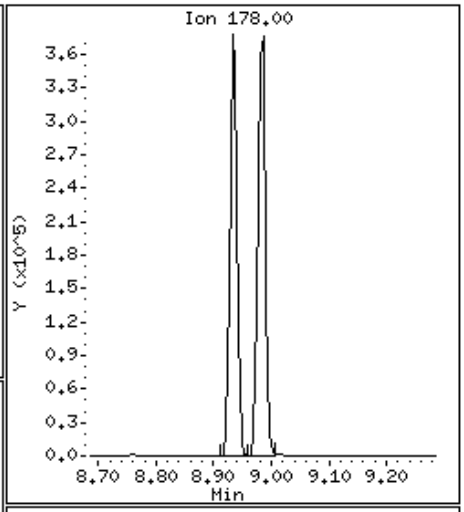
Concentration: 27.8 ug/L

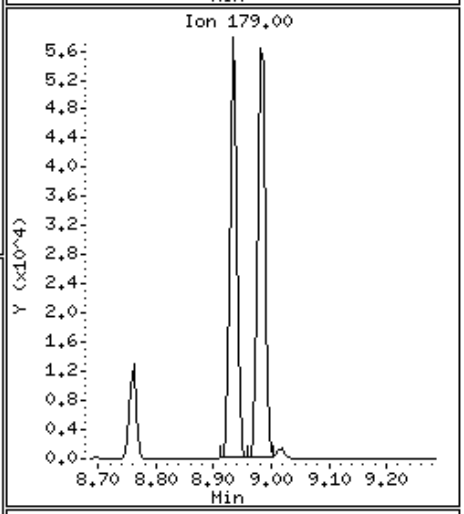


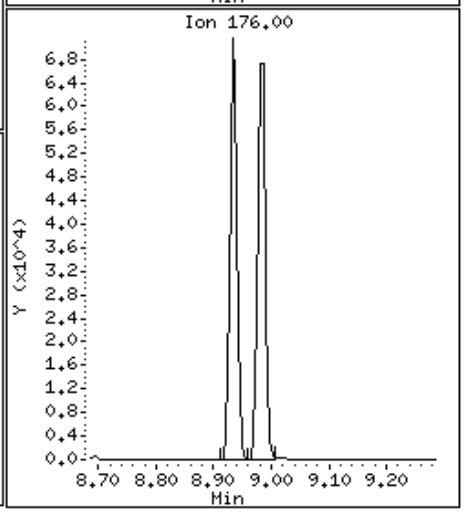












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

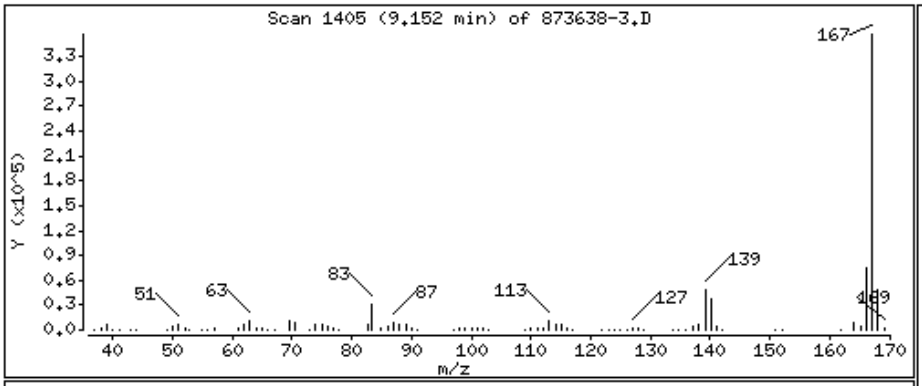
Operator: als

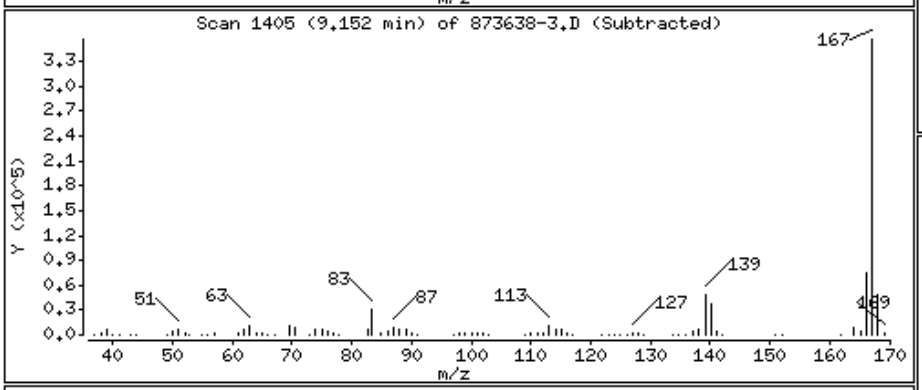
Column phase: RTx-5

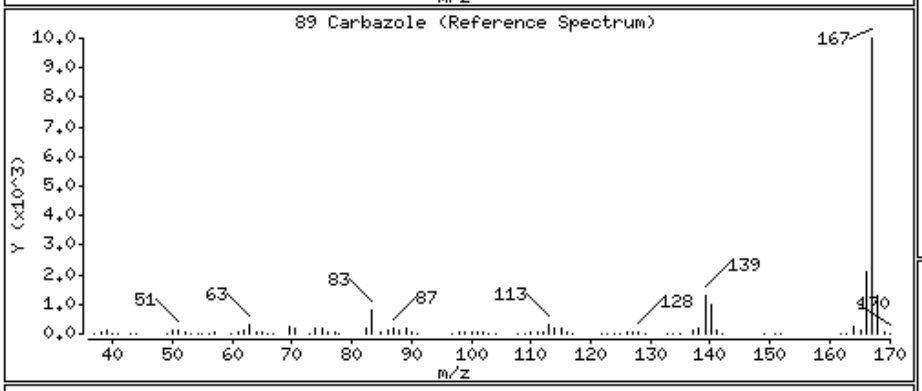
Column diameter: 0.32

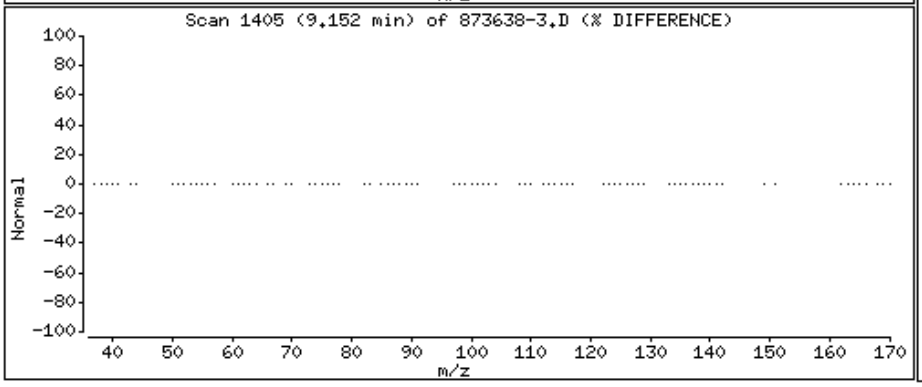
89 Carbazole

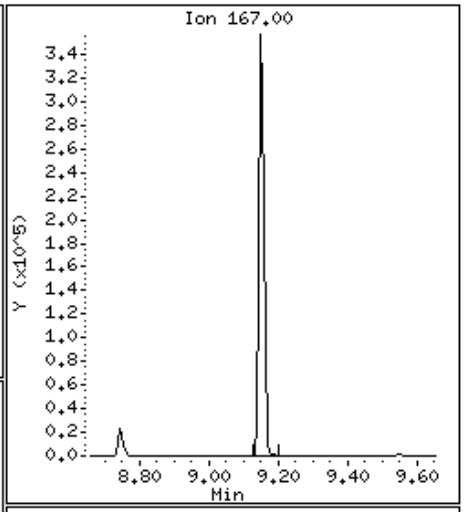
Concentration: 27.4 ug/L

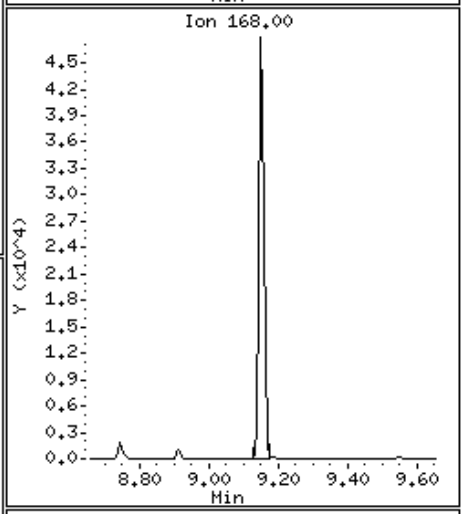


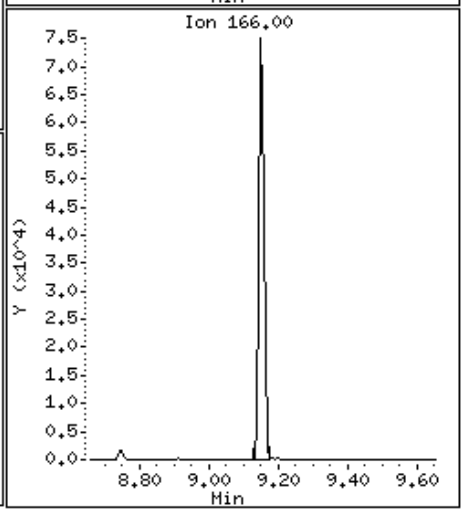












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

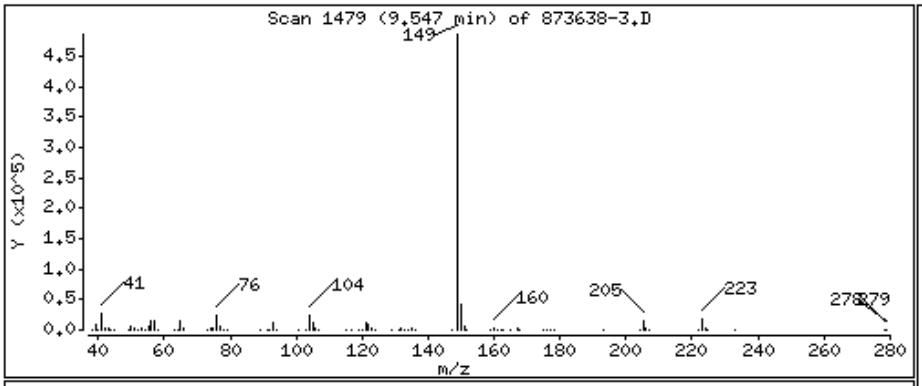
Operator: als

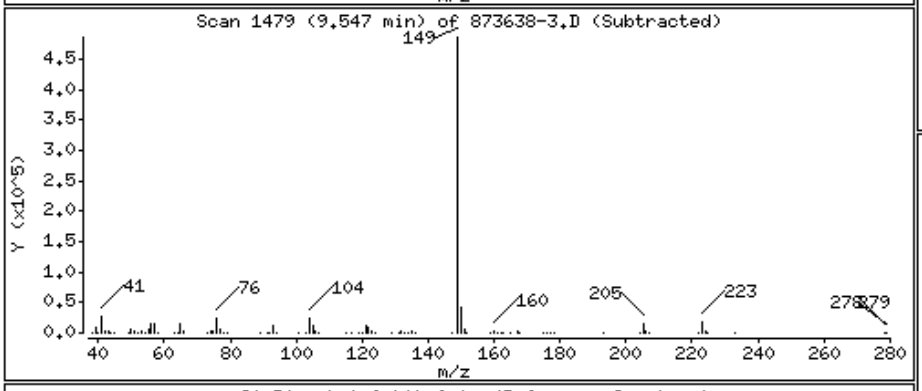
Column phase: RTx-5

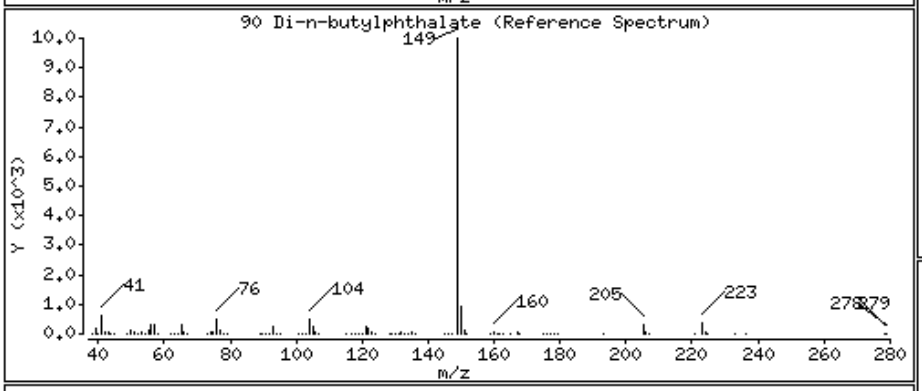
Column diameter: 0.32

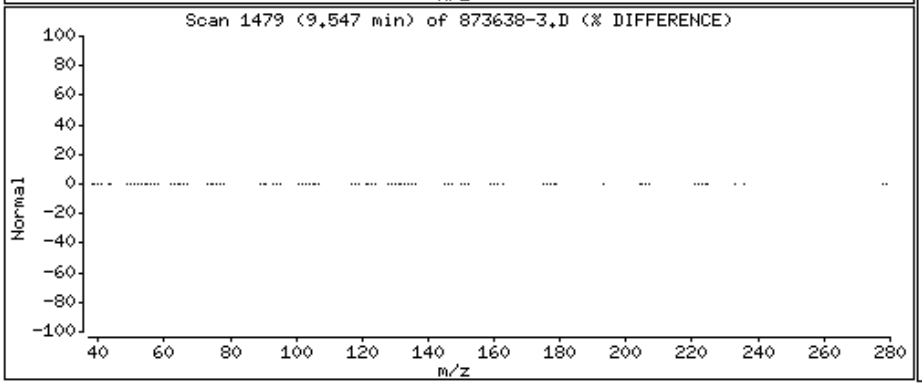
90 Di-n-butylphthalate

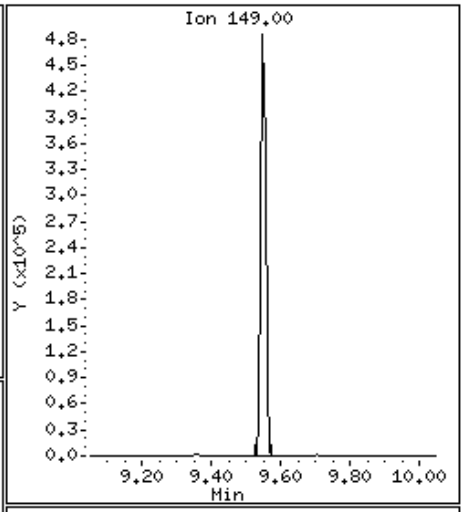
Concentration: 27.9 ug/L

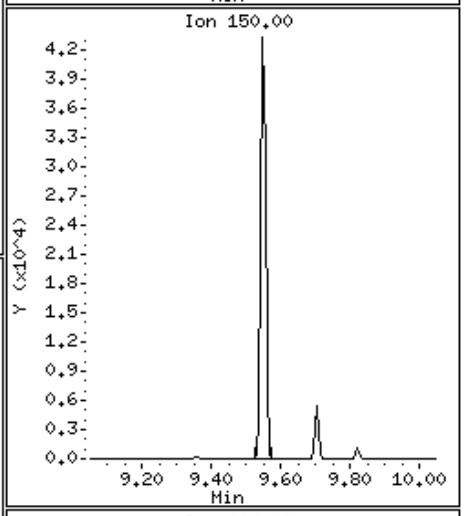


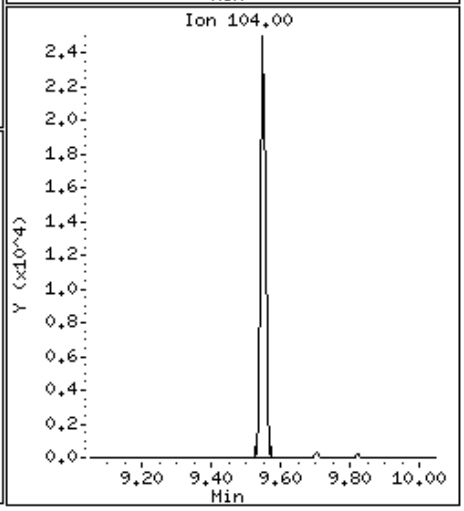












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

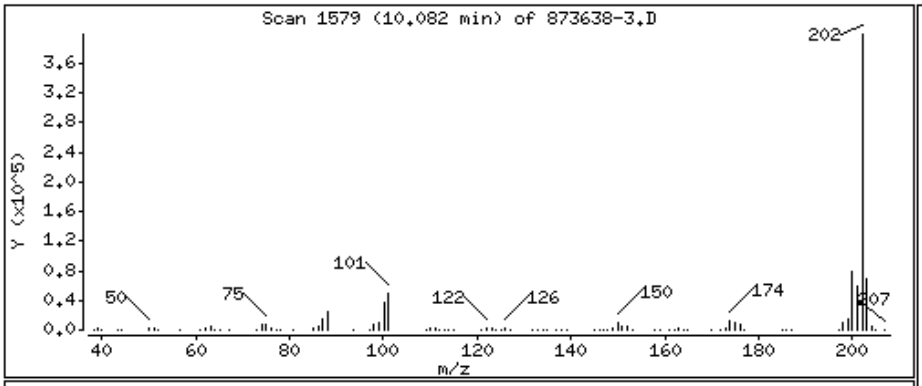
Operator: als

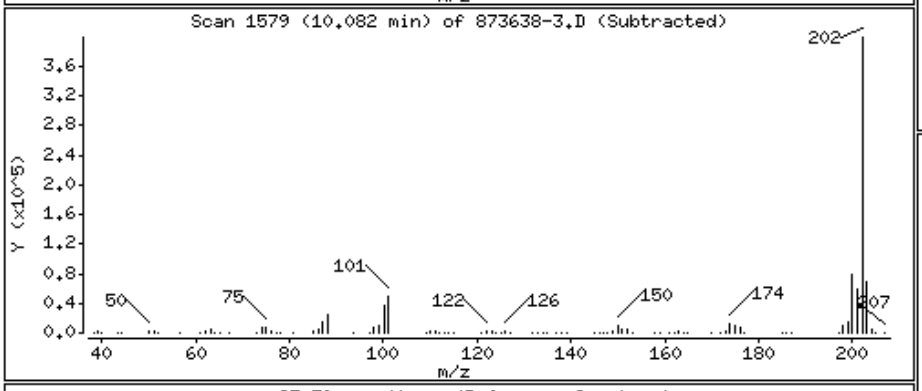
Column phase: RTx-5

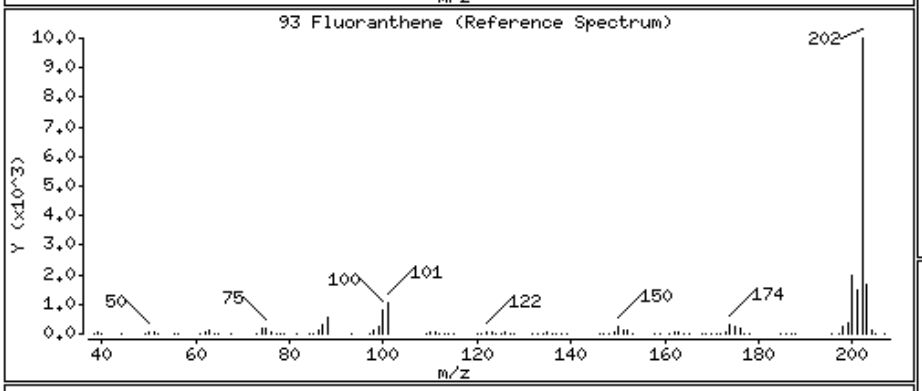
Column diameter: 0.32

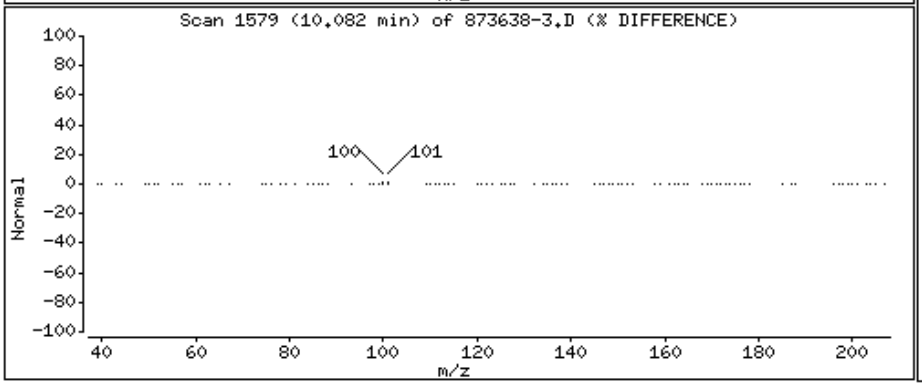
93 Fluoranthene

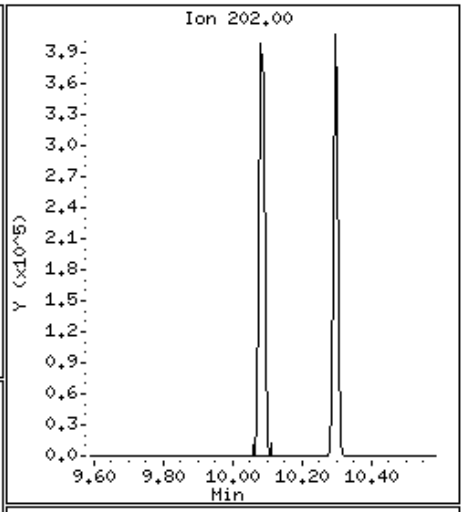
Concentration: 28.5 ug/L

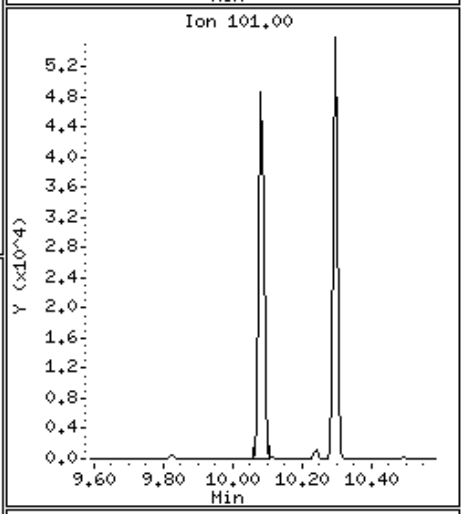


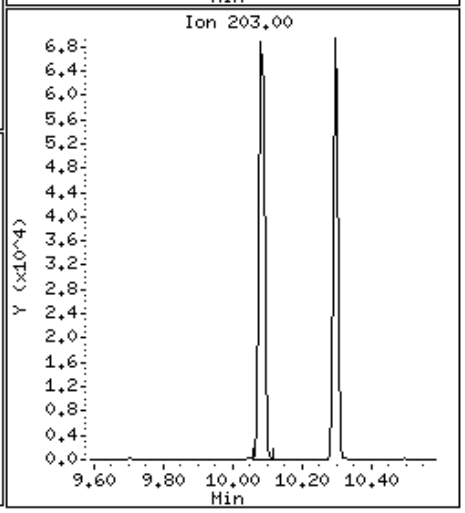












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

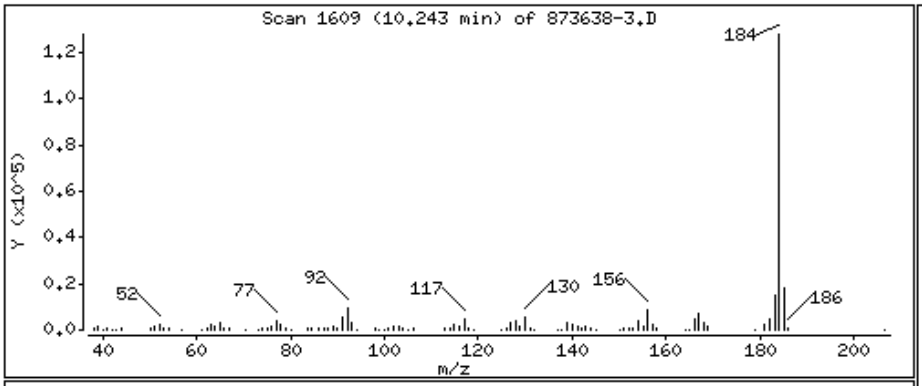
Operator: als

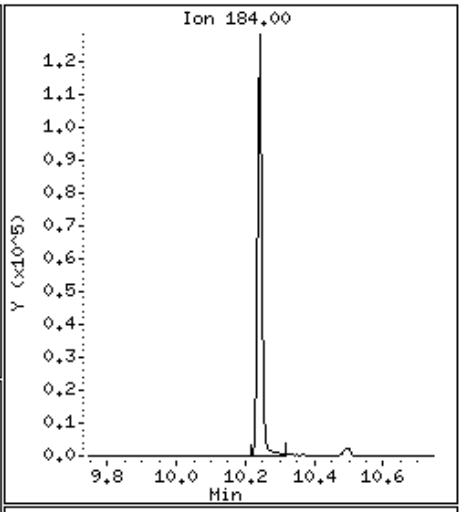
Column phase: RTx-5

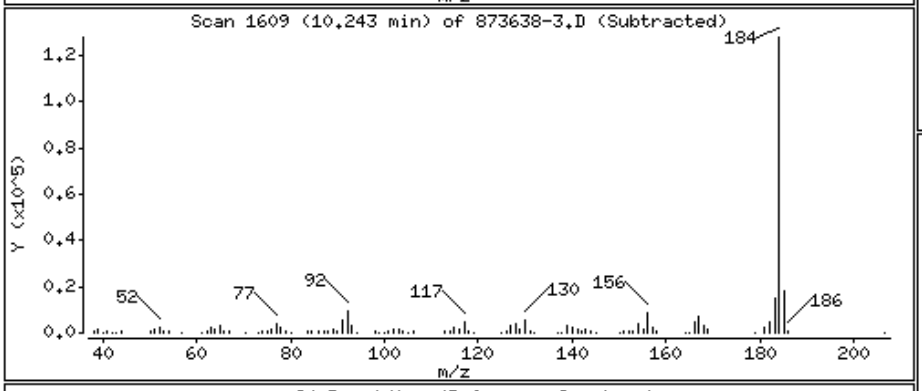
Column diameter: 0.32

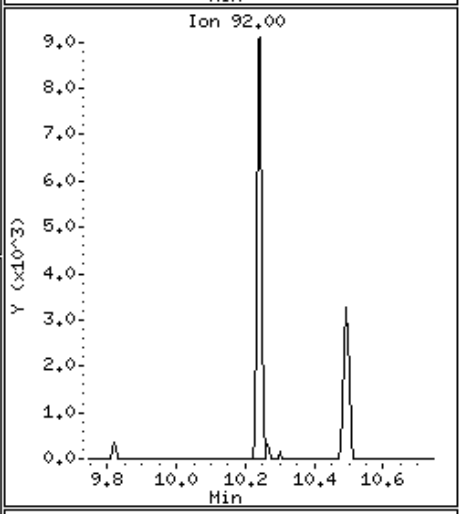
94 Benzidine

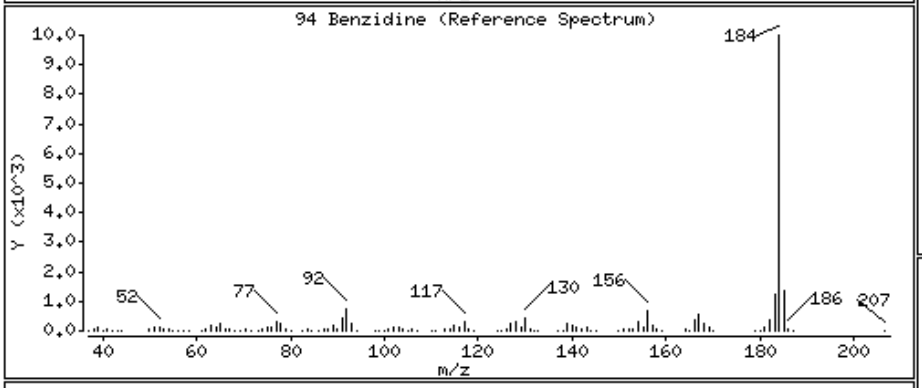
Concentration: 14.4 ug/L

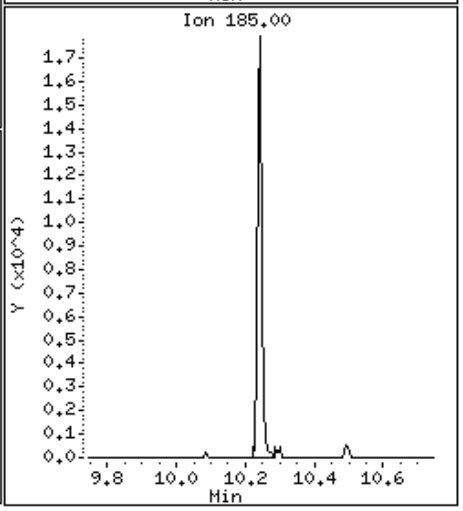


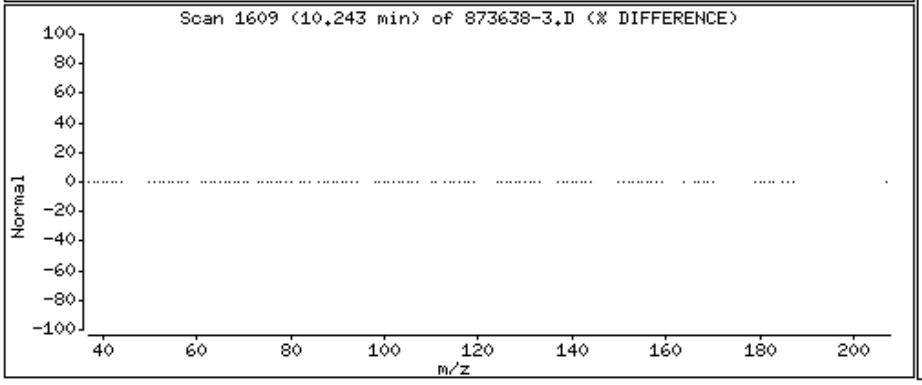












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

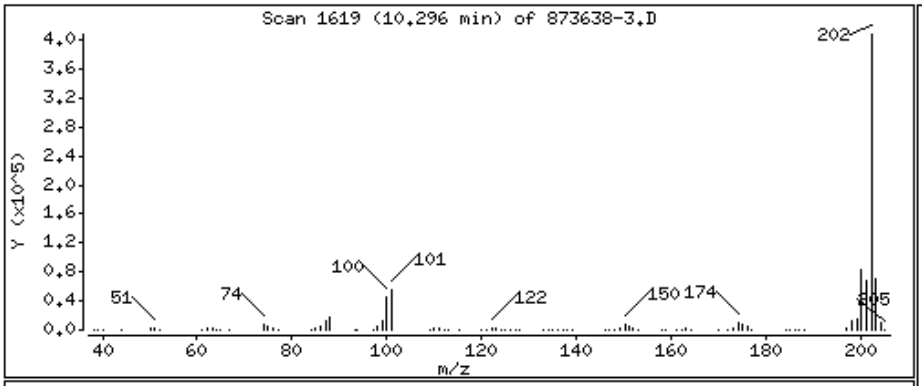
Operator: als

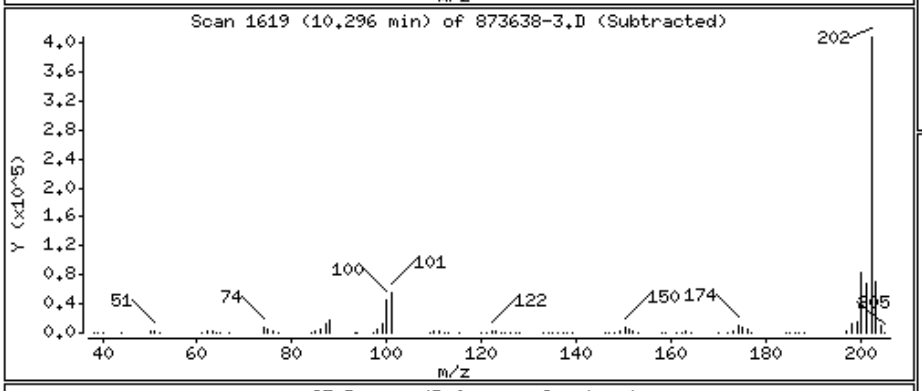
Column phase: RTx-5

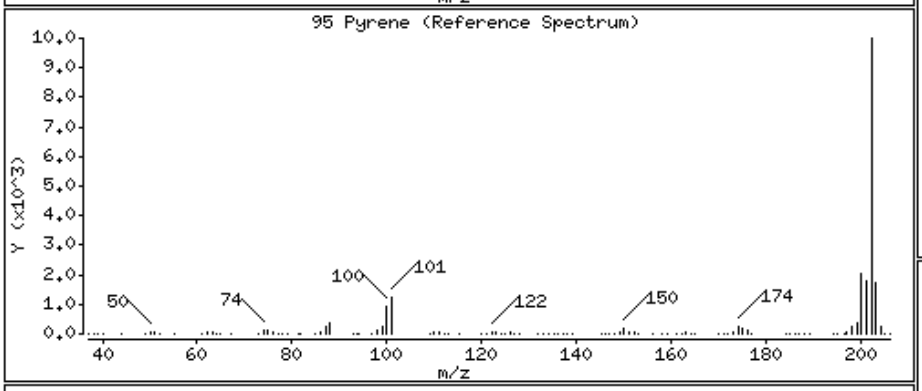
Column diameter: 0.32

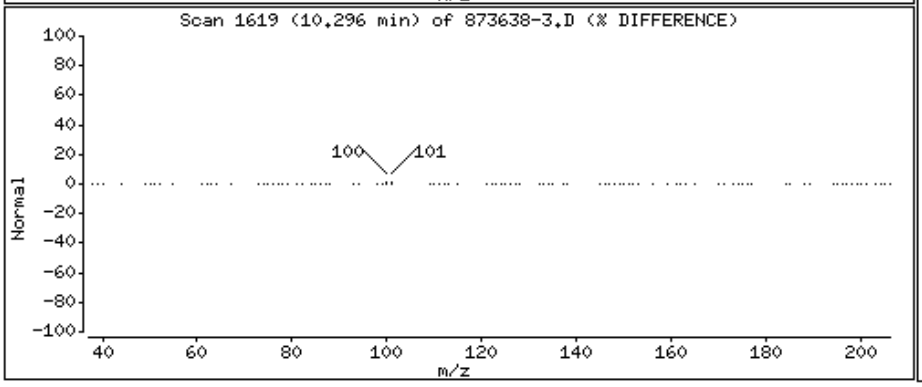
95 Pyrene

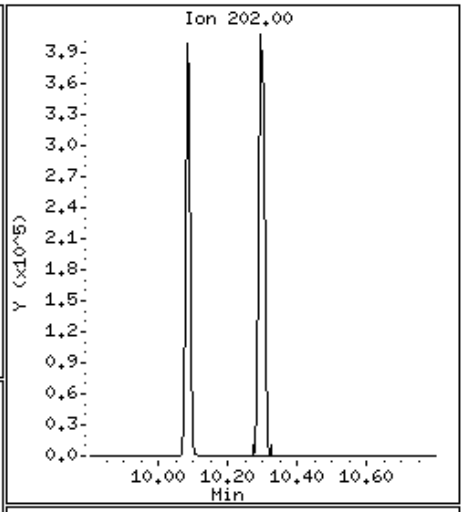
Concentration: 28.3 ug/L

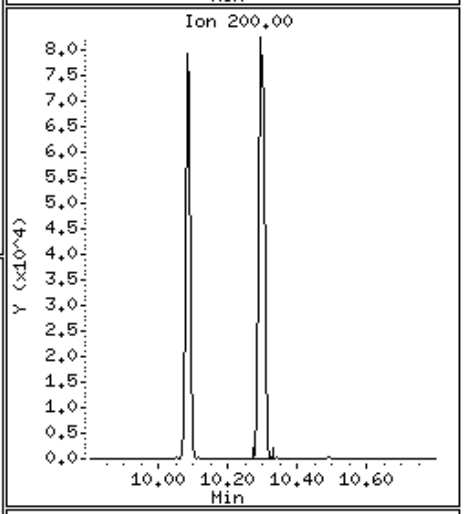


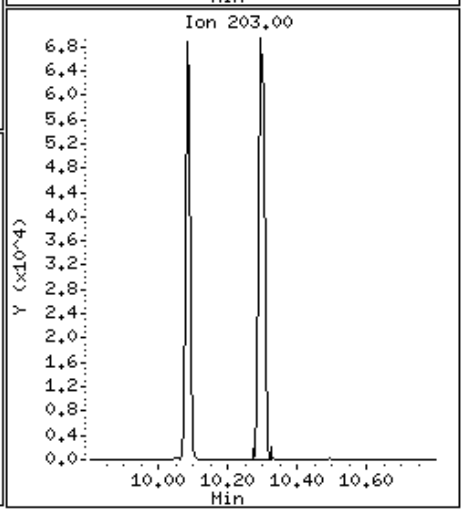












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

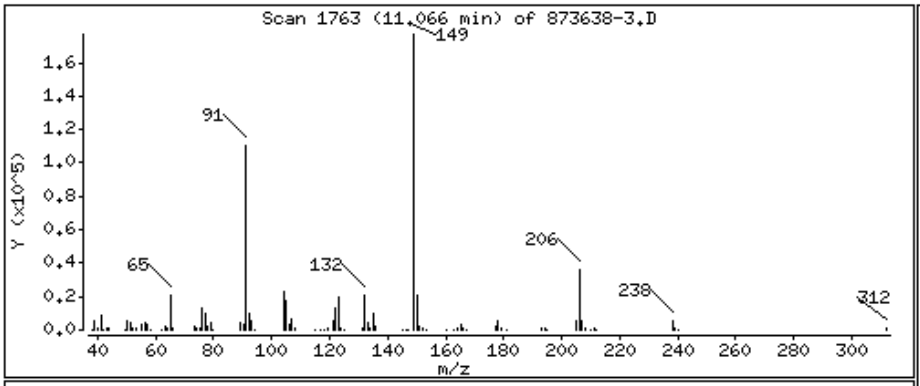
Operator: als

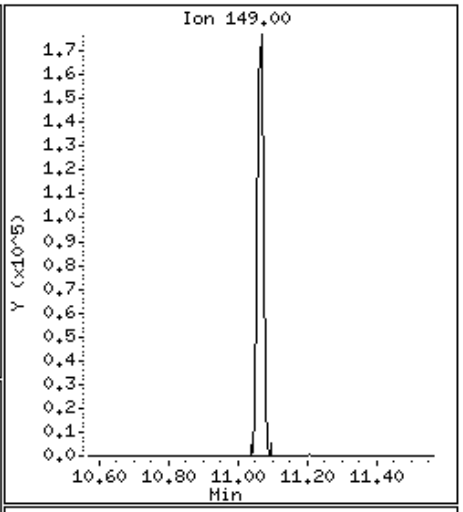
Column phase: RTx-5

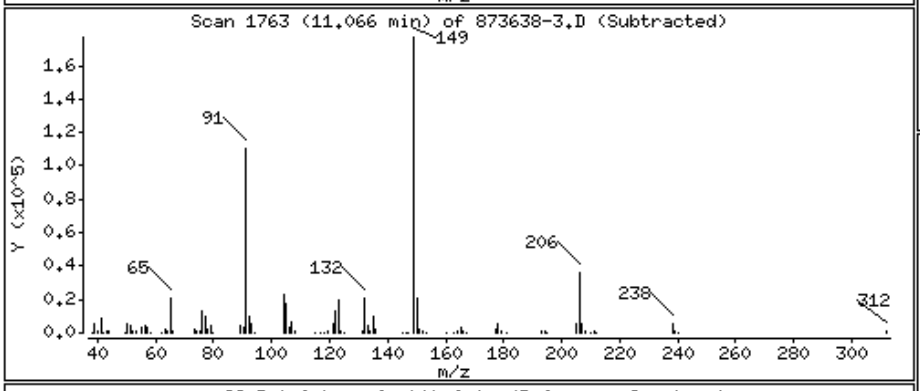
Column diameter: 0.32

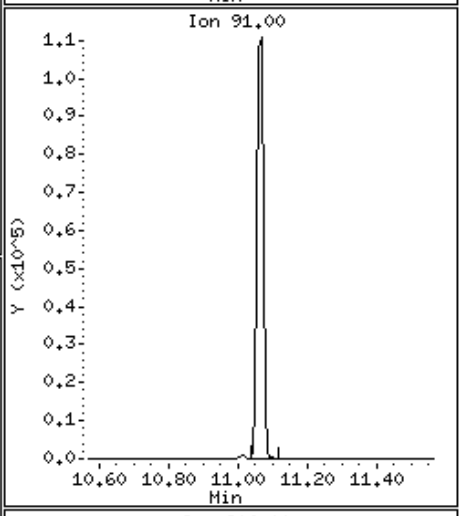
98 Butyl benzyl phthalate

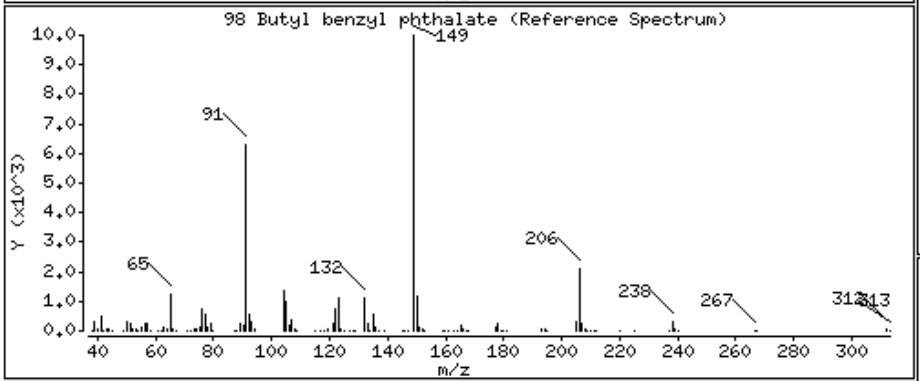
Concentration: 28.3 ug/L

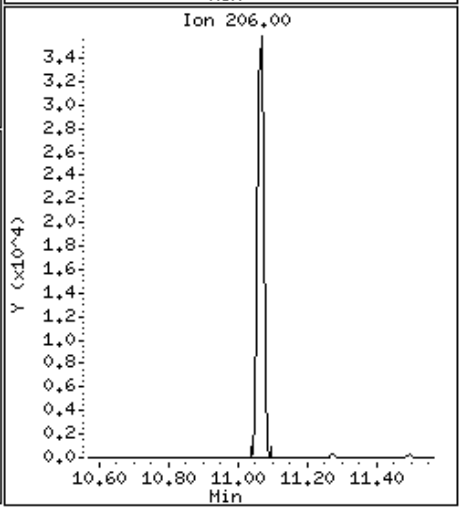


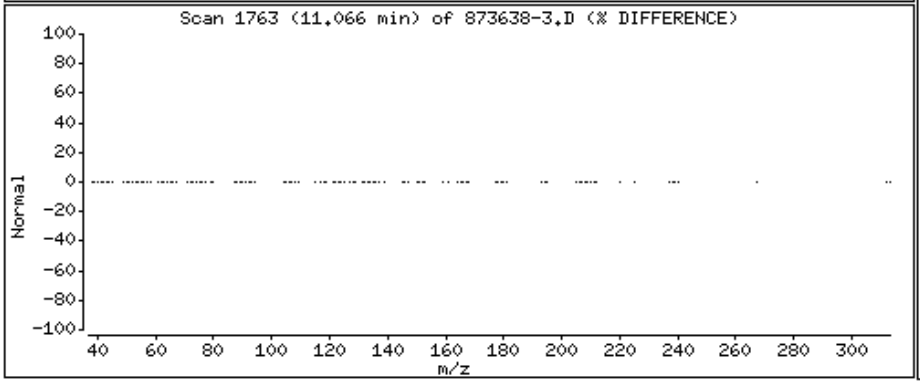












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

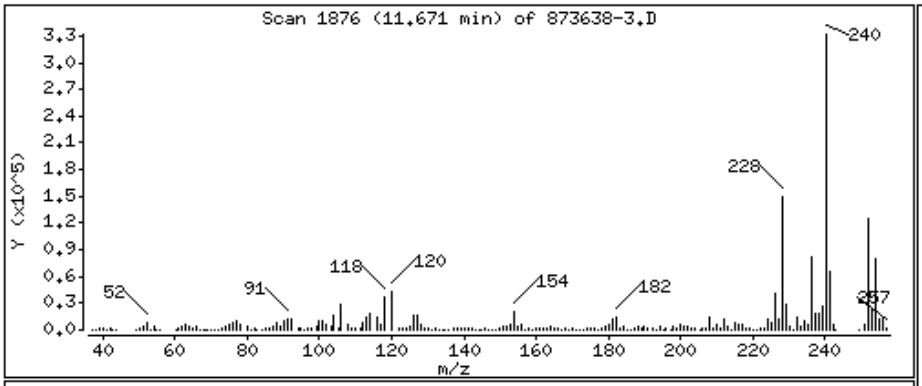
Operator: als

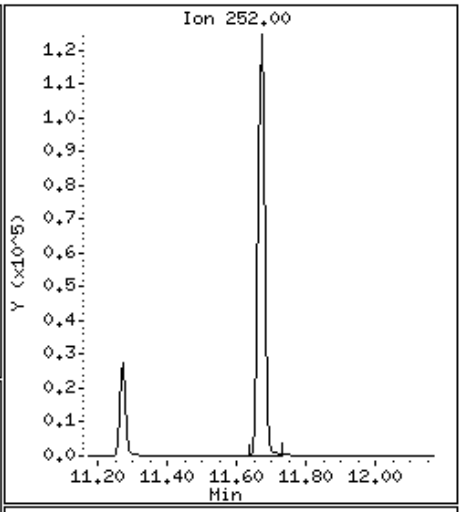
Column phase: RTx-5

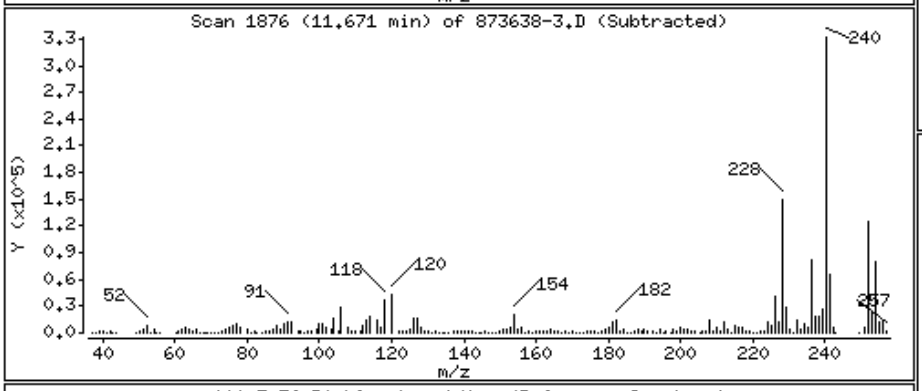
Column diameter: 0.32

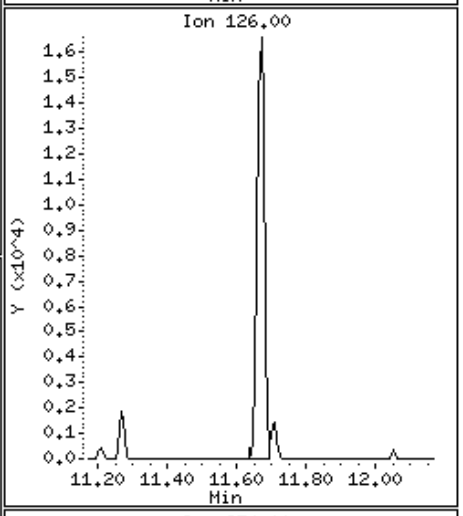
101 3,3'-Dichlorobenzidine

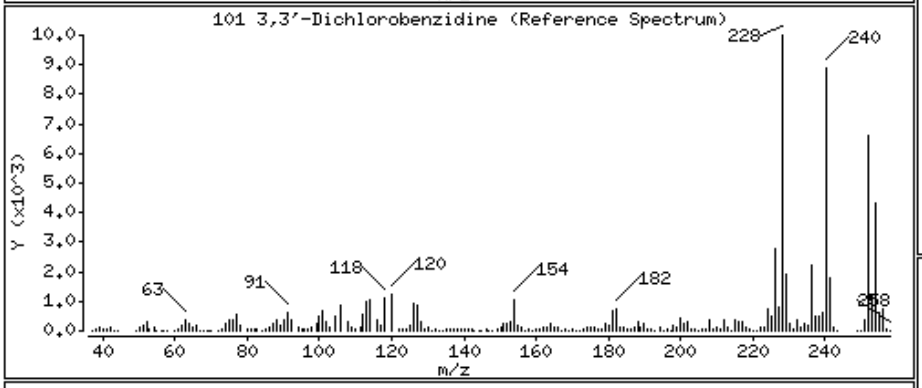
Concentration: 31.1 ug/L

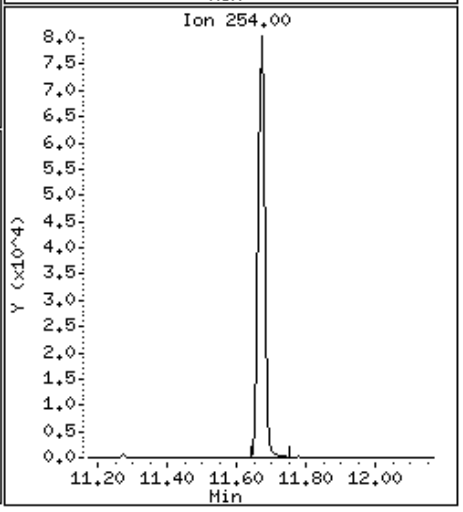


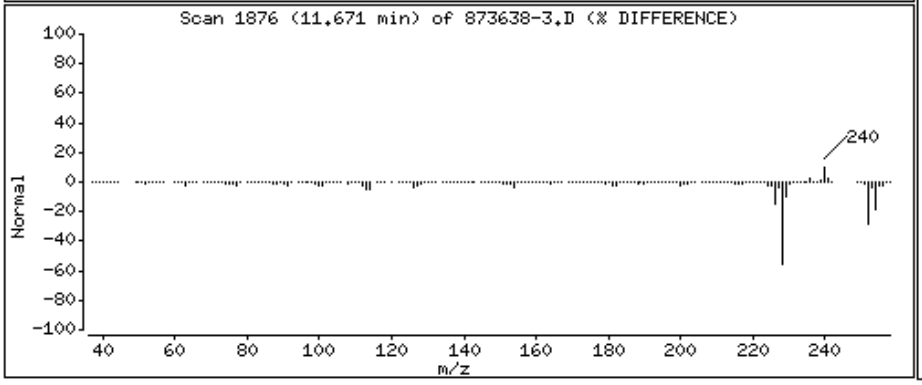












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

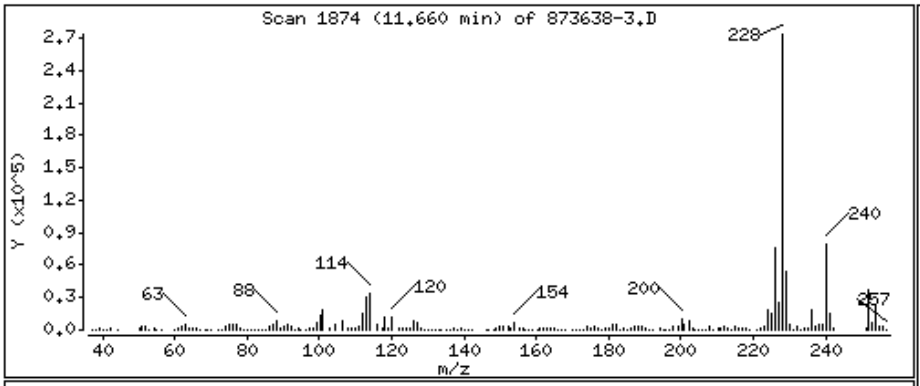
Operator: als

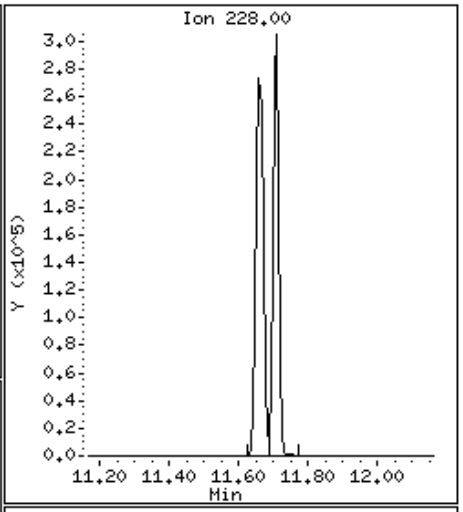
Column phase: RTx-5

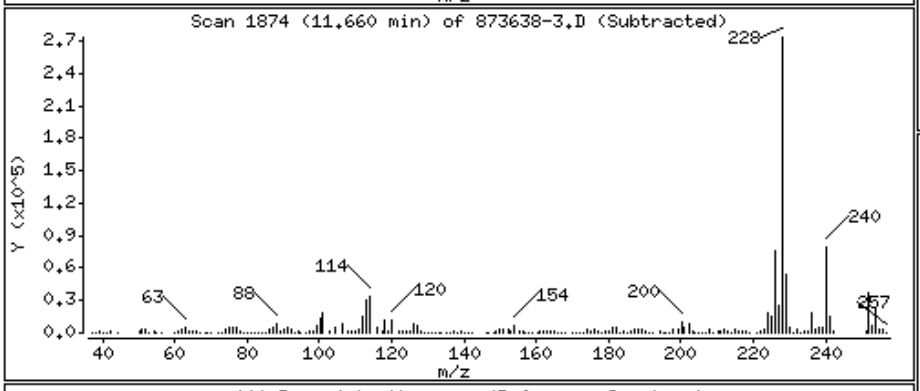
Column diameter: 0.32

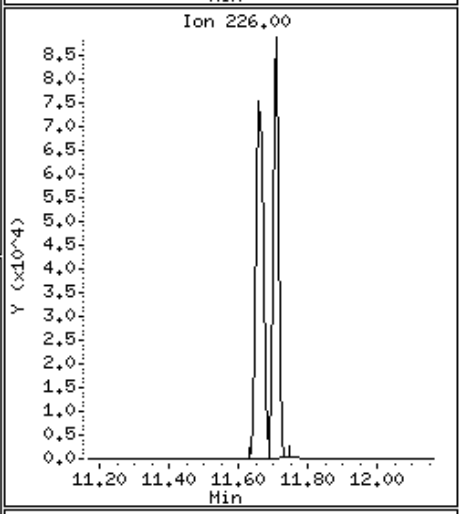
100 Benzo(a)anthracene

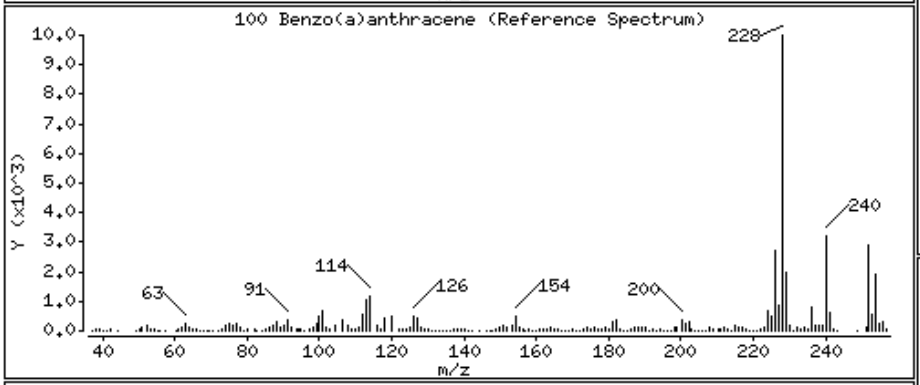
Concentration: 27.2 ug/L

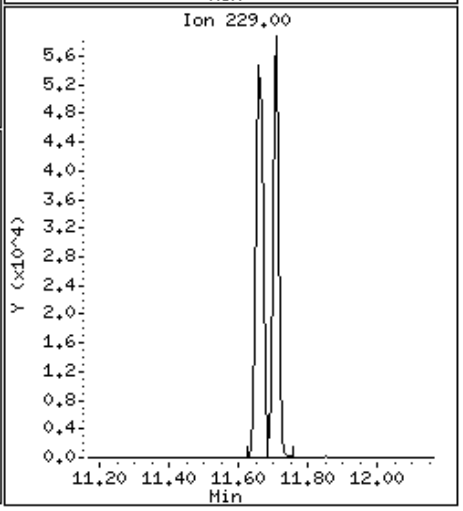


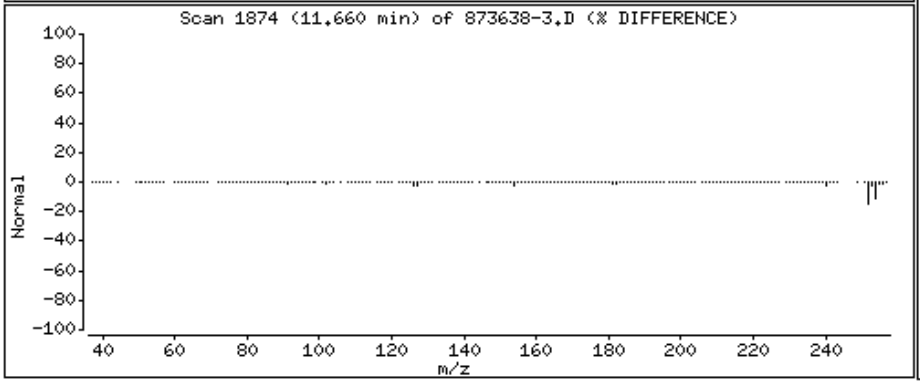












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

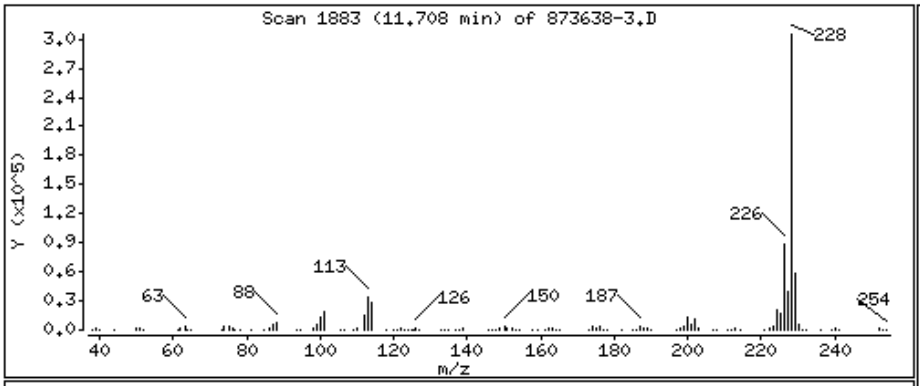
Operator: als

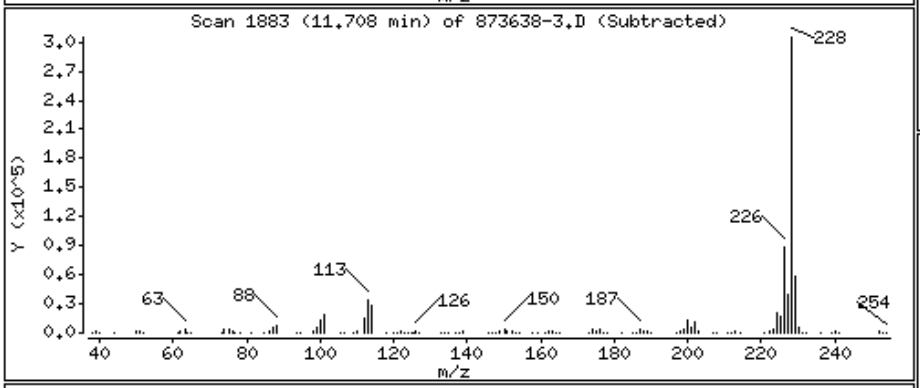
Column phase: RTx-5

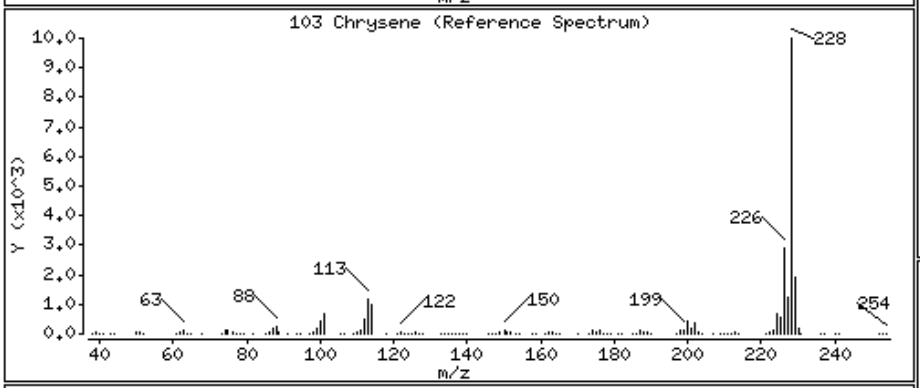
Column diameter: 0.32

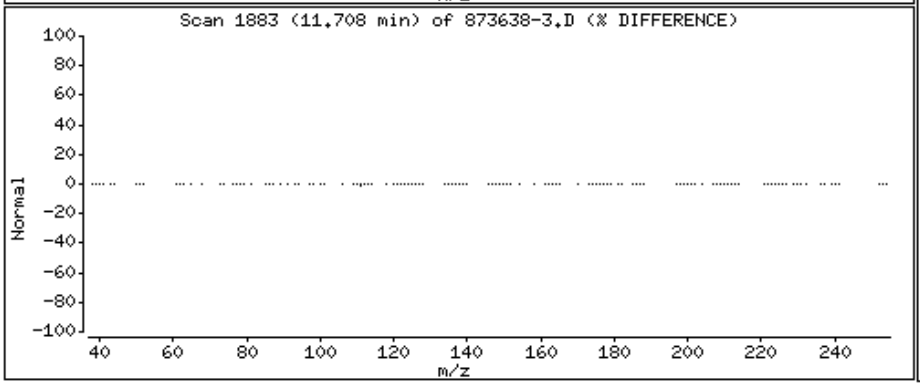
103 Chrysene

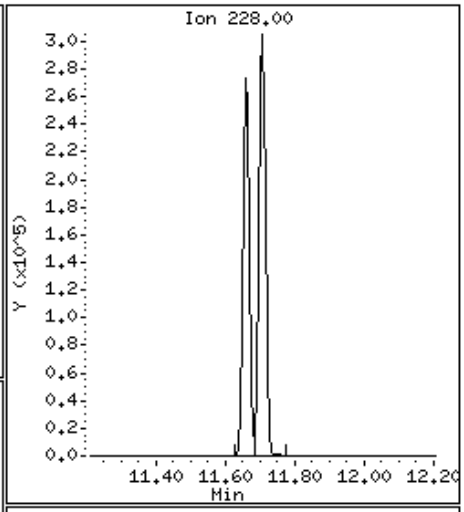
Concentration: 27.3 ug/L

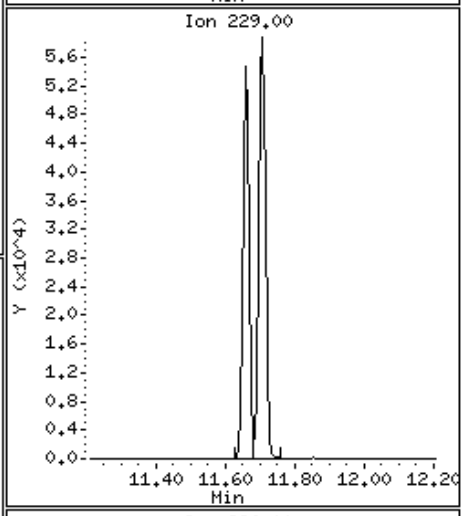


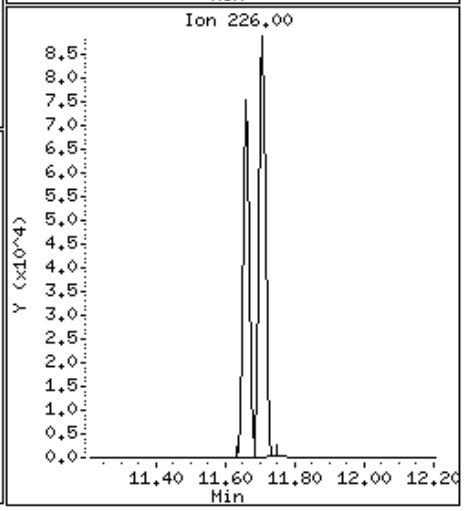












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

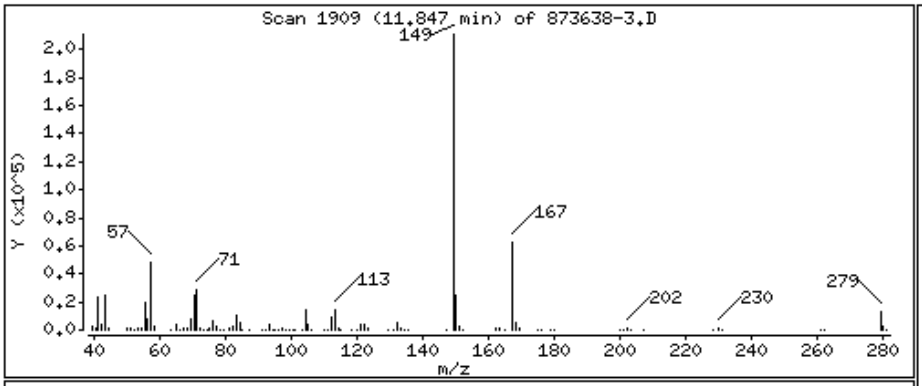
Operator: als

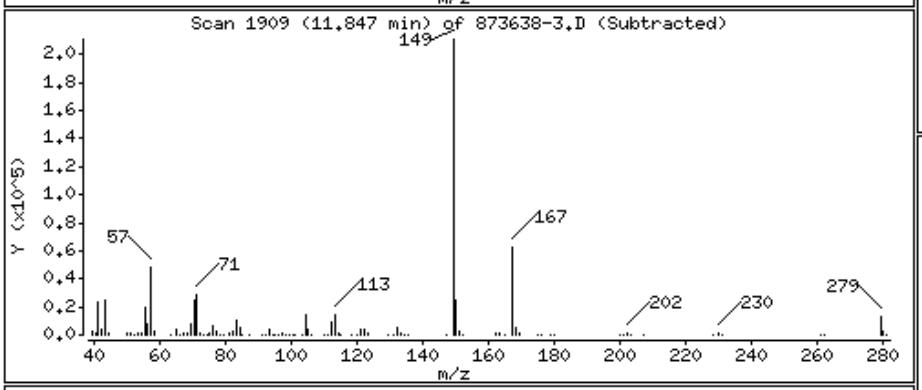
Column phase: RTx-5

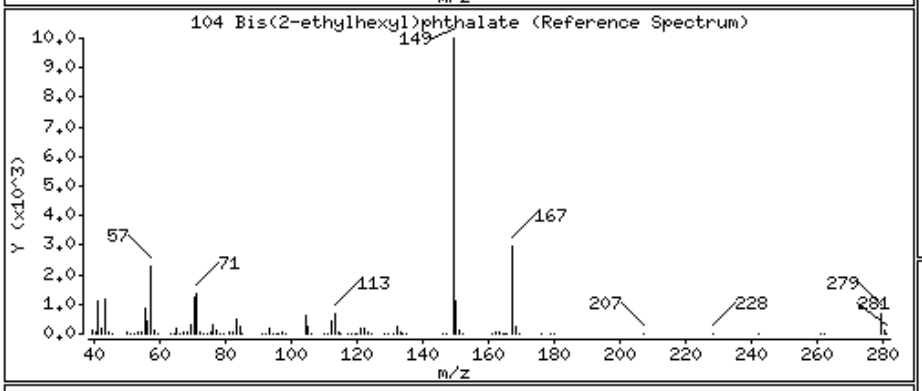
Column diameter: 0.32

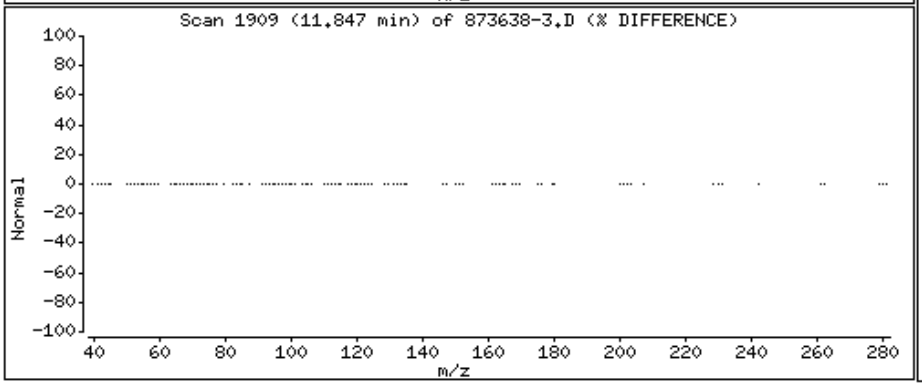
104 Bis(2-ethylhexyl)phthalate

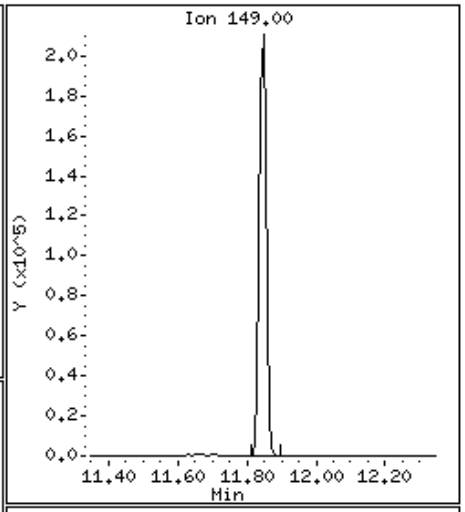
Concentration: 26.9 ug/L

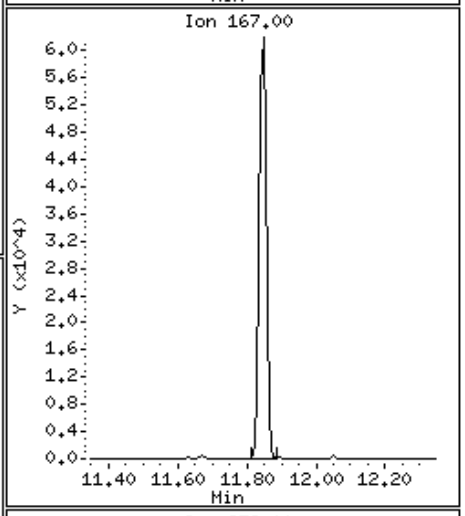


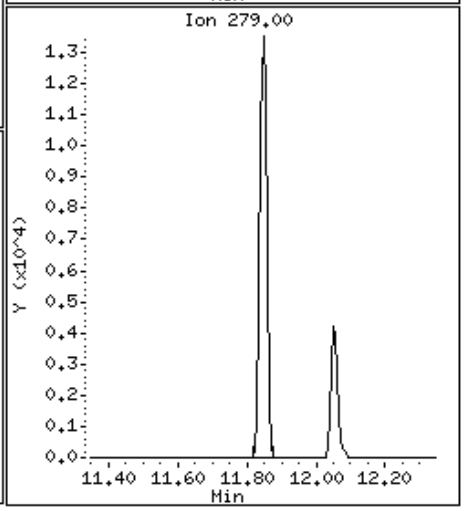












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

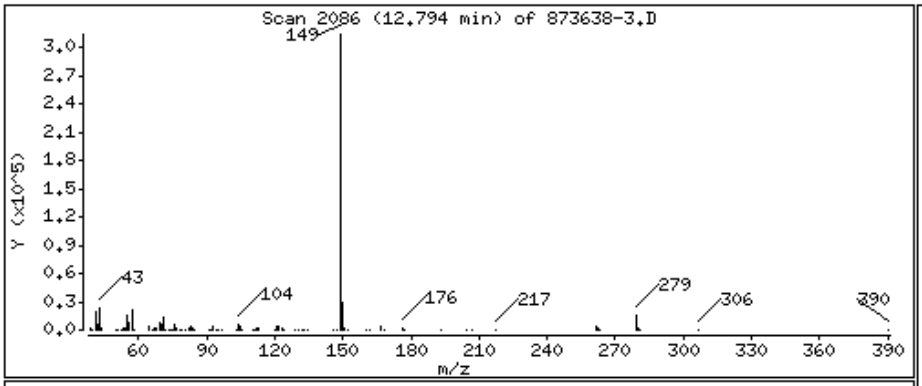
Operator: als

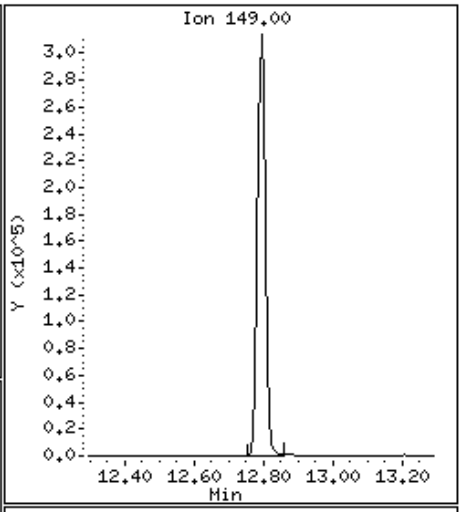
Column phase: RTx-5

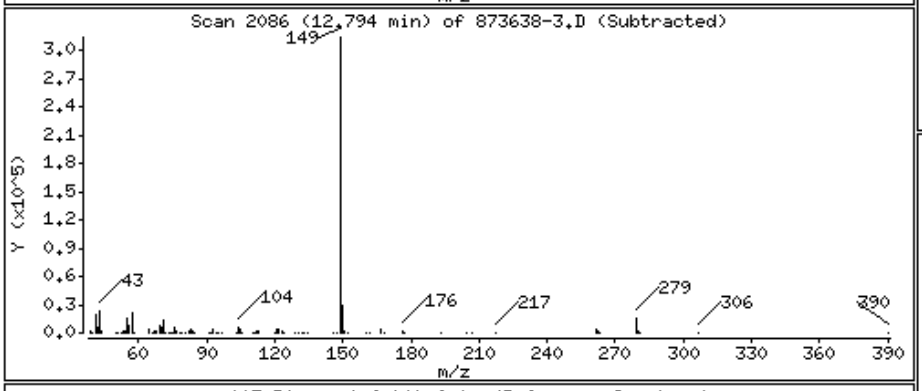
Column diameter: 0.32

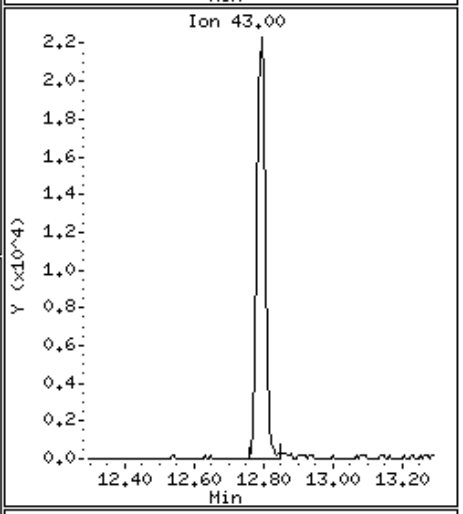
105 Di-n-octylphthalate

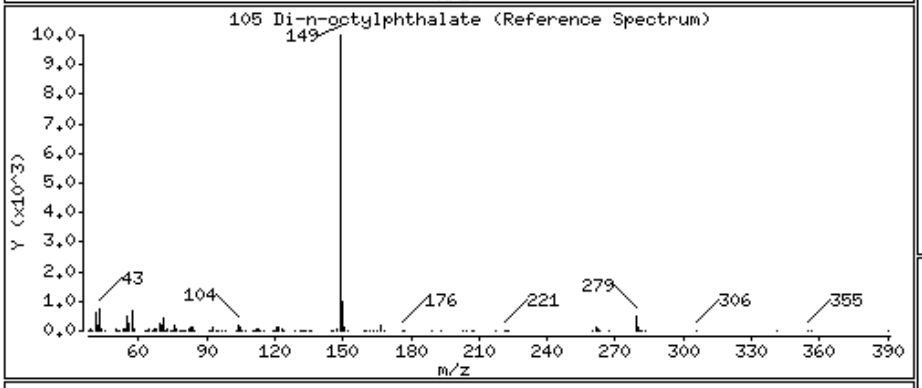
Concentration: 27.9 ug/L

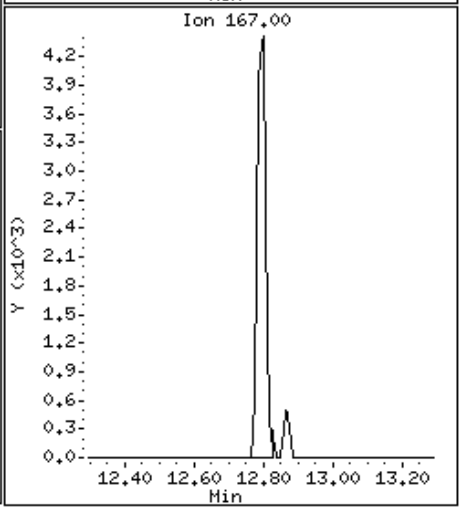


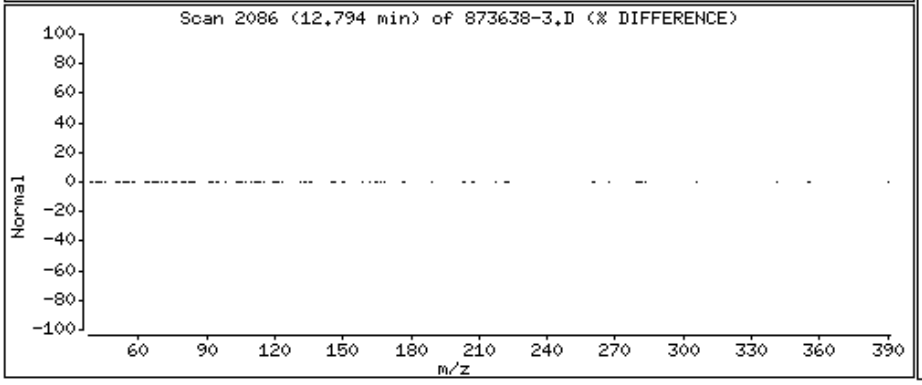












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

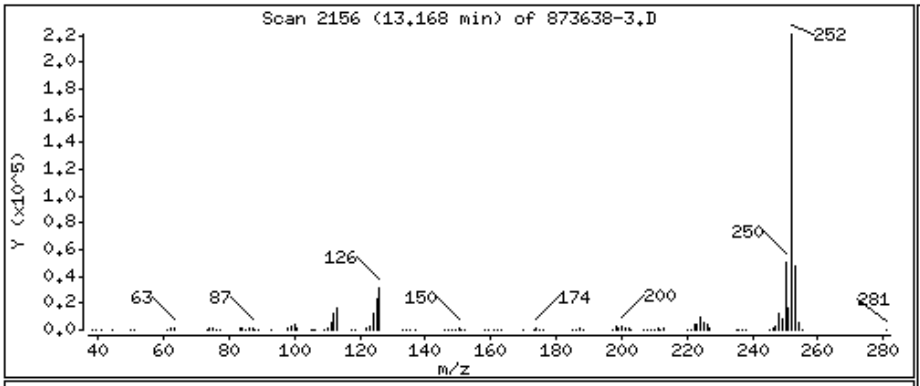
Operator: als

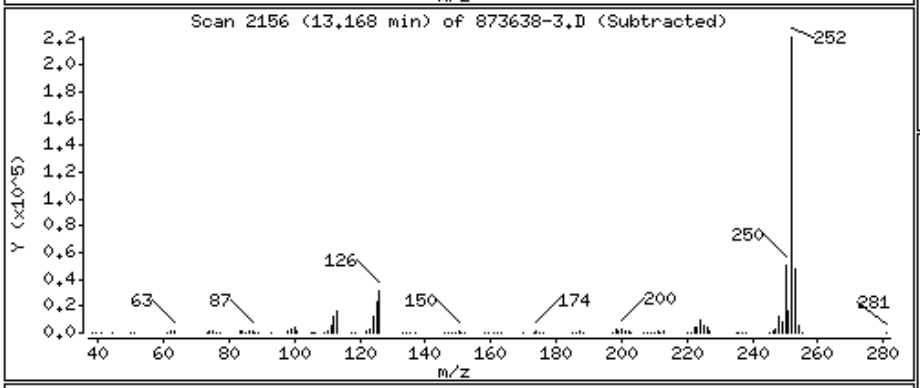
Column phase: RTx-5

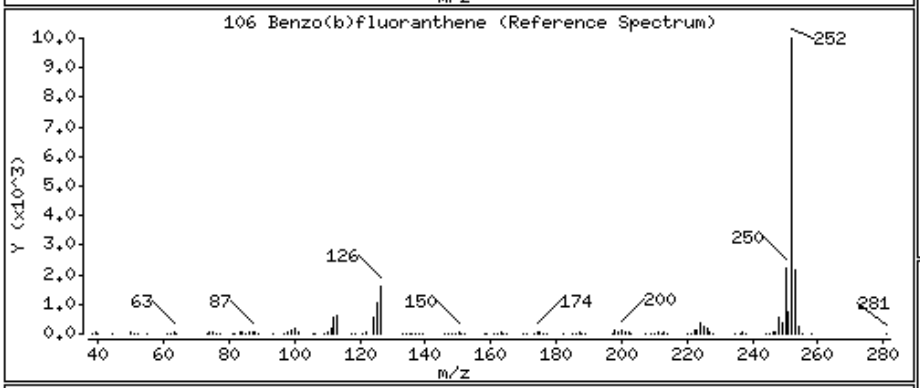
Column diameter: 0.32

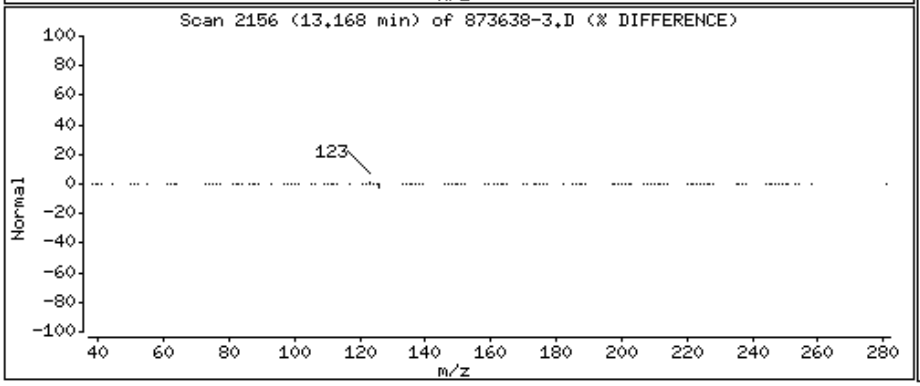
106 Benzo(b)fluoranthene

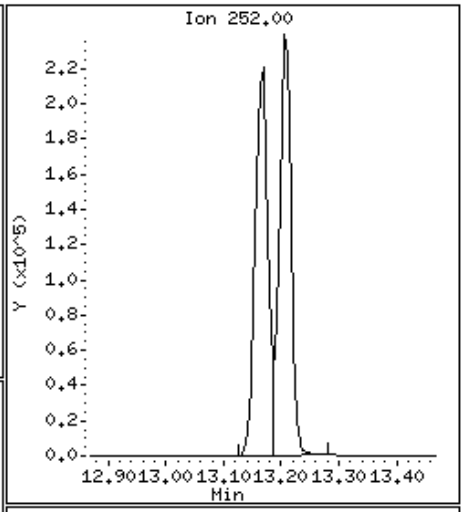
Concentration: 27.0 ug/L

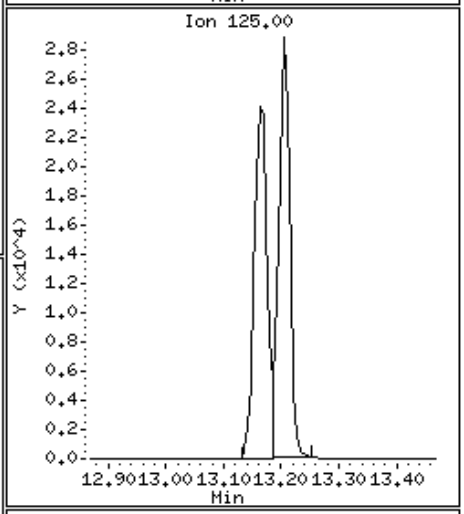


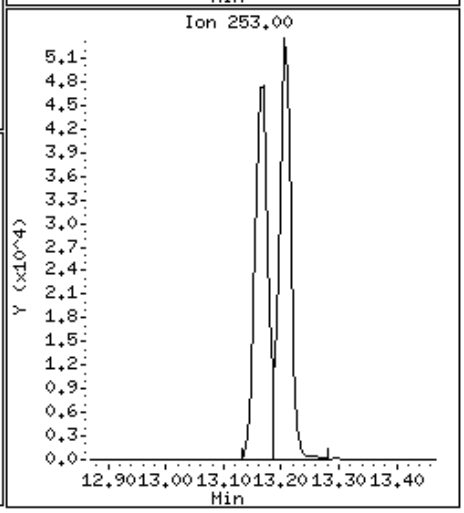












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

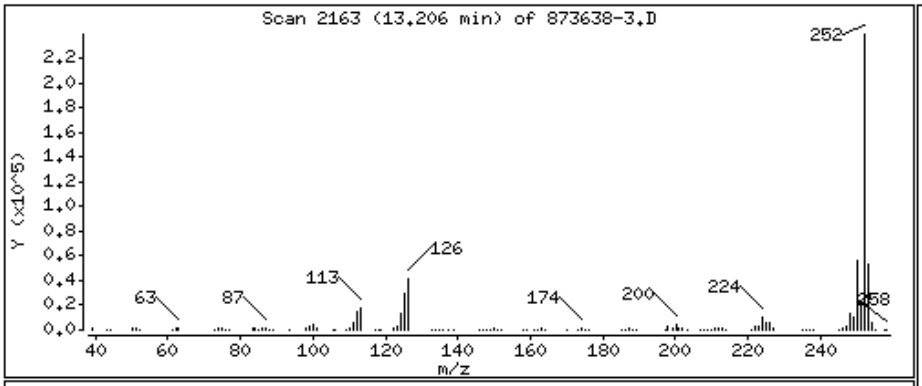
Operator: als

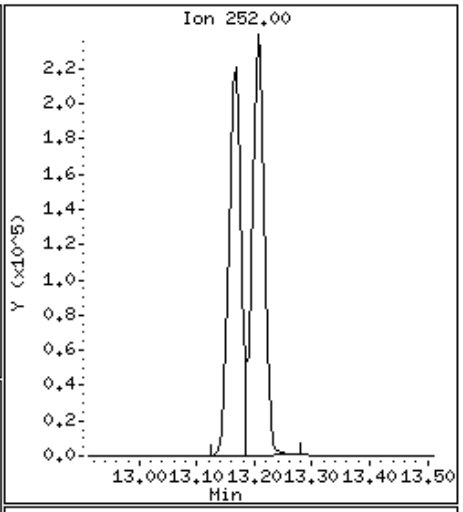
Column phase: RTx-5

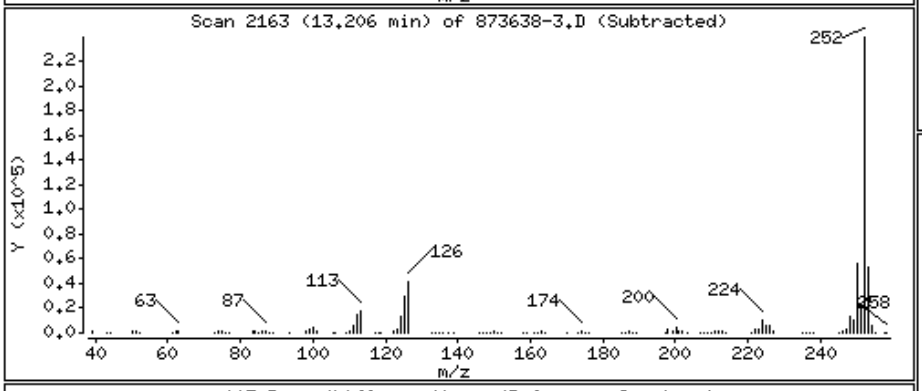
Column diameter: 0.32

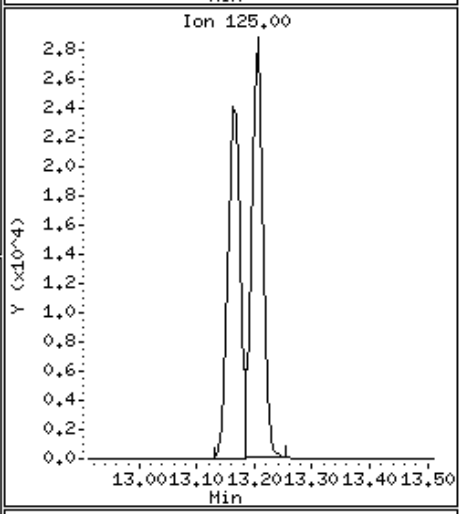
107 Benzo(k)fluoranthene

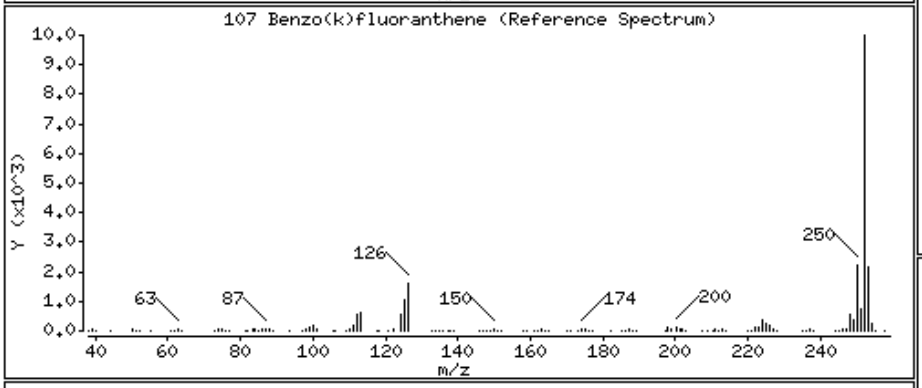
Concentration: 27.5 ug/L

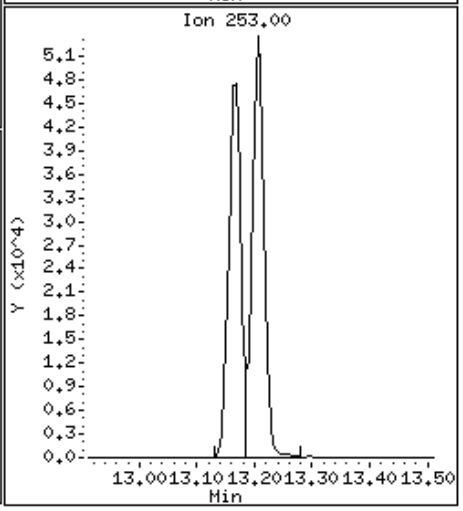


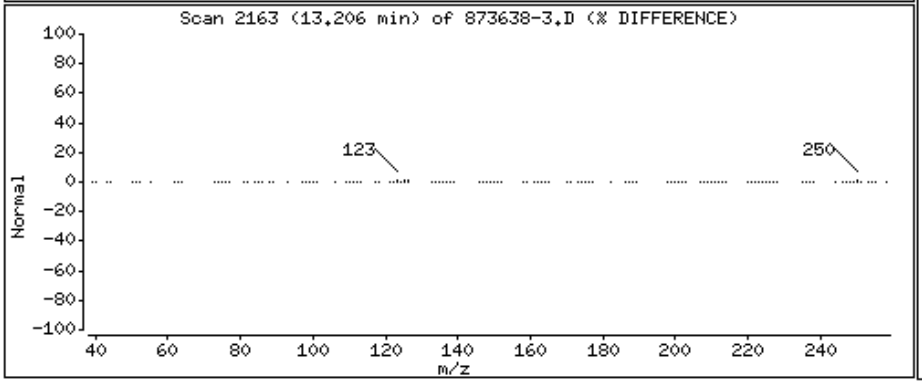












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

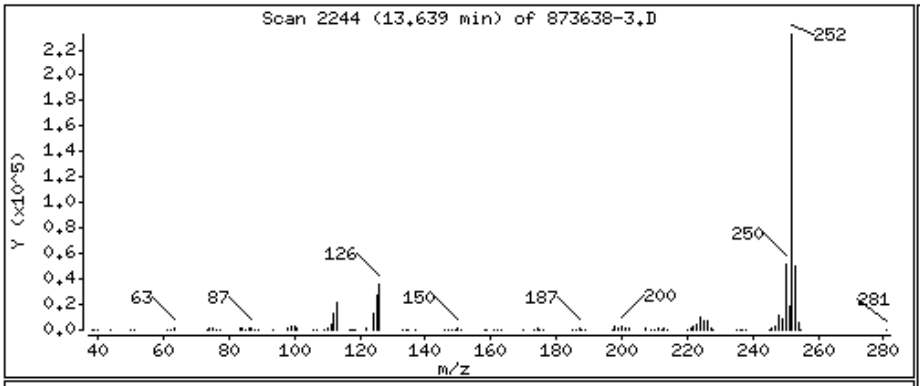
Operator: als

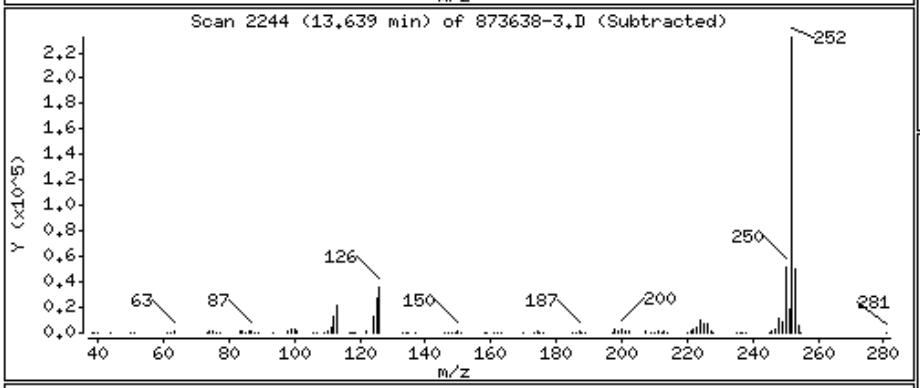
Column phase: RTx-5

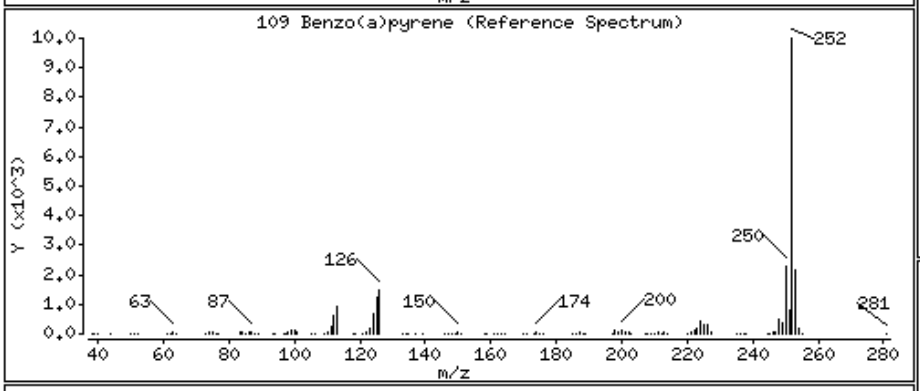
Column diameter: 0.32

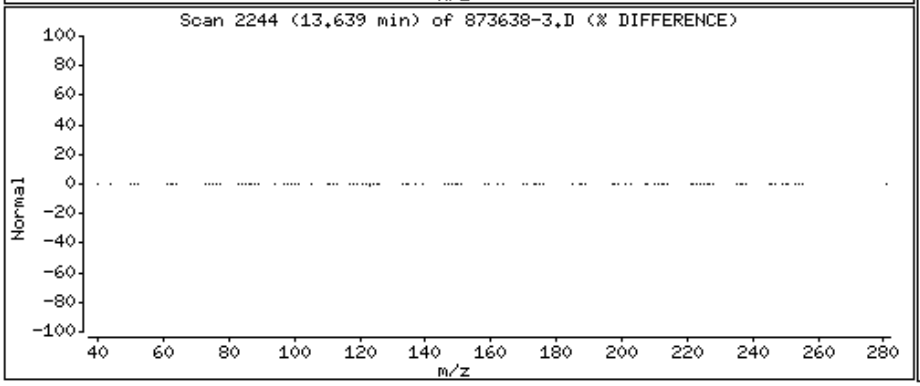
109 Benzo(a)pyrene

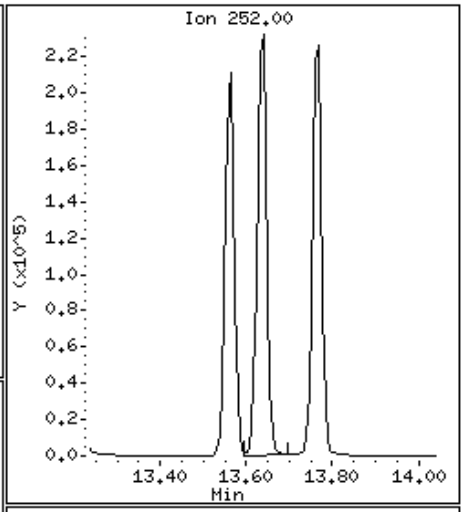
Concentration: 29.3 ug/L

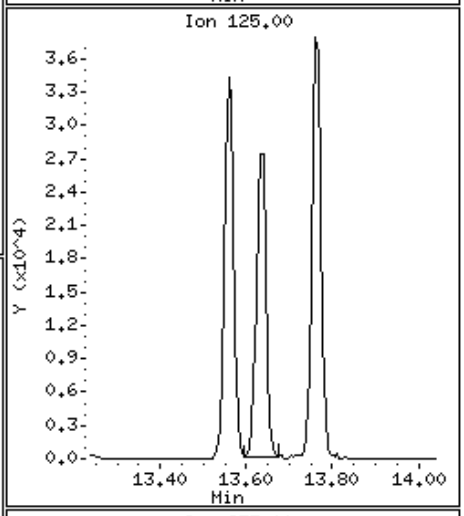


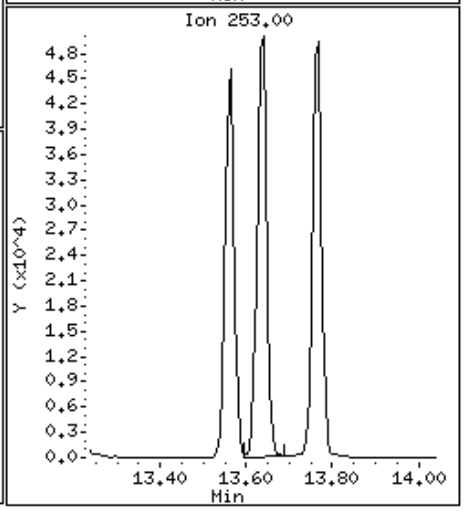












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

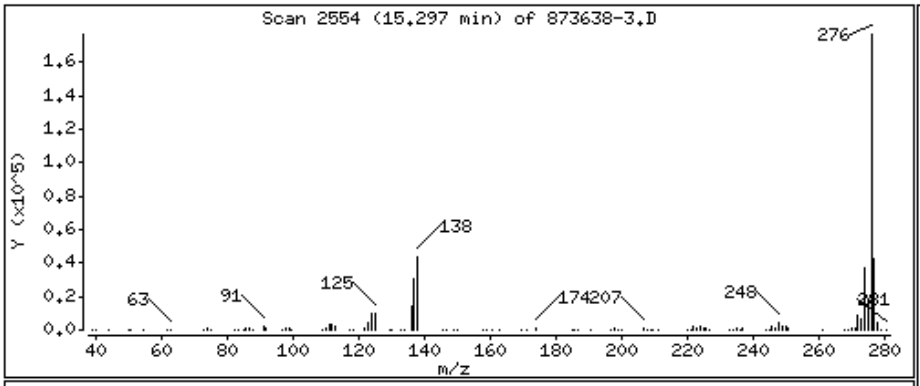
Operator: als

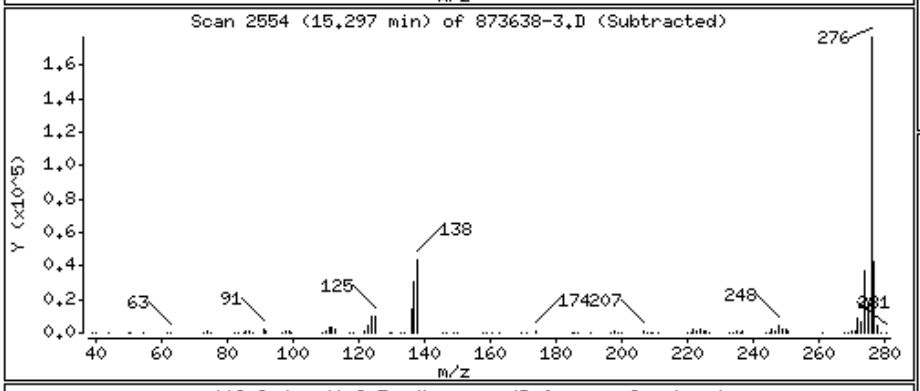
Column phase: RTx-5

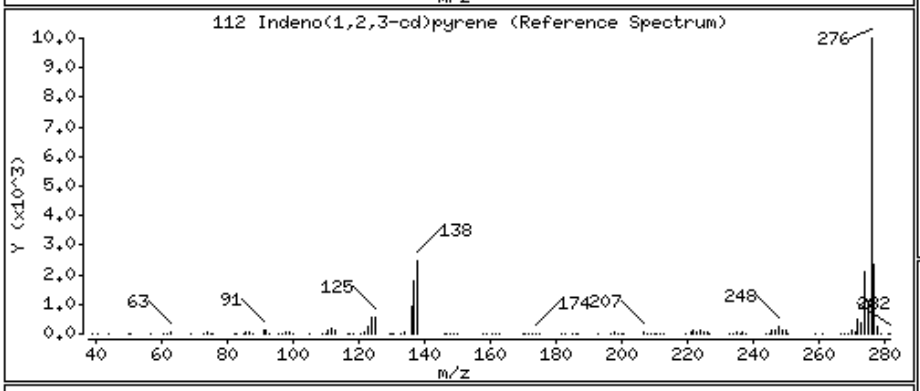
Column diameter: 0.32

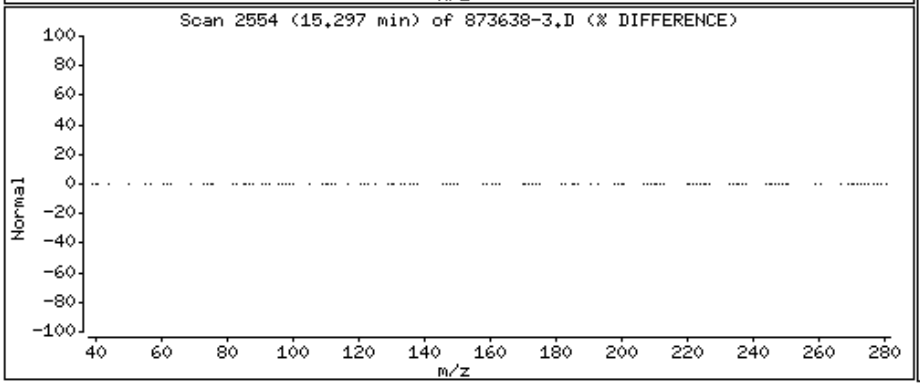
112 Indeno(1,2,3-cd)pyrene

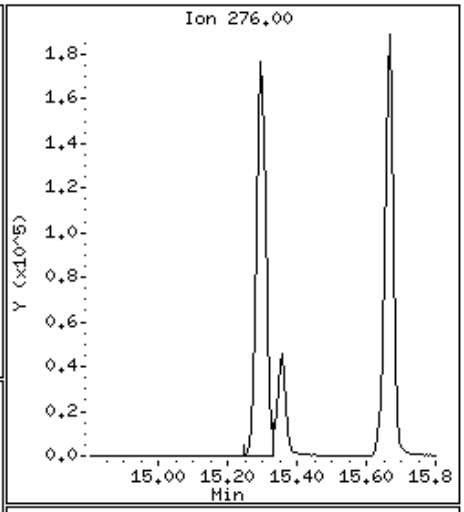
Concentration: 28.1 ug/L

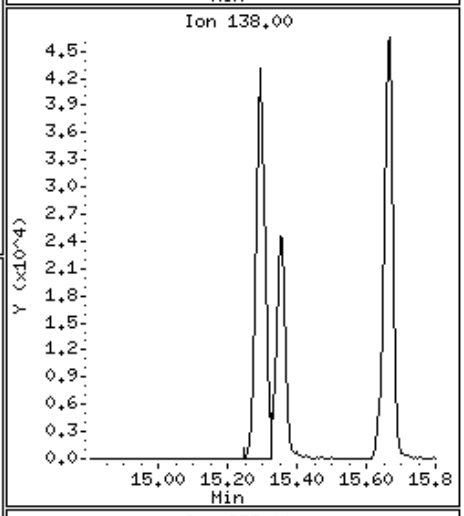


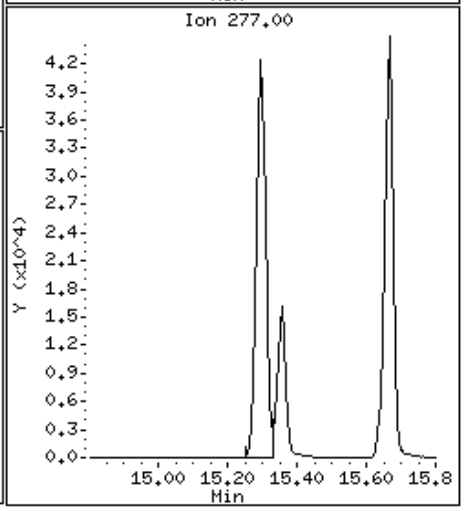












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

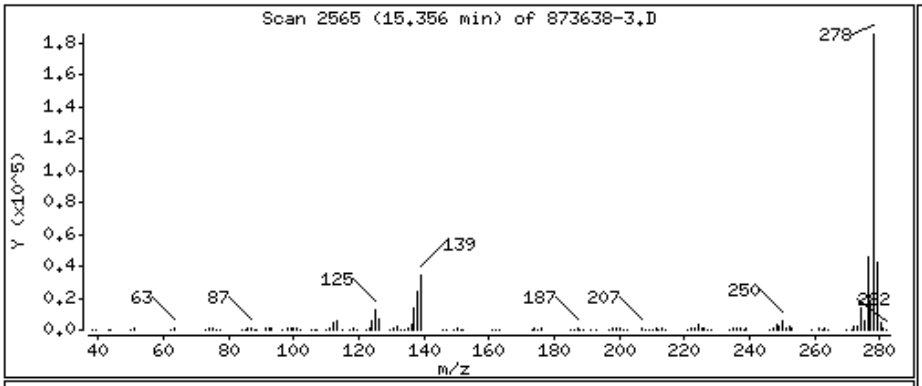
Operator: als

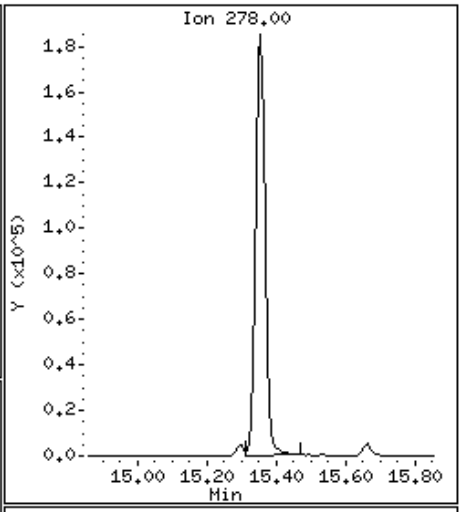
Column phase: RTx-5

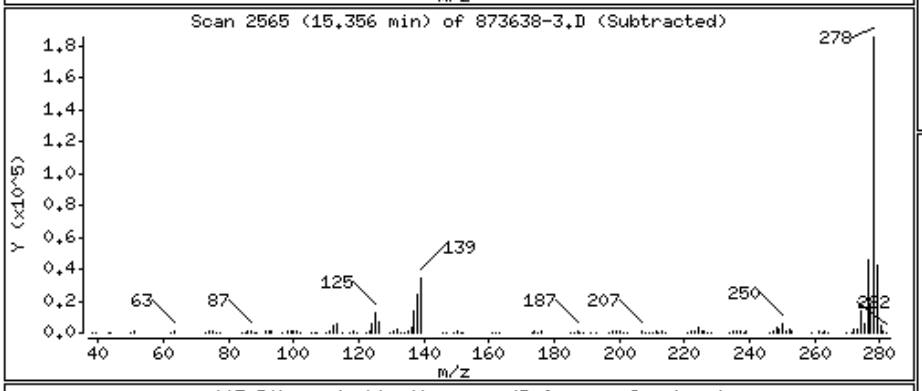
Column diameter: 0.32

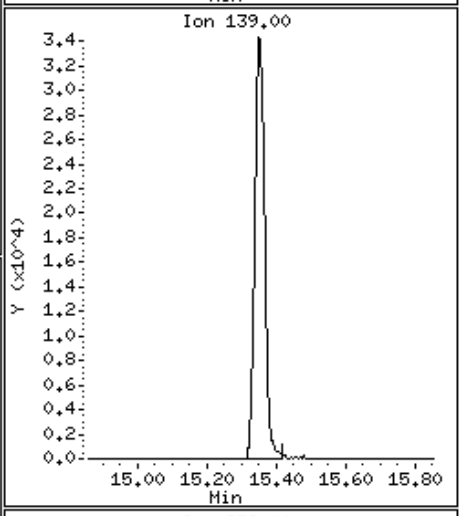
113 Dibenzo(a,h)anthracene

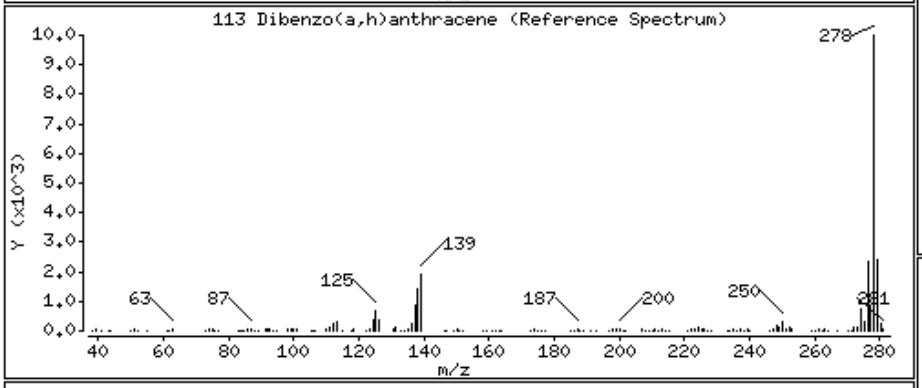
Concentration: 27.9 ug/L

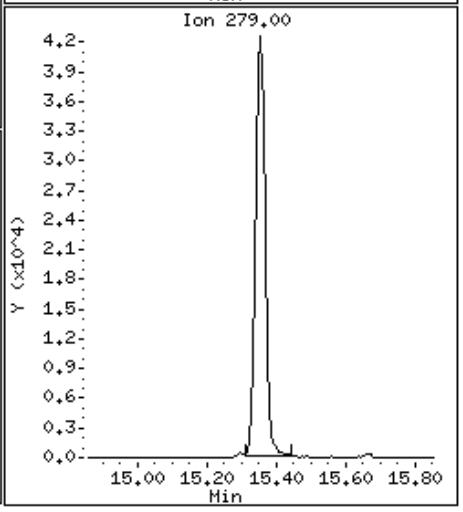


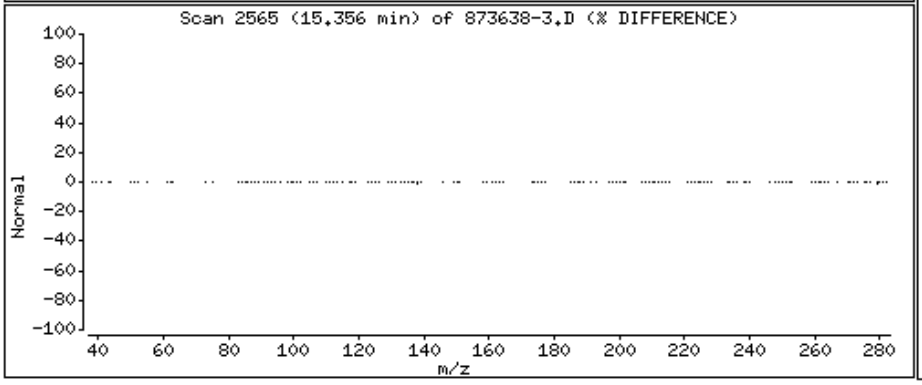












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

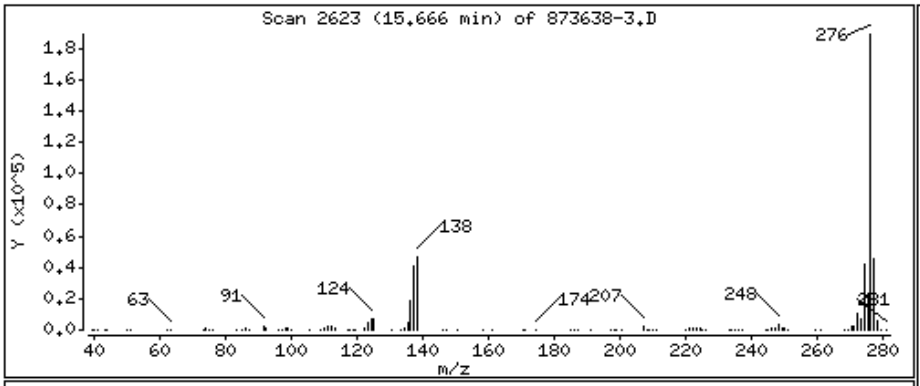
Operator: als

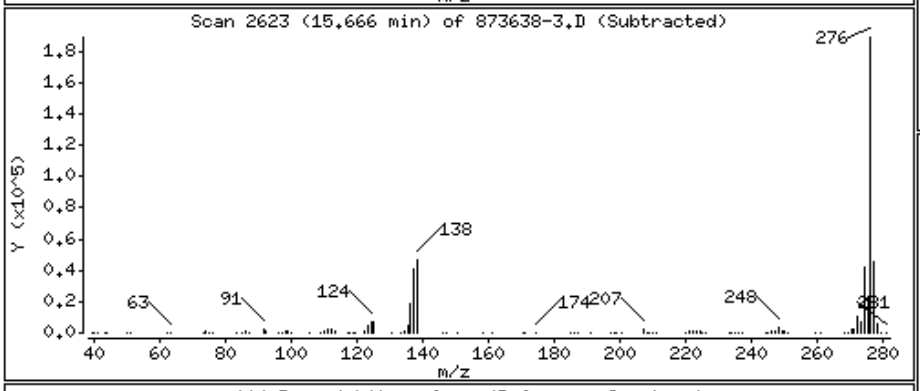
Column phase: RTx-5

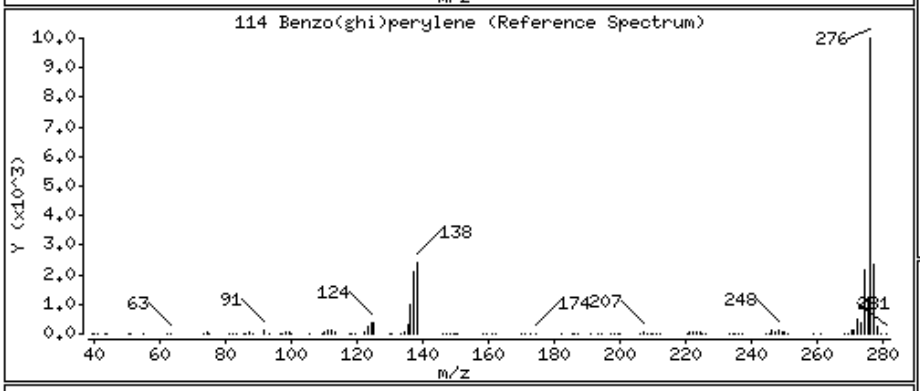
Column diameter: 0.32

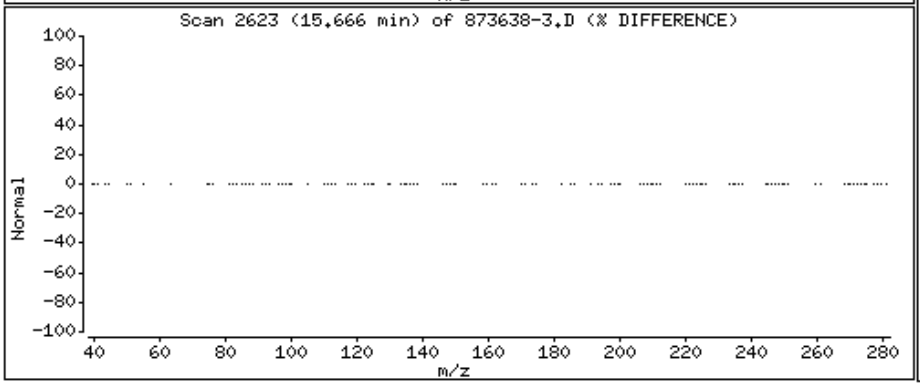
114 Benzo(ghi)perylene

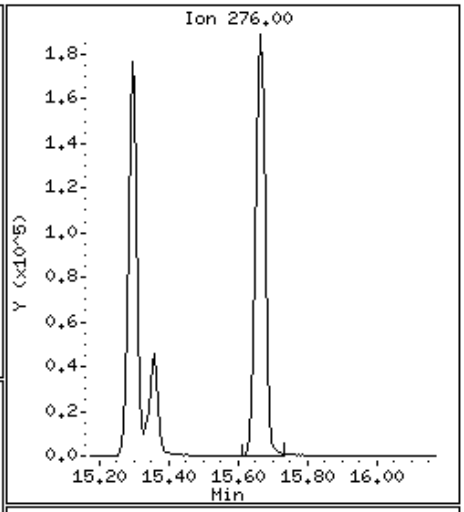
Concentration: 27.7 ug/L

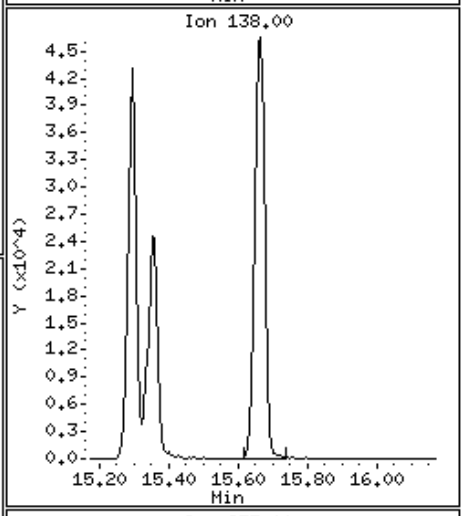


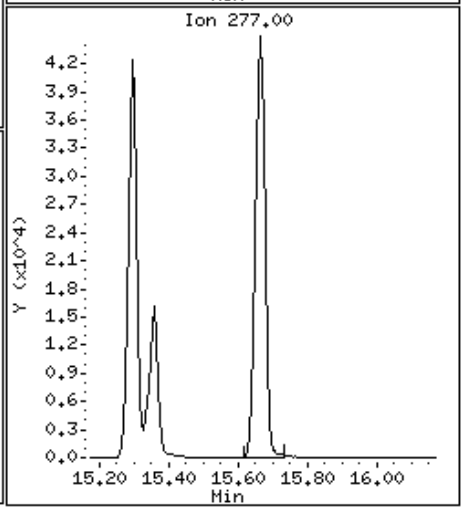












Data File: \\orgserv1\dd\Chem\GCMSEXT\SV103.i\160314n.b\873638-3.D

Date : 15-MAR-2016 00:20

Client ID:

Instrument: SV103.i

Sample Info: wg873638-3,32,nytcl,als

Purge Volume: 1000.0

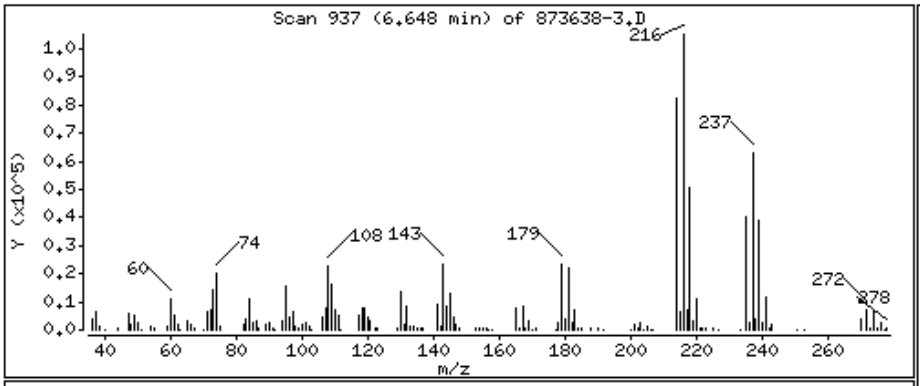
Operator: als

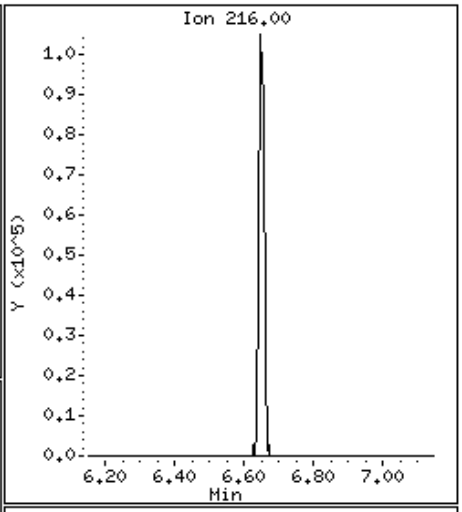
Column phase: RTx-5

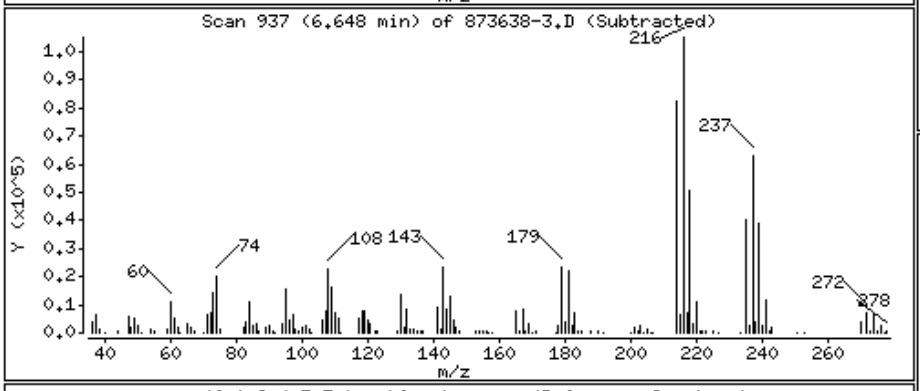
Column diameter: 0.32

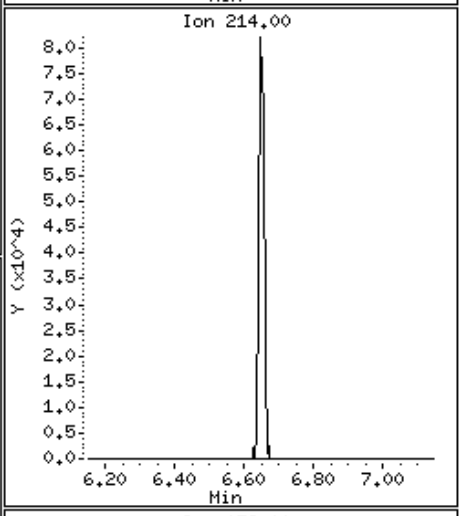
46 1,2,4,5-Tetrachlorobenzene

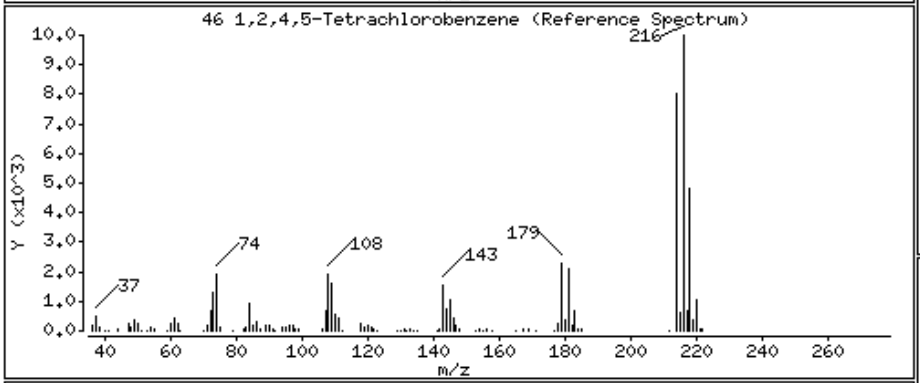
Concentration: 27.9 ug/L

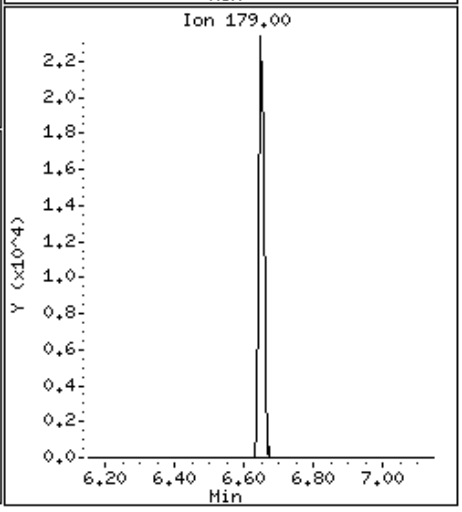


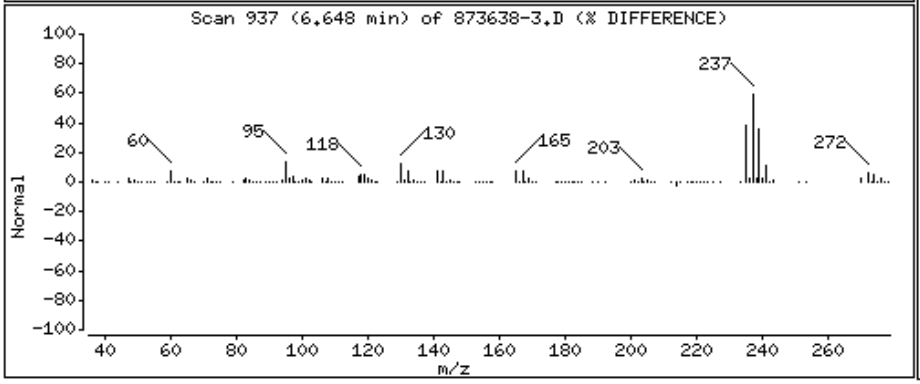












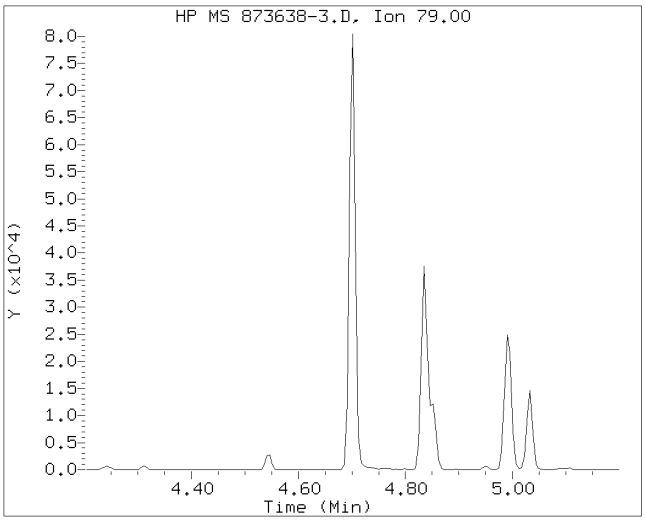
Alpha Analytical Labs

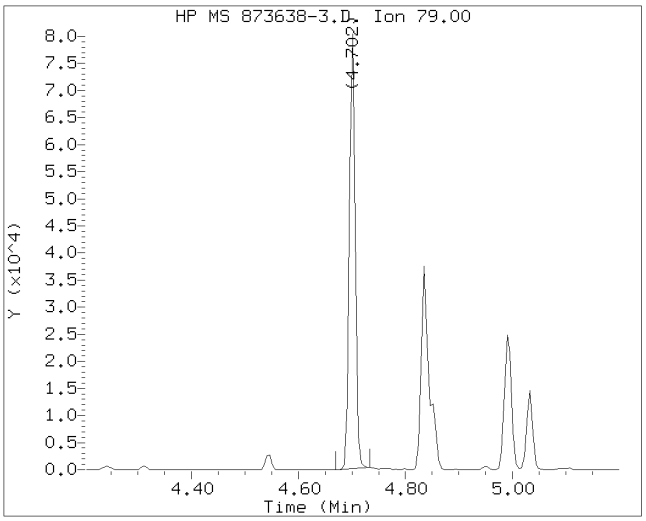
Manual Integration

Sample Info : wg873638-3,32,nytcl,als
wg874362,wg873638, ICAL12135

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : 873638-3.D
Injection Date : 15-MAR-2016 00:20
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 13: Benzyl alcohol

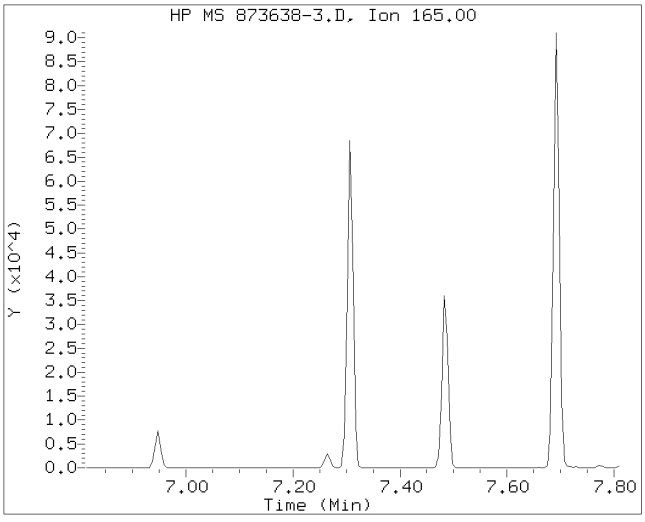


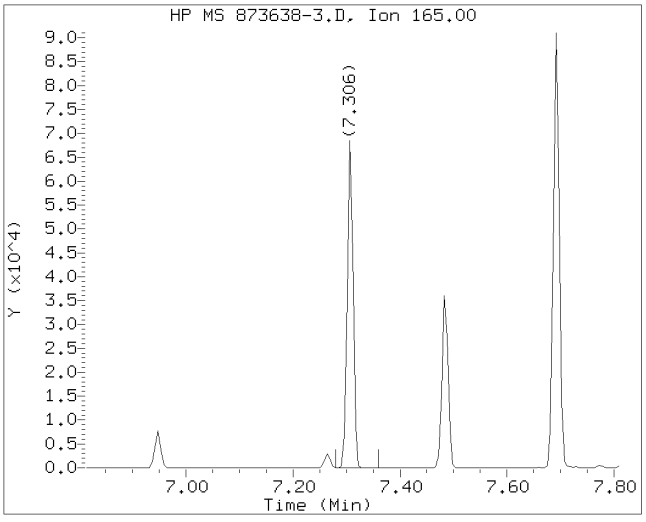


Original Peak Response = 0 Manual Peak Response = 61236 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 57: 2,6-Dinitrotoluene





Original Peak Response = 0 Manual Peak Response = 52931 M2

M2 = Peak not found by automatic integration algorithm.

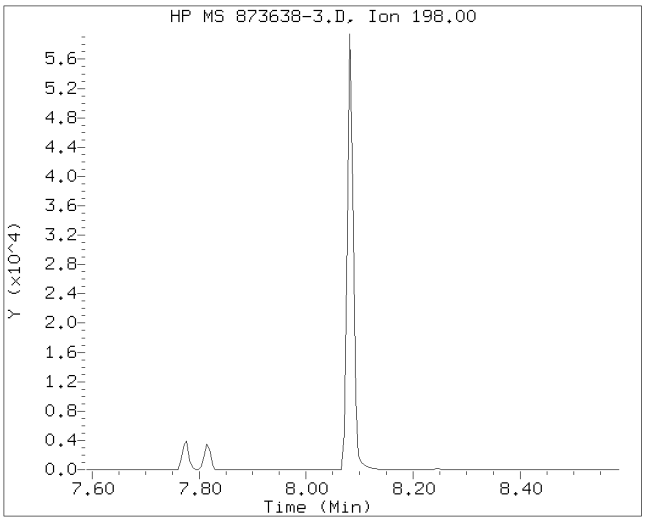
Alpha Analytical Labs

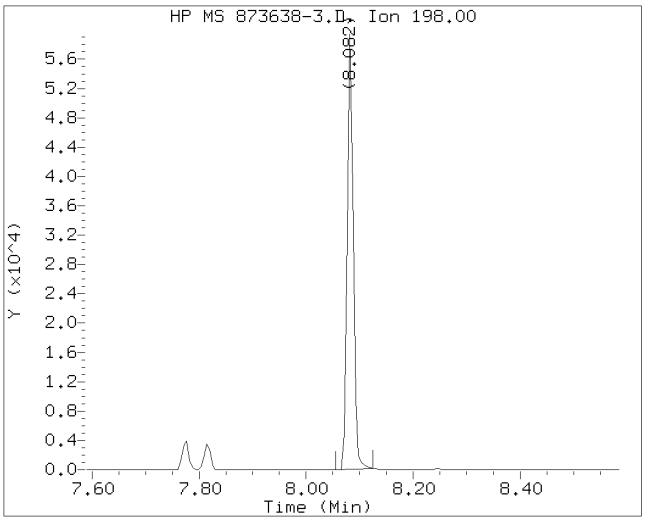
Manual Integration

Sample Info : wg873638-3,32,nytcl,als
wg874362,wg873638, ICAL12135

Instrument ID : SV103.i
Method : HP2ABNv2.m
File : 873638-3.D
Injection Date : 15-MAR-2016 00:20
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 73: 4,6-Dinitro-o-cresol





Original Peak Response = 0 Manual Peak Response = 47295 M2

M2 = Peak not found by automatic integration algorithm.

Calculation of Semi Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * 1000 * (1/Vo) * Vf

Where:
DF = Dilution Factor
Vo = Volume of Sample (mL)
Vf = Extraction Lab Final Volume (mL)

Soil Concentration Formula: Amt * DF * 1000 * (1/Wt) * Vf * (100/TS)
Where:
DF = Dilution Factor
Wt = Weight of Sample (g)
Vf = Extraction Lab Final Volume (mL)
TS = Total Solids

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 24 2016, 09:33 am

Work Group: WG873638 for Department: 2 Organic Preparation

Created: 14-MAR-16 Due: Operator: SMB

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1606534-01	AUGER RINSE	S	NYTCL-8270	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-01	MW05_030816	C	NYTCL-8270	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-02	GWDUP01_030816	C	NYTCL-8270	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-03	MW01_030816	C	NYTCL-8270	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-04	MW07_030816	C	NYTCL-8270	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-05	GWFB01_030816	C	NYTCL-8270	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606616-01	TERMINAL BASIN #1	C	NYTCL-8270	WATER	DONE	U	0315	0316	S0	Amber-A1
L1606705-01	GW-GRAB	C	NYTCL-8270	WATER	DONE	U	0315	0316	S0	Amber-A1
L1606763-01	MW12_030916	S	NYTCL-8270	WATER	DONE	U	0316	0316	S0	Amber-A1
L1606772-01	EFF-20160309	C	NYTCL-8270	WATER	DONE	U	0316	0316	S0	Amber-A1
L1606772-02	MID-20160309	C	NYTCL-8270	WATER	DONE	U	0316	0316	S0	Amber-A1
WG873638-1	Laboratory Method Bl	S	NYTCL-8270	WATER	DONE	U				
WG873638-2	Laboratory Control S	S	NYTCL-8270	WATER	DONE	U				
WG873638-3	LCS Duplicate	S	NYTCL-8270	WATER	DONE	U				

Comments:

WG873638-3 WG873638-2

Sequence Name: C:\msdchem\1\sequence\160308cal.s
Comment: sv103
Operator: as
Data Path: C:\MSDCHEM\1\DATA\160210ICAL\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

ICAL 12135
passed by HL
reviewed by AS

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

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1) Sample	141	degdftn	ABN-SV103	deg0308n
2) Sample	1	ABNL1	ABN-SV103	ABN 1 LOT# 5806
3) Sample	2	ABNL2	ABN-SV103	ABN 2 LOT# 5807
4) Sample	3	ABNL3	ABN-SV103	ABN 3 LOT# 5808
5) Sample	4	ABNL4	ABN-SV103	ABN 5 LOT# 5809
6) Sample	5	ABNL5	ABN-SV103	ABN 10 LOT# 5810
7) Sample	6	ABNL6	ABN-SV103	ABN 20 LOT# 5811
8) Sample	7	ABNL7	ABN-SV103	ABN 50 LOT# 5812
9) Sample	8	ABNL8	ABN-SV103	ABN 100 LOT# 5813
10) Sample	9	ABNL9	ABN-SV103	ABN 150 LOT# 5814
11) Sample	10	ABNL10	ABN-SV103	ABN 200 LOT# 5805
12) Sample	11	AP9L1	ABN-SV103	AP9 1 LOT#5832
13) Sample	12	AP9L2	ABN-SV103	AP9 2 LOT#5833
14) Sample	13	AP9L3	ABN-SV103	AP9 3 LOT#5834
15) Sample	14	AP9L4	ABN-SV103	AP9 5 LOT#5835
16) Sample	15	AP9L5	ABN-SV103	AP9 10 LOT#5836
17) Sample	16	AP9L6	ABN-SV103	AP9 20 LOT#5837
18) Sample	17	AP9L7	ABN-SV103	AP9 50 LOT#5838
19) Sample	18	AP9L8	ABN-SV103	AP9 100 LOT#5839
20) Sample	19	AP9L9	ABN-SV103	AP9 150 LOT#5840
21) Sample	20	AP9L10	ABN-SV103	AP9 200 LOT#5831
22) Sample	21	ABNICV	ABN-SV103	ABN ICV LOT# 5842
23) Sample	22	AP9ICV	ABN-SV103	AP9 ICV LOT#5841
24) Sample	141	degdftna	ABN-SV103	deg0308na
25) Sample	23	ADPL1	ABN-SV103	ADP 1 LOT#5816
26) Sample	24	ADPL2	ABN-SV103	ADP 2 LOT#5817
27) Sample	25	ADPL3	ABN-SV103	ADP 3 LOT#5818
28) Sample	26	ADPL4	ABN-SV103	ADP 5 LOT#5819
29) Sample	27	ADPL5	ABN-SV103	ADP 10 LOT#5820
30) Sample	28	ADPL6	ABN-SV103	ADP 20 LOT#5821
31) Sample	29	ADPL7	ABN-SV103	ADP 50 LOT#5822
32) Sample	30	ADPL8	ABN-SV103	ADP 100 LOT#5823
33) Sample	31	ADPL9	ABN-SV103	ADP 150 LOT#5824
34) Sample	32	ADPL10	ABN-SV103	ADP 200 LOT#5815
35) Sample	33	ADPICV	ABN-SV103	ADP ICV LOT# 5614
36) Sample	34	Mtol1	ABN-SV103	MTolL1 lot#5667
37) Sample	35	Mtol2	ABN-SV103	MTolL2 lot#5668
38) Sample	36	Mtol3	ABN-SV103	MTolL3 lot#5669
39) Sample	37	Mtol4	ABN-SV103	MTolL5 lot#5670
40) Sample	38	Mtol5	ABN-SV103	MTolL10 lot#5671
41) Sample	39	Mtol6	ABN-SV103	MTolL20 lot#5672
42) Sample	40	Mtol7	ABN-SV103	MTolL50 lot#5673
43) Sample	41	Mtol8	ABN-SV103	MTolL100 lot#5674

Sequence Name: C:\msdchem\1\sequence\160308cal.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)	Sample		42	Mtol9	ABN-SV103	MTolL150 lot5675
45)	Sample		43	Mtol10	ABN-SV103	MTolL200 lot5666
46)	Sample		44	MTOL ICV	ABN-SV103	MtolICV lot#5687
47)	Sample		141	degdftnb	ABN-SV103	deg0308nb
48)	Sample		45	BENZL1	ABN-SV103	BENZL1 lot#5677
49)	Sample		46	BENZL2	ABN-SV103	BENZL2 lot#5678
50)	Sample		47	BENZL3	ABN-SV103	BENZL3 lot#5679
51)	Sample		48	BENZL4	ABN-SV103	BENZL5 lot#5680
52)	Sample		49	BENZL5	ABN-SV103	BENZL10 lot#5681
53)	Sample		50	BENZL6	ABN-SV103	BENZL20 lot#5682
54)	Sample		51	BENZL7	ABN-SV103	BENZL50 lot#5683
55)	Sample		52	BENZL8	ABN-SV103	BENZL100 lot#5684
56)	Sample		53	BENZL9	ABN-SV103	BENZL150 lot#5685
57)	Sample		54	BENZL10	ABN-SV103	BENZL200 lot#5676
58)	Sample		55	BENZICV	ABN-SV103	BENZICV lot#5686

ICAL 12150
3/14 MS ~~no MLR~~, no CT
no 33 MS

Vial	Name	Data File	Method File	Type	Keyword	Comment	Keyword String
141	degdft0312	degdft	8270.m	Sample		sv112	MLR → have to report Anilin - quadratic
				Keyword	Pause		
1	ABN 1 LOT# 5806	ABNL1	8270.m	Sample			
2	ABN 2 LOT# 5807	ABNL2	8270.m	Sample			
3	ABN 3 LOT# 5808	ABNL3	8270.m	Sample			
4	ABN 5 LOT# 5809	ABNL4	8270.m	Sample			
5	ABN 10 LOT# 5810	ABNL5	8270.m	Sample			
6	ABN 20 LOT# 5811	ABNL6	8270.m	Sample			
7	ABN 50 LOT# 5812	ABNL7	8270.m	Sample			
8	ABN 100 LOT# 5813	ABNL8	8270.m	Sample			
9	ABN 150 LOT# 5814	ABNL9	8270.m	Sample			
10	ABN 200 LOT# 5805	ABNL10	8270.m	Sample			
11	AP9 1 LOT# 5832	AP9L1	8270.m	Sample			
12	AP9 2 LOT# 5833	AP9L2	8270.m	Sample			
13	AP9 3 LOT#5834	AP9L3	8270.m	Sample			
14	AP9 5 LOT# 5835	AP9L4	8270.m	Sample			
15	AP9 10 LOT# 5836	AP9L5	8270.m	Sample			
16	AP9 20 LOT# 5837	AP9L6	8270.m	Sample			
17	AP9 50 LOT#5838	AP9L7	8270.m	Sample			
18	AP9 100 LOT# 5839	AP9L8	8270.m	Sample			
19	AP9 150 LOT# 5840	AP9L9	8270.m	Sample			
20	AP9 200 LOT# 5831	AP9L10	8270.m	Sample			
21	ABN ICV LOT# 5842	ABNICV	8270.m	Sample			
22	AP9 ICV LOT# 5841	AP9ICV	8270.m	Sample			
141	degdft0312	degdftz	8270.m	Sample			
23	ADP 1 LOT#5816	ADPL1	8270.m	Sample			
24	ADP 2 LOT#5817	ADPL2	8270.m	Sample			
25	ADP 3 LOT#5818	ADPL3	8270.m	Sample			
26	ADP 5 LOT#5819	ADPL4	8270.m	Sample			
27	ADP 10 LOT#5820	ADPL5	8270.m	Sample			
28	ADP 20 LOT#5821	ADPL6	8270.m	Sample			
29	ADP 50 LOT#5822	ADPL7	8270.m	Sample			
30	ADP 100 LOT#5823	ADPL8	8270.m	Sample			
31	ADP 150 LOT#5824	ADPL9	8270.m	Sample			
32	ADP 200 LOT#5815	ADPL10	8270.m	Sample			
33	ADP ICV LOT#5614	ADPicv	8270.m	Sample			

processed by MS
Verified by (HL)

Sequence Name: C:\msdchem\1\sequence\160314n.s
Comment: sv103
Operator: als
Data Path: C:\MSDCHEM\1\DATA\160314n\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

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

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1)	Sample 141	degdft314n	ABN-SV103	deg0314
2)	Pause			
3)	Sample 141	degdft314na	ABN-SV103	deg0314
4)	Pause			
5)	Sample 141	degdft314nb	ABN-SV103	deg0314
6)	Pause			
7)	Sample 142	ADP314n	ABN-SV103	ADP CCV Lot#5822
8)	Sample 143	AP9314n	ABN-SV103	AP9 ICV Lot#5838
9)	Sample 144	ABN314n	ABN-SV103	ABN ICV Lot#5842
10)	Sample 1	873641-1	ABN-SV103	wg873641-1,32,tclp,als
11)	Sample 2	873641-2	ABN-SV103	wg873641-2,32,tclp,als
12)	Sample 3	873641-3	ABN-SV103	wg873641-3,32,tclp,als
13)	Sample 4	873638-1	ABN-SV103	wg873638/77-1,32,nytcl,al
14)	Sample 5	873638-2	ABN-SV103	wg873638-2,32,nytcl,als
15)	Sample 6	873638-3	ABN-SV103	wg873638-3,32,nytcl,als
16)	Sample 7	873638-4	ABN-SV103	wg873638-4,32,nytcl,als
17)	Sample 8	873638-5	ABN-SV103	wg873638-5,32,nytcl,als
18)	Sample 9	06726-01	ABN-SV103	l1606726-01,32,nytcl,als
19)	Sample 10	05038-02	ABN-SV103	l1605038-02re,32,nytcl,al
20)	Sample 11	06272-01	ABN-SV103	l1606272-01,32,tcl,als
21)	Sample 12	06284-01	ABN-SV103	l1606284-01,32,nytcl,als
22)	Sample 13	06284-02	ABN-SV103	l1606284-02,32,nytcl,als
23)	Sample 14	06284-03	ABN-SV103	l1606284-03,32,nytcl,als
24)	Sample 15	06284-04	ABN-SV103	l1606284-04,32,nytcl,als
25)	Sample 16	06284-05	ABN-SV103	l1606284-05,32,nytcl,als
26)	Sample 17	06284-06	ABN-SV103	l1606284-06,32,nytcl,als
27)	Sample 18	06284-07	ABN-SV103	l1606284-07,32,nytcl,als
28)	Sample 19	06579-03	ABN-SV103	l1606579-03,32,nytcl,als
29)	Sample 20	06579-05	ABN-SV103	l1606579-05,32,nytcl,als
30)	Sample 21	06157-01	ABN-SV103	l1606157-01,32,tclp,als
31)	Sample 22	06161-01	ABN-SV103	l1606161-01,32,tclp,als
32)	Sample 23	06448-01	ABN-SV103	l1606448-01,32,nj,als

	Vial	Name	Data File	Method File	Type	Keyword	Comment	Keyword String
	141	degdft0315	degdft	8270.m	Sample		sv112	
					Keyword	Pause		
	142	ADP 50 LOT#5822	ADPLccv0315	8270.m	Sample			
	143	AP9 50 LOT#5838	AP9Lccv0315	8270.m	Sample			
	144	ABN 50 LOT# 5842	ABNccv0315	8270.m	Sample			
	1	wg873430-1,32,ny,als	873430-1	8270.m	Sample			
	2	wg873430-2,32,ny,als	873430-2	8270.m	Sample			
	3	wg873430-3,32,ny,als	873430-3	8270.m	Sample			
	4	l1606406-01,32,nj,als	06406-01	8270.m	Sample			
	5	1606416-02,32,nj,als	06416-02	8270.m	Sample			
	6	l1606416-01,32,nj,als	06416-01	8270.m	Sample			
	7	l1606705-01,32,ny,als,	06705-01	8270.m	Sample			
	8	l1606763-01,32,ny,als,	06763-01	8270.m	Sample			
	9	l1606761-05,32,ny,als,	06761-05	8270.m	Sample			
	10	l1606761-06,32,fv8ny,als,	06761-06	8270.m	Sample			
	11	l1606761-07,32,ny,als,	06761-07	8270.m	Sample			
	12	l1606761-08,32,fv15ny,als,	06761-08	8270.m	Sample			
	13	l1606761-09,32,ny,als,	06761-09	8270.m	Sample			
	14	l1606761-10,32,ny,als,	06761-10	8270.m	Sample			
	15	l1606761-11,32,ny,als,	06761-11	8270.m	Sample			
	16	l1606761-12,32,nyfv9,als,	06761-12	8270.m	Sample			
	17	l1606761-13,32,ny,als,	06761-13	8270.m	Sample			
	18	l1606761-14,32,ny,als,	06761-14	8270.m	Sample			
	19	l1606761-15,32,ny,als,	06761-15	8270.m	Sample			
	20	l1606761-16,32,ny,als,	06761-16	8270.m	Sample			

Method Path
C:\MassHunter\GCMS\1\methods
C:\MassHunter\GCMS\1\methods

ORGANIC ELN REPORT

Workgroup: WG873638

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP470
Surrogate Type: ABN **Lot #:** 5866
Spike Type: ABN **Lot #:** 5871/5867
Spike Verify by: DR
Lims Spikelot: 8270-USAC2

Additional Reagents/Stds

H2SO4	A030416
NaOH	Na031016

Conc.Method: Buchi
Solvent Type: DCM
Lot #: dp 470

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG873638-1 BLANK	03/14/16 15:31	Daniel Robbins	1000	<2/>12	1		03/14/16 19:14	Thomas Asare	1	J
	WG873664									
WG873638-2 LCS	03/14/16 15:31	Daniel Robbins	1000	<2/>12	1	1	03/14/16 19:14	Thomas Asare	1	J
WG873638-3 LCSD	03/14/16 15:31	Daniel Robbins	1000	<2/>12	1	1	03/14/16 19:14	Thomas Asare	1	J
WG873638-4 MS	03/14/16 15:31	Daniel Robbins	750	<2/>12	1	1				
WG873638-5 MSD	03/14/16 15:31	Daniel Robbins	940	<2/>12	1	1				
L1605038-02	03/14/16 15:31	Daniel Robbins	1000	<2/>12	1					
L1606534-01 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:11	Felicia Macnicol	1	J

Reported: 24-MAR-16 09:33 AM

ORGANIC ELN REPORT

Workgroup: WG873638

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1606544-01 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:11	Felicia Macnicol	1	J
L1606544-02 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:11	Felicia Macnicol	1	J
L1606544-03 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:11	Felicia Macnicol	1	J
L1606544-04 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:11	Felicia Macnicol	1	J
L1606544-05 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:11	Felicia Macnicol	1	J
L1606616-01 WATER	03/14/16 17:14	Daniel Robbins	940	<2/>12	1		03/15/16 04:57	Lindsey Cappuccio	.90	I
L1606705-01 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/15/16 06:58	Lindsey Cappuccio	1	I
L1606763-01 WATER	03/14/16 17:14	Daniel Robbins	1000	<2/>12	1		03/15/16 06:58	Lindsey Cappuccio	1	I
L1606772-01 SAMP	03/14/16 18:24	Daniel Robbins	1000	<2/>12	1		03/15/16 06:58	Lindsey Cappuccio	1	I

Reported: 24-MAR-16 09:33 AM

ORGANIC ELN REPORT

Workgroup: WG873638

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1606772-02 SAMP	03/14/16 18:24	Daniel Robbins	1000	<2/>12	1		03/15/16 06:58	Lindsey Cappuccio	1	I

Reported: 24-MAR-16 09:33 AM

Semivolatiles Data- Method 8270C-SIM

Semivolatiles QC Summary

Form 2
Surrogate Recovery
SemiVolatile Organics

Client: Langan Engineering & Environmental
Project Name: 450 UNION STREET

Lab Number: L1606763
Project Number: 170301202
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 (NBZ)	S2 (FBP)	S3 (TPH)	S4 (PHL)	S5 (2FP)	S6 (TBP)	TOT OUT
WG873664-3LCSD	72	92	93	30	43	131*	1
WG873664-2LCS	77	98	96	32	44	136*	1
WG873664-1BLANK	70	85	80	29	43	110	0
MW12_030916 (L1606763-01)	71	89	91	26	40	128*	1

	QC LIMITS
NBZ = NITROBENZENE-D5	(23-120)
FBP = 2-FLUOROBIPHENYL	(15-120)
TPH = 4-TERPHENYL-D14	(41-149)
PHL = PHENOL-D6)	(10-120)
2FP = 2-FLUOROPHENOL)	(21-120)
TBP = 2,4,6-TRIBROMOPHENOL)	(10-120)

* Values outside of QC limits

3C

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER SEMIVOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873664-2LCS Injected: 03/15/16 07:43 Lab File ID: 873664-2.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
Acenaphthene	10	NA	8.5	85	37-111
2-Chloronaphthalene	10	NA	8.6	86	40-140
Fluoranthene	10	NA	9.2	92	40-140
Hexachlorobutadiene	10	NA	8.3	83	40-140
Naphthalene	10	NA	7.4	74	40-140
Benzo(a)anthracene	10	NA	8.6	86	40-140
Benzo(a)pyrene	10	NA	10.	101	40-140
Benzo(b)fluoranthene	10	NA	10.	102	40-140
Benzo(k)fluoranthene	10	NA	8.1	81	40-140
Chrysene	10	NA	8.1	81	40-140
Acenaphthylene	10	NA	8.5	85	40-140
Anthracene	10	NA	8.9	89	40-140
Benzo(ghi)perylene	10	NA	9.7	97	40-140
Fluorene	10	NA	9.6	96	40-140
Phenanthrene	10	NA	8.6	86	40-140
Dibenzo(a,h)anthracene	10	NA	10.	102	40-140
Indeno(1,2,3-cd)Pyrene	10	NA	9.9	99	40-140
Pyrene	10	NA	8.6	86	26-127
2-Methylnaphthalene	10	NA	8.0	80	40-140
Pentachlorophenol	10	NA	8.0	80	9-103
Hexachlorobenzene	10	NA	9.4	94	40-140
Hexachloroethane	10	NA	7.2	72	40-140

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NYTCL-8270-SIM

3C

LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY

WATER SEMIVOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1606763 Matrix: Water

Lab Control Sample: WG873664-2LCS Injected: 03/15/16 07:43 Lab File ID: 873664-2.D

Lab Control Dup : WG873664-3LCSD Injected: 03/15/16 08:08 Lab File ID: 873664-3.D

COMPOUND	SPIKE ADDED (ug/l)	LCSD CONCENTRATION (ug/l)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Acenaphthene	10	8.1	81	5	40	37-111
2-Chloronaphthalene	10	8.1	81	6	40	40-140
Fluoranthene	10	8.8	88	4	40	40-140
Hexachlorobutadiene	10	7.6	76	9	40	40-140
Naphthalene	10	6.9	69	7	40	40-140
Benzo(a)anthracene	10	8.2	82	5	40	40-140
Benzo(a)pyrene	10	9.6	96	5	40	40-140
Benzo(b)fluoranthene	10	10.	102	0	40	40-140
Benzo(k)fluoranthene	10	7.4	74	9	40	40-140
Chrysene	10	7.8	78	4	40	40-140
Acenaphthylene	10	8.0	80	6	40	40-140
Anthracene	10	8.5	85	5	40	40-140
Benzo(ghi)perylene	10	9.3	93	4	40	40-140
Fluorene	10	9.2	92	4	40	40-140
Phenanthrene	10	8.2	82	5	40	40-140
Dibenzo(a,h)anthracene	10	9.8	98	4	40	40-140
Indeno(1,2,3-cd)Pyrene	10	9.5	95	4	40	40-140
Pyrene	10	8.3	83	4	40	26-127
2-Methylnaphthalene	10	7.4	74	8	40	40-140
Pentachlorophenol	10	7.6	76	5	40	9-103
Hexachlorobenzene	10	9.1	91	3	40	40-140
Hexachloroethane	10	6.7	67	7	40	40-140

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III NYTCL-8270-SIM

4B

SEMIVOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG873664-1BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: 873664-1 Lab Sample ID: WG873664-1

Instrument ID: MINDY.I Date Extracted: 03/14/16

Matrix: WATER Date Analyzed: 03/15/16

Level:(low/med): LOW Time Analyzed: 07:18

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE/TIME ANALYZED
01	WG873664-2LCS	WG873664-2	873664-2	03/15/16 07:43
02	WG873664-3LCSD	WG873664-3	873664-3	03/15/16 08:08
03	MW12_030916	L1606763-01	06763-01	03/15/16 14:24

COMMENTS: _____

FORM IV NYTCL-8270-SIM

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: DFT0117_tune DFTPP Injection Date: 01/17/16

Instrument ID: Mindy.i DFTPP Injection Time: 04:51

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	100
51	10.0 - 80.0% of Base Peak	36.7
68	Less than 2.0% of mass 69	0 (0.00)1
69		37.2
70	Less than 2.0% of mass 69	0.2 (0.55)1
127	10.0 - 80.0% of Base Peak	47.5
197	Less than 2.0% of mass 198	0
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	26
365	Greater than 1.0% of mass 198	3.3
441	Present, but less than 24% of mass 442	13.2
442	Base Peak, or >50% of mass 198	96.2
443	15.0 - 24.0% of mass 442	18.7 (19.4)2

1-Value is % of mass 69 2-Value is % of 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	DEG/DFTPP	DEG/DFTPP	DEG0117	01/17/16	04:51
02	L1 0.05/0.5 ug/	L1 0.05/0.5 u	L1	01/17/16	05:04
03	L2 0.1/1.0ug/mL	L2 0.1/1.0ug/	L2	01/17/16	05:29
04	L3 0.2/2.0 ug/mL	L3 0.2/2.0 ug/	L3	01/17/16	05:55
05	L4 0.5/5.0 ug/mL	L4 0.5/5.0 ug/	L4	01/17/16	06:20
06	L5 1.0/10.0 ug/m	L5 1.0/10.0 ug	L5	01/17/16	06:45
07	L6 2.0/20.0ug/mL	L6 2.0/20.0ug/	L6	01/17/16	07:10
08	L7 5.0/40.0 ug/m	L7 5.0/40.0 ug	L7	01/17/16	07:35
09	L8 10.0/60.0 ug/	L8 10.0/60.0 u	L8	01/17/16	08:00
10	L9 15.0/0.0 ug/m	L9 15.0/0.0 ug	L9	01/17/16	08:25
11	L10 20.0/0.0 ug/	L10 20.0/0.0 u	L10	01/17/16	08:51
12	ICV Quant Report	ICV Quant Repo	ICV	01/17/16	09:16
13	ICV Summary Form	ICV Summary Fo	ccal	01/17/16	09:16

FORM V NYTCL-8270-SIM

5B
SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID: DFT0315_tune DFTPP Injection Date: 03/15/16

Instrument ID: Mindy.i DFTPP Injection Time: 06:12

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
198	Base Peak, or >50% of mass 442	72.4
51	10.0 - 80.0% of Base Peak	29.1
68	Less than 2.0% of mass 69	0 (0.00)1
69		33.4
70	Less than 2.0% of mass 69	0.2 (0.62)1
127	10.0 - 80.0% of Base Peak	47.1
197	Less than 2.0% of mass 198	0
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	30.7
365	Greater than 1.0% of mass 198	4.9
441	Present, but less than 24% of mass 442	11
442	Base Peak, or >50% of mass 198	138.1
443	15.0 - 24.0% of mass 442	28 (20.3)2

1-Value is % of mass 69 2-Value is % of 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	DEG/DFTPP	DEG/DFTPP	DEG0315	03/15/16	06:12
02	CCV 5.0/40.0 ug/	CCV 5.0/40.0 u	CCV0315	03/15/16	06:27
03	WG873664-1BLANK	WG873664-1	873664-1	03/15/16	07:18
04	WG873664-2LCS	WG873664-2	873664-2	03/15/16	07:43
05	WG873664-3LCSD	WG873664-3	873664-3	03/15/16	08:08
06	MW12_030916	L1606763-01	06763-01	03/15/16	14:24

FORM V NYTCL-8270-SIM

8B

SEMIVOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): CCV0315_ccal Date Analyzed: 15-MAR-2016

Instrument ID : Mindy.i Time Analyzed: 06:27

		IS1(DCB) AREA	RT	IS2(NPT) AREA	RT	IS3(ANT) AREA	RT
	12 HOUR STD	132999	4.03	510804	5.16	289729	6.93
	UPPER LIMIT	265998	4.53	1021608	5.66	579458	7.43
	LOWER LIMIT	66500	3.53	255402	4.66	144865	6.43
	EPA SAMPLE NO.						
01	WG873664-1BLANK	100991	4.02	401456	5.15	250693	6.93
02	WG873664-2LCS	106735	4.02	418805	5.15	236816	6.93
03	WG873664-3LCSD	103507	4.02	406900	5.15	228027	6.93
04	MW12_030916	118920	4.03	457900	5.16	264856	6.94

IS1(DCB) = 1,4-DICHLOROBENZENE-D4
IS2(NPT) = NAPHTHALENE-D8
IS3(ANT) = ACENAPHTHENE-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

8C

SEMIVOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Lab File ID (Standard): CCV0315_ccal Date Analyzed: 15-MAR-2016

Instrument ID : Mindy.i Time Analyzed: 06:27

		IS4(PHN) AREA	RT	IS5(CRY) AREA	RT	IS6(PRY) AREA	RT
	12 HOUR STD	526097	8.84	514442	12.68	513470	14.24
	UPPER LIMIT	1052194	9.34	1028884	13.18	1026940	14.74
	LOWER LIMIT	263049	8.34	257221	12.18	256735	13.74
	EPA SAMPLE NO.						
01	WG873664-1BLANK	488308	8.83	477801	12.67	499836	14.24
02	WG873664-2LCS	436342	8.84	430389	12.68	436920	14.25
03	WG873664-3LCSD	421323	8.84	416867	12.68	415704	14.25
04	MW12_030916	494902	8.85	488920	12.68	527845	14.26

IS4(PHN) = PHENANTHRENE-D10
IS5(CRY) = CHRYSENE-D12
IS6(PRY) = PERYLENE-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 2	
Analyst:	MW
Date:	6/4, 6/5, 6/6, 6/7/2014
Instrument ID:	Mindy
Column ID:	RTX-5MS
Prep Method:	EPA ~~3546~~ 3510C
Prep Chemist:	BM

AH 4/3/15

Initial Weight/Volume: 1000ml
Final Volume: 1mL

Method: EPA 8270D-SIM **2014**
GC/MS Semi-Volatile Organic Compounds **Liquid**

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 09	MDL 10	T value used for calculating MDL: 2.896					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/5/2014	6/4/2014	6/4/2014	6/4/2014	6/4/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
1	Hexachloroethane	0.100	0.0539	0.0613	0.0356	0.0449	0.0435	0.0422	0.0467	0.0434	0.0581	0.0477	48%	0.00832	0.0241	0.200	
2	Hexachlorobutadiene	0.100	0.0768	0.0928	0.0569	0.0647	0.0667	0.0640	0.0781	0.0699	0.0922	0.0736	74%	0.0125	0.0363	0.200	
3	2-Methylnaphthalene	0.100	0.0727	0.0862	0.0553	0.0570	0.0587	0.0584	0.0692	0.0639	0.0940	0.0684	68%	0.0137	0.0398	0.200	
4	1-Methylnaphthalene	0.100	0.0681	0.0792	0.0534	0.0544	0.0562	0.0557	0.0674	0.0587	0.0878	0.0645	65%	0.0122	0.0353	0.200	
5	2-Chloronaphthalene	0.100	0.0787	0.0896	0.0626	0.0629	0.0630	0.0635	0.0774	0.0686	0.0932	0.0733	73%	0.0120	0.0348	0.200	
6	Acenaphthylene	0.100	0.0743	0.0858	0.0604	0.0572	0.0593	0.0589	0.0712	0.0619	0.0864	0.0684	68%	0.0116	0.0336	0.200	
7	Acenaphthene	0.100	0.0604	0.0681	0.0489	0.0459	0.0465	0.0462	0.0570	0.0478	0.0654	0.0540	54%	0.00885	0.0256	0.200	
8	Fluorene	0.100	0.0678	0.0762	0.0572	0.0509	0.0518	0.0536	0.0638	0.0555	0.0749	0.0613	61%	0.00977	0.0283	0.200	
9	Hexachlorobenzene	0.100	0.0691	0.0779	0.0588	0.0522	0.0519	0.0517	0.0658	0.0540	0.0740	0.0617	62%	0.0102	0.0297	0.200	
10	Anthracene	0.100	0.0645	0.0726	0.0587	0.0458	0.0455	0.0506	0.0599	0.0493	0.0674	0.0571	57%	0.00985	0.0285	0.200	
11	Fluoranthene	0.100	0.0729	0.0802	0.0709	0.0497	0.0535	0.0595	0.0691	0.0551	0.0772	0.0653	65%	0.0111	0.0322	0.200	
12	Pyrene	0.100	0.0728	0.0779	0.0702	0.0488	0.0511	0.0580	0.0670	0.0538	0.0761	0.0640	64%	0.0112	0.0324	0.200	
13	Chrysene	0.100	0.0712	0.0768	0.0723	0.0469	0.0501	0.0584	0.0704	0.0511	0.0725	0.0633	63%	0.0116	0.0336	0.200	
14	Benzo(k)fluoranthene	0.100	0.0681	0.0733	0.0717	0.0460	0.0480	0.0574	0.0708	0.0469	0.0747	0.0619	62%	0.0122	0.0355	0.200	
15	Benzo(a)pyrene	0.100	0.0731	0.0786	0.0788	0.0487	0.0482	0.0596	0.0736	0.0526	0.0741	0.0653	65%	0.0129	0.0373	0.200	
16	Indeno(1,2,3-cd)pyrene	0.100	0.0716	0.0786	0.0765	0.0478	0.0498	0.0594	0.0744	0.0521	0.0768	0.0652	65%	0.0128	0.0371	0.200	
17	Dibenzo(a,h)anthracene	0.100	0.0728	0.0792	0.0743	0.0486	0.0512	0.0586	0.0749	0.0524	0.0748	0.0652	65%	0.0123	0.0355	0.200	
18	Benzo(ghi)perylene	0.100	0.0623	0.0669	0.0668	0.0414	0.0430	0.0509	0.0634	0.0447	0.0668	0.0562	56%	0.0111	0.0321	0.200	
	Surrogates																
	2,4,6-Tribromophenol	50	36.3	38.8	32.8	27.6	28.9	28.9	34.8	28.9	38.1	32.8	66%				
	2-Fluorobiphenyl	25	20.0	22.7	15.8	15.9	16.7	16.4	19.9	17.2	24.3	18.8	75%				
	2-Fluorophenol	25	14.3	15.8	10.3	11.6	11.7	10.8	12.8	11.6	15.2	12.7	51%				
	4-Terphenyl-d14	25	18.0	19.2	17.7	12.2	12.9	14.5	18.6	13.1	18.9	16.1	64%				
	Nitrobenzene-d5	50	15.2	17.1	11.0	12.1	12.4	11.7	13.9	12.1	16.8	13.6	27%				
	Phenol-d6	25	11.7	12.8	8.6	8.9	9.2	8.9	10.6	9.6	12.7	10.3	41%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 09	T value used for calculating MDL: 2.998					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/4/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
19	Naphthalene	0.100	0.0665	0.0869	0.0485	0.0518	0.0532	0.0553	0.0616	0.0660	0.0612	61%	0.0123	0.0369	0.200	

Comments: Buchi Concentration

Technical Director: _____ Date Effective: 7/28/14

Determination of Method Detection Limits

Approved

Alpha Analytical Inc.
Westborough, MA

Page 2 of 2	
Analyst:	MW
Date:	6/4, 6/5, 6/6, 6/7/2014
Instrument ID:	Mindy
Column ID:	RTX-5MS
Prep Method:	EPA-3546
Prep Chemist:	BM

3510C
AH 4/3/15

Method: EPA 8270D-SIM **2014**
GC/MS Semi-Volatile Organic Compounds **Liquid**

Initial Weight/Volume: 1000ml
Final Volume: 1mL

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/7/2014	6/7/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
20	Phenanthrene	0.0500	0.0461	0.0526	0.0411	0.0509	0.0459	0.0413	0.0490	0.0470	0.0414	0.0505	0.0457	91%	0.00461	0.0130	0.0500	
	Surrogates																	
	2,4,6-Tribromophenol	50	31.9	38.8	25.6	34.8	31.1	30.9	31.9	35.9	28.9	43.5	33.3	67%				
	2-Fluorobiphenyl	25	15.9	17.2	14.0	16.9	15.4	14.2	13.8	16.5	14.4	17.9	15.6	63%				
	2-Fluorophenol	25	17.3	19.8	15.0	17.6	16.3	15.7	15.0	18.6	15.6	18.3	16.9	68%				
	4-Terphenyl-d14	25	19.6	21.7	16.1	21.0	18.8	16.7	17.2	18.6	15.4	21.5	18.6	75%				
	Nitrobenzene-d5	50	11.9	12.9	10.3	11.9	11.0	10.2	9.9	12.6	10.7	13.0	11.4	23%				
	Phenol-d6	25	12.7	14.3	11.0	13.0	11.8	11.1	10.8	13.4	10.9	14.0	12.3	49%				

Table (MDL)		Data File	MDL 01	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.896					
		Date Analyzed	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/6/2014	6/7/2014	6/7/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
21	Benzo(a)anthracene	0.0500	0.0475	0.0422	0.0539	0.0459	0.0438	0.0438	0.0476	0.0403	0.0529	0.0464	93%	0.00461	0.0133	0.0500	
22	Benzo(b)fluoranthene	0.0500	0.0408	0.0341	0.0453	0.0389	0.0364	0.0351	0.0413	0.0330	0.0456	0.0389	78%	0.00466	0.0135	0.0500	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.998					
		Date Analyzed	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/4/2014	6/5/2014	6/5/2014	6/5/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
23	Pentachlorophenol	1.00	0.888	0.927	0.966	0.897	0.854	0.833	0.963	0.822	0.894	89%	0.0555	0.166	0.800	
	Surrogates															
	2,4,6-Tribromophenol	50	37.1	37.9	40.3	37.0	35.9	32.2	39.3	34.2	36.7	73%				
	2-Fluorobiphenyl	25	19.1	18.9	22.3	19.9	17.9	13.7	20.2	19.2	18.9	76%				
	2-Fluorophenol	25	12.4	10.9	14.2	12.5	9.91	5.68	10.8	11.3	11.0	44%				
	4-Terphenyl-d14	25	19.0	19.3	19.6	18.5	19.3	18.7	19.1	14.0	18.4	74%				
	Nitrobenzene-d5	50	12.8	11.6	14.5	12.8	10.6	6.7	11.6	11.8	11.5	23%				
	Phenol-d6	25	9.54	8.94	11.1	9.82	7.96	5.31	8.83	8.67	8.77	35%				

Comments: Buchi Concentration

Technical Director _____ Date Effective 7/28/14

Semivolatile Sample Data

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number:**	170301202
Lab ID	: L1606763-01	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916	**Date Received**	: 03/09/16
Sample Location	: 450 UNION STREET	**Date Analyzed**	: 03/15/16 14:24
Sample Matrix	: WATER	**Date Extracted**	: 03/14/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: 06763-01	**Analyst**	: KV
Sample Amount	: 1000 ml	**Instrument ID**	: MINDY.I
Extraction Method	: EPA 3510C	**GC Column**	: RXI-5SilMS
Extract Volume	: 1000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
83-32-9	Acenaphthene	0.05	0.20	0.04	J
91-58-7	2-Chloronaphthalene	ND	0.20	0.04	U
206-44-0	Fluoranthene	0.75	0.20	0.04	
87-68-3	Hexachlorobutadiene	ND	0.50	0.04	U
91-20-3	Naphthalene	0.09	0.20	0.04	J
56-55-3	Benzo(a)anthracene	0.37	0.20	0.02	
50-32-8	Benzo(a)pyrene	0.45	0.20	0.04	
205-99-2	Benzo(b)fluoranthene	0.56	0.20	0.02	
207-08-9	Benzo(k)fluoranthene	0.16	0.20	0.04	J
218-01-9	Chrysene	0.38	0.20	0.04	
208-96-8	Acenaphthylene	ND	0.20	0.04	U
120-12-7	Anthracene	0.10	0.20	0.04	J
191-24-2	Benzo(ghi)perylene	0.31	0.20	0.04	
86-73-7	Fluorene	ND	0.20	0.04	U
85-01-8	Phenanthrene	0.34	0.20	0.02	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.04	U
193-39-5	Indeno(1,2,3-cd)Pyrene	0.27	0.20	0.04	
129-00-0	Pyrene	0.70	0.20	0.04	
91-57-6	2-Methylnaphthalene	ND	0.20	0.05	U
87-86-5	Pentachlorophenol	ND	0.80	0.22	U
118-74-1	Hexachlorobenzene	ND	0.80	0.03	U
67-72-1	Hexachloroethane	ND	0.80	0.03	U

Form 1
SemiVolatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number:	170301202
Lab ID	: WG873664-1	Date Collected :	NA
Client ID	: WG873664-1BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	03/15/16 07:18
Sample Matrix	: WATER	Date Extracted :	03/14/16
Analytical Method	: 1,8270D-SIM	Dilution Factor :	1
Lab File ID	: 873664-1	Analyst	: KV
Sample Amount	: 1000 ml	Instrument ID	: MINDY.I
Extraction Method	: EPA 3510C	GC Column	: RXI-5SilMS
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	1 uL

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
83-32-9	Acenaphthene	ND	0.20	0.04	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.04	U
206-44-0	Fluoranthene	ND	0.20	0.04	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.04	U
91-20-3	Naphthalene	ND	0.20	0.04	U
56-55-3	Benzo(a)anthracene	ND	0.20	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.20	0.04	U
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.02	U
207-08-9	Benzo(k)fluoranthene	ND	0.20	0.04	U
218-01-9	Chrysene	ND	0.20	0.04	U
208-96-8	Acenaphthylene	ND	0.20	0.04	U
120-12-7	Anthracene	ND	0.20	0.04	U
191-24-2	Benzo(ghi)perylene	ND	0.20	0.04	U
86-73-7	Fluorene	ND	0.20	0.04	U
85-01-8	Phenanthrene	ND	0.20	0.02	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.04	U
193-39-5	Indeno(1,2,3-cd)Pyrene	ND	0.20	0.04	U
129-00-0	Pyrene	ND	0.20	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.20	0.05	U
87-86-5	Pentachlorophenol	ND	0.80	0.22	U
118-74-1	Hexachlorobenzene	ND	0.80	0.03	U
67-72-1	Hexachloroethane	ND	0.80	0.03	U

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D
Lab Smp Id:
Inj Date : 15-MAR-2016 14:24
Operator : kv Inst ID: Mindy.i
Smp Info : l1606763-01,32,ny,kv
Misc Info : wg873828, wg873664,ICAL11948
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Meth Date : 15-Mar-2016 15:37 kvitiello Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270nj-ny.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.073	3.048	(0.763)	788570	19.8859	19.9	
$ 2	Phenol-d6	99	3.753	3.728	(0.932)	620044	13.1117	13.1	
* 3	1,4-Dichlorobenzene-d4	152	4.026	4.026	(1.000)	118920	4.00000		
4	Hexachloroethane	117	Compound Not Detected.						
$ 5	Nitrobenzene-d5	82	4.509	4.509	(1.120)	685168	17.6704	17.7	
* 6	Naphthalene-d8	136	5.157	5.156	(1.000)	457900	4.00000		
7	Naphthalene	128	5.175	5.174	(1.003)	10738	0.08839	0.0884	
8	Hexachlorobutadiene	225	Compound Not Detected.						
9	2-Methylnaphthalene	142	Compound Not Detected.						
$ 11	2-Fluorobiphenyl	172	6.204	6.205	(1.203)	1857908	22.3361	22.3	
12	2-Chloronaphthalene	162	Compound Not Detected.						
13	Acenaphthylene	152	Compound Not Detected.						
* 14	Acenaphthene-d10	164	6.936	6.932	(1.000)	264856	4.00000		
15	Acenaphthene	153	6.968	6.965	(1.005)	4090	0.05123	0.0512	
16	Fluorene	166	Compound Not Detected.						
$ 17	2,4,6-Tribromophenol	330	7.929	7.911	(1.143)	598849	64.1932	64.2	
18	Hexachlorobenzene	284	Compound Not Detected.						
19	Pentachlorophenol	266	Compound Not Detected.						
* 20	Phenanthrene-d10	188	8.846	8.839	(1.000)	494902	4.00000		
21	Phenanthrene	178	8.876	8.874	(1.003)	46975	0.34096	0.341	
22	Anthracene	178	8.952	8.945	(1.012)	13282	0.09989	0.0999	
24	Fluoranthene	202	10.641	10.633	(1.203)	107635	0.75466	0.755	
25	Pyrene	202	10.983	10.975	(1.241)	109774	0.70062	0.701	
$ 26	4-Terphenyl-d14	244	11.284	11.287	(1.276)	1957953	22.7370	22.7	
27	Benzo(a)anthracene	228	12.672	12.662	(0.999)	57743	0.37478	0.375	
* 28	Chrysene-d12	240	12.683	12.677	(1.000)	488920	4.00000		
29	Chrysene	228	12.714	12.707	(1.002)	59623	0.38439	0.384	
30	Benzo(b)fluoranthene	252	13.872	13.857	(0.973)	83877	0.56544	0.565(M)	M6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
31 Benzo(k)fluoranthene	252	13.887	13.884	(0.974)	29741	0.15909	0.159(M)	M3
33 Benzo(a)pyrene	252	14.193	14.183	(0.995)	64735	0.44678	0.447	
* 34 Perylene-d12	264	14.257	14.243	(1.000)	527845	4.00000		
36 Indeno(1,2,3-cd)pyrene	276	15.454	15.449	(1.084)	48200	0.26761	0.268(M)	M2
37 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
38 Benzo(ghi)perylene	276	15.800	15.788	(1.108)	47376	0.30813	0.308(M)	M2

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: 06763-01.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

Calibration Date: 15-MAR-2016
Calibration Time: 06:27
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	132999	66500	265998	118920	-10.59
6 Naphthalene-d8	510804	255402	1021608	457900	-10.36
14 Acenaphthene-d10	289729	144865	579458	264856	-8.58
20 Phenanthrene-d10	526097	263049	1052194	494902	-5.93
28 Chrysene-d12	514442	257221	1028884	488920	-4.96
34 Perylene-d12	513470	256735	1026940	527845	2.80

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.03	3.53	4.53	4.03	-0.01
6 Naphthalene-d8	5.16	4.66	5.66	5.16	0.02
14 Acenaphthene-d10	6.93	6.43	7.43	6.94	0.05
20 Phenanthrene-d10	8.84	8.34	9.34	8.85	0.08
28 Chrysene-d12	12.68	12.18	13.18	12.68	0.05
34 Perylene-d12	14.24	13.74	14.74	14.26	0.10

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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa01132
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: kv
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SIMLCS.spk Quant Type: ISTD
Sublist File: 8270nj-ny.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	50.0	19.9	39.77	21-120
$ 2 Phenol-d6	50.0	13.1	26.22	10-120
$ 5 Nitrobenzene-d5	25.0	17.7	70.68	23-120
$ 11 2-Fluorobiphenyl	25.0	22.3	89.34	15-120
$ 17 2,4,6-Tribromophen	50.0	64.2	128.39*	10-120
$ 26 4-Terphenyl-d14	25.0	22.7	90.95	33-120

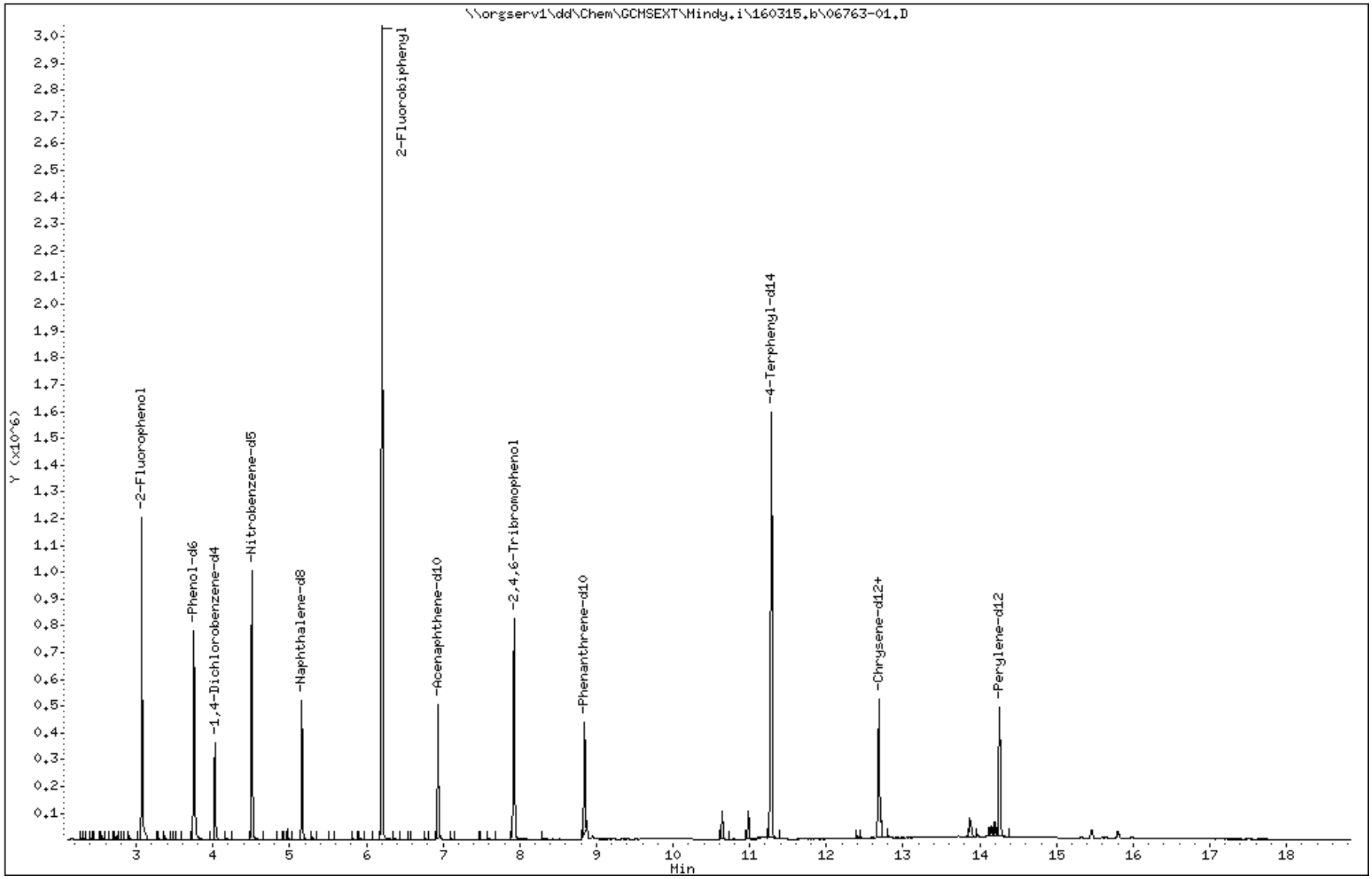
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Date : 15-MAR-2016 14:24
Client ID:
Sample Info: 11606763-01,32,ny,kv

Instrument: Mindy.i

Operator: kv

Column phase: RTx-5

Column diameter: 0.32



Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

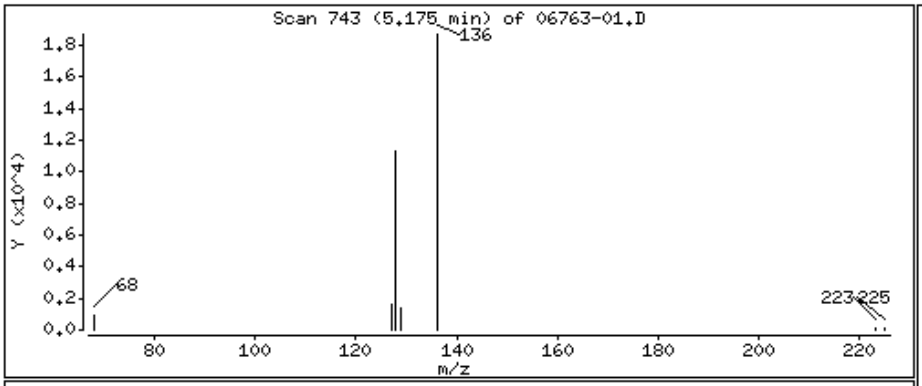
Operator: kv

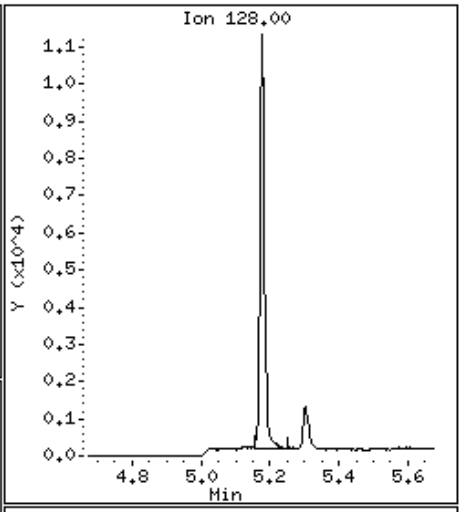
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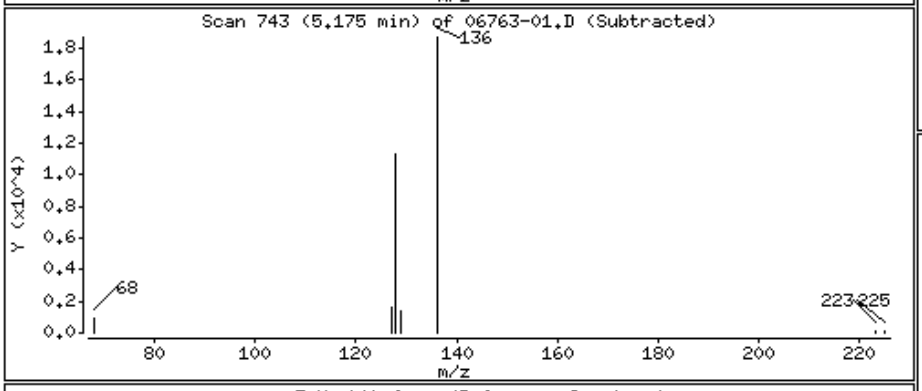
Column diameter: 0.32

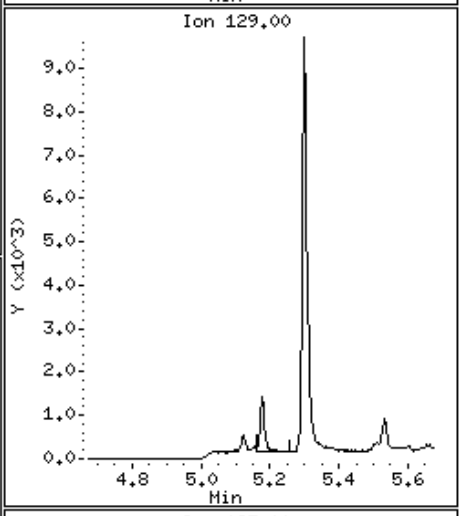
7 Naphthalene

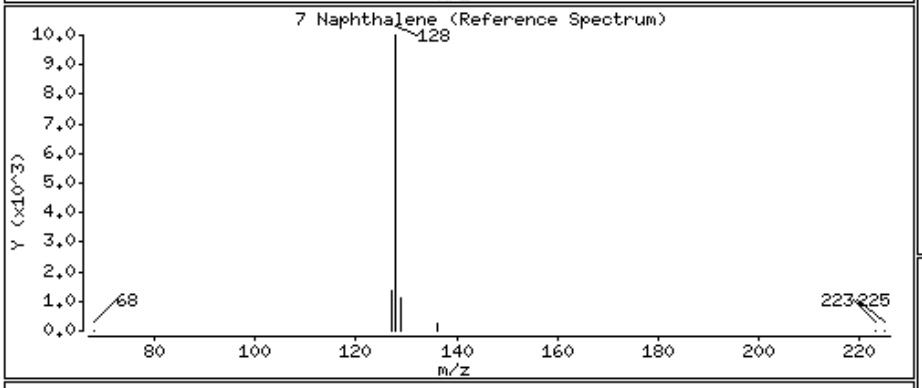
Concentration: 0.0884 ng

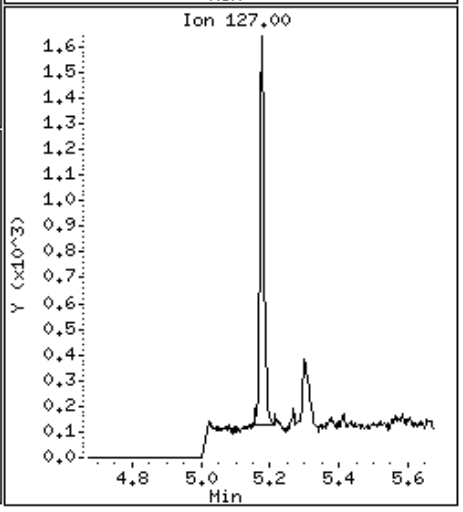


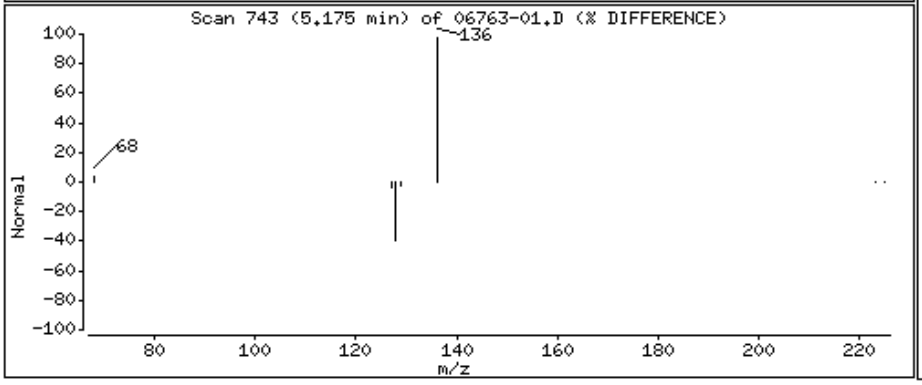












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

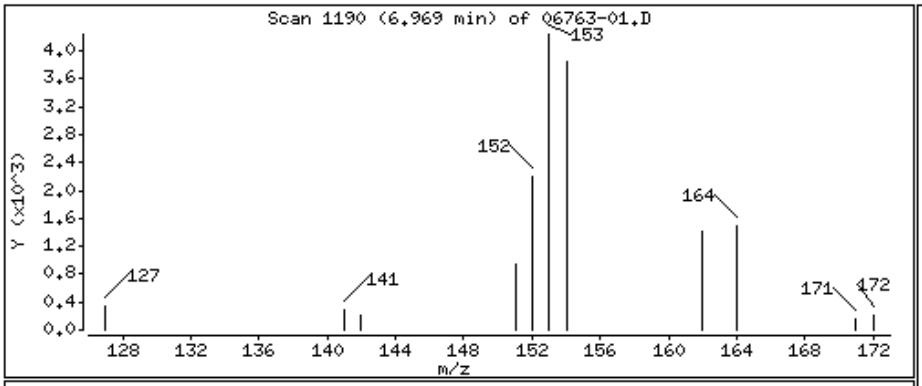
Operator: kv

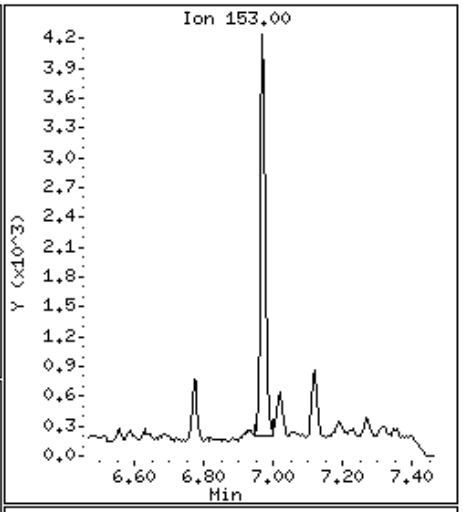
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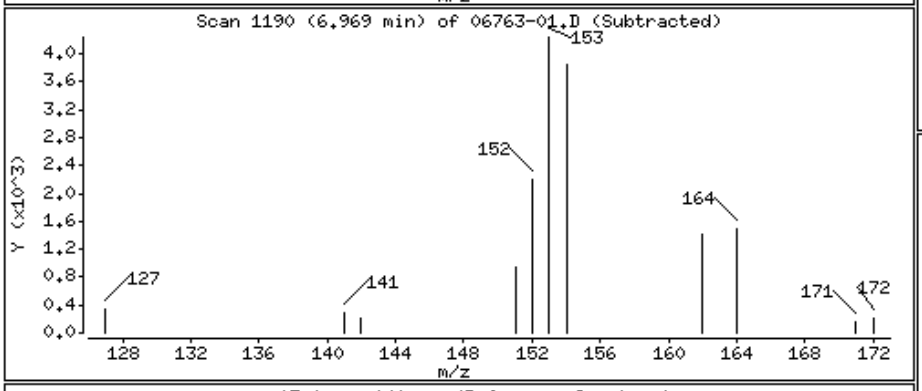
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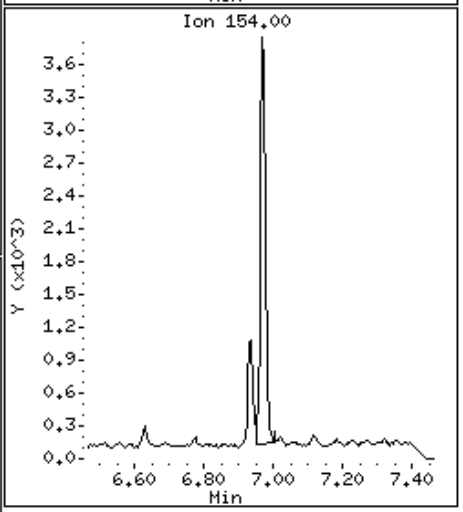
15 Acenaphthene

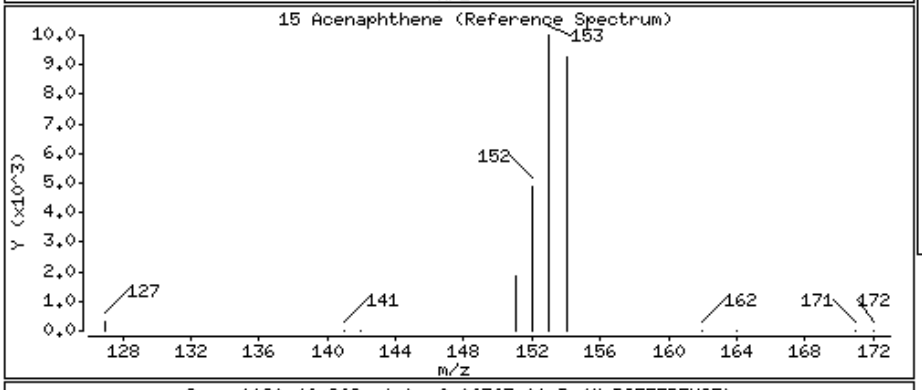
Concentration: 0.0512 ng

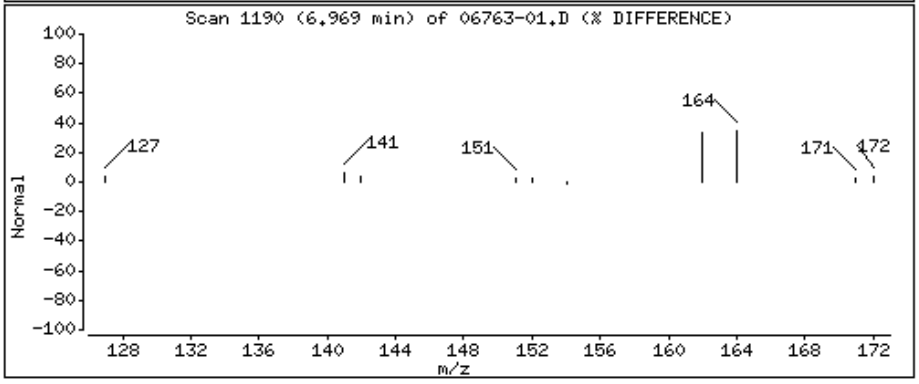












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

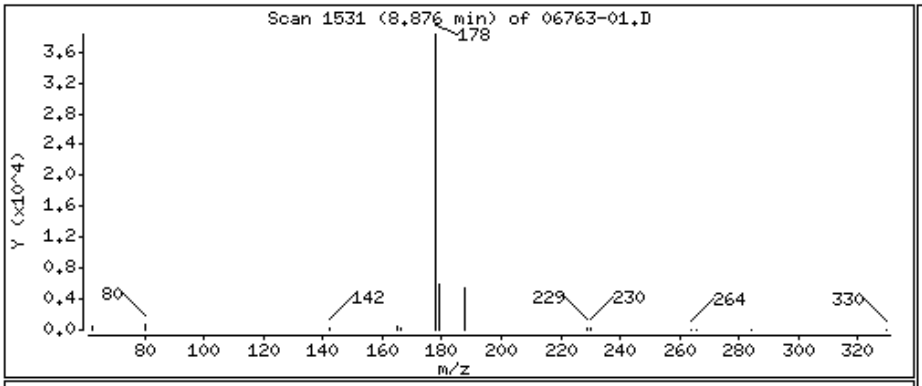
Operator: kv

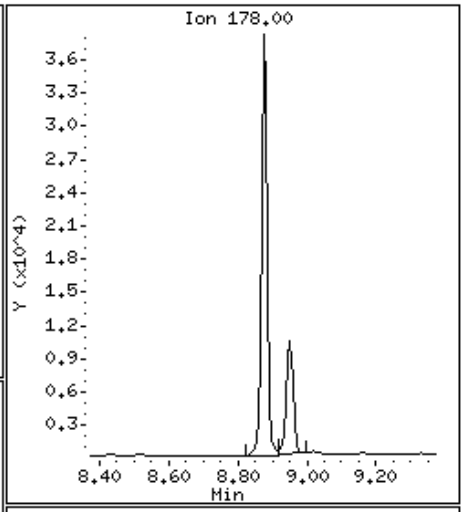
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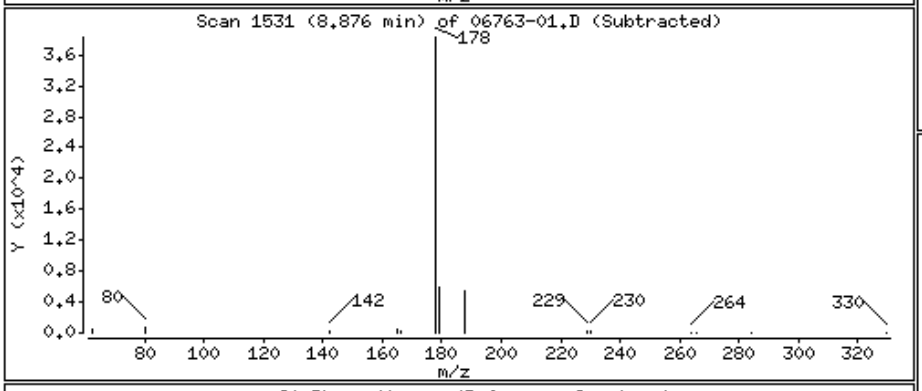
Column diameter: 0.32

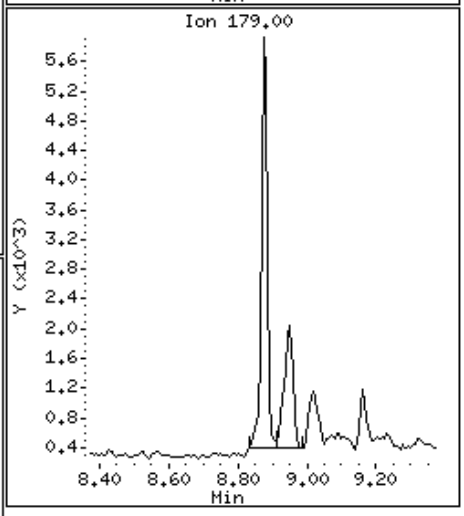
21 Phenanthrene

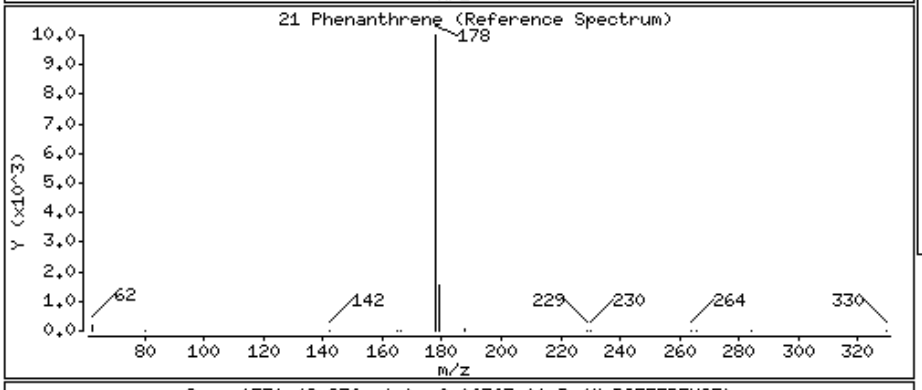
Concentration: 0.341 ng

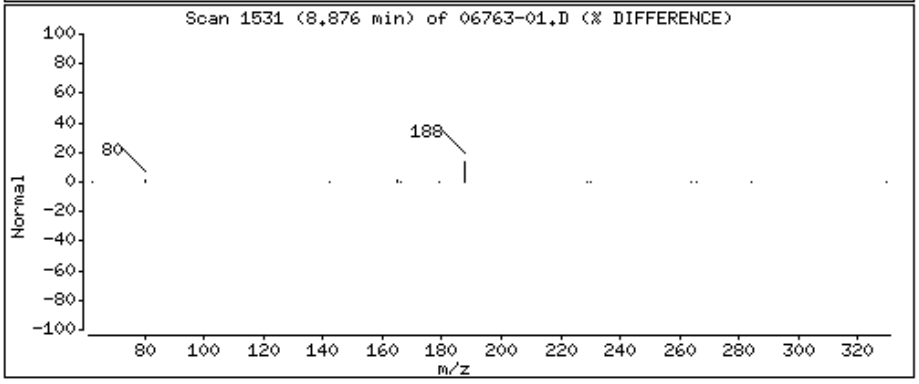












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

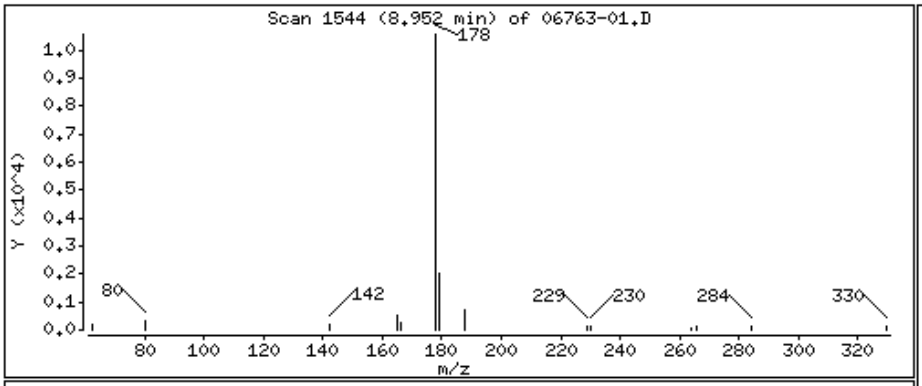
Operator: kv

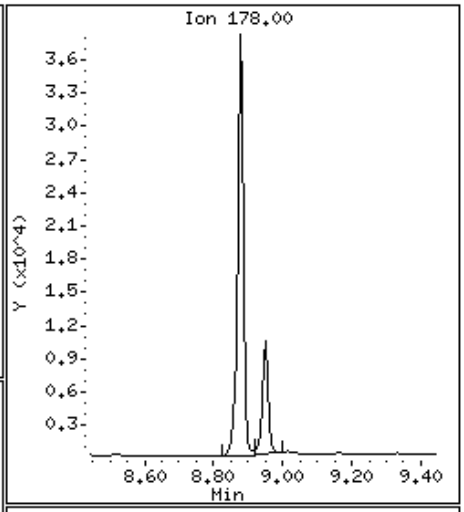
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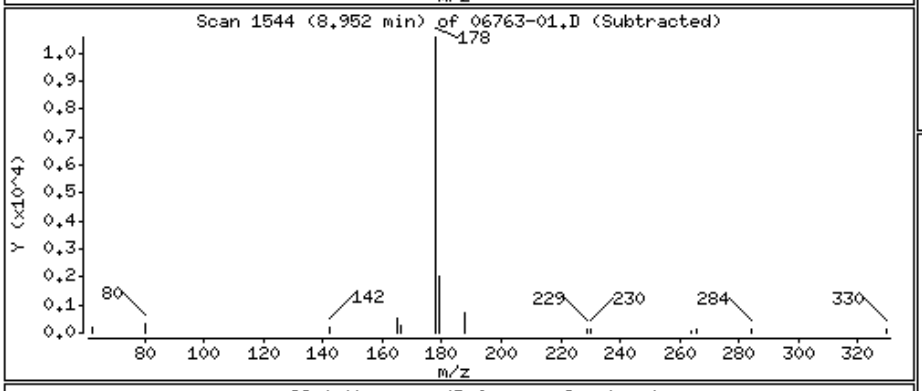
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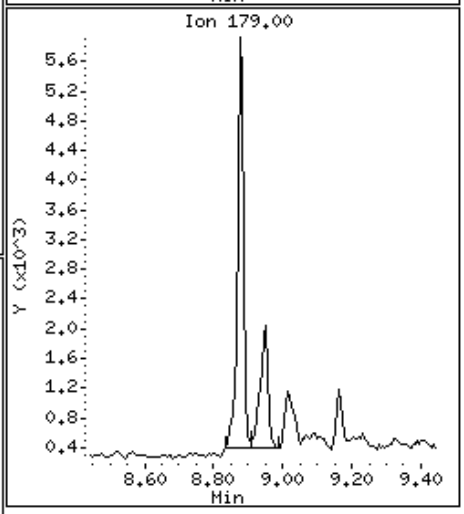
22 Anthracene

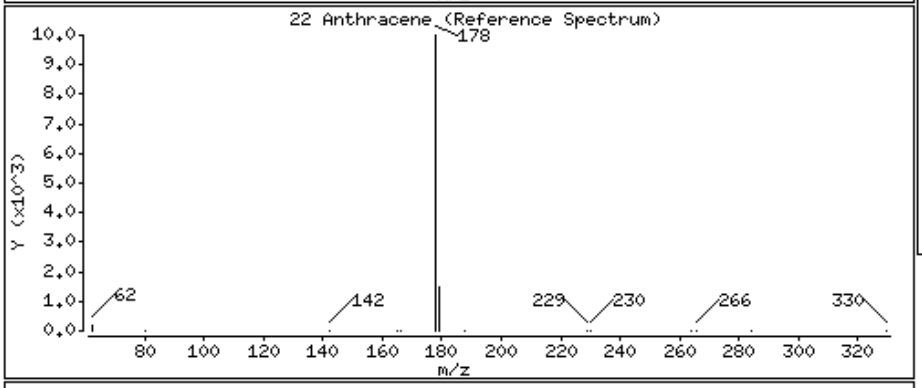
Concentration: 0.0999 ng

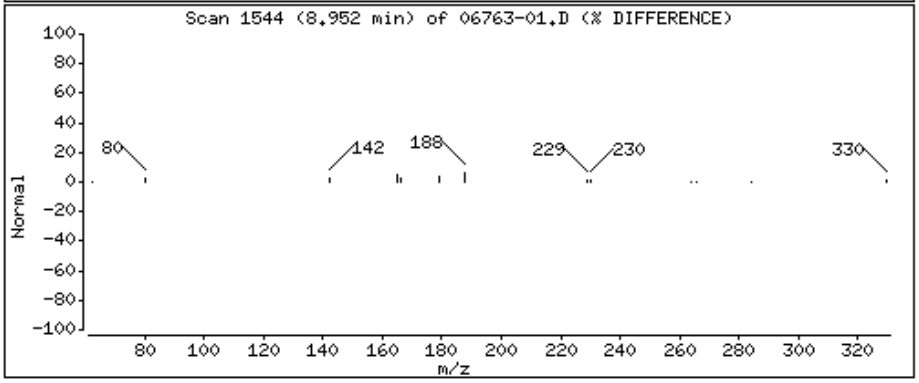












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

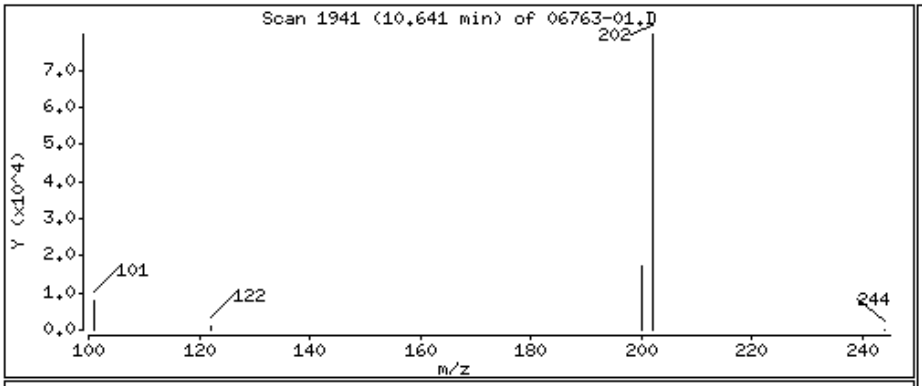
Operator: kv

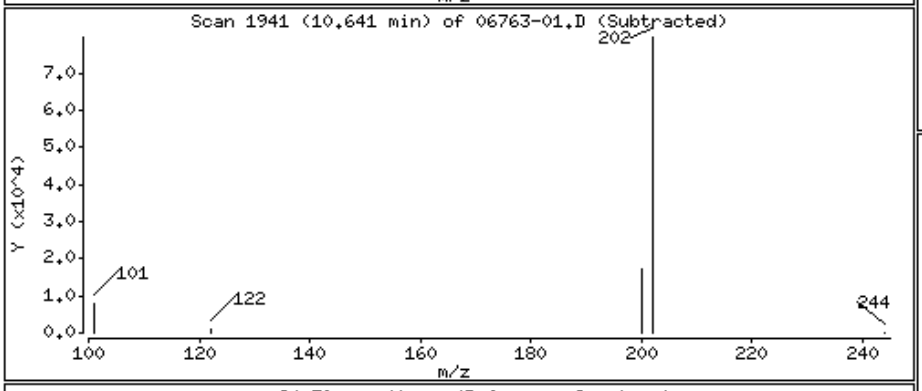
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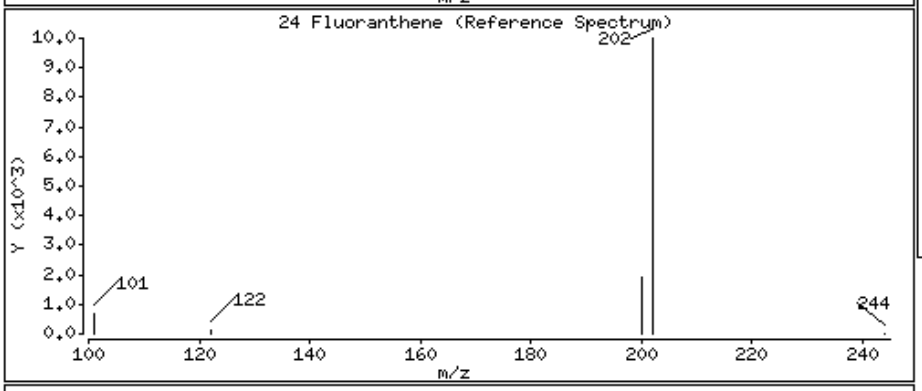
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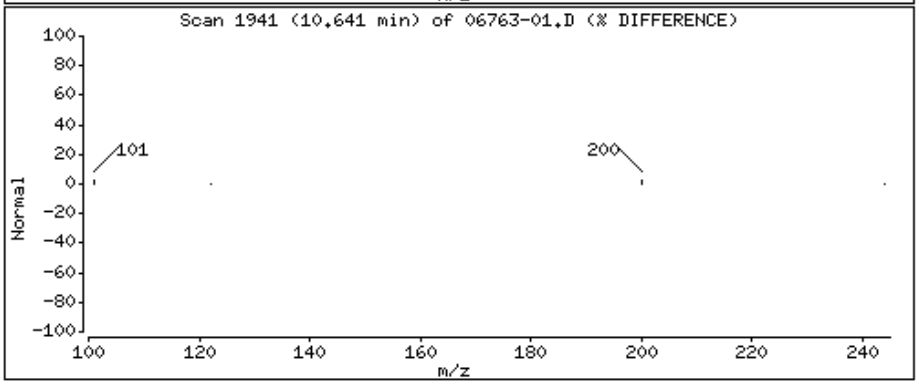
24 Fluoranthene

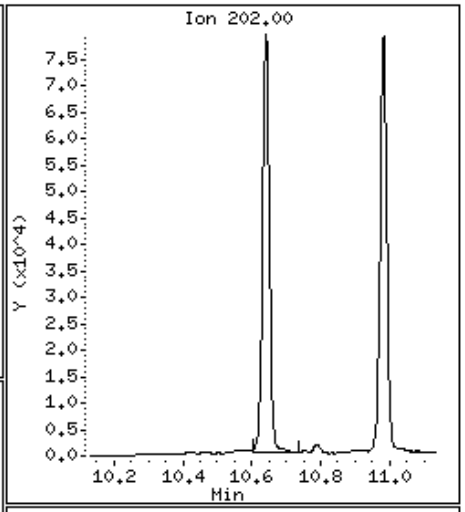
Concentration: 0.755 ng

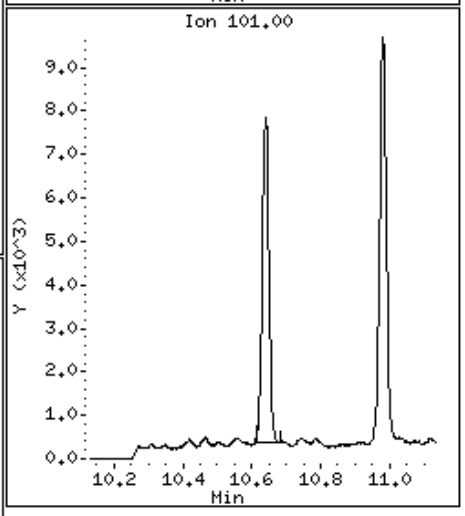












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

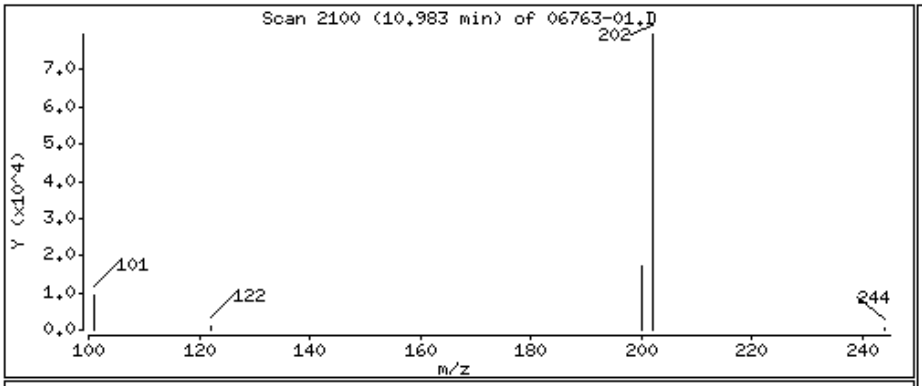
Operator: kv

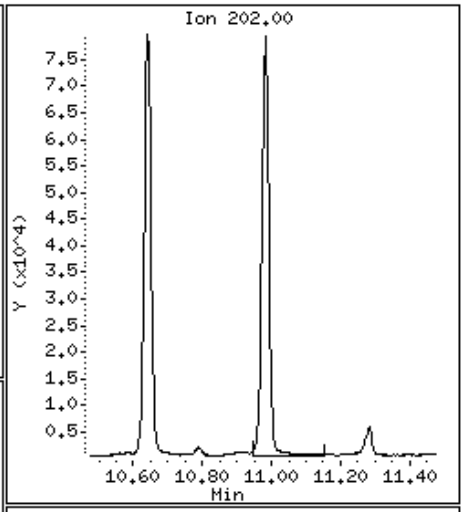
Column phase: RTx-5

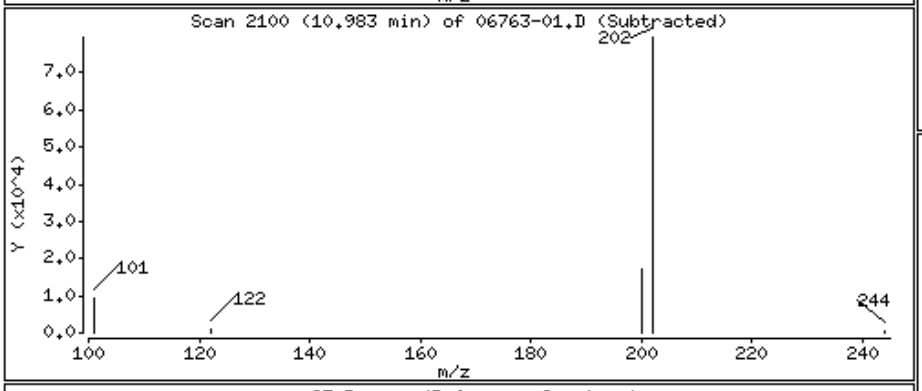
Column diameter: 0.32

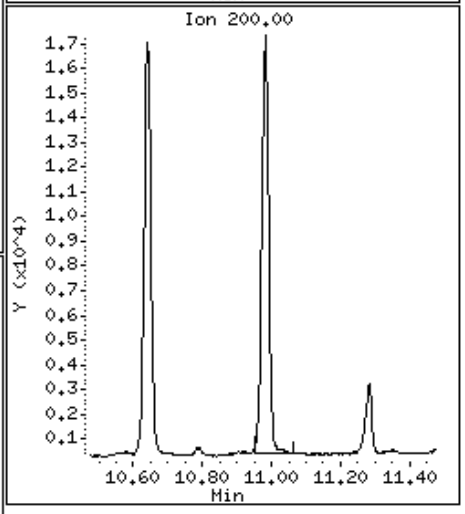
25 Pyrene

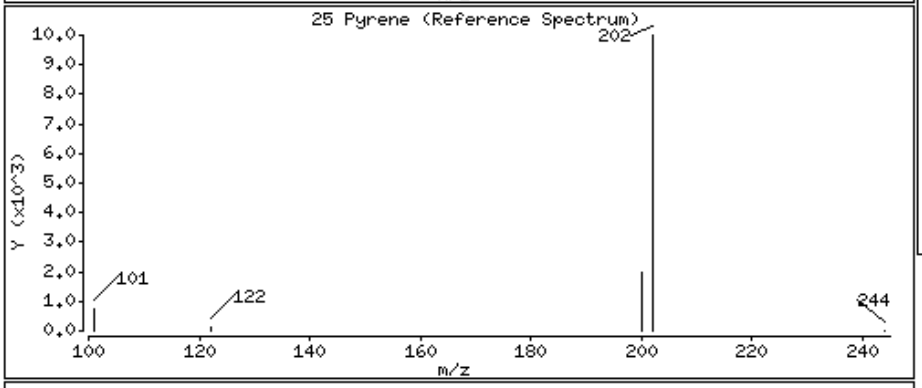
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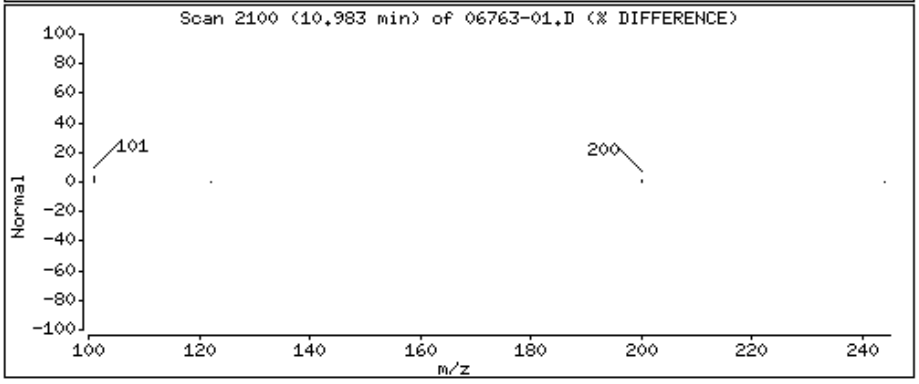












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

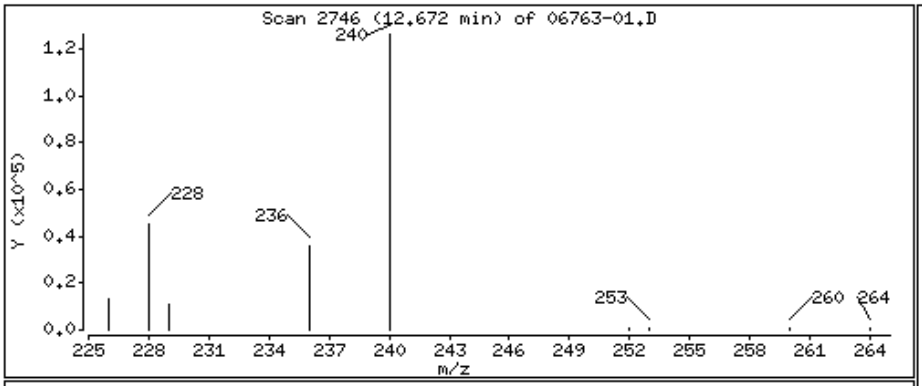
Operator: kv

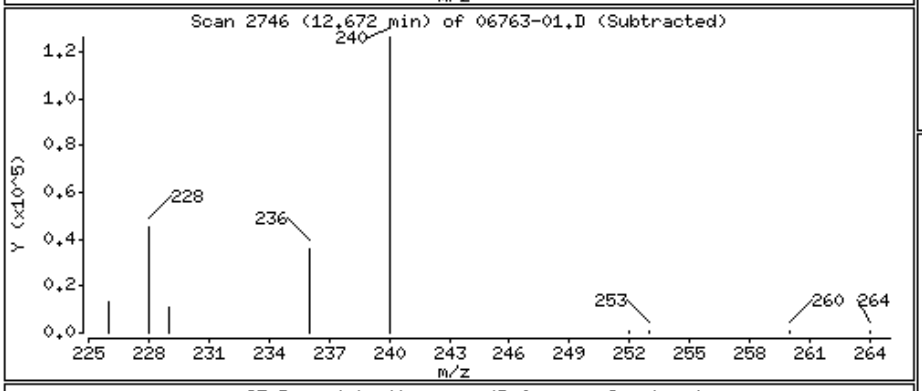
Column phase: RTx-5

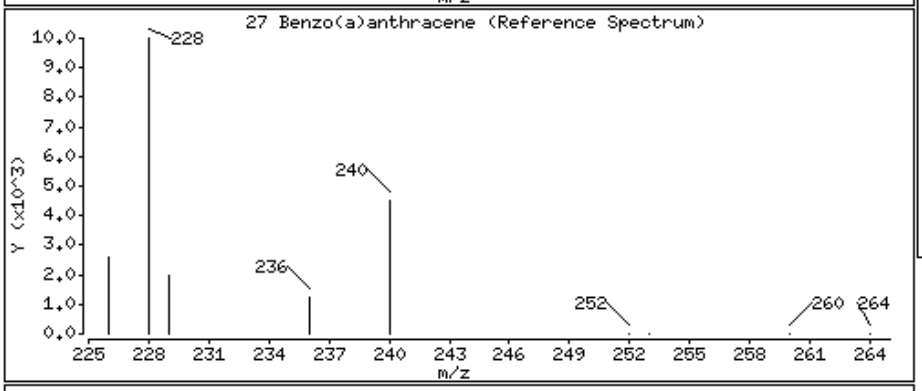
Column diameter: 0.32

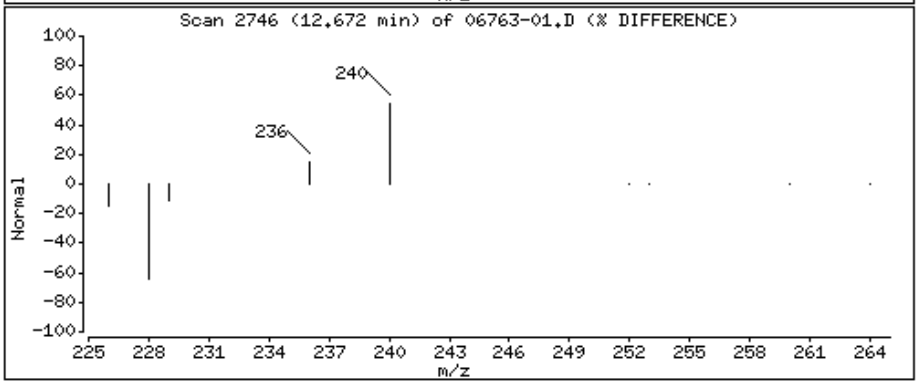
27 Benzo(a)anthracene

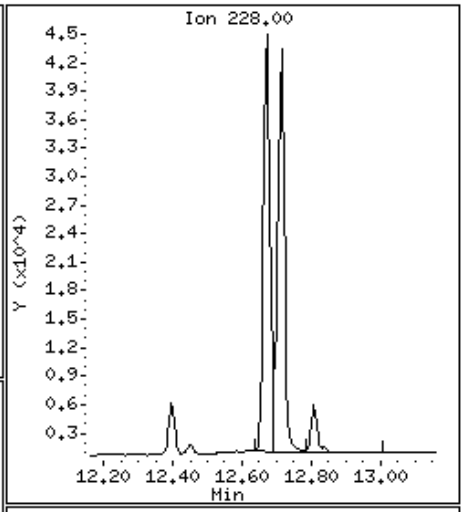
Concentration: 0.375 ng

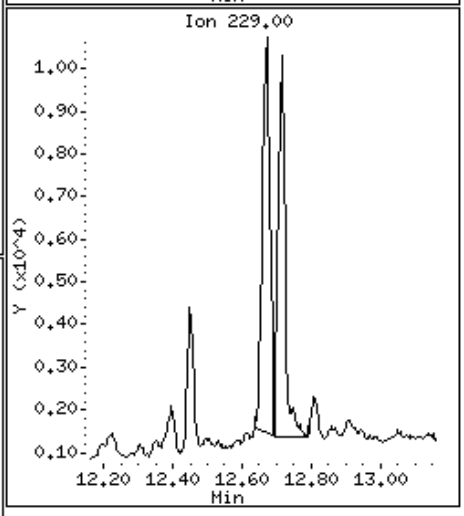












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

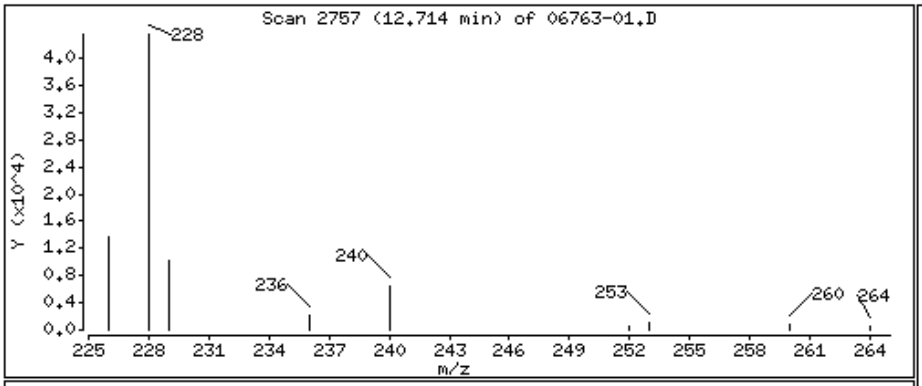
Operator: kv

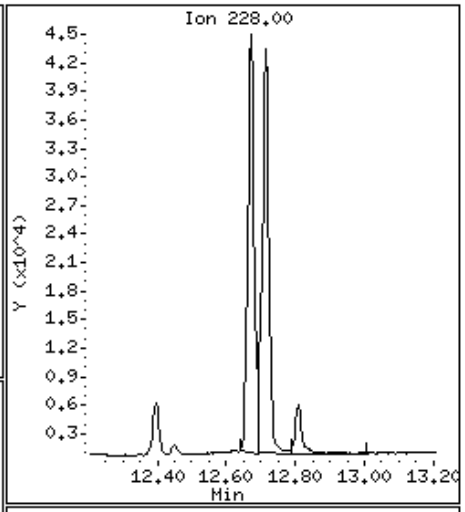
Column phase: RTx-5

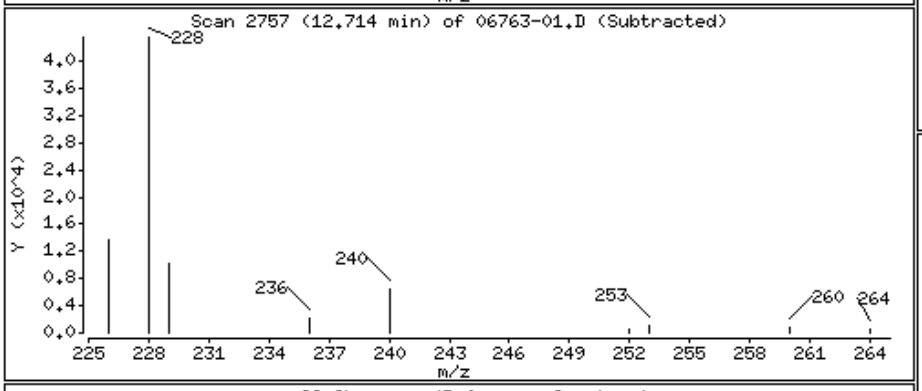
Column diameter: 0.32

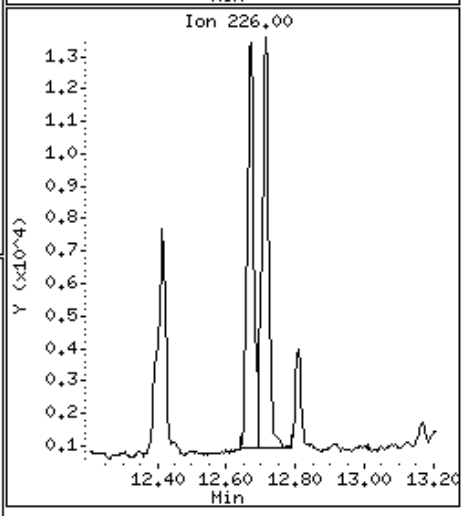
29 Chrysene

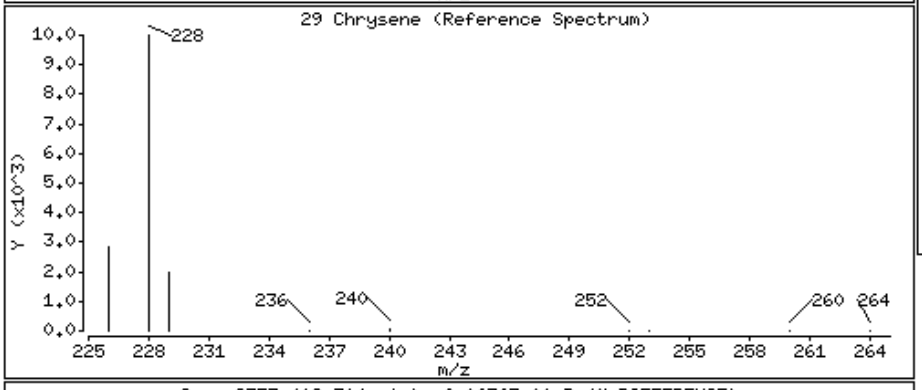
Concentration: 0.384 ng

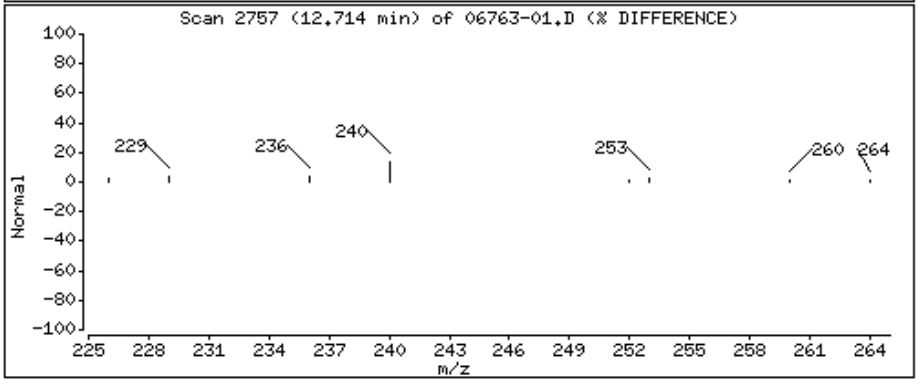












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

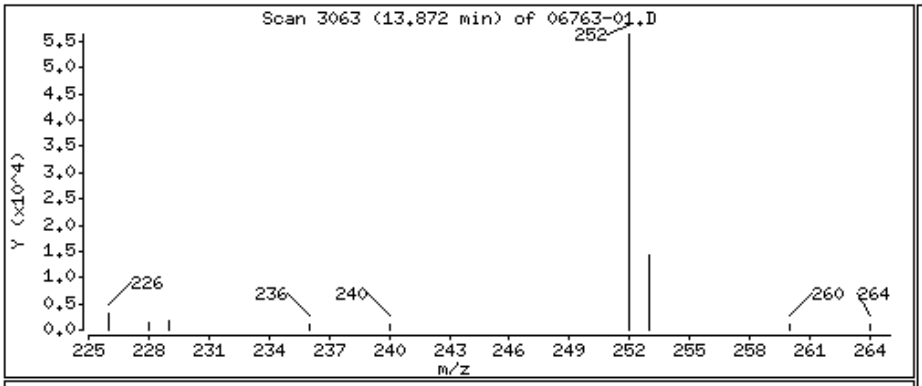
Operator: kv

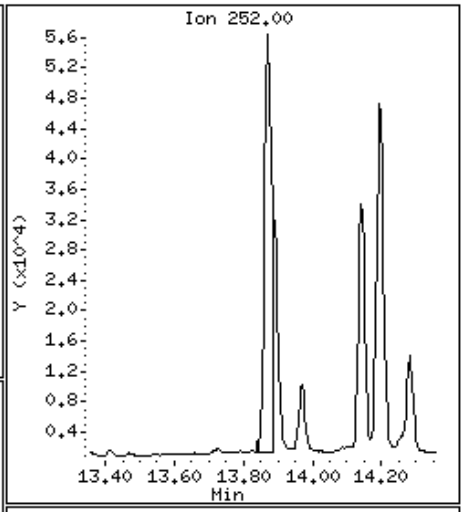
Column phase: RTx-5

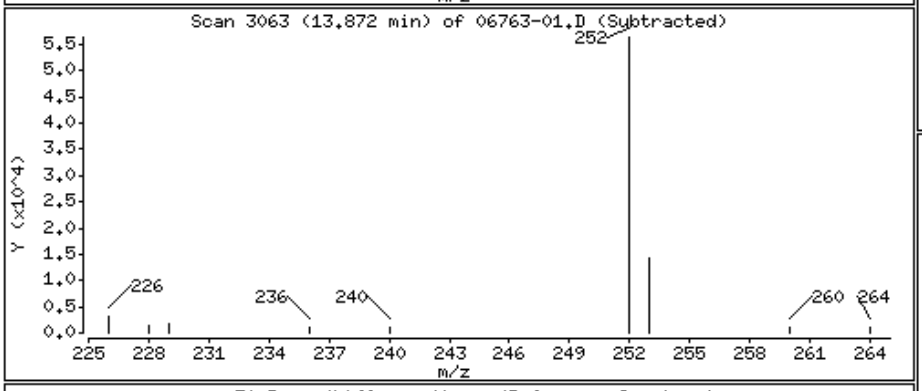
Column diameter: 0.32

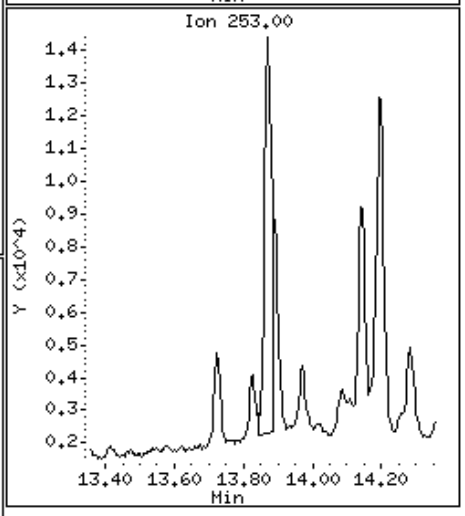
30 Benzo(b)fluoranthene

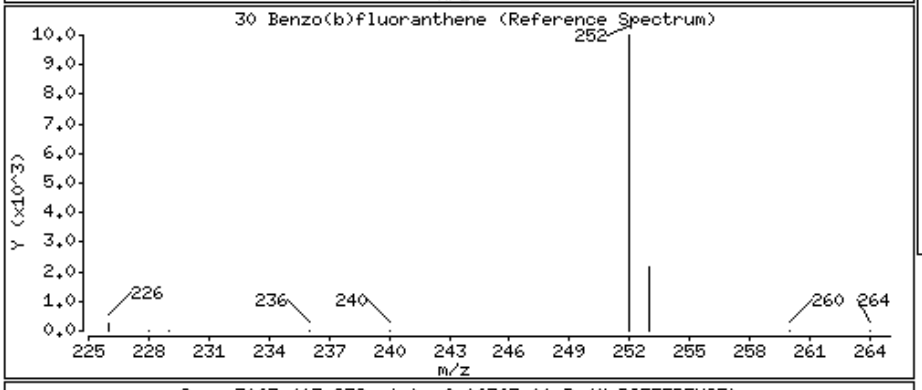
Concentration: 0.565 ng

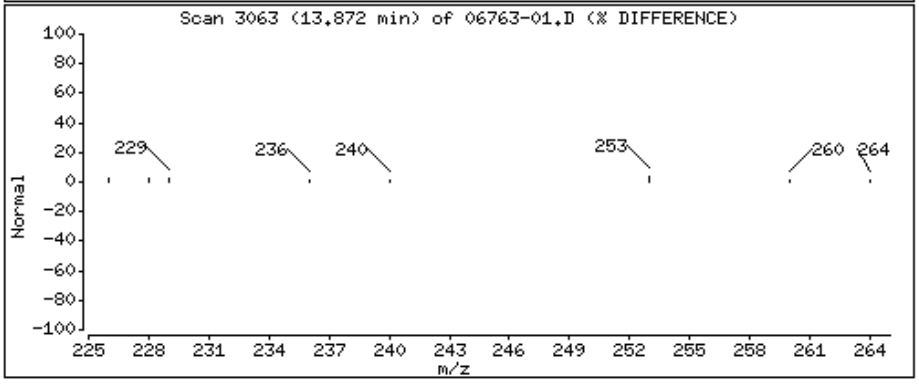












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

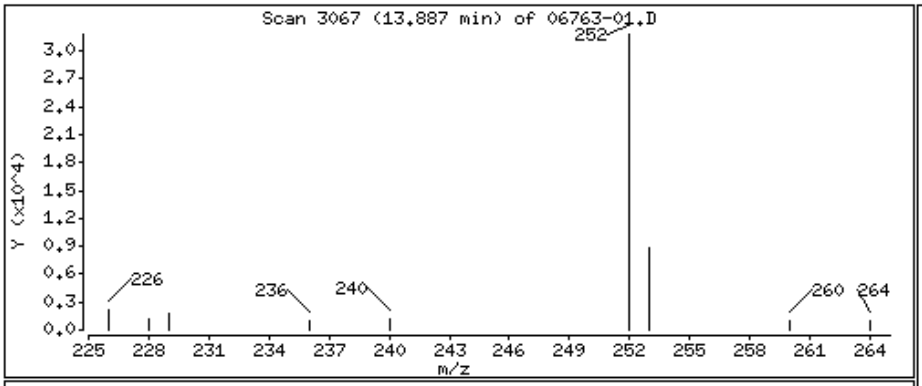
Operator: kv

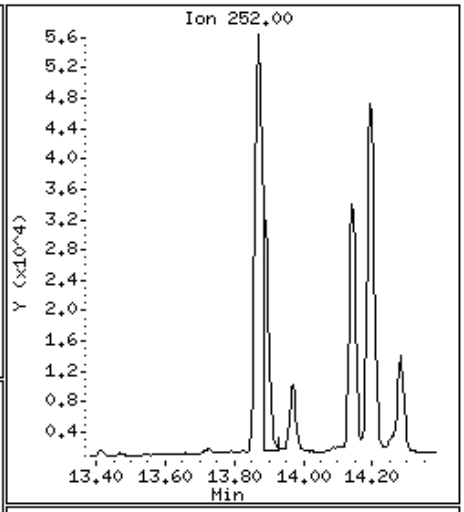
Column phase: RTx-5

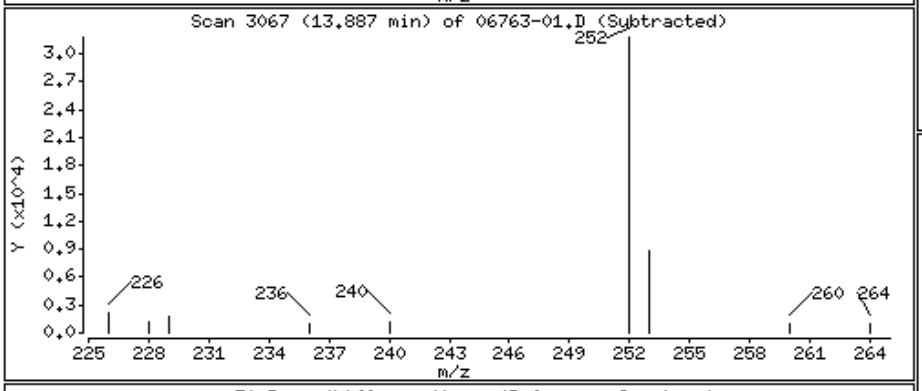
Column diameter: 0.32

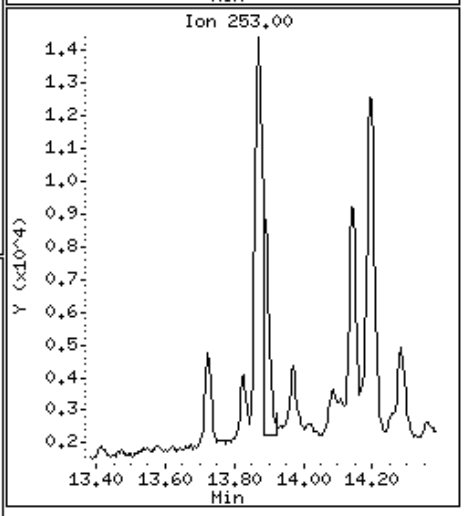
31 Benzo(k)fluoranthene

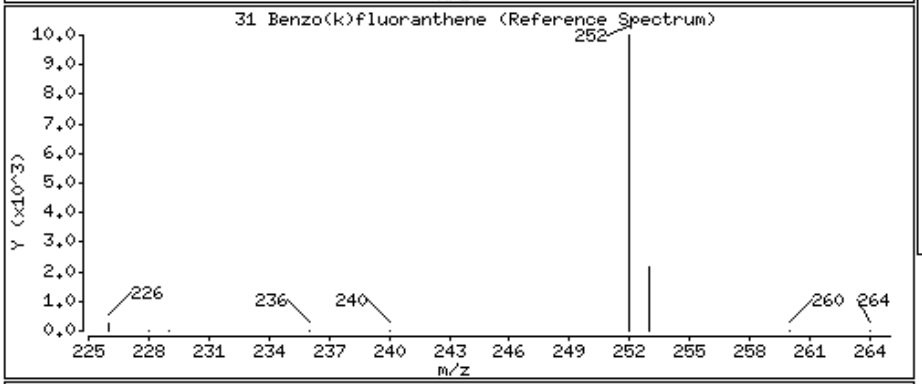
Concentration: 0.159 ng

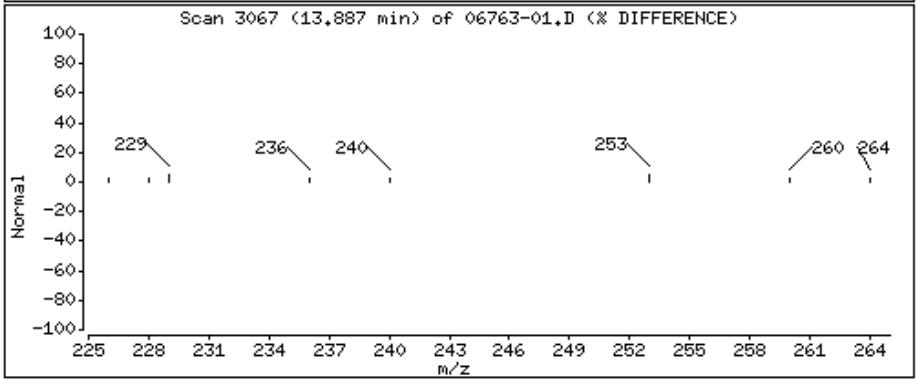












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

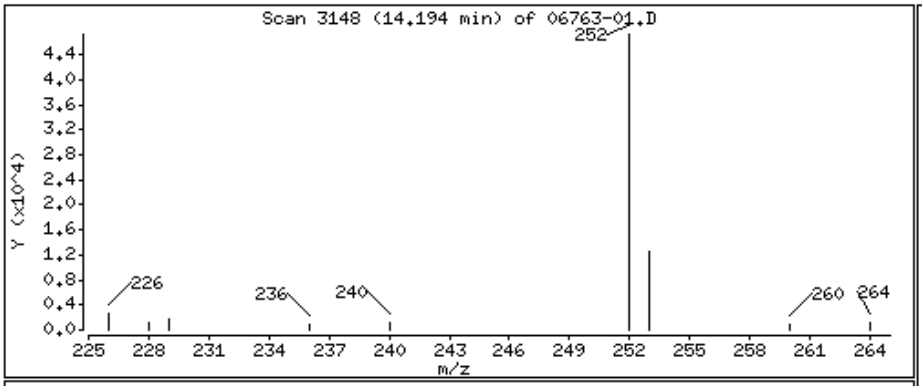
Operator: kv

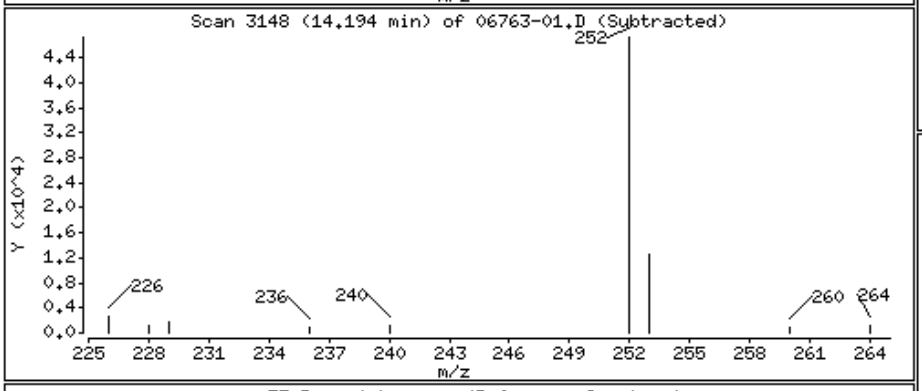
Column phase: RTx-5

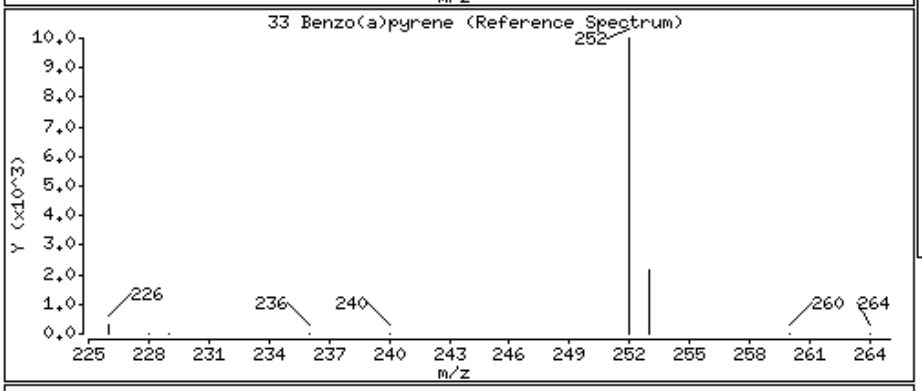
Column diameter: 0.32

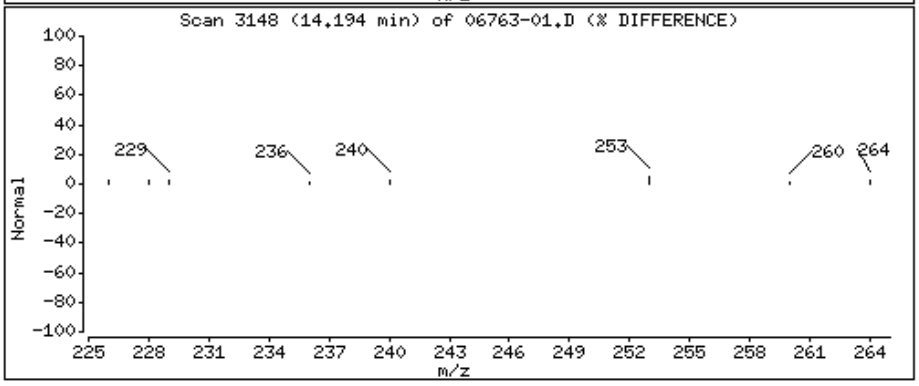
33 Benzo(a)pyrene

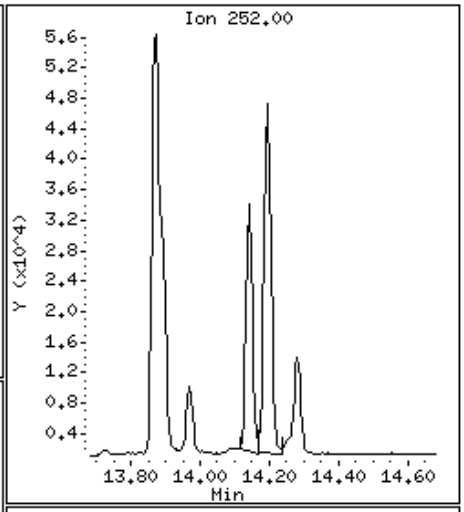
Concentration: 0.447 ng

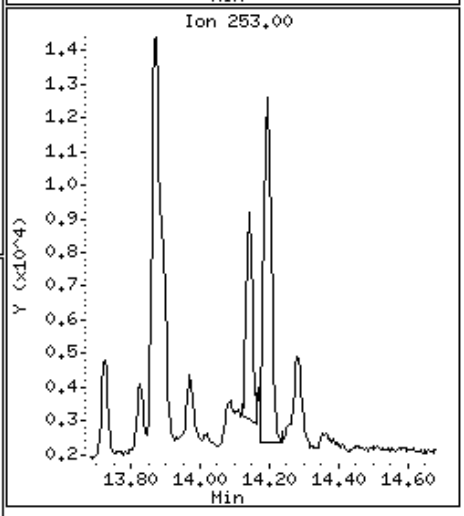












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

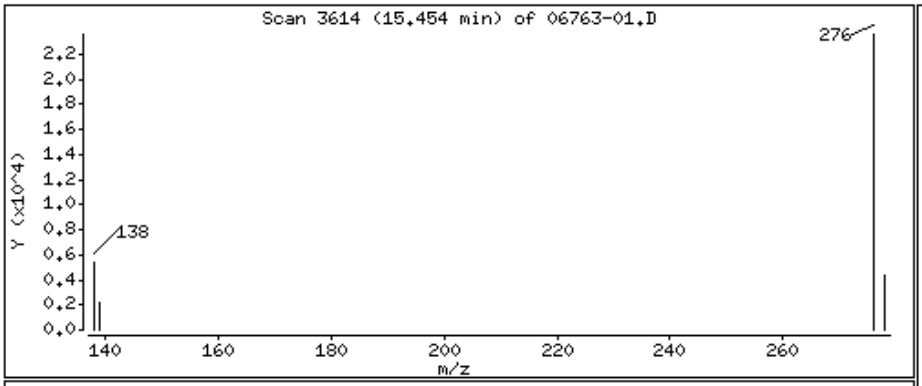
Operator: kv

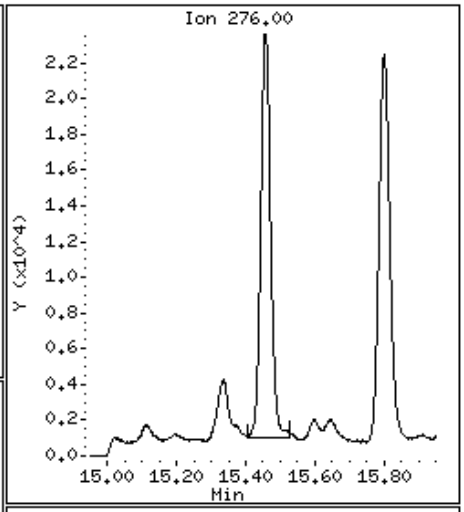
Column phase: RTx-5

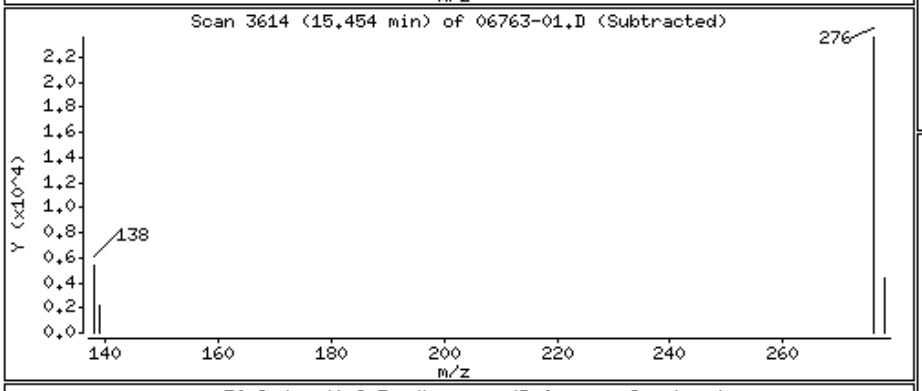
Column diameter: 0.32

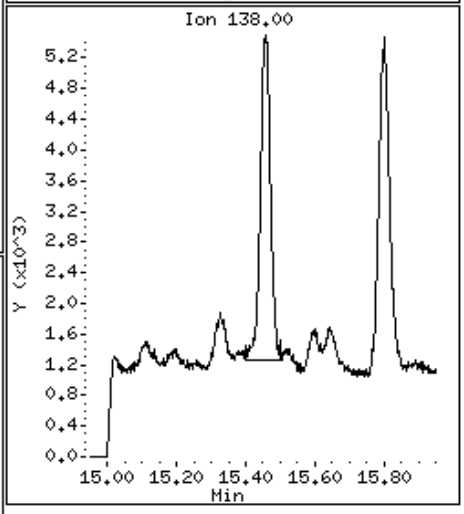
36 Indeno(1,2,3-cd)pyrene

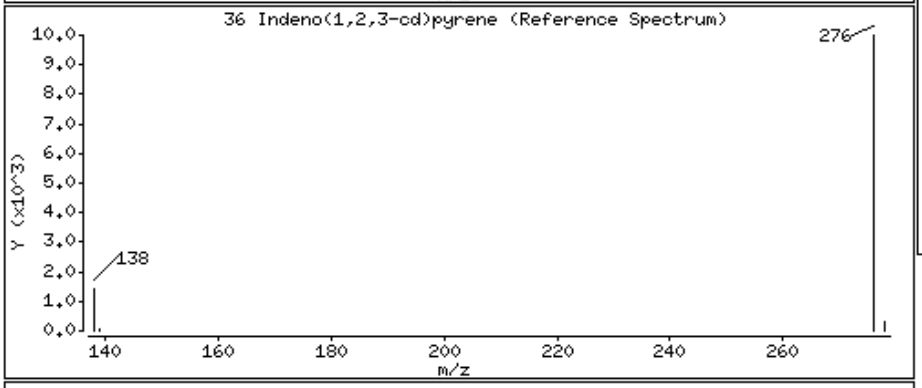
Concentration: 0.268 ng

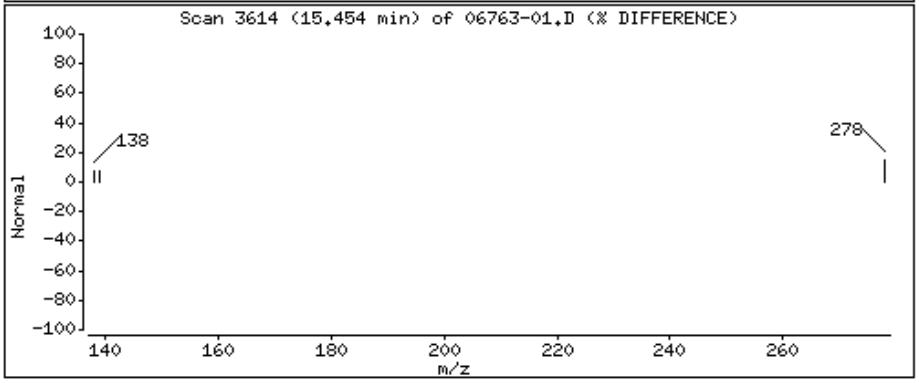












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\06763-01.D

Date : 15-MAR-2016 14:24

Client ID:

Instrument: Mindy.i

Sample Info: 11606763-01,32,ny,kv

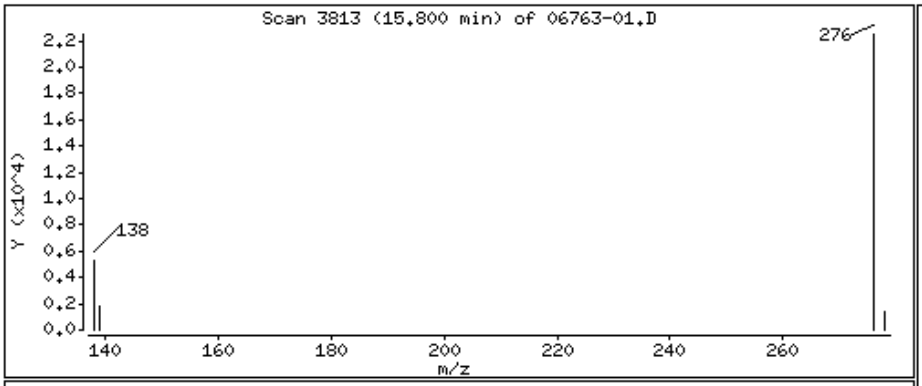
Operator: kv

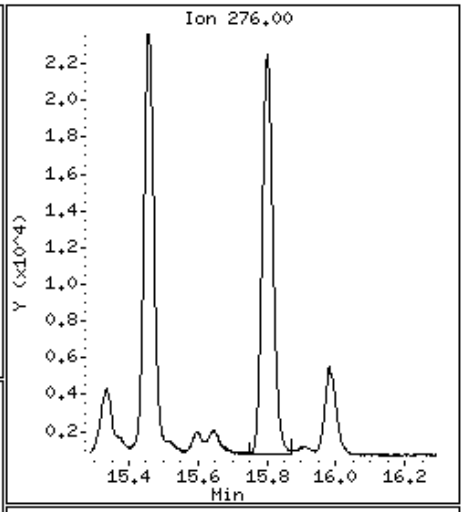
Column phase: RTx-5

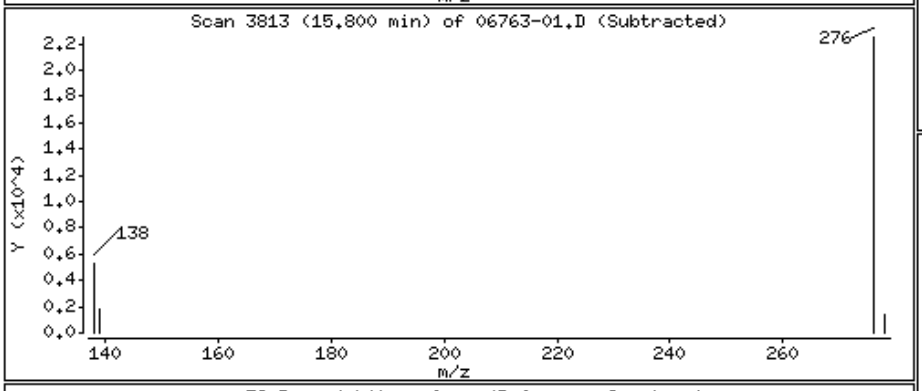
Column diameter: 0.32

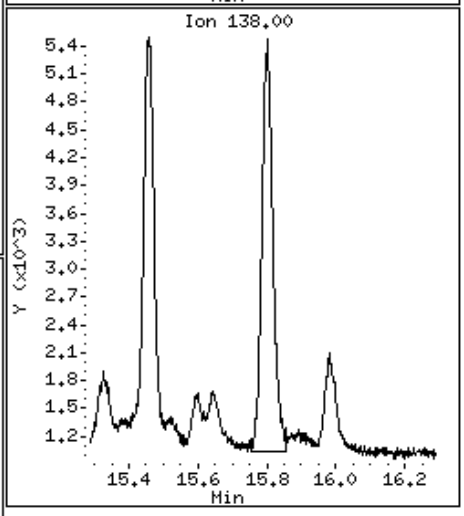
38 Benzo(ghi)perylene

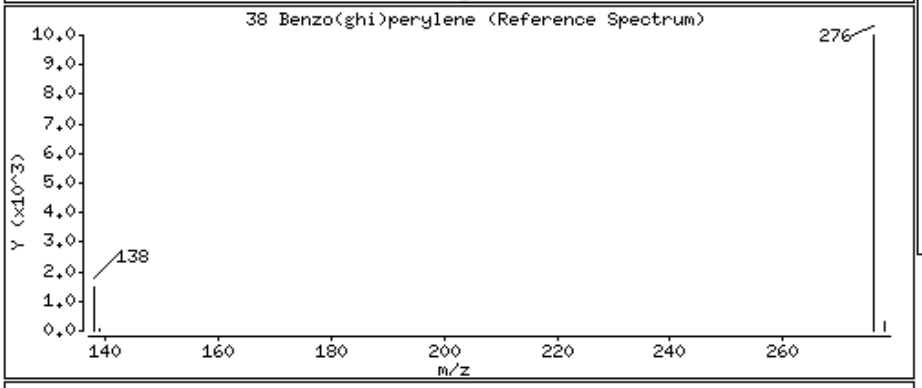
Concentration: 0.308 ng

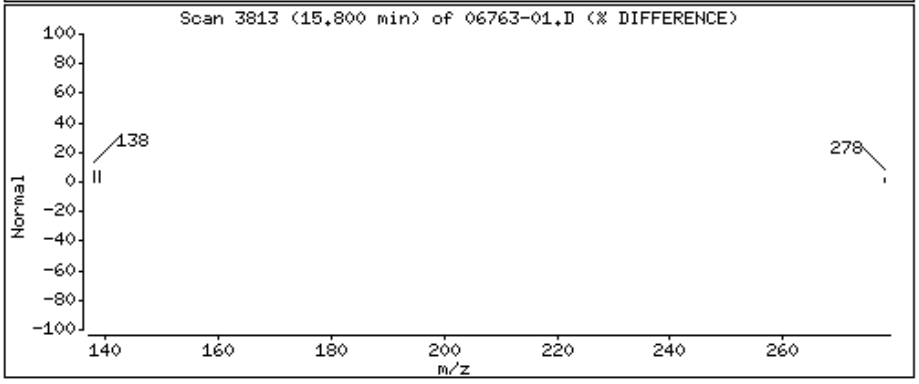












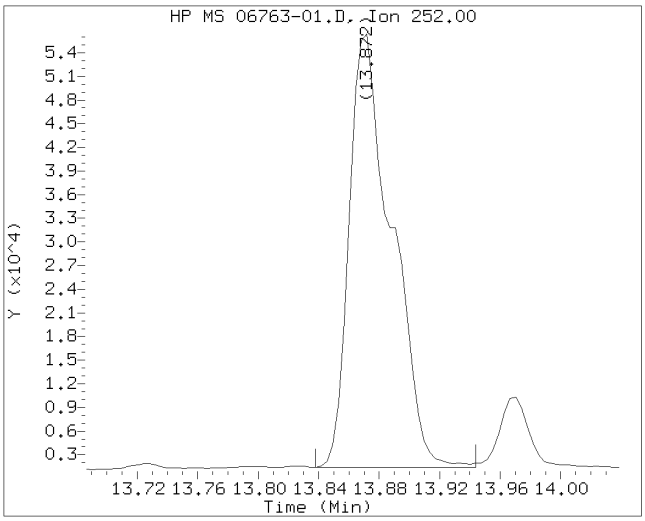
Alpha Analytical Labs

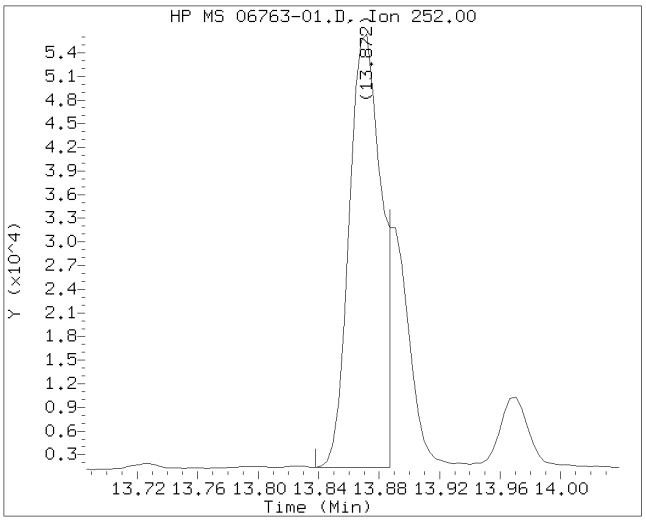
Manual Integration

Sample Info : l1606763-01,32,ny,kv
wg873828, wg873664,ICAL11948

Instrument ID : Mindy.i
Method : 8270D.m
File : 06763-01.D
Injection Date : 15-MAR-2016 14:24
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

Compound # 30: Benzo(b)fluoranthene

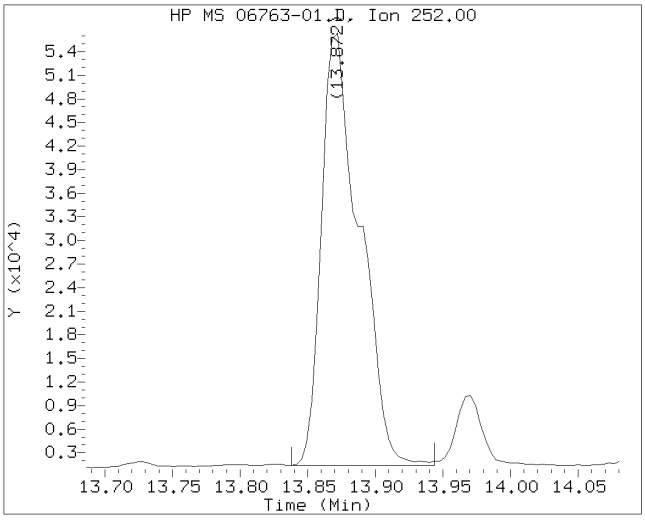


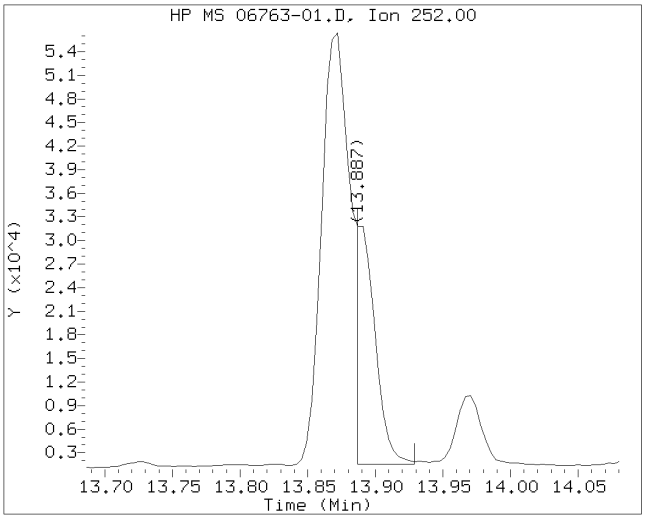


Original Peak Response = 107591 Manual Peak Response = 83877 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Compound # 31: Benzo(k)fluoranthene





Original Peak Response = 107591 Manual Peak Response = 29741 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

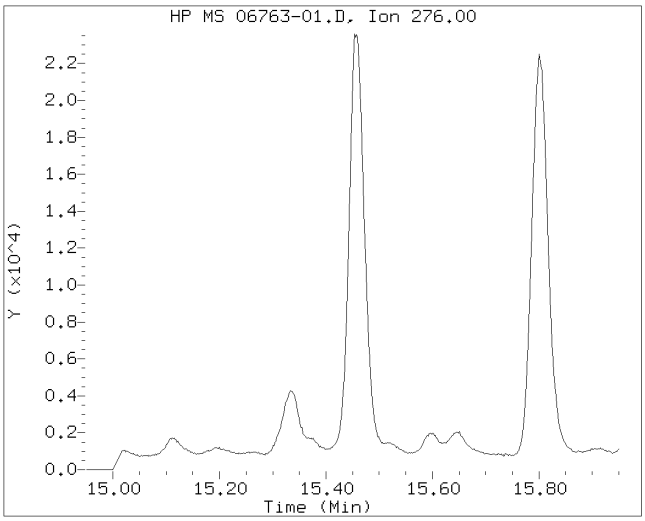
Alpha Analytical Labs

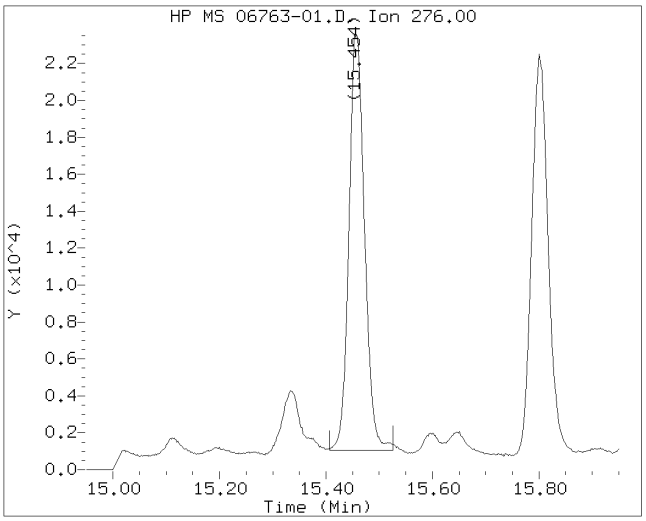
Manual Integration

Sample Info : l1606763-01,32,ny,kv
wg873828, wg873664,ICAL11948

Instrument ID : Mindy.i
Method : 8270D.m
File : 06763-01.D
Injection Date : 15-MAR-2016 14:24
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

Compound # 36: Indeno(1,2,3-cd)pyrene

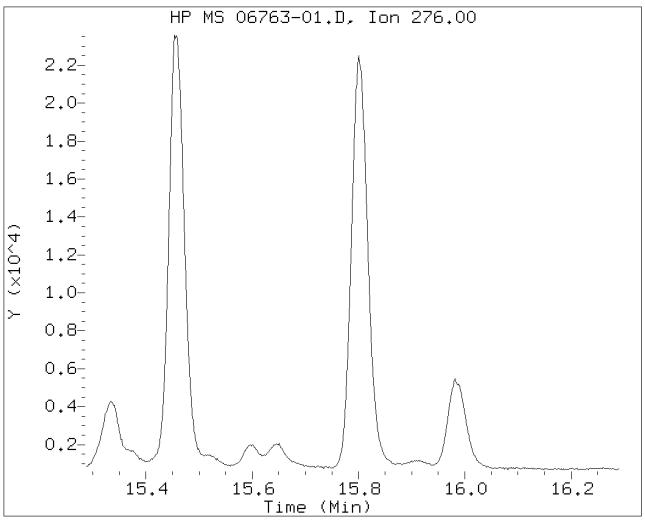


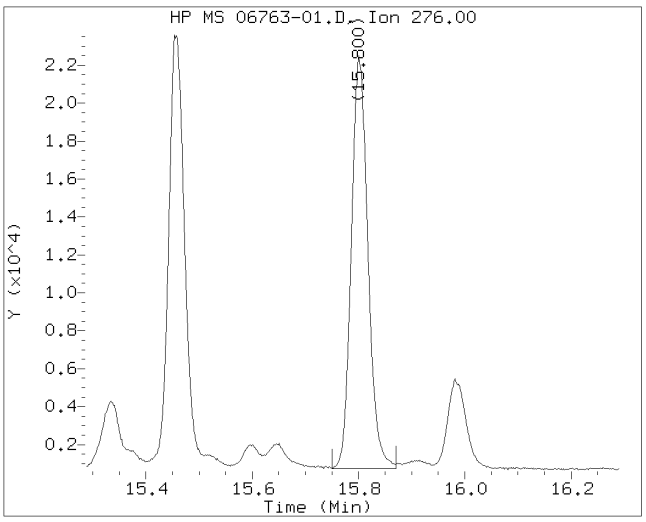


Original Peak Response = 0 Manual Peak Response = 48200 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 38: Benzo(ghi)perylene





Original Peak Response = 0 Manual Peak Response = 47376 M2

M2 = Peak not found by automatic integration algorithm.

Semivolatiles Standards Data

Initial Calibration

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: MINDY.I Calibration Date(s): 17-JAN-2016 17-JAN-2016

Calibration Times: 05:04 08:51

Calibration File Names:

Level 1: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L1.D
Level 2: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L2.D
Level 3: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L3.D
Level 4: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L4.D
Level 5: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L5.D
Level 6: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L6.D
Level 7: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L7.D
Level 8: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L8.D
Level 9: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L9.D
Level 10: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L10.D

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	5.000 Level 7	10.000 Level 8	15.000 Level 9	20.000 Level 10				
4 Hexachloroethane	0.55342	0.55190	0.50182	0.53436	0.52220	0.52777		
	0.54598	0.52226	0.54036	0.54594			0.53460	3.037
7 Naphthalene	1.17319	1.11338	1.05356	1.07819	1.07437	1.06937		
	1.07245	0.99140	1.00339	0.98283			1.06121	5.471
8 Hexachlorobutadiene	0.17765	0.17220	0.15929	0.16687	0.16543	0.16538		
	0.16958	0.16129	0.16924	0.17109			0.16780	3.201
9 2-Methylnaphthalene	0.78371	0.71958	0.69044	0.70723	0.71145	0.71701		
	0.73208	0.68512	0.70216	0.69233			0.71411	3.982
10 1-Methylnaphthalene	0.70739	0.66011	0.63676	0.65449	0.65742	0.65939		
	0.67322	0.63180	0.64520	0.63623			0.65620	3.382
12 2-Chloronaphthalene	0.71635	0.65923	0.63704	0.65124	0.65775	0.65715		
	0.66960	0.62622	0.64446	0.63448			0.65535	3.841
13 Acenaphthylene	1.09145	0.97868	0.95622	0.97672	0.99414	1.00986		
	1.04024	0.97294	0.99103	0.96596			0.99772	4.085

FORM VI-NYTCL-8270-SIM

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: MINDY.I Calibration Date(s): 17-JAN-2016 17-JAN-2016

Calibration Times: 05:04 08:51

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	5.000 Level 7	10.000 Level 8	15.000 Level 9	20.000 Level 10				
15 Acenaphthene	1.38536	1.21146	1.18023	1.17149	1.22229	1.21610		
	1.20015	1.13967	1.15974	1.17056			1.20570	5.683
16 Fluorene	1.41825	1.25832	1.22585	1.23354	1.29449	1.31168		
	1.32031	1.25616	1.29515	1.30230			1.29160	4.277
18 Hexachlorobenzene	0.22648	0.19946	0.19687	0.19102	0.20512	0.20463		
	0.20018	0.19443	0.20034	0.21316			0.20317	5.039
19 Pentachlorophenol	+++++	+++++	+++++	0.08272	0.09751	0.11150		
	0.12766	0.13351	0.13895	0.14912			0.12014	19.862
21 Phenanthrene	1.32979	1.11358	1.11484	1.07322	1.12751	1.15503		
	1.08847	1.03077	1.03586	1.06617			1.11352	7.694
22 Anthracene	1.17117	1.01709	1.03923	1.02928	1.09598	1.11913		
	1.10175	1.05797	1.04647	1.06909			1.07472	4.410
24 Fluoranthene	1.26952	1.09084	1.09786	1.08947	1.15838	1.23896		
	1.17178	1.12570	1.12692	1.15829			1.15277	5.311
25 Pyrene	1.38399	1.19594	1.20038	1.19733	1.28585	1.36922		
	1.29473	1.23707	1.23530	1.26389			1.26637	5.363
27 Benzo(a)anthracene	1.59583	1.28088	1.23025	1.15799	1.22706	1.27334		
	1.23428	1.18232	1.19537	1.22790			1.26052	9.812
29 Chrysene	1.45923	1.27055	1.24825	1.23461	1.30177	1.35911		
	1.26098	1.17779	1.17216	1.20556			1.26900	6.889
30 Benzo(b)fluoranthene	0.98014	0.84919	0.93331	0.98210	1.14695	1.25133		
	1.27981	1.25025	1.27836	1.28977			1.12412	15.148

FORM VI-NYTCL-8270-SIM

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: MINDY.I Calibration Date(s): 17-JAN-2016 17-JAN-2016

Calibration Times: 05:04 08:51

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2 / 10.000 Level 8	0.20000 Level 3 / 15.000 Level 9	0.50000 Level 4 / 20.000 Level 10	1.000 Level 5	2.000 Level 6	RRF	% RSD
31 Benzo(k)fluoranthene	1.71715	1.34328	1.40869	1.38240	1.46504	1.54396		
	1.37911	1.28272	1.28623	1.35836			1.41669	9.270
33 Benzo(a)pyrene	1.02326	0.87305	0.94047	0.99210	1.12166	1.21137		
	1.20638	1.17353	1.19720	1.24081			1.09798	11.887
36 Indeno(1,2,3-cd)pyrene	+++++	+++++	1.10500	1.19925	1.35267	1.48416		
	1.44955	1.40261	1.44013	1.48588			1.36491	10.296
37 Dibenzo(a,h)anthracene	+++++	+++++	0.87513	0.91602	1.06508	1.20470		
	1.18859	1.15521	1.18530	1.21526			1.10066	12.288
38 Benzo(ghi)perylene	+++++	+++++	1.01600	1.06885	1.14077	1.29616		
	1.21017	1.16605	1.19652	1.22645			1.16512	7.680
$ 1 2-Fluorophenol	+++++	1.42698	1.33603	1.08272	1.46193	1.36050		
	1.37907	1.28959	+++++	+++++			1.33383	9.327
$ 2 Phenol-d6	+++++	1.70635	1.60126	1.28987	1.75358	1.63359		
	1.63369	1.51608	+++++	+++++			1.59063	9.595
$ 5 Nitrobenzene-d5	+++++	1.36889	1.28709	1.04338	1.43729	1.35277		
	1.36342	1.27683	+++++	+++++			1.30424	9.740
$ 11 2-Fluorobiphenyl	+++++	0.81338	0.76797	0.60068	0.81742	0.73664		
	0.71225	0.63800	+++++	+++++			0.72662	11.446
$ 17 2,4,6-Tribromophenol	+++++	0.11886	0.12116	0.09843	0.15603	0.15286		
	0.16816	0.17073	+++++	+++++			0.14089	19.832
$ 23 O-Terphenyl-MS	+++++	0.66792	0.64875	0.50110	0.73160	0.67464		
	0.63571	0.59048	+++++	+++++			0.63574	11.502

FORM VI-NYTCL-8270-SIM

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: MINDY.I Calibration Date(s): 17-JAN-2016 17-JAN-2016

Calibration Times: 05:04 08:51

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	5.000 Level 7	10.000 Level 8	15.000 Level 9	20.000 Level 10				
$ 26 4-Terphenyl-d14	+++++	0.74043	0.72039	0.56001	0.81510	0.74151		
	0.67815	0.61641	+++++	+++++			0.69600	12.300

FORM VI-NYTCL-8270-SIM

6B

SEMIVOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: MINDY.I Calibration Date(s): 17-JAN-2016 17-JAN-2016

Calibration Times: 05:04 08:51

Average %RSD Results.	
Calculated Average %RSD =	6.88005
Maximun Average %RSD =	15.00000
* Passed Average %RSD Test.	

FORM VI-NYTCL-8270-SIM

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2016 05:04
End Cal Date : 17-JAN-2016 08:51
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Cal Date : 18-Jan-2016 13:30 Mindy.i
Curve Type : Average

Calibration File Names:
Level 1: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L1.D
Level 2: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L2.D
Level 3: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L3.D
Level 4: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L4.D
Level 5: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L5.D
Level 6: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L6.D
Level 7: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L7.D
Level 8: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L8.D
Level 9: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L9.D
Level 10: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L10.D

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	5.000 Level 7	10.000 Level 8	15.000 Level 9	20.000 Level 10				
4 Hexachloroethane	0.55342	0.55190	0.50182	0.53436	0.52220	0.52777		
	0.54598	0.52226	0.54036	0.54594			0.53460	3.037
7 Naphthalene	1.17319	1.11338	1.05356	1.07819	1.07437	1.06937		
	1.07245	0.99140	1.00339	0.98283			1.06121	5.471
8 Hexachlorobutadiene	0.17765	0.17220	0.15929	0.16687	0.16543	0.16538		
	0.16958	0.16129	0.16924	0.17109			0.16780	3.201
9 2-Methylnaphthalene	0.78371	0.71958	0.69044	0.70723	0.71145	0.71701		
	0.73208	0.68512	0.70216	0.69233			0.71411	3.982
10 1-Methylnaphthalene	0.70739	0.66011	0.63676	0.65449	0.65742	0.65939		
	0.67322	0.63180	0.64520	0.63623			0.65620	3.382
12 2-Chloronaphthalene	0.71635	0.65923	0.63704	0.65124	0.65775	0.65715		
	0.66960	0.62622	0.64446	0.63448			0.65535	3.841
13 Acenaphthylene	1.09145	0.97868	0.95622	0.97672	0.99414	1.00986		
	1.04024	0.97294	0.99103	0.96596			0.99772	4.085

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2016 05:04
End Cal Date : 17-JAN-2016 08:51
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Cal Date : 18-Jan-2016 13:30 Mindy.i
Curve Type : Average

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2 / 10.000 Level 8	0.20000 Level 3 / 15.000 Level 9	0.50000 Level 4 / 20.000 Level 10	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
15 Acenaphthene	1.38536	1.21146	1.18023	1.17149	1.22229	1.21610		
	1.20015	1.13967	1.15974	1.17056			1.20570	5.683
16 Fluorene	1.41825	1.25832	1.22585	1.23354	1.29449	1.31168		
	1.32031	1.25616	1.29515	1.30230			1.29160	4.277
18 Hexachlorobenzene	0.22648	0.19946	0.19687	0.19102	0.20512	0.20463		
	0.20018	0.19443	0.20034	0.21316			0.20317	5.039
19 Pentachlorophenol	+++++	+++++	+++++	0.08272	0.09751	0.11150		
	0.12766	0.13351	0.13895	0.14912			0.12014	19.862
21 Phenanthrene	1.32979	1.11358	1.11484	1.07322	1.12751	1.15503		
	1.08847	1.03077	1.03586	1.06617			1.11352	7.694
22 Anthracene	1.17117	1.01709	1.03923	1.02928	1.09598	1.11913		
	1.10175	1.05797	1.04647	1.06909			1.07472	4.410
24 Fluoranthene	1.26952	1.09084	1.09786	1.08947	1.15838	1.23896		
	1.17178	1.12570	1.12692	1.15829			1.15277	5.311
25 Pyrene	1.38399	1.19594	1.20038	1.19733	1.28585	1.36922		
	1.29473	1.23707	1.23530	1.26389			1.26637	5.363
27 Benzo(a)anthracene	1.59583	1.28088	1.23025	1.15799	1.22706	1.27334		
	1.23428	1.18232	1.19537	1.22790			1.26052	9.812
29 Chrysene	1.45923	1.27055	1.24825	1.23461	1.30177	1.35911		
	1.26098	1.17779	1.17216	1.20556			1.26900	6.889
30 Benzo(b)fluoranthene	0.98014	0.84919	0.93331	0.98210	1.14695	1.25133		
	1.27981	1.25025	1.27836	1.28977			1.12412	15.148

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2016 05:04
End Cal Date : 17-JAN-2016 08:51
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Cal Date : 18-Jan-2016 13:30 Mindy.i
Curve Type : Average

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2 / 10.000 Level 8	0.20000 Level 3 / 15.000 Level 9	0.50000 Level 4 / 20.000 Level 10	1.000 Level 5	2.000 Level 6	RRF	% RSD
31 Benzo(k)fluoranthene	1.71715	1.34328	1.40869	1.38240	1.46504	1.54396		
	1.37911	1.28272	1.28623	1.35836			1.41669	9.270
33 Benzo(a)pyrene	1.02326	0.87305	0.94047	0.99210	1.12166	1.21137		
	1.20638	1.17353	1.19720	1.24081			1.09798	11.887
36 Indeno(1,2,3-cd)pyrene	+++++	+++++	1.10500	1.19925	1.35267	1.48416		
	1.44955	1.40261	1.44013	1.48588			1.36491	10.296
37 Dibenzo(a,h)anthracene	+++++	+++++	0.87513	0.91602	1.06508	1.20470		
	1.18859	1.15521	1.18530	1.21526			1.10066	12.288
38 Benzo(ghi)perylene	+++++	+++++	1.01600	1.06885	1.14077	1.29616		
	1.21017	1.16605	1.19652	1.22645			1.16512	7.680
$ 1 2-Fluorophenol	+++++	1.42698	1.33603	1.08272	1.46193	1.36050		
	1.37907	1.28959	+++++	+++++			1.33383	9.327
$ 2 Phenol-d6	+++++	1.70635	1.60126	1.28987	1.75358	1.63359		
	1.63369	1.51608	+++++	+++++			1.59063	9.595
$ 5 Nitrobenzene-d5	+++++	1.36889	1.28709	1.04338	1.43729	1.35277		
	1.36342	1.27683	+++++	+++++			1.30424	9.740
$ 11 2-Fluorobiphenyl	+++++	0.81338	0.76797	0.60068	0.81742	0.73664		
	0.71225	0.63800	+++++	+++++			0.72662	11.446
$ 17 2,4,6-Tribromophenol	+++++	0.11886	0.12116	0.09843	0.15603	0.15286		
	0.16816	0.17073	+++++	+++++			0.14089	19.832
$ 23 O-Terphenyl-MS	+++++	0.66792	0.64875	0.50110	0.73160	0.67464		
	0.63571	0.59048	+++++	+++++			0.63574	11.502

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2016 05:04
End Cal Date : 17-JAN-2016 08:51
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Cal Date : 18-Jan-2016 13:30 Mindy.i
Curve Type : Average

Compound	0.05000 Level 1 5.000 Level 7	0.10000 Level 2 10.000 Level 8	0.20000 Level 3 15.000 Level 9	0.50000 Level 4 20.000 Level 10	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
$ 26 4-Terphenyl-d14	+++++ 0.67815	0.74043 0.61641	0.72039 +++++	0.56001 +++++	0.81510	0.74151	0.69600	12.300

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2016 05:04
End Cal Date : 17-JAN-2016 08:51
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Cal Date : 18-Jan-2016 13:30 Mindy.i
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 6.88005
Maximun Average %RSD = 15.00000
* Passed Average %RSD Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\DEG0117.D
Lab Smp Id:
Inj Date : 17-JAN-2016 04:51
Operator : kv Inst ID: Mindy.i
Smp Info : DEG/DFTPP
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\DDT.m
Meth Date : 17-Jan-2016 05:10 kvitiello Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 100 QC Sample: DFTPP-DEG
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	6.737	6.738	-0.001	8184			
5 4,4'-DDD	235	7.138	7.138	0.000	63995			
6 4,4'-DDT	235	7.512	7.512	0.000	1317526			

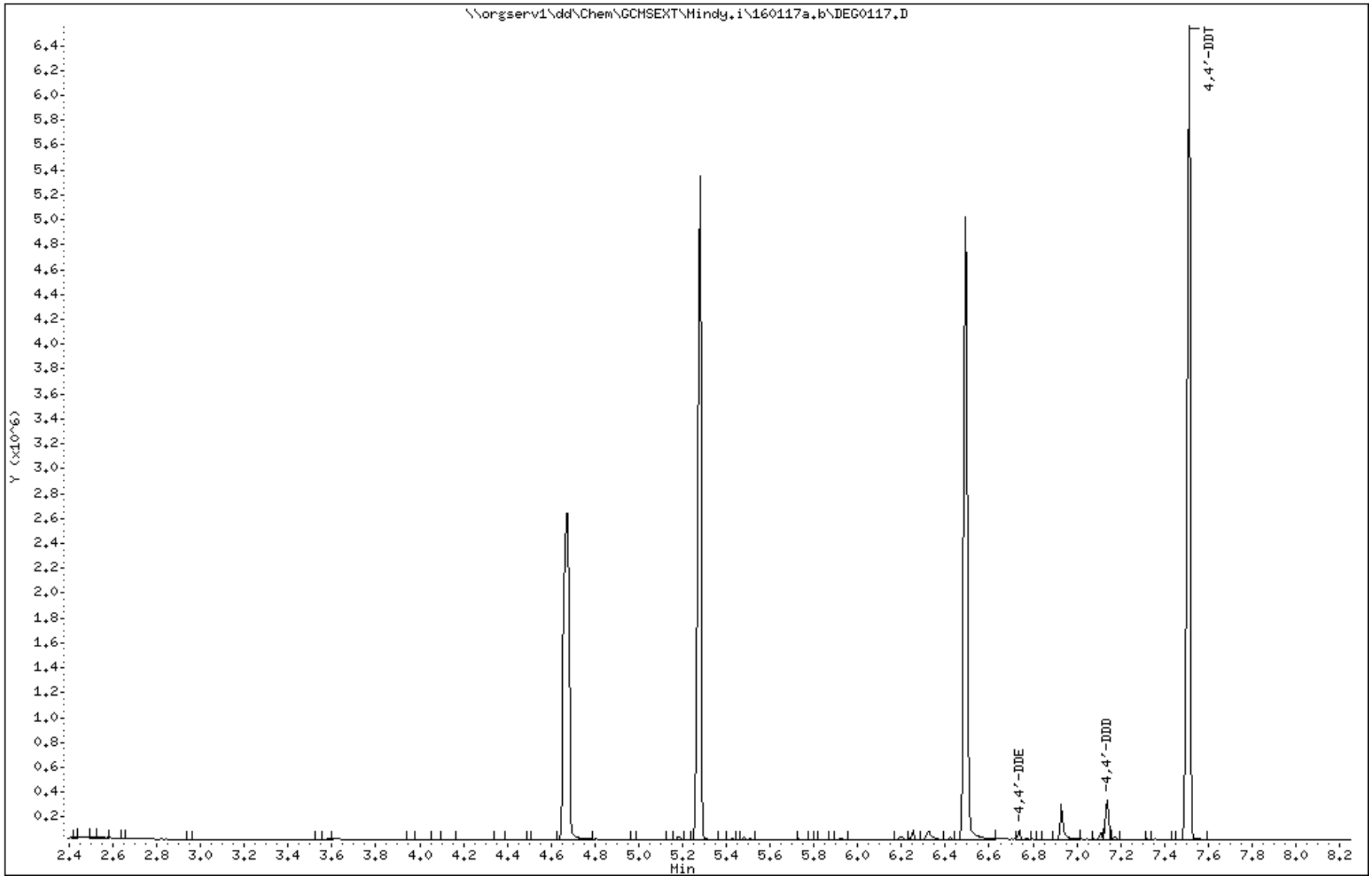
DDT Degradation Percent = 5.194

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\DEG0117.D
Date : 17-JAN-2016 04:51
Client ID:
Sample Info: DEG/DFTPP

Column phase: RTx-5

Instrument: Mindy.i

Operator: kv
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : DEG/DFTPP

Instrument ID : Mindy.i
Method : DDT.m
File : DEG0117.D
Injection Date : 17-JAN-2016 04:51
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: DFTPP-DEG

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\DFT0117.D
Lab Smp Id:
Inj Date : 17-JAN-2016 04:51
Operator : kv Inst ID: Mindy.i
Smp Info : DEG/DFTPP
Misc Info :
Comment : Splitless Injection
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\dftpps.m
Meth Date : 17-Jan-2016 05:10 kvitiello Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 100 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUALXP-78024

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.279	5.279	0.000	198	494592			0.00- 100.00	100.00
5.279	5.279	0.000	51	181376			10.00- 80.00	36.67
5.279	5.279	0.000	68	0	0.0	0.0	0.00- 2.00	0.00
5.279	5.279	0.000	69	183808			0.00- 0.00	37.16
5.279	5.279	0.000	70	1006			0.00- 2.00	0.55
5.279	5.279	0.000	127	235072			10.00- 80.00	47.53
5.279	5.279	0.000	197	0	0.0	0.0	0.00- 2.00	0.00
5.279	5.279	0.000	199	33528			5.00- 9.00	6.78
5.279	5.279	0.000	275	128400			10.00- 60.00	25.96
5.279	5.279	0.000	365	16165			1.00- 0.00	3.27
5.279	5.279	0.000	441	62864			0.01- 24.00	13.22
5.279	5.279	0.000	442	475584			50.00- 0.00	96.16
5.279	5.279	0.000	443	92560			15.00- 24.00	19.46

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\DFT0117.D

Date : 17-JAN-2016 04:51

Client ID:

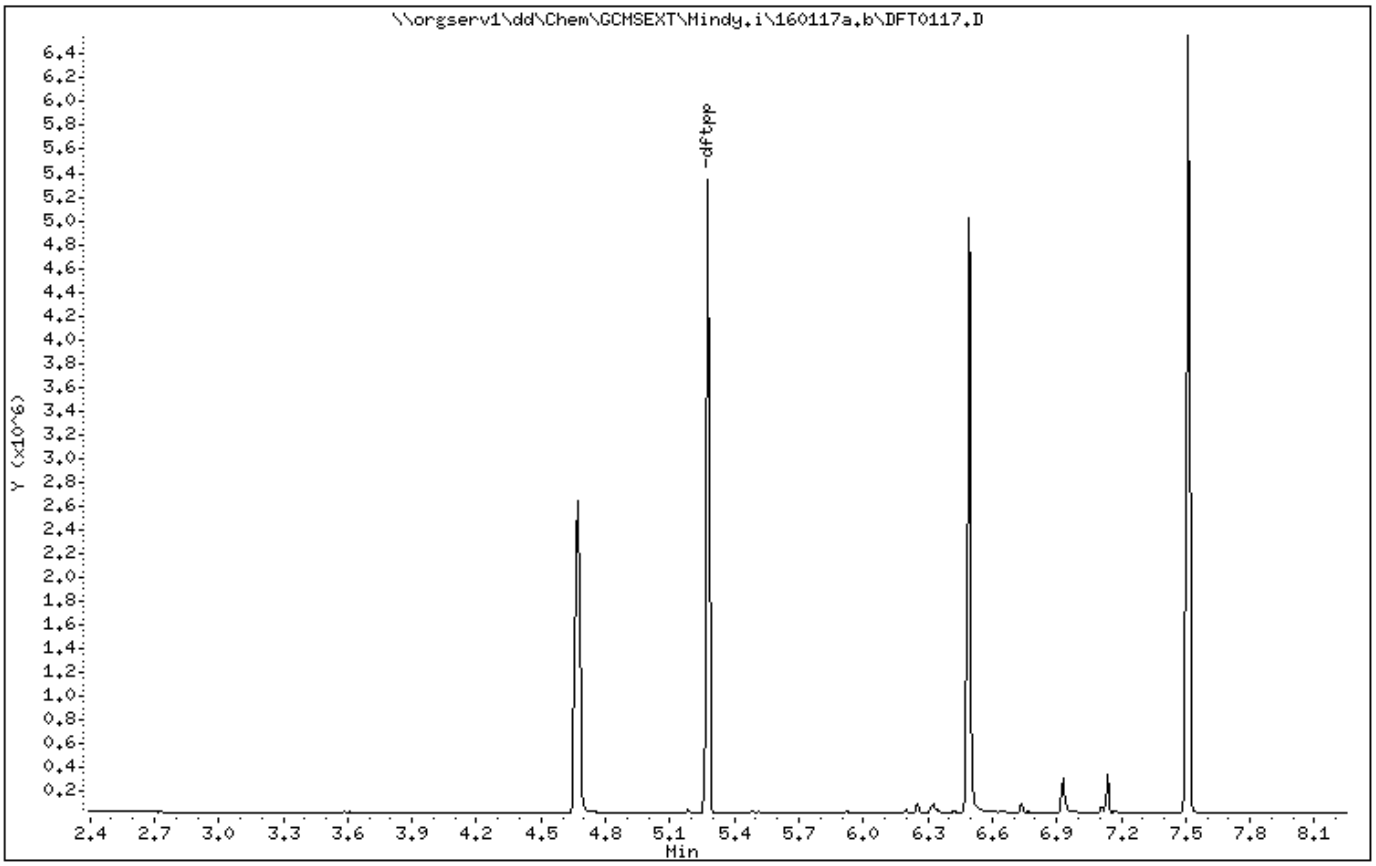
Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\DFT0117.D

Date : 17-JAN-2016 04:51

Client ID:

Instrument: Mindy.i

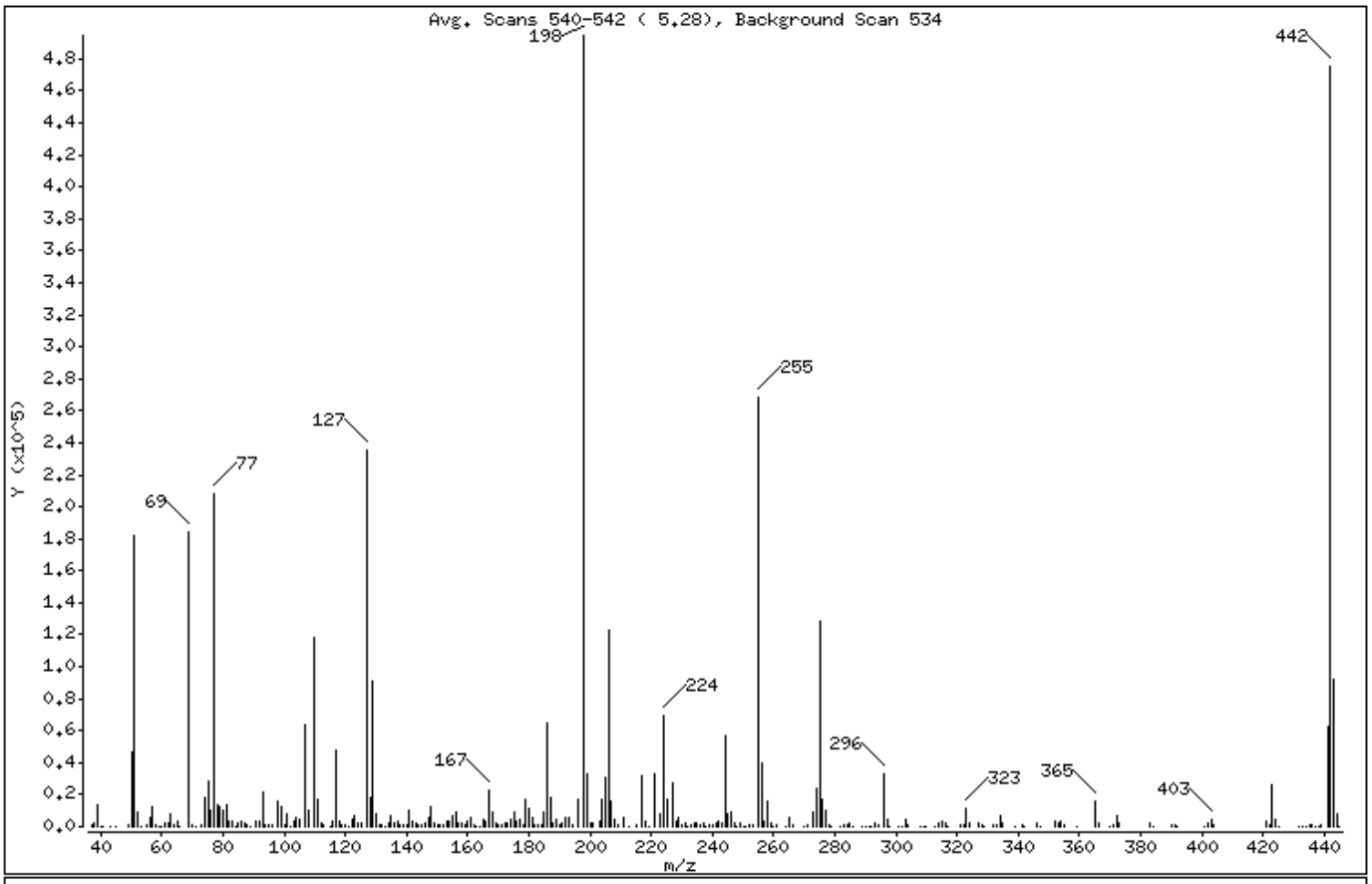
Sample Info: DEG/DFTPP

Operator: kv

Column phase:

Column diameter: 2.00

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	36.67
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.16
70	Less than 2.00% of mass 69	0.20 (0.55)
127	10.00 - 80.00% of mass 198	47.53
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 60.00% of mass 198	25.96
365	Greater than 1.00% of mass 198	3.27
441	0.01 - 24.00% of mass 442	12.71 (13.22)
442	Greater than 50.00% of mass 198	96.16
443	15.00 - 24.00% of mass 442	18.71 (19.46)

Date : 17-JAN-2016 04:51

Client ID: Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase: Column diameter: 2.00

Data File: DFT0117.D
Spectrum: Avg. Scans 540-542 (5.28), Background Scan 534
Location of Maximum: 198.00
Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	830	124.00	2712	200.00	2434	292.00	485
38.00	2078	125.00	2819	201.00	2792	293.00	2400
39.00	13256	127.00	235072	203.00	3387	294.00	662
40.00	532	128.00	17920	204.00	16768	296.00	32944
41.00	526	129.00	90528	205.00	30208	297.00	4545
43.00	40	130.00	7871	206.00	122512	298.00	118
45.00	311	131.00	1420	207.00	15883	301.00	496
49.00	1573	132.00	869	208.00	4052	302.00	548
50.00	47112	133.00	353	209.00	1128	303.00	4293
51.00	181376	134.00	2578	211.00	5294	304.00	1043
52.00	9001	135.00	7164	213.00	245	308.00	495
53.00	453	136.00	2755	215.00	1228	309.00	290
55.00	659	137.00	3350	217.00	31464	310.00	471
56.00	5542	138.00	965	218.00	3973	313.00	424
57.00	12579	139.00	575	219.00	385	314.00	1724
58.00	631	140.00	1040	221.00	33296	315.00	3829
59.00	118	141.00	10673	223.00	8072	316.00	2095
60.00	202	142.00	3875	224.00	69176	317.00	481
61.00	2226	143.00	2545	225.00	17296	321.00	1252
62.00	2519	144.00	740	227.00	27464	322.00	602
63.00	7530	145.00	709	228.00	3673	323.00	10910
64.00	957	146.00	2058	229.00	6014	324.00	2241
65.00	3679	147.00	5769	230.00	887	327.00	2198
66.00	271	148.00	12566	231.00	2607	328.00	1138
69.00	183808	149.00	2569	232.00	470	329.00	106
70.00	1006	150.00	722	233.00	626	332.00	975
71.00	100	151.00	1589	234.00	1775	333.00	1326
73.00	1414	152.00	704	235.00	2181	334.00	7361
74.00	18000	153.00	3498	236.00	1385	335.00	1887
75.00	28512	154.00	2934	237.00	2206	339.00	102
76.00	10478	155.00	6532	238.00	368	341.00	1395
77.00	208192	156.00	9411	239.00	1096	342.00	274
78.00	13869	157.00	2164	240.00	976	346.00	2509
79.00	12272	158.00	2433	241.00	1900	347.00	444
80.00	9944	159.00	1675	242.00	3836	352.00	3791

Date : 17-JAN-2016 04:51

Client ID: Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase: Column diameter: 2.00

Data File: DFT0117.D
Spectrum: Avg. Scans 540-542 (5.28), Background Scan 534
Location of Maximum: 198.00
Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	13714	160.00	3554	243.00	2030	353.00	2643
82.00	3398	161.00	5455	244.00	56872	354.00	3623
83.00	3476	162.00	1590	245.00	7947	355.00	773
84.00	350	163.00	517	246.00	9659	359.00	130
85.00	2623	164.00	466	247.00	1895	365.00	16165
86.00	3887	165.00	4074	248.00	521	366.00	2161
87.00	1813	166.00	3533	249.00	2109	370.00	328
88.00	758	167.00	23064	250.00	314	371.00	1142
89.00	332	168.00	9419	251.00	505	372.00	6497
91.00	3347	169.00	1787	252.00	662	373.00	1733
92.00	3529	170.00	795	253.00	1489	383.00	1849
93.00	21256	171.00	1018	255.00	268800	384.00	460
94.00	1535	172.00	1907	256.00	39384	390.00	840
95.00	608	173.00	2619	257.00	3197	391.00	638
96.00	1136	174.00	4771	258.00	15665	392.00	534
98.00	16384	175.00	8833	259.00	2322	401.00	462
99.00	12459	176.00	3167	260.00	554	402.00	2669
100.00	1130	177.00	4224	261.00	581	403.00	3991
101.00	8051	178.00	1505	264.00	401	404.00	1251
102.00	362	179.00	17112	265.00	6144	421.00	3723
103.00	2925	180.00	11708	266.00	1094	422.00	1059
104.00	5245	181.00	5587	270.00	401	423.00	26120
105.00	4646	182.00	979	271.00	652	424.00	4957
107.00	63320	183.00	670	273.00	9080	425.00	539
108.00	10031	184.00	1463	274.00	23856	432.00	100
110.00	118504	185.00	8703	275.00	128400	433.00	125
111.00	17560	186.00	64856	276.00	16776	434.00	136
112.00	2187	187.00	17720	277.00	9836	435.00	655
113.00	685	188.00	1859	278.00	1652	436.00	692
115.00	180	189.00	4128	279.00	457	437.00	448
116.00	2857	190.00	692	282.00	227	438.00	222
117.00	47640	191.00	1927	283.00	1217	439.00	681
118.00	3463	192.00	5702	284.00	789	441.00	62864
119.00	578	193.00	5934	285.00	1716	442.00	475584
120.00	819	194.00	1166	286.00	263	443.00	92560

Date : 17-JAN-2016 04:51

Client ID: Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase: Column diameter: 2.00

Data File: DFT0117.D
Spectrum: Avg. Scans 540-542 (5.28), Background Scan 534
Location of Maximum: 198.00
Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	432	196.00	16840	289.00	439	444.00	8396
122.00	4080	198.00	494592	290.00	451	445.00	543
123.00	6484	199.00	33528	291.00	148		

Alpha Analytical Labs

Manual Integration

Sample Info : DEG/DFTPP

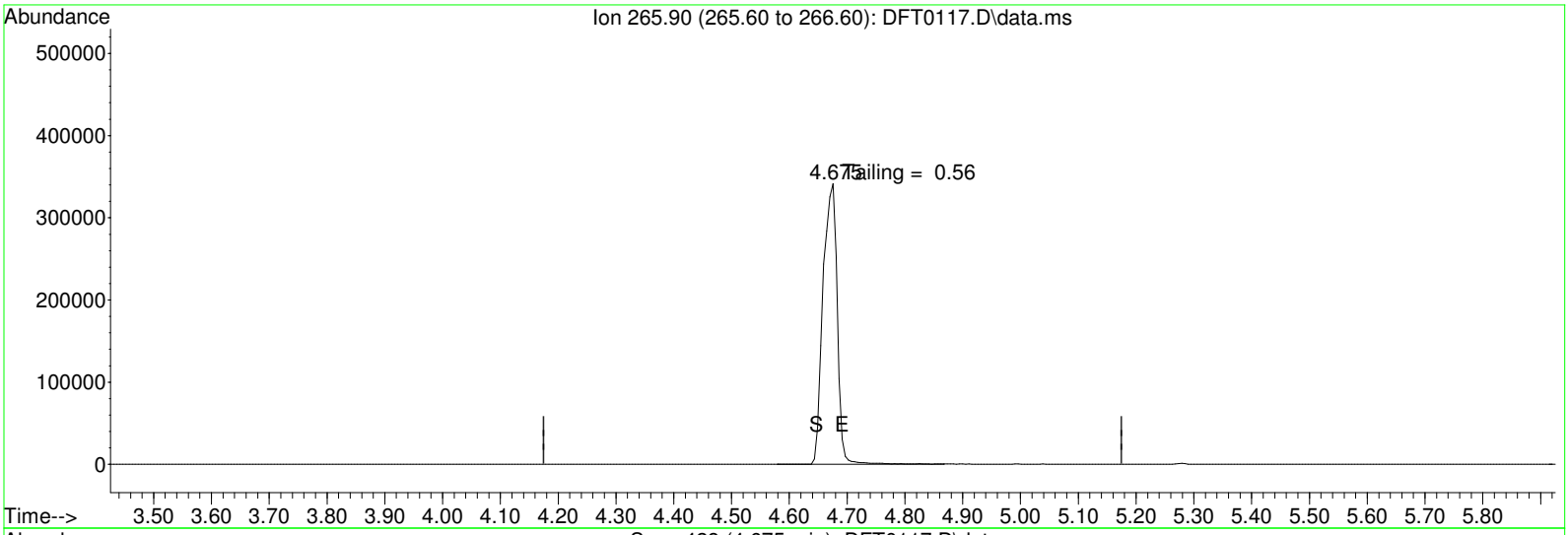
Instrument ID : Mindy.i
Method : dftpps.m
File : DFT0117.D
Injection Date : 17-JAN-2016 04:51
Quantitation : ESTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: DFTPP

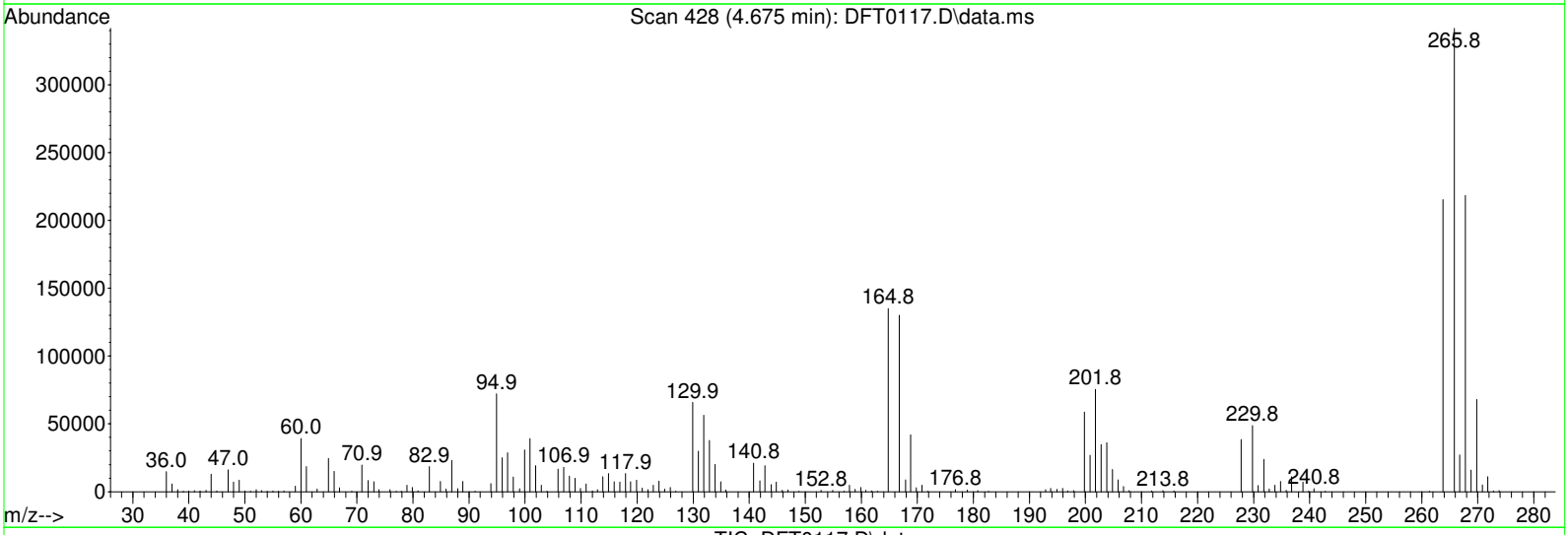
There are no manual integrations in this file.

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\Mindy.i\160117a.b\
Data File : DFT0117.D
Acq On : 17 Jan 2016 4:51 am
Operator : kv
Sample : DEG/DFTPP
Misc :
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Jan 17 12:40:37 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Fri Jan 15 11:24:27 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: DFT0117.D\data.ms

(1) pentachlorophenol (T)

4.675min 0.00 d

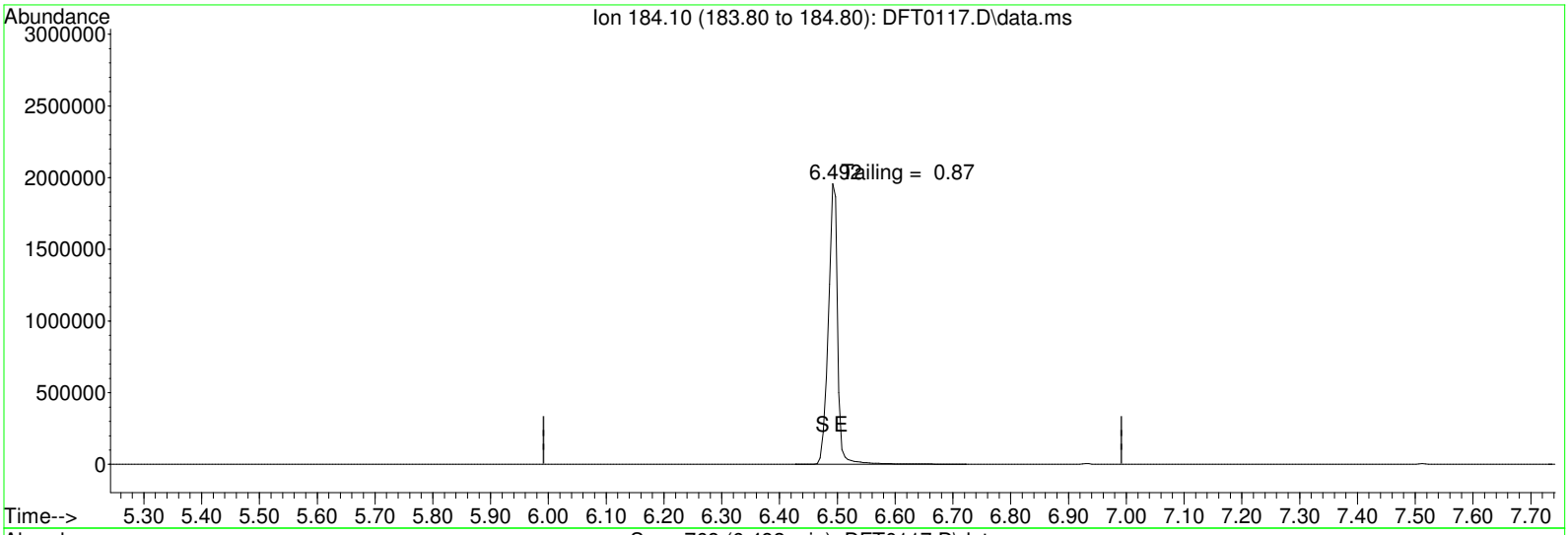
response 0

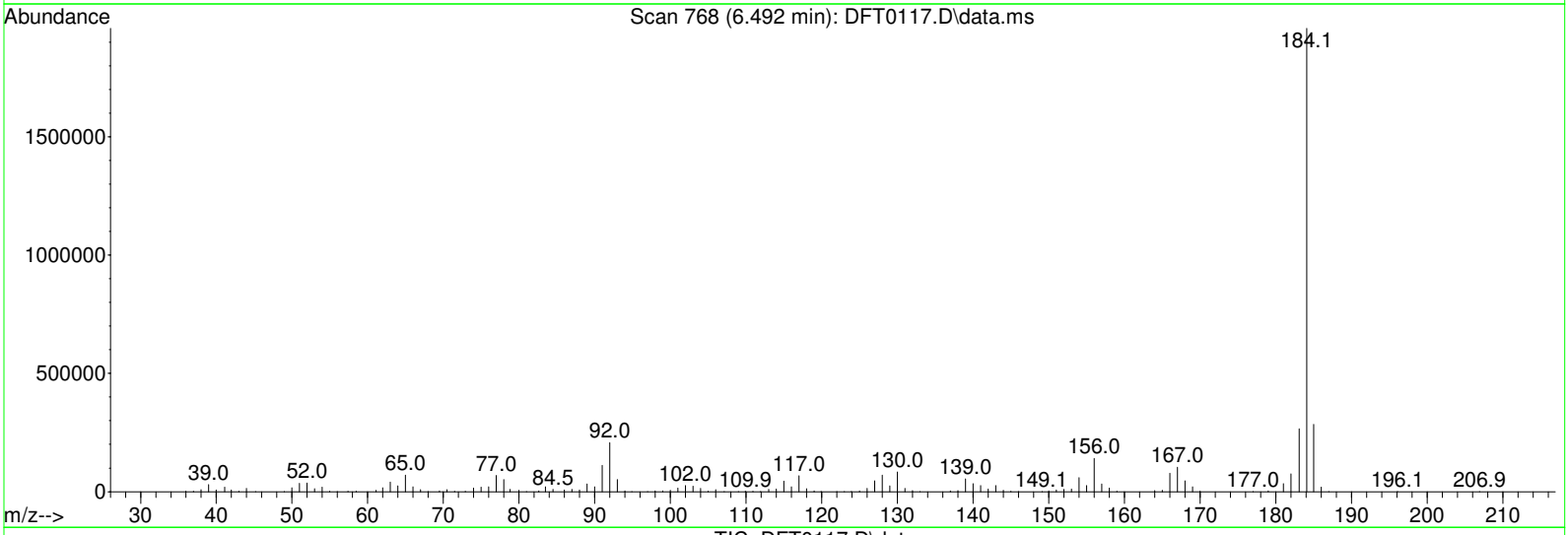
Ion	Exp%	Act%
265.90	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\Mindy.i\160117a.b\
Data File : DFT0117.D
Acq On : 17 Jan 2016 4:51 am
Operator : kv
Sample : DEG/DFTPP
Misc :
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Jan 17 12:40:37 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Fri Jan 15 11:24:27 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: DFT0117.D\data.ms

(3) benzidine (T)

6.492min 0.00 d

response 0

Ion	Exp%	Act%
184.10	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L1.D
Lab Smp Id:
Inj Date : 17-JAN-2016 05:04
Operator : kv Inst ID: Mindy.i
Smp Info : L1 0.05/0.5 ug/mL #5774
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.342	3.342	(0.770)	32185	0.50000	0.543	
$ 2	Phenol-d6	99	4.005	4.005	(0.923)	38318	0.50000	0.542	
* 3	1,4-Dichlorobenzene-d4	152	4.341	4.341	(1.000)	177804	4.00000		
4	Hexachloroethane	117	4.786	4.786	(1.103)	1230	0.05000	0.0518	
$ 5	Nitrobenzene-d5	82	4.816	4.816	(1.109)	31165	0.50000	0.538	
* 6	Naphthalene-d8	136	5.482	5.482	(1.000)	723224	4.00000		
7	Naphthalene	128	5.500	5.500	(1.003)	10606	0.05000	0.0553	
8	Hexachlorobutadiene	225	5.622	5.622	(1.025)	1606	0.05000	0.0529	
9	2-Methylnaphthalene	142	6.162	6.162	(1.124)	7085	0.05000	0.0549	
10	1-Methylnaphthalene	142	6.263	6.263	(1.143)	6395	0.05000	0.0539	
$ 11	2-Fluorobiphenyl	172	6.544	6.544	(1.194)	74685	0.50000	0.568	
12	2-Chloronaphthalene	162	6.673	6.673	(1.217)	6476	0.05000	0.0546	
13	Acenaphthylene	152	7.138	7.138	(1.302)	9867	0.05000	0.0547	
* 14	Acenaphthene-d10	164	7.304	7.304	(1.000)	391638	4.00000		
15	Acenaphthene	153	7.340	7.340	(1.005)	6782	0.05000	0.0574	
16	Fluorene	166	7.984	7.984	(1.093)	6943	0.05000	0.0549	
$ 17	2,4,6-Tribromophenol	330	8.299	8.299	(1.136)	5820	0.50000	0.422	
18	Hexachlorobenzene	284	8.725	8.725	(0.943)	1939	0.05000	0.0557	
19	Pentachlorophenol	266	8.994	8.994	(0.972)	1455	0.05000	0.0707	
* 20	Phenanthrene-d10	188	9.251	9.251	(1.000)	684920	4.00000		
21	Phenanthrene	178	9.286	9.286	(1.004)	11385	0.05000	0.0597	
22	Anthracene	178	9.356	9.356	(1.011)	10027	0.05000	0.0545	
$ 23	O-Terphenyl-MS	230	9.835	9.835	(1.063)	57599	0.50000	0.529	
24	Fluoranthene	202	11.054	11.054	(1.195)	10869	0.05000	0.0551	
25	Pyrene	202	11.391	11.391	(1.231)	11849	0.05000	0.0546	
$ 26	4-Terphenyl-d14	244	11.656	11.656	(1.260)	64773	0.50000	0.544	
27	Benzo(a)anthracene	228	13.010	13.010	(0.999)	11998	0.05000	0.0633	
* 28	Chrysene-d12	240	13.021	13.021	(1.000)	601469	4.00000		
29	Chrysene	228	13.051	13.051	(1.002)	10971	0.05000	0.0575(M)	M3
30	Benzo(b)fluoranthene	252	14.190	14.190	(0.972)	7160	0.05000	0.0436	
31	Benzo(k)fluoranthene	252	14.217	14.217	(0.973)	12544	0.05000	0.0606(M)	M3
33	Benzo(a)pyrene	252	14.542	14.542	(0.996)	7475	0.05000	0.0466	
* 34	Perylene-d12	264	14.607	14.607	(1.000)	584409	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.909	15.909	(1.089)	8935	0.05000	0.0448(M)	M4
37 Dibenzo(a,h)anthracene	278	15.934	15.934	(1.091)	6202	0.05000	0.0386(M)	M4
38 Benzo(ghi)perylene	276	16.292	16.292	(1.115)	8599	0.05000	0.0505(M)	M4

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 09:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	177804	13.80
6 Naphthalene-d8	640802	320401	1281604	723224	12.86
14 Acenaphthene-d10	360503	180252	721006	391638	8.64
20 Phenanthrene-d10	631565	315783	1263130	684920	8.45
28 Chrysene-d12	574055	287028	1148110	601469	4.78
34 Perylene-d12	540725	270363	1081450	584409	8.08

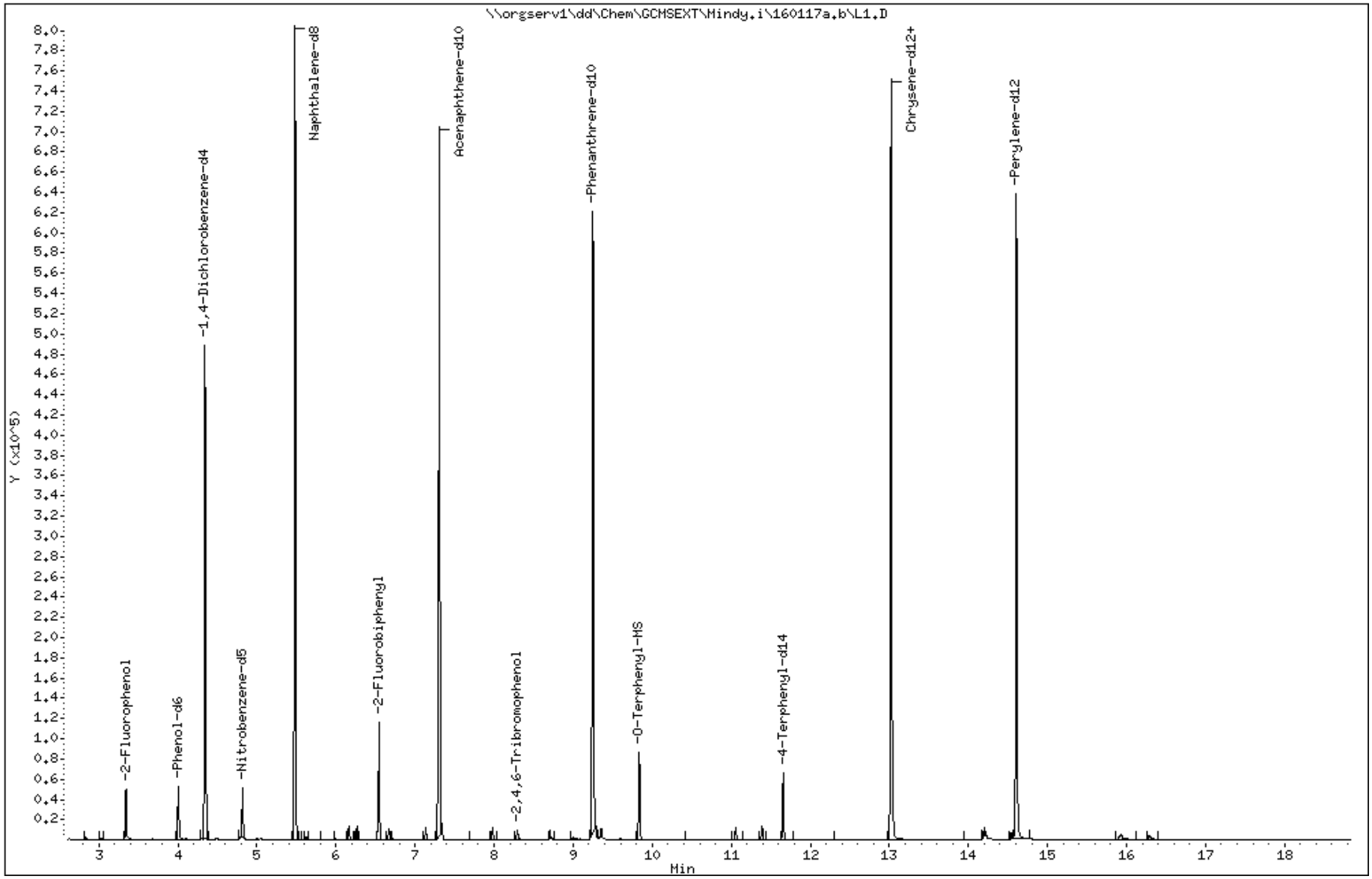
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	-0.02
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.03
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.06
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	0.00
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.01
34 Perylene-d12	14.60	14.10	15.10	14.61	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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L1.D
Date : 17-JAN-2016 05:04
Client ID:
Sample Info: L1 0.05/0.5 ug/mL #5774

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



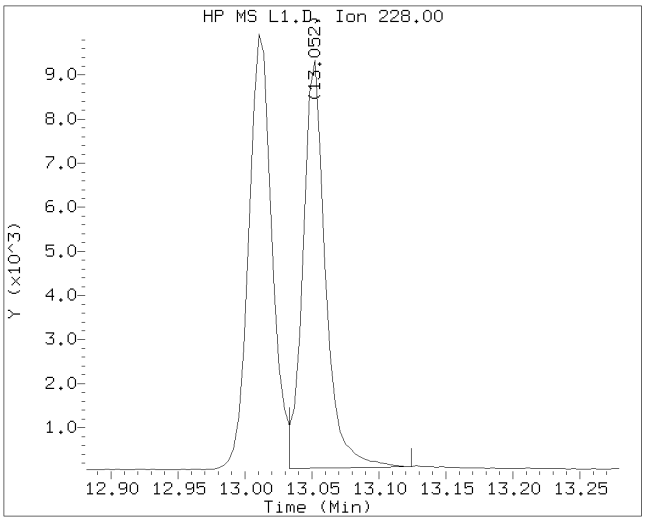
Alpha Analytical Labs

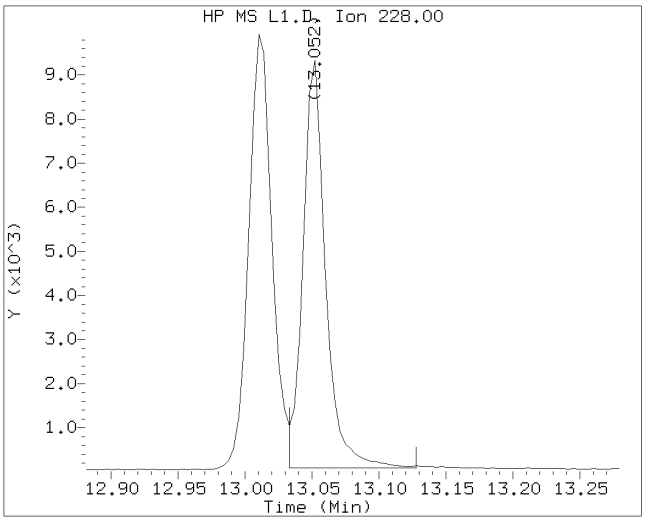
Manual Integration

Sample Info : L1 0.05/0.5 ug/mL #5774

Instrument ID : Mindy.i
Method : 8270D.m
File : L1.D
Injection Date : 17-JAN-2016 05:04
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 29: Chrysene

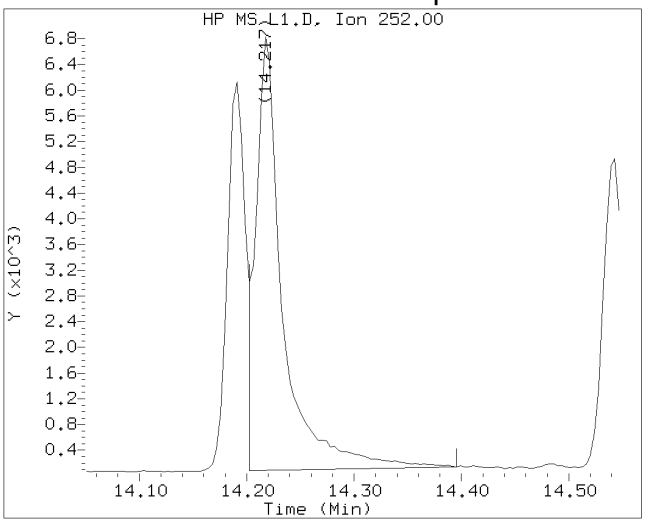


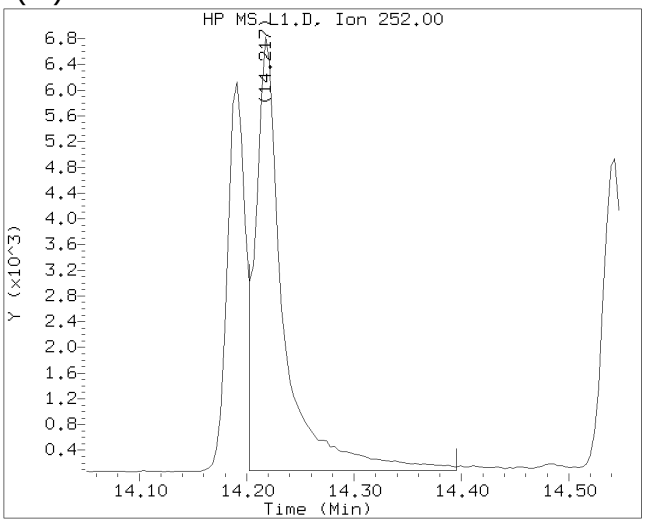


Original Peak Response = 10861 Manual Peak Response = 10971 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound # 31: Benzo(k)fluoranthene





Original Peak Response = 12238 Manual Peak Response = 12544 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

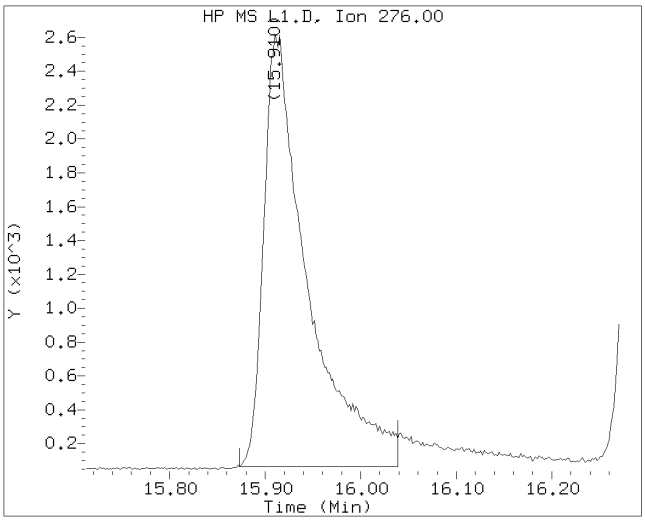
Alpha Analytical Labs

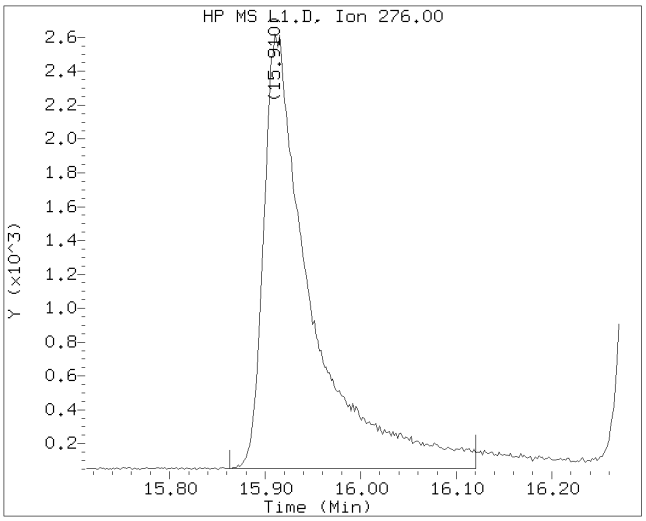
Manual Integration

Sample Info : L1 0.05/0.5 ug/mL #5774

Instrument ID : Mindy.i
Method : 8270D.m
File : L1.D
Injection Date : 17-JAN-2016 05:04
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 36: Indeno(1,2,3-cd)pyrene

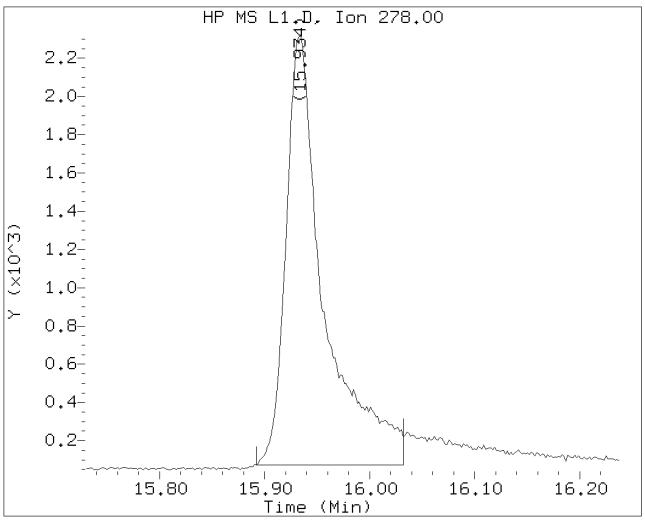


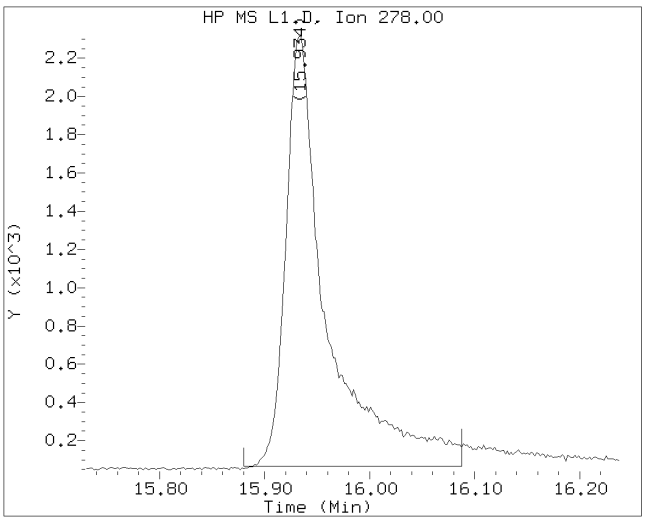


Original Peak Response = 8167 Manual Peak Response = 8935 M4

M4 = Poor automated baseline construction.

Compound # 37: Dibenzo(a,h)anthracene





Original Peak Response = 5681 Manual Peak Response = 6202 M4

M4 = Poor automated baseline construction.

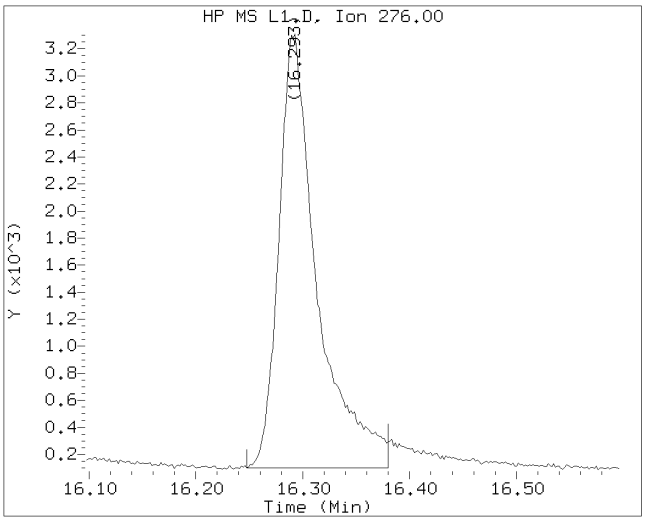
Alpha Analytical Labs

Manual Integration

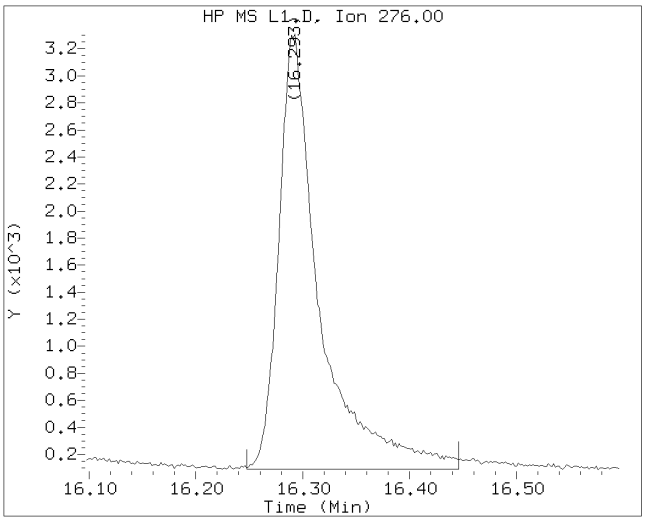
Sample Info : L1 0.05/0.5 ug/mL #5774

Instrument ID : Mindy.i
Method : 8270D.m
File : L1.D
Injection Date : 17-JAN-2016 05:04
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 38: Benzo(ghi)perylene



Original Peak Response = 8001



Manual Peak Response = 8599 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L2.D
Lab Smp Id:
Inj Date : 17-JAN-2016 05:29
Operator : kv Inst ID: Mindy.i
Smp Info : L2 0.1/1.0ug/mL #5775
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 05:04 Cal File: L1.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.344	3.344	(0.770)	60063	1.00000	1.07	
$ 2	Phenol-d6	99	4.007	4.007	(0.923)	71822	1.00000	1.07	
* 3	1,4-Dichlorobenzene-d4	152	4.343	4.343	(1.000)	168364	4.00000		
4	Hexachloroethane	117	4.789	4.789	(1.102)	2323	0.10000	0.103	
$ 5	Nitrobenzene-d5	82	4.818	4.818	(1.109)	57618	1.00000	1.05	
* 6	Naphthalene-d8	136	5.482	5.482	(1.000)	682676	4.00000		
7	Naphthalene	128	5.500	5.500	(1.003)	19002	0.10000	0.105	
8	Hexachlorobutadiene	225	5.622	5.622	(1.025)	2939	0.10000	0.103	
9	2-Methylnaphthalene	142	6.162	6.162	(1.124)	12281	0.10000	0.101	
10	1-Methylnaphthalene	142	6.263	6.263	(1.143)	11266	0.10000	0.100	
$ 11	2-Fluorobiphenyl	172	6.544	6.544	(1.194)	138818	1.00000	1.12	
12	2-Chloronaphthalene	162	6.673	6.673	(1.217)	11251	0.10000	0.100	
13	Acenaphthylene	152	7.134	7.134	(1.301)	16703	0.10000	0.0981	
* 14	Acenaphthene-d10	164	7.304	7.304	(1.000)	375581	4.00000		
15	Acenaphthene	153	7.341	7.341	(1.005)	11375	0.10000	0.100	
16	Fluorene	166	7.978	7.978	(1.092)	11815	0.10000	0.0974	
$ 17	2,4,6-Tribromophenol	330	8.294	8.294	(1.135)	11160	1.00000	0.844	
18	Hexachlorobenzene	284	8.726	8.726	(0.943)	3289	0.10000	0.0982	
19	Pentachlorophenol	266	8.994	8.994	(0.972)	1288	0.10000	0.0650	
* 20	Phenanthrene-d10	188	9.251	9.251	(1.000)	659565	4.00000		
21	Phenanthrene	178	9.286	9.286	(1.004)	18362	0.10000	0.100	
22	Anthracene	178	9.357	9.357	(1.011)	16771	0.10000	0.0946	
$ 23	O-Terphenyl-MS	230	9.836	9.836	(1.063)	110134	1.00000	1.05	
24	Fluoranthene	202	11.052	11.052	(1.195)	17987	0.10000	0.0946	
25	Pyrene	202	11.390	11.390	(1.231)	19720	0.10000	0.0944	
$ 26	4-Terphenyl-d14	244	11.656	11.656	(1.260)	122090	1.00000	1.06	
27	Benzo(a)anthracene	228	13.010	13.010	(0.999)	18736	0.10000	0.102	
* 28	Chrysene-d12	240	13.022	13.022	(1.000)	585100	4.00000		
29	Chrysene	228	13.048	13.048	(1.002)	18585	0.10000	0.100(M)	M3
30	Benzo(b)fluoranthene	252	14.187	14.187	(0.971)	12029	0.10000	0.0755	
31	Benzo(k)fluoranthene	252	14.218	14.218	(0.973)	19028	0.10000	0.0948(M)	M3
33	Benzo(a)pyrene	252	14.539	14.539	(0.995)	12367	0.10000	0.0795	
* 34	Perylene-d12	264	14.607	14.607	(1.000)	566611	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.910	15.910	(1.089)	14415	0.10000	0.0746(M)	M4
37 Dibenzo(a,h)anthracene	278	15.933	15.933	(1.091)	10814	0.10000	0.0694(M)	M4
38 Benzo(ghi)perylene	276	16.289	16.289	(1.115)	13609	0.10000	0.0824(M)	M4

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 09:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

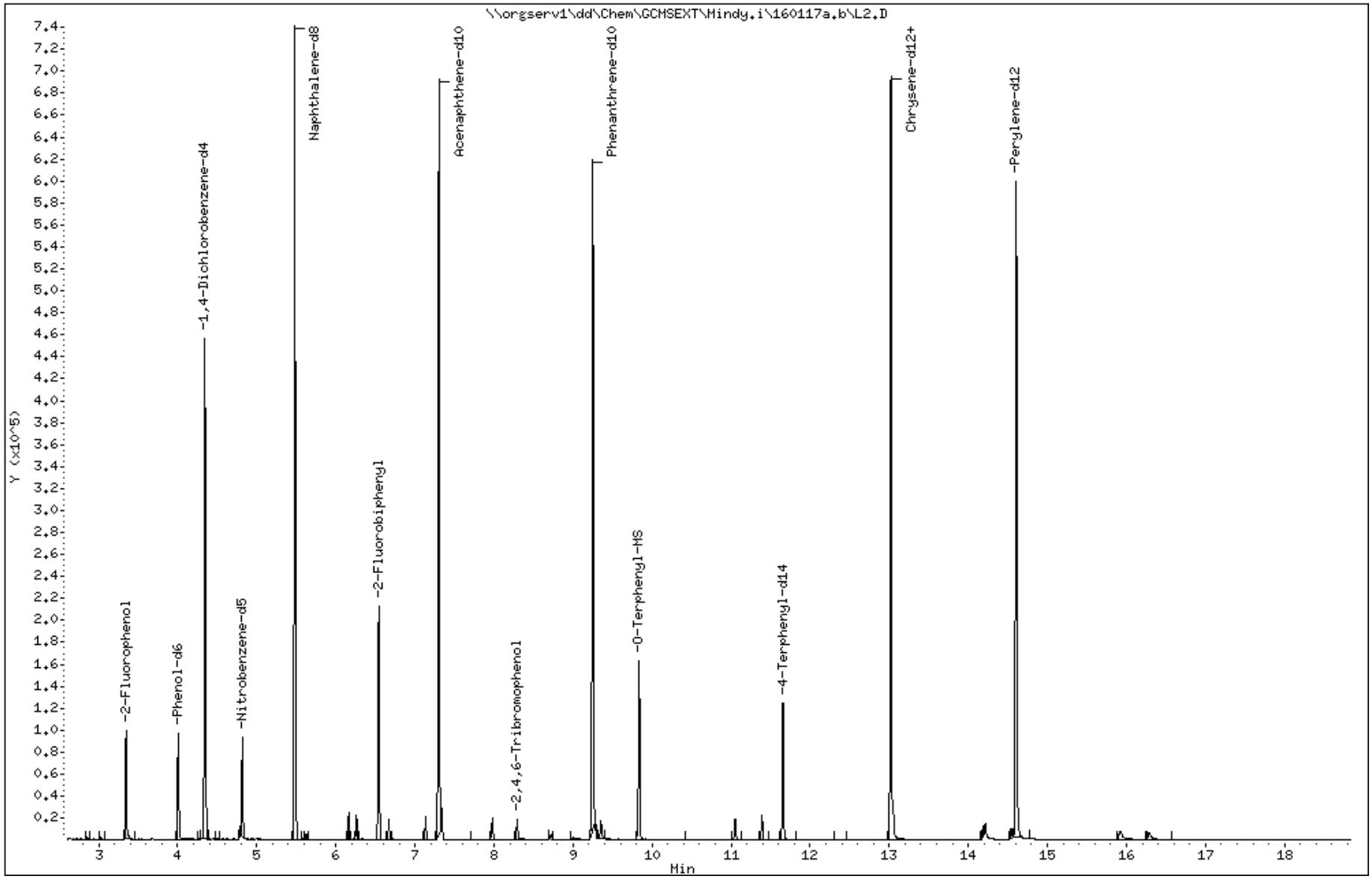
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	168364	7.75
6 Naphthalene-d8	640802	320401	1281604	682676	6.53
14 Acenaphthene-d10	360503	180252	721006	375581	4.18
20 Phenanthrene-d10	631565	315783	1263130	659565	4.43
28 Chrysene-d12	574055	287028	1148110	585100	1.92
34 Perylene-d12	540725	270363	1081450	566611	4.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.03
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.04
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.05
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	0.01
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.00
34 Perylene-d12	14.60	14.10	15.10	14.61	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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L2.D
Date : 17-JAN-2016 05:29
Client ID:
Sample Info: L2 0.1/1.0ug/mL #5775

Instrument: Mindy.i
Operator: kv
Column phase: RTx-5
Column diameter: 0.32



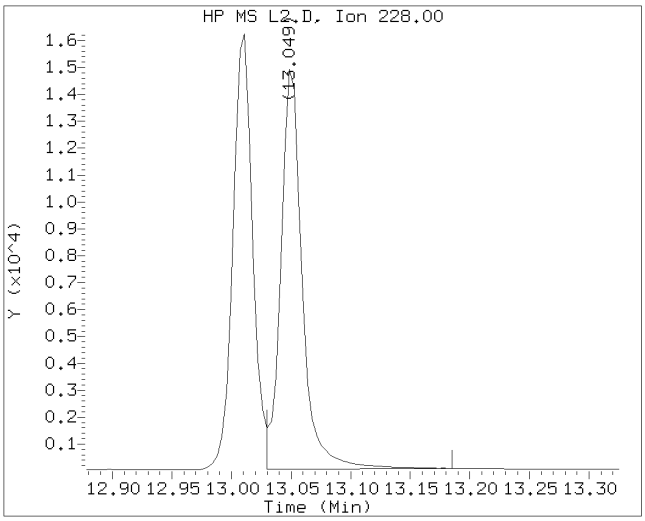
Alpha Analytical Labs

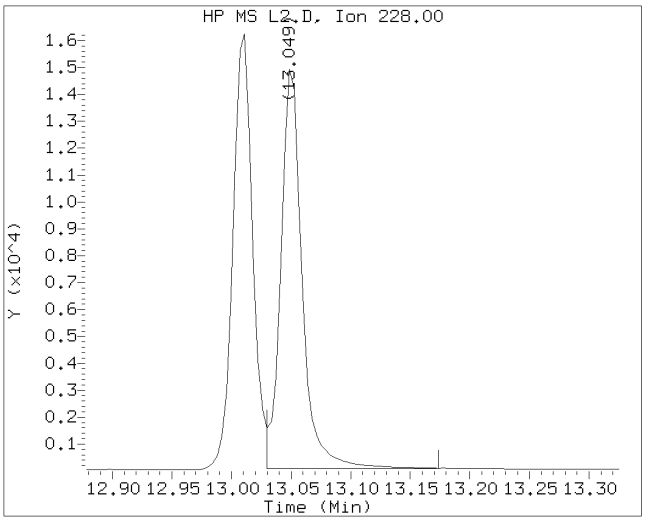
Manual Integration

Sample Info : L2 0.1/1.0ug/mL #5775

Instrument ID : Mindy.i
Method : 8270D.m
File : L2.D
Injection Date : 17-JAN-2016 05:29
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 29: Chrysene

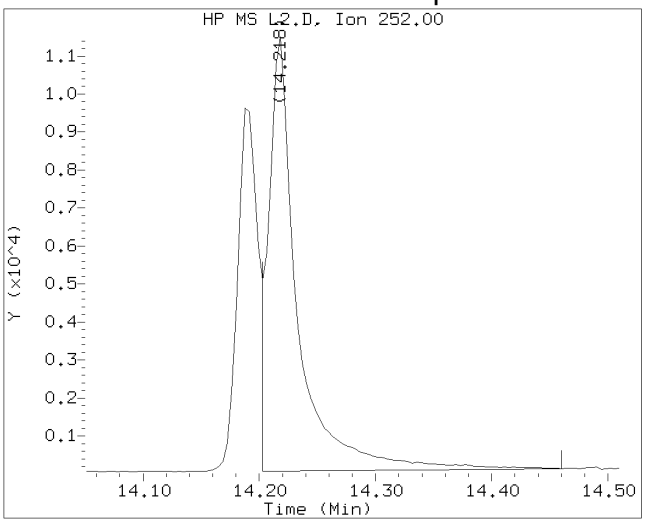


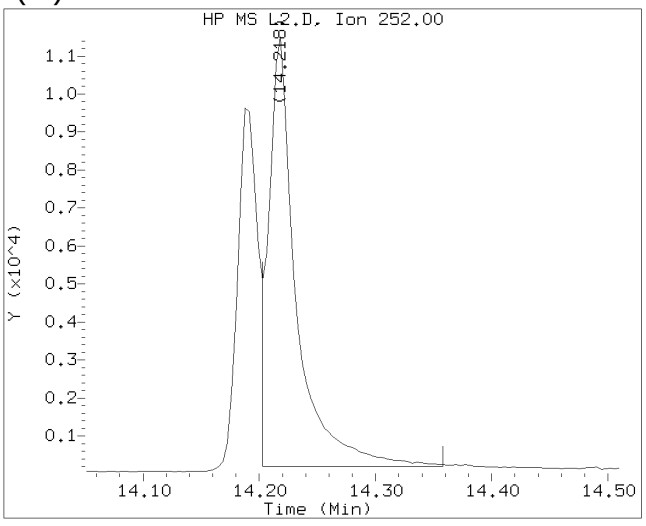


Original Peak Response = 18705 Manual Peak Response = 18585 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound # 31: Benzo(k)fluoranthene





Original Peak Response = 20486 Manual Peak Response = 19028 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

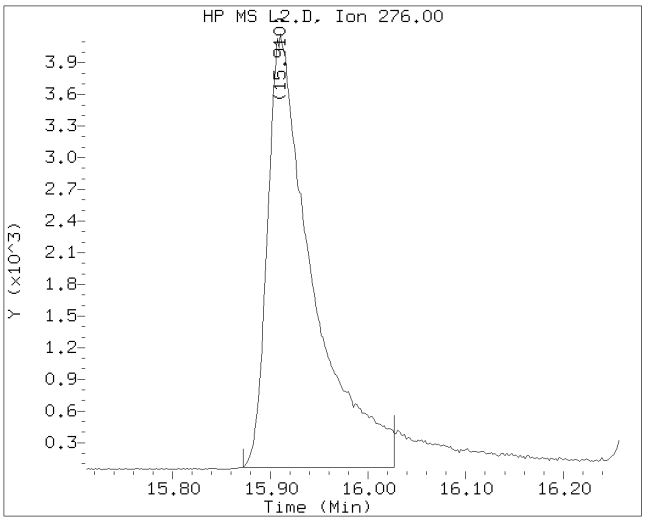
Alpha Analytical Labs

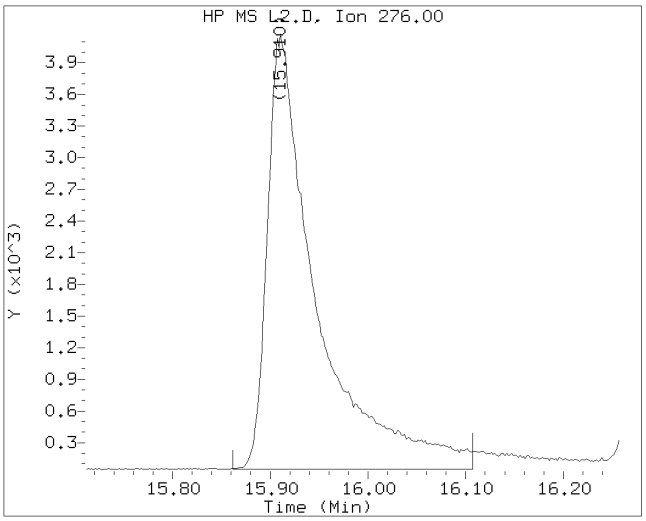
Manual Integration

Sample Info : L2 0.1/1.0ug/mL #5775

Instrument ID : Mindy.i
Method : 8270D.m
File : L2.D
Injection Date : 17-JAN-2016 05:29
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 36: Indeno(1,2,3-cd)pyrene

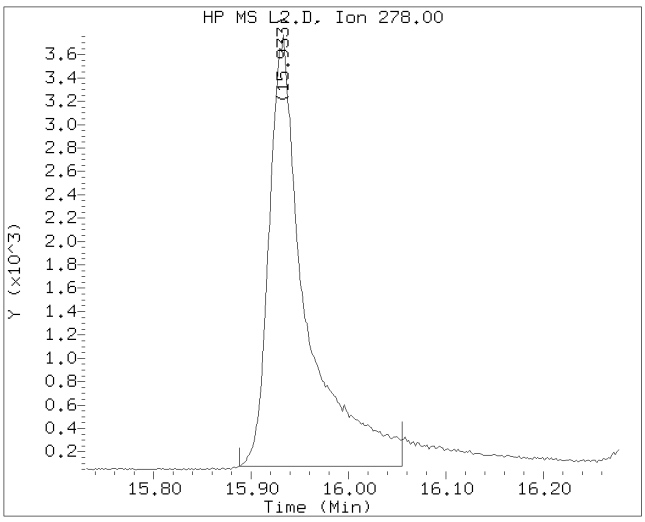


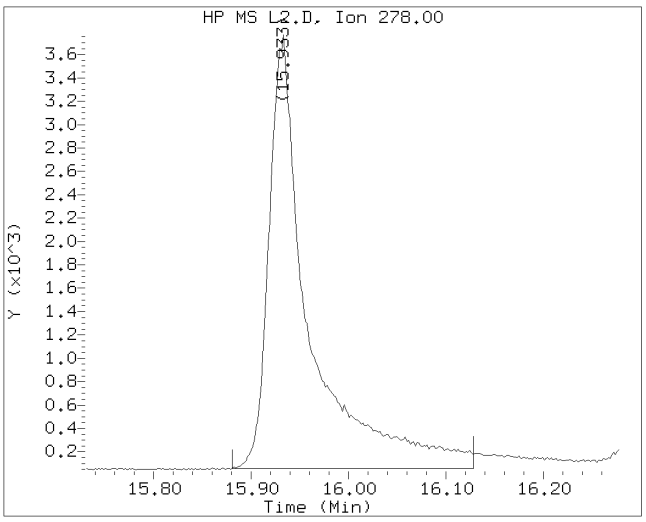


Original Peak Response = 13103 Manual Peak Response = 14415 M4

M4 = Poor automated baseline construction.

Compound # 37: Dibenzo(a,h)anthracene





Original Peak Response = 9783 Manual Peak Response = 10814 M4

M4 = Poor automated baseline construction.

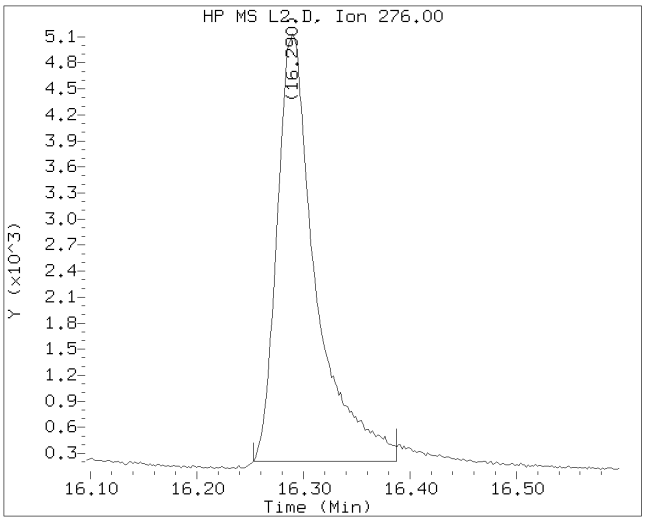
Alpha Analytical Labs

Manual Integration

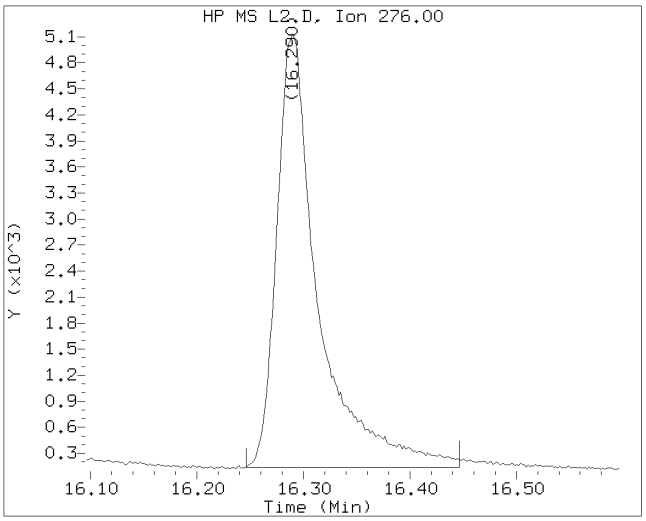
Sample Info : L2 0.1/1.0ug/mL #5775

Instrument ID : Mindy.i
Method : 8270D.m
File : L2.D
Injection Date : 17-JAN-2016 05:29
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 38: Benzo(ghi)perylene



Original Peak Response = 12425



Manual Peak Response = 13609 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L3.D
Lab Smp Id:
Inj Date : 17-JAN-2016 05:55
Operator : kv Inst ID: Mindy.i
Smp Info : L3 0.2/2.0 ug/mL #5776
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 05:29 Cal File: L2.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.343	3.343	(0.770)	120418	2.00000	2.00	
$ 2	Phenol-d6	99	4.006	4.006	(0.923)	144324	2.00000	2.01	
* 3	1,4-Dichlorobenzene-d4	152	4.342	4.342	(1.000)	180263	4.00000		
4	Hexachloroethane	117	4.787	4.787	(1.103)	4523	0.20000	0.188	
$ 5	Nitrobenzene-d5	82	4.817	4.817	(1.109)	116007	2.00000	1.97	
* 6	Naphthalene-d8	136	5.482	5.482	(1.000)	727742	4.00000		
7	Naphthalene	128	5.500	5.500	(1.003)	38336	0.20000	0.198	
8	Hexachlorobutadiene	225	5.622	5.622	(1.025)	5796	0.20000	0.190	
9	2-Methylnaphthalene	142	6.162	6.162	(1.124)	25123	0.20000	0.193	
10	1-Methylnaphthalene	142	6.263	6.263	(1.143)	23170	0.20000	0.194	
$ 11	2-Fluorobiphenyl	172	6.544	6.544	(1.194)	279442	2.00000	2.11	
12	2-Chloronaphthalene	162	6.673	6.673	(1.217)	23180	0.20000	0.194	
13	Acenaphthylene	152	7.138	7.138	(1.302)	34794	0.20000	0.192	
* 14	Acenaphthene-d10	164	7.304	7.304	(1.000)	397228	4.00000		
15	Acenaphthene	153	7.341	7.341	(1.005)	23441	0.20000	0.196	
16	Fluorene	166	7.983	7.983	(1.093)	24347	0.20000	0.190	
$ 17	2,4,6-Tribromophenol	330	8.293	8.293	(1.135)	24065	2.00000	1.72	
18	Hexachlorobenzene	284	8.725	8.725	(0.943)	6739	0.20000	0.194	
19	Pentachlorophenol	266	8.994	8.994	(0.972)	2765	0.20000	0.134	
* 20	Phenanthrene-d10	188	9.251	9.251	(1.000)	684602	4.00000		
21	Phenanthrene	178	9.286	9.286	(1.004)	38161	0.20000	0.200	
22	Anthracene	178	9.356	9.356	(1.011)	35573	0.20000	0.193	
$ 23	O-Terphenyl-MS	230	9.835	9.835	(1.063)	222068	2.00000	2.04	
24	Fluoranthene	202	11.054	11.054	(1.195)	37580	0.20000	0.190	
25	Pyrene	202	11.390	11.390	(1.231)	41089	0.20000	0.190	
$ 26	4-Terphenyl-d14	244	11.656	11.656	(1.260)	246590	2.00000	2.07	
27	Benzo(a)anthracene	228	13.007	13.007	(0.999)	37326	0.20000	0.195	
* 28	Chrysene-d12	240	13.022	13.022	(1.000)	606803	4.00000		
29	Chrysene	228	13.048	13.048	(1.002)	37872	0.20000	0.197(M)	M3
30	Benzo(b)fluoranthene	252	14.187	14.187	(0.971)	27641	0.20000	0.166	
31	Benzo(k)fluoranthene	252	14.218	14.218	(0.974)	41720	0.20000	0.199	
33	Benzo(a)pyrene	252	14.539	14.539	(0.996)	27853	0.20000	0.171	
* 34	Perylene-d12	264	14.603	14.603	(1.000)	592324	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.910	15.910	(1.089)	32726	0.20000	0.162	
37 Dibenzo(a,h)anthracene	278	15.931	15.931	(1.091)	25918	0.20000	0.159(M)	M4
38 Benzo(ghi)perylene	276	16.288	16.288	(1.115)	30090	0.20000	0.174(M)	M7

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 09:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

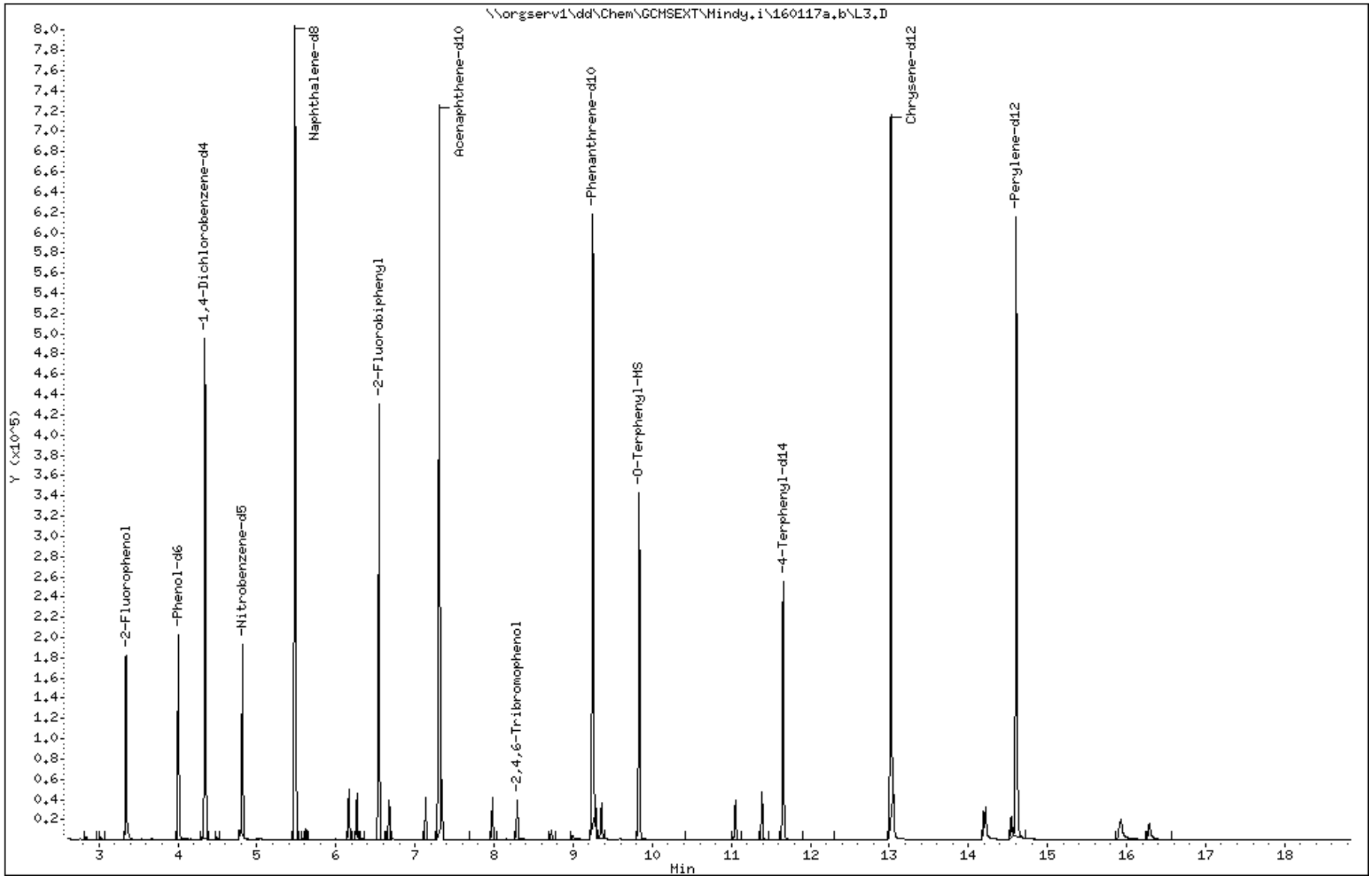
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	180263	15.37
6 Naphthalene-d8	640802	320401	1281604	727742	13.57
14 Acenaphthene-d10	360503	180252	721006	397228	10.19
20 Phenanthrene-d10	631565	315783	1263130	684602	8.40
28 Chrysene-d12	574055	287028	1148110	606803	5.70
34 Perylene-d12	540725	270363	1081450	592324	9.54

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.00
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.04
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.05
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	0.00
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.00
34 Perylene-d12	14.60	14.10	15.10	14.60	-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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L3.D
Date : 17-JAN-2016 05:55
Client ID:
Sample Info: L3 0.2/2.0 ug/mL #5776

Instrument: Mindy.i
Operator: kv
Column phase: RTx-5
Column diameter: 0.32



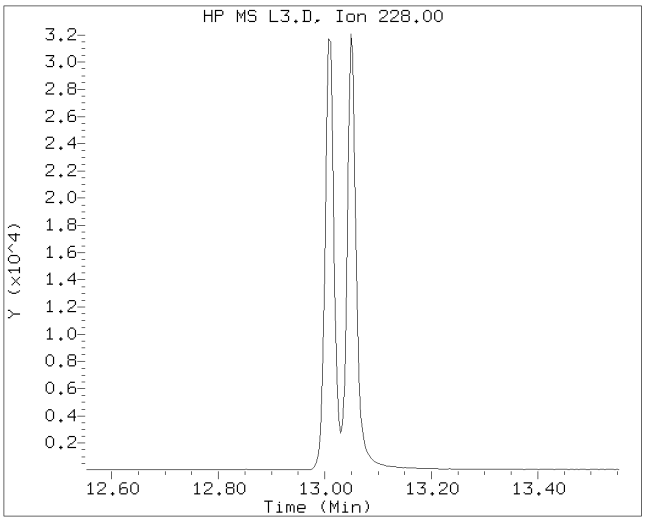
Alpha Analytical Labs

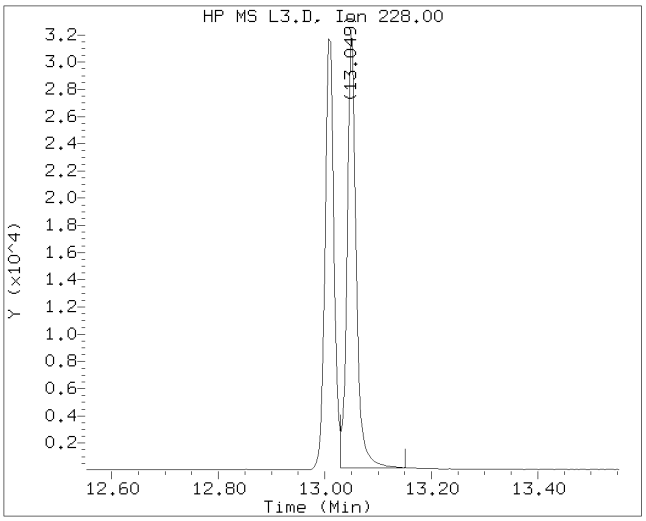
Manual Integration

Sample Info : L3 0.2/2.0 ug/mL #5776

Instrument ID : Mindy.i
Method : 8270D.m
File : L3.D
Injection Date : 17-JAN-2016 05:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 29: Chrysene

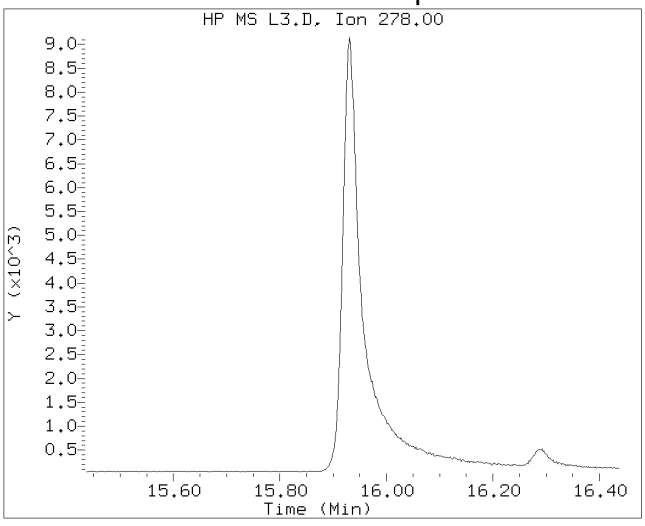


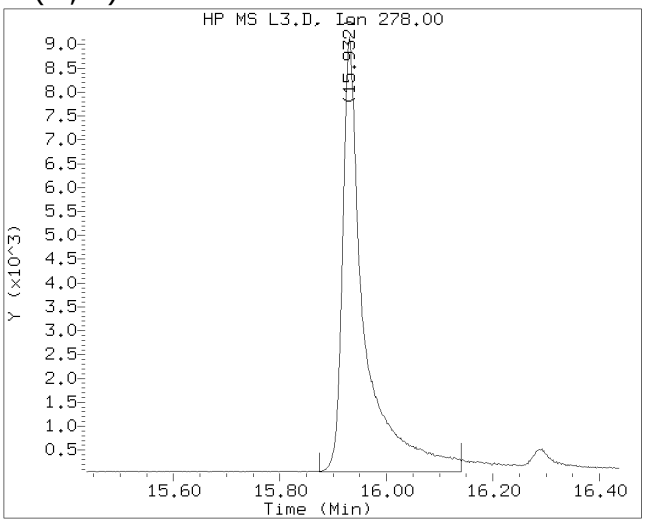


Original Peak Response = 0 Manual Peak Response = 37872 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound # 37: Dibenzo(a,h)anthracene





Original Peak Response = 0 Manual Peak Response = 25918 M4

M4 = Poor automated baseline construction.

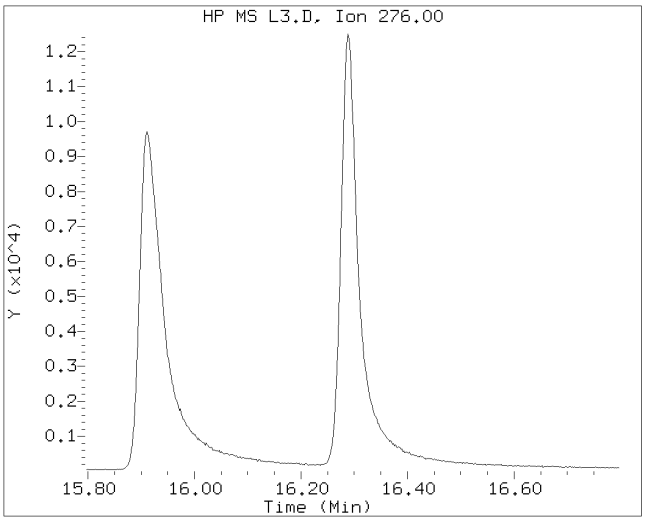
Alpha Analytical Labs

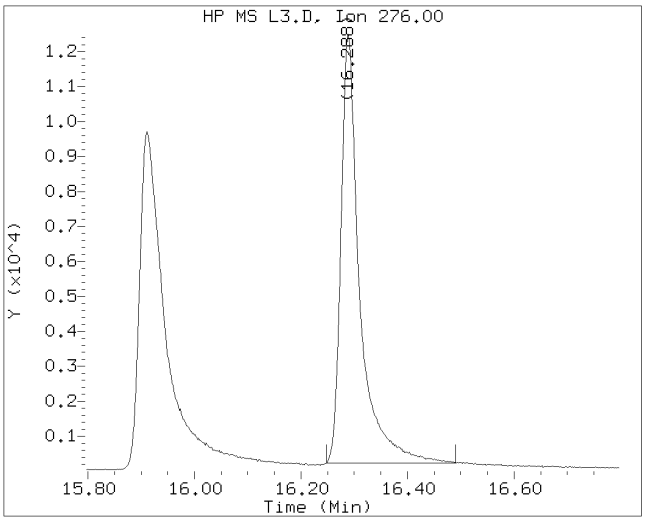
Manual Integration

Sample Info : L3 0.2/2.0 ug/mL #5776

Instrument ID : Mindy.i
Method : 8270D.m
File : L3.D
Injection Date : 17-JAN-2016 05:55
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 38: Benzo(ghi)perylene





Original Peak Response = 0 Manual Peak Response = 30090 M7

M7 = A qualifier ion was manually integrated (only for GC/MS data).

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L4.D
Lab Smp Id:
Inj Date : 17-JAN-2016 06:20
Operator : kv Inst ID: Mindy.i
Smp Info : L4 0.5/5.0 ug/mL#5784
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 05:55 Cal File: L3.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$	1 2-Fluorophenol	112	3.339	3.339	(0.769)	225861	5.00000	4.06	
$	2 Phenol-d6	99	4.007	4.007	(0.923)	269074	5.00000	4.05	
*	3 1,4-Dichlorobenzene-d4	152	4.343	4.343	(1.000)	166884	4.00000		
	4 Hexachloroethane	117	4.788	4.788	(1.102)	11147	0.50000	0.500	
$	5 Nitrobenzene-d5	82	4.817	4.817	(1.109)	217654	5.00000	4.00	
*	6 Naphthalene-d8	136	5.480	5.480	(1.000)	677460	4.00000		
	7 Naphthalene	128	5.501	5.501	(1.004)	91304	0.50000	0.508	
	8 Hexachlorobutadiene	225	5.623	5.623	(1.026)	14131	0.50000	0.497	
	9 2-Methylnaphthalene	142	6.161	6.161	(1.124)	59890	0.50000	0.495	
	10 1-Methylnaphthalene	142	6.263	6.263	(1.143)	55424	0.50000	0.499	
$	11 2-Fluorobiphenyl	172	6.544	6.544	(1.194)	508668	5.00000	4.13	
	12 2-Chloronaphthalene	162	6.672	6.672	(1.218)	55149	0.50000	0.497	
	13 Acenaphthylene	152	7.137	7.137	(1.302)	82711	0.50000	0.489	
*	14 Acenaphthene-d10	164	7.303	7.303	(1.000)	374824	4.00000		
	15 Acenaphthene	153	7.340	7.340	(1.005)	54888	0.50000	0.486	
	16 Fluorene	166	7.983	7.983	(1.093)	57795	0.50000	0.478	
$	17 2,4,6-Tribromophenol	330	8.293	8.293	(1.136)	46116	5.00000	3.49	
	18 Hexachlorobenzene	284	8.725	8.725	(0.943)	15634	0.50000	0.470	
	19 Pentachlorophenol	266	8.994	8.994	(0.972)	6770	0.50000	0.344	
*	20 Phenanthrene-d10	188	9.251	9.251	(1.000)	654763	4.00000		
	21 Phenanthrene	178	9.286	9.286	(1.004)	87838	0.50000	0.482	
	22 Anthracene	178	9.356	9.356	(1.011)	84242	0.50000	0.479	
$	23 O-Terphenyl-MS	230	9.835	9.835	(1.063)	410130	5.00000	3.94	
	24 Fluoranthene	202	11.053	11.053	(1.195)	89168	0.50000	0.472	
	25 Pyrene	202	11.391	11.391	(1.231)	97996	0.50000	0.473	
$	26 4-Terphenyl-d14	244	11.656	11.656	(1.260)	458341	5.00000	4.02	
	27 Benzo(a)anthracene	228	13.010	13.010	(0.999)	84987	0.50000	0.459	
*	28 Chrysene-d12	240	13.021	13.021	(1.000)	587137	4.00000		
	29 Chrysene	228	13.051	13.051	(1.002)	90611	0.50000	0.486	
	30 Benzo(b)fluoranthene	252	14.187	14.187	(0.971)	70217	0.50000	0.437	
	31 Benzo(k)fluoranthene	252	14.217	14.217	(0.973)	98837	0.50000	0.488	
	33 Benzo(a)pyrene	252	14.538	14.538	(0.995)	70932	0.50000	0.452	
*	34 Perylene-d12	264	14.607	14.607	(1.000)	571972	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.912	15.912	(1.089)	85742	0.50000	0.439	
37 Dibenzo(a,h)anthracene	278	15.932	15.932	(1.091)	65492	0.50000	0.416	
38 Benzo(ghi)perylene	276	16.288	16.288	(1.115)	76419	0.50000	0.459	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L4.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 09:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	166884	6.81
6 Naphthalene-d8	640802	320401	1281604	677460	5.72
14 Acenaphthene-d10	360503	180252	721006	374824	3.97
20 Phenanthrene-d10	631565	315783	1263130	654763	3.67
28 Chrysene-d12	574055	287028	1148110	587137	2.28
34 Perylene-d12	540725	270363	1081450	571972	5.78

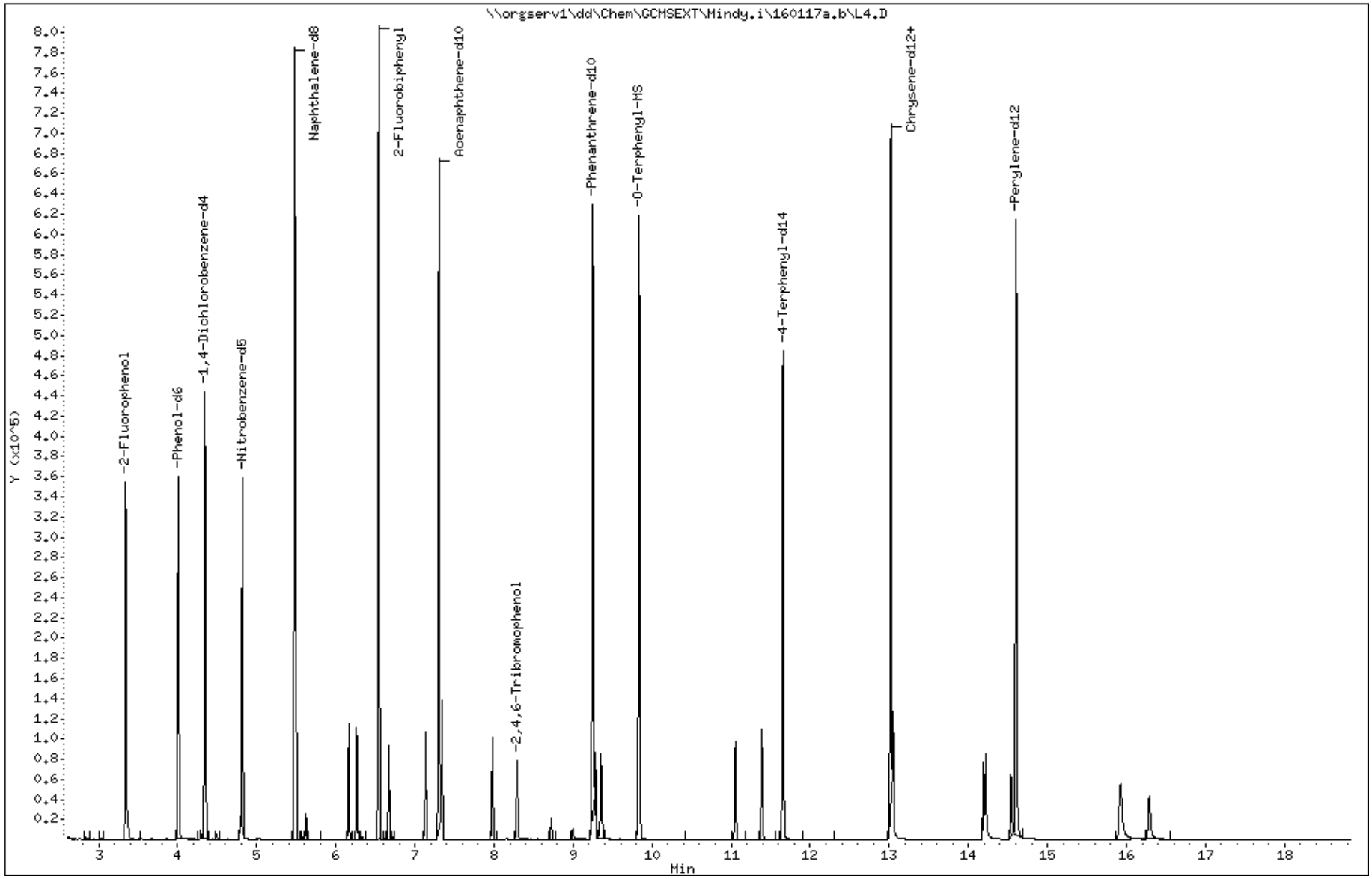
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.02
6 Naphthalene-d8	5.48	4.98	5.98	5.48	-0.00
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.06
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	-0.00
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.01
34 Perylene-d12	14.60	14.10	15.10	14.61	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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L4.D
Date : 17-JAN-2016 06:20
Client ID:
Sample Info: L4 0.5/5.0 ug/mL#5784

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : L4 0.5/5.0 ug/mL#5784

Instrument ID : Mindy.i
Method : 8270D.m
File : L4.D
Injection Date : 17-JAN-2016 06:20
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L5.D
Lab Smp Id:
Inj Date : 17-JAN-2016 06:45
Operator : kv Inst ID: Mindy.i
Smp Info : L5 1.0/10.0 ug/mL #5778
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 06:20 Cal File: L4.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.339	3.339	(0.769)	621754	10.0000	11.0	
$ 2	Phenol-d6	99	4.007	4.007	(0.923)	745794	10.0000	11.0	
* 3	1,4-Dichlorobenzene-d4	152	4.343	4.343	(1.000)	170119	4.00000		
4	Hexachloroethane	117	4.788	4.788	(1.102)	22209	1.00000	0.977	
$ 5	Nitrobenzene-d5	82	4.817	4.817	(1.109)	611274	10.0000	11.0	
* 6	Naphthalene-d8	136	5.480	5.480	(1.000)	685126	4.00000		
7	Naphthalene	128	5.501	5.501	(1.004)	184020	1.00000	1.01	
8	Hexachlorobutadiene	225	5.623	5.623	(1.026)	28335	1.00000	0.986	
9	2-Methylnaphthalene	142	6.161	6.161	(1.124)	121859	1.00000	0.996	
10	1-Methylnaphthalene	142	6.262	6.262	(1.143)	112604	1.00000	1.00	
$ 11	2-Fluorobiphenyl	172	6.543	6.543	(1.194)	1400089	10.0000	11.2	
12	2-Chloronaphthalene	162	6.672	6.672	(1.218)	112661	1.00000	1.00	
13	Acenaphthylene	152	7.137	7.137	(1.302)	170277	1.00000	0.996	
* 14	Acenaphthene-d10	164	7.307	7.307	(1.000)	369075	4.00000		
15	Acenaphthene	153	7.340	7.340	(1.004)	112779	1.00000	1.01	
16	Fluorene	166	7.983	7.983	(1.092)	119441	1.00000	1.00	
$ 17	2,4,6-Tribromophenol	330	8.298	8.298	(1.136)	143964	10.0000	11.1	
18	Hexachlorobenzene	284	8.725	8.725	(0.943)	32415	1.00000	1.01	
19	Pentachlorophenol	266	8.993	8.993	(0.972)	15409	1.00000	0.812	
* 20	Phenanthrene-d10	188	9.251	9.251	(1.000)	632114	4.00000		
21	Phenanthrene	178	9.286	9.286	(1.004)	178178	1.00000	1.01	
22	Anthracene	178	9.356	9.356	(1.011)	173196	1.00000	1.02	
$ 23	O-Terphenyl-MS	230	9.835	9.835	(1.063)	1156142	10.0000	11.5	
24	Fluoranthene	202	11.053	11.053	(1.195)	183057	1.00000	1.00	
25	Pyrene	202	11.390	11.390	(1.231)	203201	1.00000	1.02	
$ 26	4-Terphenyl-d14	244	11.659	11.659	(1.260)	1288096	10.0000	11.7	
27	Benzo(a)anthracene	228	13.007	13.007	(0.999)	172801	1.00000	0.973	
* 28	Chrysene-d12	240	13.018	13.018	(1.000)	563302	4.00000		
29	Chrysene	228	13.049	13.049	(1.002)	183322	1.00000	1.02	
30	Benzo(b)fluoranthene	252	14.188	14.188	(0.971)	153945	1.00000	1.02	
31	Benzo(k)fluoranthene	252	14.218	14.218	(0.974)	196639	1.00000	1.03	
33	Benzo(a)pyrene	252	14.540	14.540	(0.996)	150550	1.00000	1.02	
* 34	Perylene-d12	264	14.604	14.604	(1.000)	536883	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.913	15.913	(1.090)	181557	1.00000	0.991	
37 Dibenzo(a,h)anthracene	278	15.932	15.932	(1.091)	142956	1.00000	0.968	
38 Benzo(ghi)perylene	276	16.290	16.290	(1.115)	153115	1.00000	0.979	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L5.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 09:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

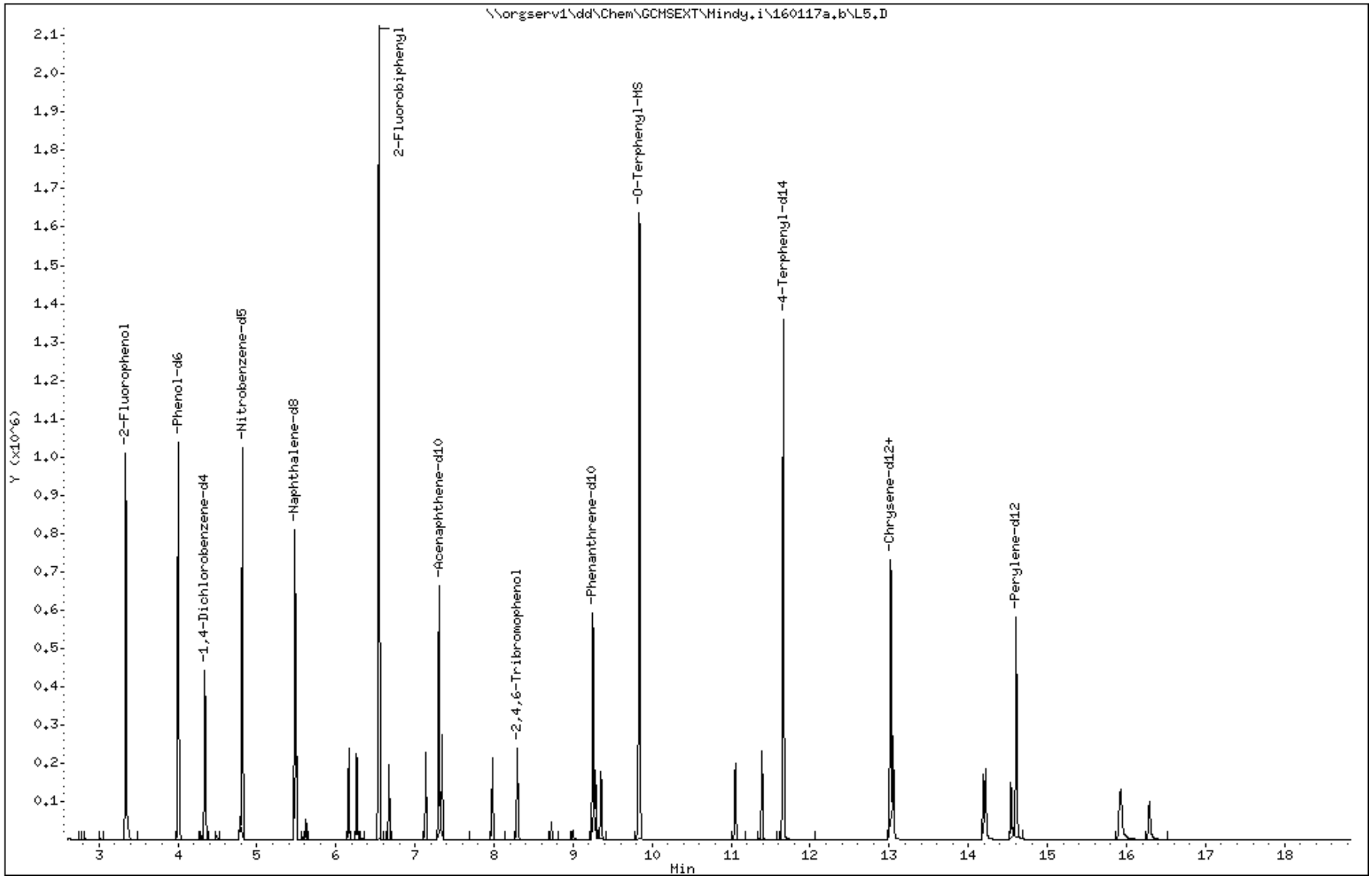
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	170119	8.88
6 Naphthalene-d8	640802	320401	1281604	685126	6.92
14 Acenaphthene-d10	360503	180252	721006	369075	2.38
20 Phenanthrene-d10	631565	315783	1263130	632114	0.09
28 Chrysene-d12	574055	287028	1148110	563302	-1.87
34 Perylene-d12	540725	270363	1081450	536883	-0.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.02
6 Naphthalene-d8	5.48	4.98	5.98	5.48	-0.00
14 Acenaphthene-d10	7.31	6.81	7.81	7.31	-0.00
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	-0.00
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.03
34 Perylene-d12	14.60	14.10	15.10	14.60	-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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L5.D
Date : 17-JAN-2016 06:45
Client ID:
Sample Info: L5 1.0/10.0 ug/mL #5778

Instrument: Mindy.i
Operator: kv
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : L5 1.0/10.0 ug/mL #5778

Instrument ID : Mindy.i
Method : 8270D.m
File : L5.D
Injection Date : 17-JAN-2016 06:45
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L6.D
Lab Smp Id:
Inj Date : 17-JAN-2016 07:10
Operator : kv Inst ID: Mindy.i
Smp Info : L6 2.0/20.0ug/mL #5779
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 15:13 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$	1 2-Fluorophenol	112	3.343	3.343	(0.770)	1196337	20.0000	20.4	
$	2 Phenol-d6	99	4.006	4.006	(0.923)	1436471	20.0000	20.5	
*	3 1,4-Dichlorobenzene-d4	152	4.342	4.342	(1.000)	175867	4.00000		
	4 Hexachloroethane	117	4.787	4.787	(1.103)	46409	2.00000	1.97	
$	5 Nitrobenzene-d5	82	4.817	4.817	(1.109)	1189536	20.0000	20.7	
*	6 Naphthalene-d8	136	5.479	5.479	(1.000)	713323	4.00000		
	7 Naphthalene	128	5.500	5.500	(1.004)	381403	2.00000	2.02	
	8 Hexachlorobutadiene	225	5.622	5.622	(1.026)	58984	2.00000	1.97	
	9 2-Methylnaphthalene	142	6.163	6.163	(1.125)	255730	2.00000	2.01	
	10 1-Methylnaphthalene	142	6.264	6.264	(1.143)	235179	2.00000	2.01	
$	11 2-Fluorobiphenyl	172	6.545	6.545	(1.194)	2627295	20.0000	20.3	
	12 2-Chloronaphthalene	162	6.674	6.674	(1.218)	234379	2.00000	2.00	
	13 Acenaphthylene	152	7.139	7.139	(1.303)	360177	2.00000	2.02	
*	14 Acenaphthene-d10	164	7.304	7.304	(1.000)	384716	4.00000		
	15 Acenaphthene	153	7.341	7.341	(1.005)	233926	2.00000	2.02	
	16 Fluorene	166	7.984	7.984	(1.093)	252312	2.00000	2.03	
$	17 2,4,6-Tribromophenol	330	8.300	8.300	(1.136)	294037	20.0000	21.7	
	18 Hexachlorobenzene	284	8.726	8.726	(0.943)	66804	2.00000	2.01	
	19 Pentachlorophenol	266	8.995	8.995	(0.972)	36399	2.00000	1.86	
*	20 Phenanthrene-d10	188	9.252	9.252	(1.000)	652924	4.00000		
	21 Phenanthrene	178	9.287	9.287	(1.004)	377075	2.00000	2.07	
	22 Anthracene	178	9.357	9.357	(1.011)	365354	2.00000	2.08	
$	23 O-Terphenyl-MS	230	9.842	9.842	(1.064)	2202446	20.0000	21.2	
	24 Fluoranthene	202	11.054	11.054	(1.195)	404472	2.00000	2.15	
	25 Pyrene	202	11.390	11.390	(1.231)	446997	2.00000	2.16	
$	26 4-Terphenyl-d14	244	11.663	11.663	(1.261)	2420754	20.0000	21.3	
	27 Benzo(a)anthracene	228	13.007	13.007	(0.999)	372442	2.00000	2.02	
*	28 Chrysene-d12	240	13.022	13.022	(1.000)	584984	4.00000		
	29 Chrysene	228	13.048	13.048	(1.002)	397530	2.00000	2.14	
	30 Benzo(b)fluoranthene	252	14.187	14.187	(0.971)	349621	2.00000	2.23	
	31 Benzo(k)fluoranthene	252	14.218	14.218	(0.974)	431383	2.00000	2.18	
	33 Benzo(a)pyrene	252	14.539	14.539	(0.996)	338457	2.00000	2.21	
*	34 Perylene-d12	264	14.603	14.603	(1.000)	558800	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.914	15.914	(1.090)	414675	2.00000	2.17	
37 Dibenzo(a,h)anthracene	278	15.933	15.933	(1.091)	336594	2.00000	2.19	
38 Benzo(ghi)perylene	276	16.290	16.290	(1.115)	362147	2.00000	2.22	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L6.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 09:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	175867	12.56
6 Naphthalene-d8	640802	320401	1281604	713323	11.32
14 Acenaphthene-d10	360503	180252	721006	384716	6.72
20 Phenanthrene-d10	631565	315783	1263130	652924	3.38
28 Chrysene-d12	574055	287028	1148110	584984	1.90
34 Perylene-d12	540725	270363	1081450	558800	3.34

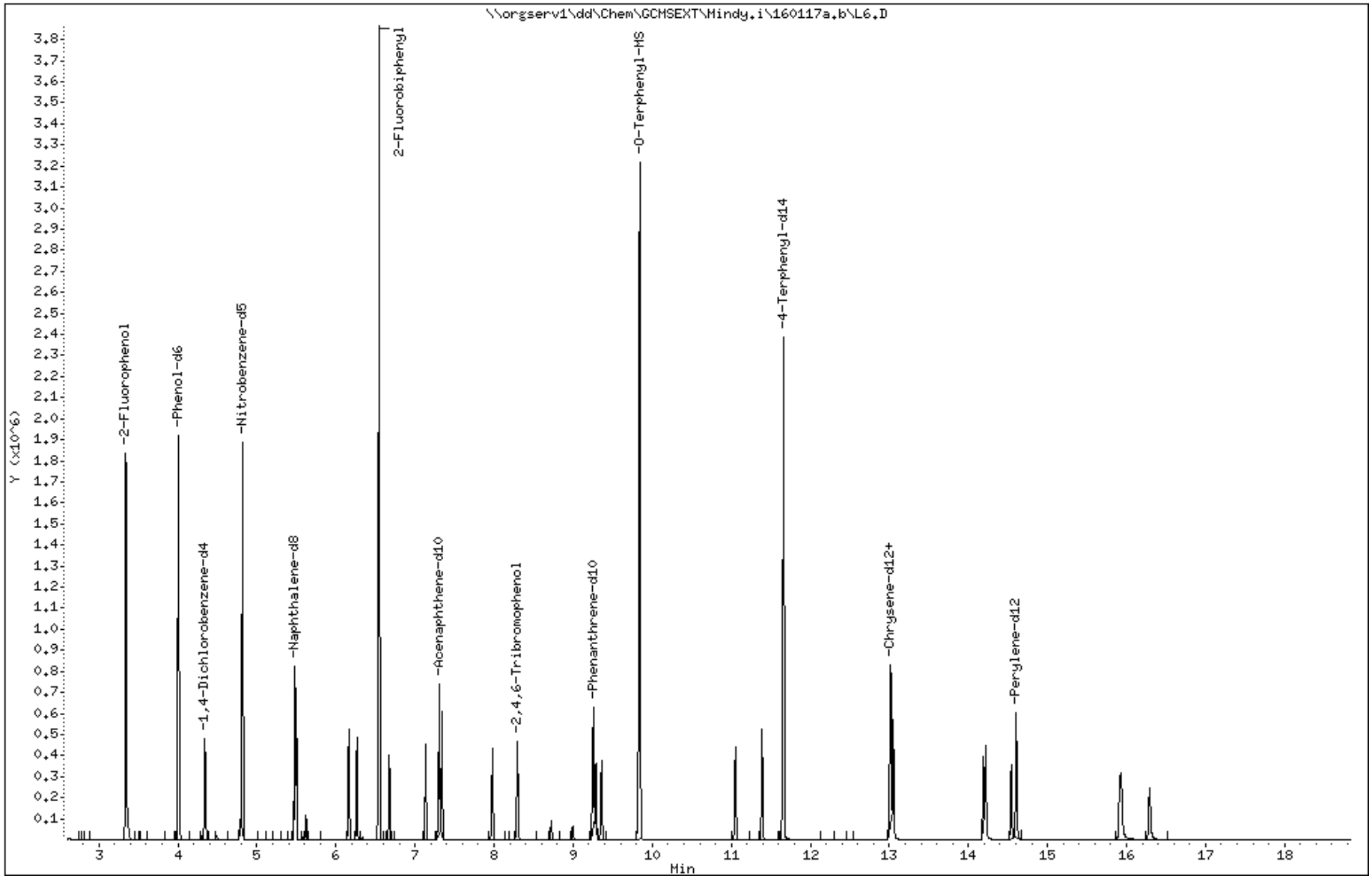
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.00
6 Naphthalene-d8	5.48	4.98	5.98	5.48	-0.02
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.04
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	0.01
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.00
34 Perylene-d12	14.60	14.10	15.10	14.60	-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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L6.D
Date : 17-JAN-2016 07:10
Client ID:
Sample Info: L6 2.0/20.0ug/mL #5779

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : L6 2.0/20.0ug/mL #5779

Instrument ID : Mindy.i
Method : 8270D.m
File : L6.D
Injection Date : 17-JAN-2016 07:10
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L7.D
Lab Smp Id:
Inj Date : 17-JAN-2016 07:35
Operator : kv Inst ID: Mindy.i
Smp Info : L7 5.0/40.0 ug/mL#5780
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 07:10 Cal File: L6.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$	1 2-Fluorophenol	112	3.342	3.342	(0.770)	2459229	40.0000	41.4	
$	2 Phenol-d6	99	4.014	4.014	(0.925)	2913272	40.0000	41.1	
*	3 1,4-Dichlorobenzene-d4	152	4.342	4.342	(1.000)	178325	4.00000		
	4 Hexachloroethane	117	4.787	4.787	(1.103)	121703	5.00000	5.11	
$	5 Nitrobenzene-d5	82	4.824	4.824	(1.111)	2431315	40.0000	41.8	
*	6 Naphthalene-d8	136	5.482	5.482	(1.000)	724452	4.00000		
	7 Naphthalene	128	5.500	5.500	(1.003)	971174	5.00000	5.05	
	8 Hexachlorobutadiene	225	5.622	5.622	(1.025)	153563	5.00000	5.05	
	9 2-Methylnaphthalene	142	6.166	6.166	(1.125)	662943	5.00000	5.12	
	10 1-Methylnaphthalene	142	6.268	6.268	(1.143)	609641	5.00000	5.13	
$	11 2-Fluorobiphenyl	172	6.548	6.548	(1.195)	5159917	40.0000	39.2	
	12 2-Chloronaphthalene	162	6.677	6.677	(1.218)	606368	5.00000	5.11	
	13 Acenaphthylene	152	7.138	7.138	(1.302)	942005	5.00000	5.21	
*	14 Acenaphthene-d10	164	7.303	7.303	(1.000)	407300	4.00000		
	15 Acenaphthene	153	7.345	7.345	(1.006)	611025	5.00000	4.98	
	16 Fluorene	166	7.983	7.983	(1.093)	672202	5.00000	5.11	
$	17 2,4,6-Tribromophenol	330	8.305	8.305	(1.137)	684933	40.0000	47.7	
	18 Hexachlorobenzene	284	8.725	8.725	(0.943)	177032	5.00000	4.93	
	19 Pentachlorophenol	266	8.994	8.994	(0.972)	112894	5.00000	5.31	
*	20 Phenanthrene-d10	188	9.251	9.251	(1.000)	707474	4.00000		
	21 Phenanthrene	178	9.286	9.286	(1.004)	962583	5.00000	4.89	
	22 Anthracene	178	9.356	9.356	(1.011)	974325	5.00000	5.12	
$	23 O-Terphenyl-MS	230	9.847	9.847	(1.064)	4497498	40.0000	40.0	
	24 Fluoranthene	202	11.054	11.054	(1.195)	1036256	5.00000	5.08	
	25 Pyrene	202	11.394	11.394	(1.232)	1144989	5.00000	5.11	
$	26 4-Terphenyl-d14	244	11.671	11.671	(1.262)	4797745	40.0000	39.0	
	27 Benzo(a)anthracene	228	13.010	13.010	(0.999)	976173	5.00000	4.90	
*	28 Chrysene-d12	240	13.021	13.021	(1.000)	632708	4.00000		
	29 Chrysene	228	13.052	13.052	(1.002)	997287	5.00000	4.97	
	30 Benzo(b)fluoranthene	252	14.191	14.191	(0.972)	949157	5.00000	5.69	
	31 Benzo(k)fluoranthene	252	14.221	14.221	(0.974)	1022796	5.00000	4.87	
	33 Benzo(a)pyrene	252	14.542	14.542	(0.996)	894697	5.00000	5.49	
*	34 Perylene-d12	264	14.607	14.607	(1.000)	593309	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.915	15.915	(1.090)	1075036	5.00000	5.31	
37 Dibenzo(a,h)anthracene	278	15.936	15.936	(1.091)	881505	5.00000	5.40	
38 Benzo(ghi)perylene	276	16.296	16.296	(1.116)	897506	5.00000	5.19	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L7.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 07:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	178325	14.13
6 Naphthalene-d8	640802	320401	1281604	724452	13.05
14 Acenaphthene-d10	360503	180252	721006	407300	12.98
20 Phenanthrene-d10	631565	315783	1263130	707474	12.02
28 Chrysene-d12	574055	287028	1148110	632708	10.22
34 Perylene-d12	540725	270363	1081450	593309	9.72

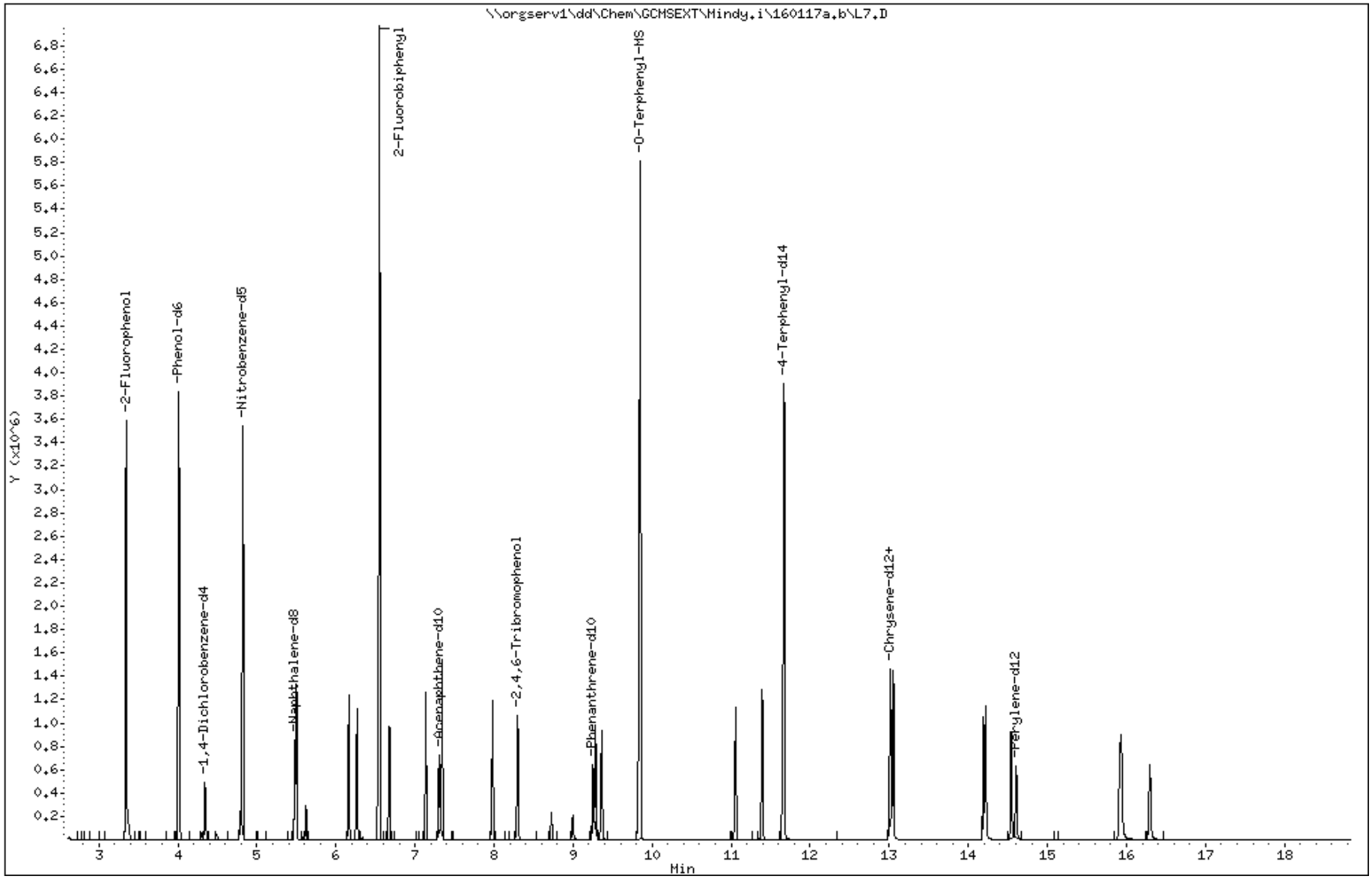
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	-0.01
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.03
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.06
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	0.00
28 Chrysene-d12	13.02	12.52	13.52	13.02	-0.01
34 Perylene-d12	14.60	14.10	15.10	14.61	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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L7.D
Date : 17-JAN-2016 07:35
Client ID:
Sample Info: L7 5.0/40.0 ug/mL#5780

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : L7 5.0/40.0 ug/mL#5780

Instrument ID : Mindy.i
Method : 8270D.m
File : L7.D
Injection Date : 17-JAN-2016 07:35
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L8.D
Lab Smp Id:
Inj Date : 17-JAN-2016 08:00
Operator : kv Inst ID: Mindy.i
Smp Info : L8 10.0/60.0 ug/mL #5781
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 07:35 Cal File: L7.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$	1 2-Fluorophenol	112	3.344	3.344	(0.770)	3410010	60.0000	58.0	
$	2 Phenol-d6	99	4.016	4.016	(0.925)	4008911	60.0000	57.2	
*	3 1,4-Dichlorobenzene-d4	152	4.344	4.344	(1.000)	176284	4.00000		
	4 Hexachloroethane	117	4.789	4.789	(1.102)	230167	10.0000	9.77	
$	5 Nitrobenzene-d5	82	4.827	4.827	(1.111)	3376282	60.0000	58.7	
*	6 Naphthalene-d8	136	5.482	5.482	(1.000)	716413	4.00000		
	7 Naphthalene	128	5.500	5.500	(1.003)	1775635	10.0000	9.34	
	8 Hexachlorobutadiene	225	5.622	5.622	(1.025)	288884	10.0000	9.61	
	9 2-Methylnaphthalene	142	6.167	6.167	(1.125)	1227068	10.0000	9.59	
	10 1-Methylnaphthalene	142	6.268	6.268	(1.143)	1131571	10.0000	9.63	
$	11 2-Fluorobiphenyl	172	6.554	6.554	(1.195)	6856067	60.0000	52.7	
	12 2-Chloronaphthalene	162	6.678	6.678	(1.218)	1121583	10.0000	9.56	
	13 Acenaphthylene	152	7.138	7.138	(1.302)	1742562	10.0000	9.75	
*	14 Acenaphthene-d10	164	7.304	7.304	(1.000)	395434	4.00000		
	15 Acenaphthene	153	7.346	7.346	(1.006)	1126656	10.0000	9.45	
	16 Fluorene	166	7.984	7.984	(1.093)	1241819	10.0000	9.72	
$	17 2,4,6-Tribromophenol	330	8.305	8.305	(1.137)	1012677	60.0000	72.7	
	18 Hexachlorobenzene	284	8.732	8.732	(0.944)	332542	10.0000	9.57	
	19 Pentachlorophenol	266	8.994	8.994	(0.972)	228353	10.0000	11.1	
*	20 Phenanthrene-d10	188	9.251	9.251	(1.000)	684133	4.00000		
	21 Phenanthrene	178	9.286	9.286	(1.004)	1762955	10.0000	9.26	
	22 Anthracene	178	9.362	9.362	(1.012)	1809482	10.0000	9.84	
$	23 O-Terphenyl-MS	230	9.853	9.853	(1.065)	6059532	60.0000	55.7	
	24 Fluoranthene	202	11.059	11.059	(1.195)	1925313	10.0000	9.76	
	25 Pyrene	202	11.396	11.396	(1.232)	2115802	10.0000	9.77	
$	26 4-Terphenyl-d14	244	11.676	11.676	(1.262)	6325555	60.0000	53.1	
	27 Benzo(a)anthracene	228	13.010	13.010	(0.999)	1827774	10.0000	9.38	
*	28 Chrysene-d12	240	13.026	13.026	(1.000)	618367	4.00000		
	29 Chrysene	228	13.056	13.056	(1.002)	1820759	10.0000	9.28	
	30 Benzo(b)fluoranthene	252	14.195	14.195	(0.972)	1805498	10.0000	11.1	
	31 Benzo(k)fluoranthene	252	14.225	14.225	(0.974)	1852389	10.0000	9.05	
	33 Benzo(a)pyrene	252	14.547	14.547	(0.996)	1694708	10.0000	10.7	
*	34 Perylene-d12	264	14.603	14.603	(1.000)	577643	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.924	15.924	(1.090)	2025525	10.0000	10.3	
37 Dibenzo(a,h)anthracene	278	15.942	15.942	(1.092)	1668249	10.0000	10.5	
38 Benzo(ghi)perylene	276	16.305	16.305	(1.117)	1683907	10.0000	10.0	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L8.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 07:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

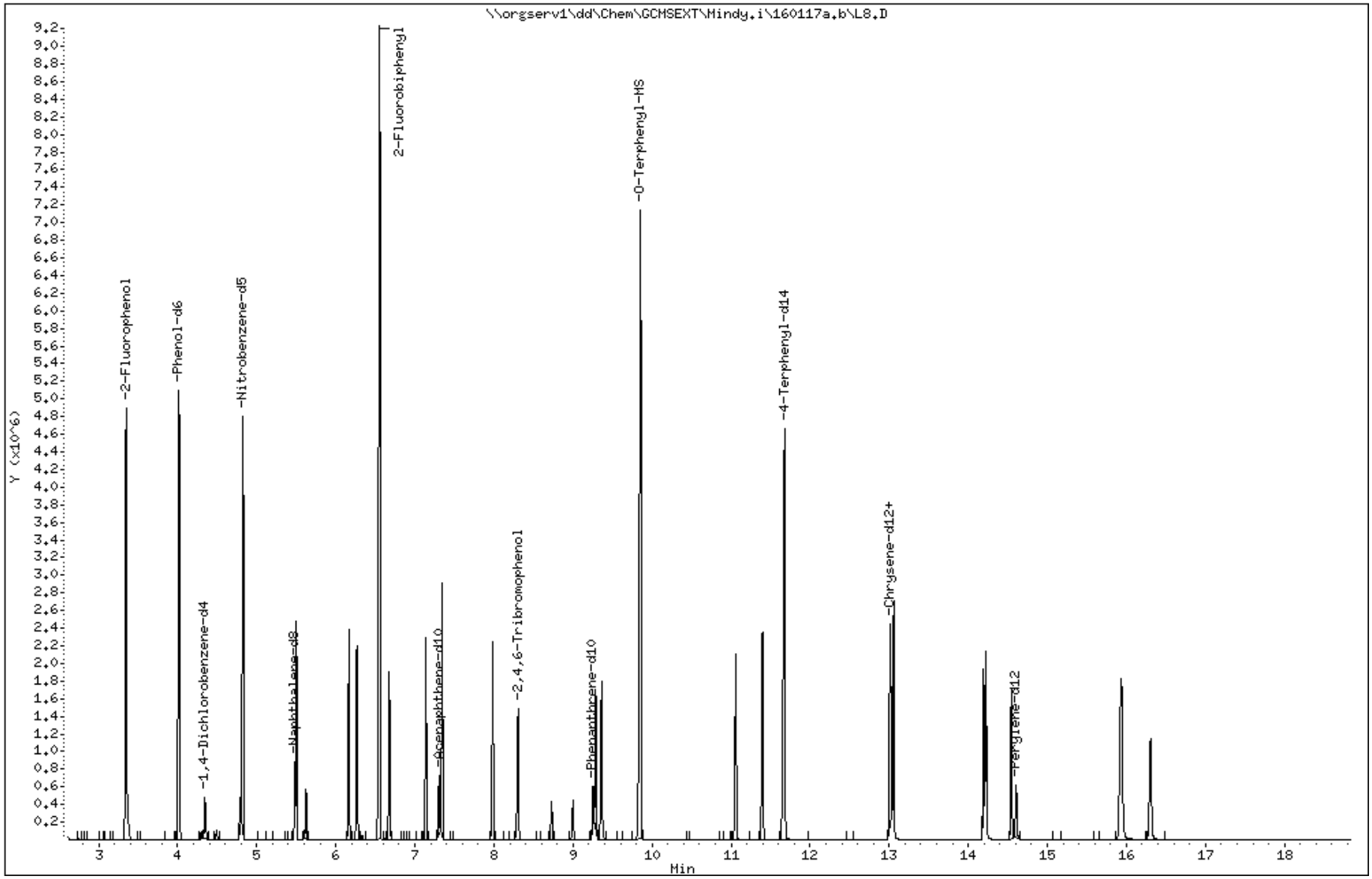
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	176284	12.82
6 Naphthalene-d8	640802	320401	1281604	716413	11.80
14 Acenaphthene-d10	360503	180252	721006	395434	9.69
20 Phenanthrene-d10	631565	315783	1263130	684133	8.32
28 Chrysene-d12	574055	287028	1148110	618367	7.72
34 Perylene-d12	540725	270363	1081450	577643	6.83

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.04
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.04
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.05
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	0.01
28 Chrysene-d12	13.02	12.52	13.52	13.03	0.03
34 Perylene-d12	14.60	14.10	15.10	14.60	-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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L8.D
Date : 17-JAN-2016 08:00
Client ID:
Sample Info: L8 10.0/60.0 ug/mL #5781

Instrument: Mindy.i
Operator: kv
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : L8 10.0/60.0 ug/mL #5781

Instrument ID : Mindy.i
Method : 8270D.m
File : L8.D
Injection Date : 17-JAN-2016 08:00
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_8

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L9.D
Lab Smp Id:
Inj Date : 17-JAN-2016 08:25
Operator : kv Inst ID: Mindy.i
Smp Info : L9 15.0/0.0 ug/mL #5782
Misc Info :
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 08:00 Cal File: L8.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	Compound Not Detected.						
$ 2	Phenol-d6	99	Compound Not Detected.						
* 3	1,4-Dichlorobenzene-d4	152	4.342	4.342	(1.000)	172945	4.00000		
4	Hexachloroethane	117	4.787	4.787	(1.103)	350447	15.0000	15.2	
$ 5	Nitrobenzene-d5	82	Compound Not Detected.						
* 6	Naphthalene-d8	136	5.482	5.482	(1.000)	696459	4.00000		
7	Naphthalene	128	5.503	5.503	(1.004)	2620577	15.0000	14.2	
8	Hexachlorobutadiene	225	5.622	5.622	(1.025)	442011	15.0000	15.1	
9	2-Methylnaphthalene	142	6.167	6.167	(1.125)	1833859	15.0000	14.7	
10	1-Methylnaphthalene	142	6.268	6.268	(1.143)	1685076	15.0000	14.7	
$ 11	2-Fluorobiphenyl	172	Compound Not Detected.						
12	2-Chloronaphthalene	162	6.678	6.678	(1.218)	1683147	15.0000	14.8	
13	Acenaphthylene	152	7.138	7.138	(1.302)	2588292	15.0000	14.9	
* 14	Acenaphthene-d10	164	7.309	7.309	(1.000)	389400	4.00000		
15	Acenaphthene	153	7.345	7.345	(1.005)	1693512	15.0000	14.4	
16	Fluorene	166	7.984	7.984	(1.092)	1891246	15.0000	15.0	
$ 17	2,4,6-Tribromophenol	330	Compound Not Detected.						
18	Hexachlorobenzene	284	8.732	8.732	(0.943)	516480	15.0000	14.8	
19	Pentachlorophenol	266	9.000	9.000	(0.972)	358215	15.0000	17.3	
* 20	Phenanthrene-d10	188	9.257	9.257	(1.000)	687481	4.00000		
21	Phenanthrene	178	9.293	9.293	(1.004)	2670512	15.0000	14.0	
22	Anthracene	178	9.363	9.363	(1.011)	2697844	15.0000	14.6	
$ 23	O-Terphenyl-MS	230	Compound Not Detected.						
24	Fluoranthene	202	11.061	11.061	(1.195)	2905264	15.0000	14.7	
25	Pyrene	202	11.398	11.398	(1.231)	3184682	15.0000	14.6	
$ 26	4-Terphenyl-d14	244	Compound Not Detected.						
27	Benzo(a)anthracene	228	13.014	13.014	(0.999)	2753334	15.0000	14.2	
* 28	Chrysene-d12	240	13.029	13.029	(1.000)	614223	4.00000		
29	Chrysene	228	13.059	13.059	(1.002)	2699877	15.0000	13.8	
30	Benzo(b)fluoranthene	252	14.198	14.198	(0.972)	2751378	15.0000	17.0	
31	Benzo(k)fluoranthene	252	14.229	14.229	(0.974)	2768316	15.0000	13.6	
33	Benzo(a)pyrene	252	14.550	14.550	(0.996)	2576706	15.0000	16.4	
* 34	Perylene-d12	264	14.607	14.607	(1.000)	573940	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.930	15.930	(1.091)	3099561	15.0000	15.8	
37 Dibenzo(a,h)anthracene	278	15.949	15.949	(1.092)	2551083	15.0000	16.2	
38 Benzo(ghi)perylene	276	16.317	16.317	(1.117)	2575231	15.0000	15.4	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L9.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 07:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	172945	10.69
6 Naphthalene-d8	640802	320401	1281604	696459	8.69
14 Acenaphthene-d10	360503	180252	721006	389400	8.02
20 Phenanthrene-d10	631565	315783	1263130	687481	8.85
28 Chrysene-d12	574055	287028	1148110	614223	7.00
34 Perylene-d12	540725	270363	1081450	573940	6.14

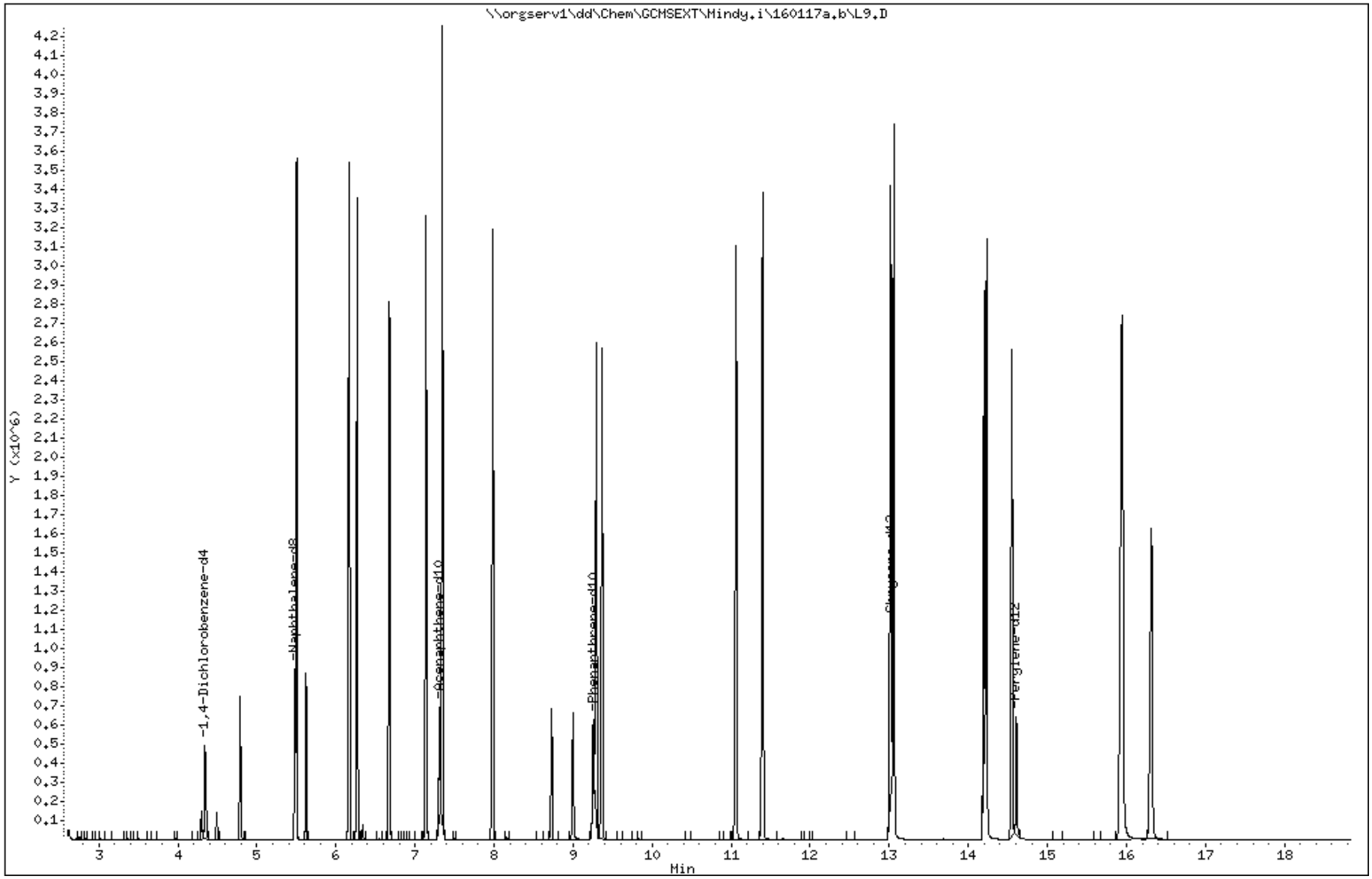
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	-0.00
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.04
14 Acenaphthene-d10	7.31	6.81	7.81	7.31	0.01
20 Phenanthrene-d10	9.25	8.75	9.75	9.26	0.07
28 Chrysene-d12	13.02	12.52	13.52	13.03	0.05
34 Perylene-d12	14.60	14.10	15.10	14.61	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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L9.D
Date : 17-JAN-2016 08:25
Client ID:
Sample Info: L9 15.0/0.0 ug/mL #5782

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : L9 15.0/0.0 ug/mL #5782

Instrument ID : Mindy.i
Method : 8270D.m
File : L9.D
Injection Date : 17-JAN-2016 08:25
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_9

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L10.D
Lab Smp Id:
Inj Date : 17-JAN-2016 08:51
Operator : kv Inst ID: Mindy.i
Smp Info : L10 20.0/0.0 ug/mL#5783
Misc Info :
Comment   : Splitless Injection - Aug 24th 2009 edits.
Method   : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 08:25 Cal File: L9.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	Compound Not Detected.						
$ 2	Phenol-d6	99	Compound Not Detected.						
* 3	1,4-Dichlorobenzene-d4	152	4.343	4.343	(1.000)	170060	4.00000		
4	Hexachloroethane	117	4.789	4.789	(1.102)	464212	20.0000	20.4	
$ 5	Nitrobenzene-d5	82	Compound Not Detected.						
* 6	Naphthalene-d8	136	5.482	5.482	(1.000)	687507	4.00000		
7	Naphthalene	128	5.503	5.503	(1.004)	3378504	20.0000	18.5	
8	Hexachlorobutadiene	225	5.622	5.622	(1.025)	588131	20.0000	20.4	
9	2-Methylnaphthalene	142	6.167	6.167	(1.125)	2379898	20.0000	19.4	
10	1-Methylnaphthalene	142	6.268	6.268	(1.143)	2187058	20.0000	19.4	
$ 11	2-Fluorobiphenyl	172	Compound Not Detected.						
12	2-Chloronaphthalene	162	6.678	6.678	(1.218)	2181038	20.0000	19.4	
13	Acenaphthylene	152	7.143	7.143	(1.303)	3320515	20.0000	19.4	
* 14	Acenaphthene-d10	164	7.304	7.304	(1.000)	373457	4.00000		
15	Acenaphthene	153	7.346	7.346	(1.006)	2185772	20.0000	19.4	
16	Fluorene	166	7.989	7.989	(1.094)	2431765	20.0000	20.2	
$ 17	2,4,6-Tribromophenol	330	Compound Not Detected.						
18	Hexachlorobenzene	284	8.731	8.731	(0.943)	690262	20.0000	21.0	
19	Pentachlorophenol	266	9.000	9.000	(0.972)	482871	20.0000	24.8	
* 20	Phenanthrene-d10	188	9.257	9.257	(1.000)	647642	4.00000		
21	Phenanthrene	178	9.292	9.292	(1.004)	3452497	20.0000	19.1	
22	Anthracene	178	9.368	9.368	(1.012)	3461952	20.0000	19.9	
$ 23	O-Terphenyl-MS	230	Compound Not Detected.						
24	Fluoranthene	202	11.063	11.063	(1.195)	3750798	20.0000	20.1	
25	Pyrene	202	11.403	11.403	(1.232)	4092732	20.0000	20.0	
$ 26	4-Terphenyl-d14	244	Compound Not Detected.						
27	Benzo(a)anthracene	228	13.018	13.018	(0.999)	3497601	20.0000	19.5	
* 28	Chrysene-d12	240	13.029	13.029	(1.000)	569689	4.00000		
29	Chrysene	228	13.063	13.063	(1.003)	3433984	20.0000	19.0	
30	Benzo(b)fluoranthene	252	14.202	14.202	(0.972)	3404825	20.0000	22.9	
31	Benzo(k)fluoranthene	252	14.232	14.232	(0.974)	3585881	20.0000	19.2	
33	Benzo(a)pyrene	252	14.554	14.554	(0.996)	3275559	20.0000	22.6	
* 34	Perylene-d12	264	14.607	14.607	(1.000)	527973	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.936	15.936	(1.091)	3922518	20.0000	21.8	
37 Dibenzo(a,h)anthracene	278	15.953	15.953	(1.092)	3208125	20.0000	22.1	
38 Benzo(ghi)perylene	276	16.322	16.322	(1.117)	3237666	20.0000	21.0	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: L10.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 07:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

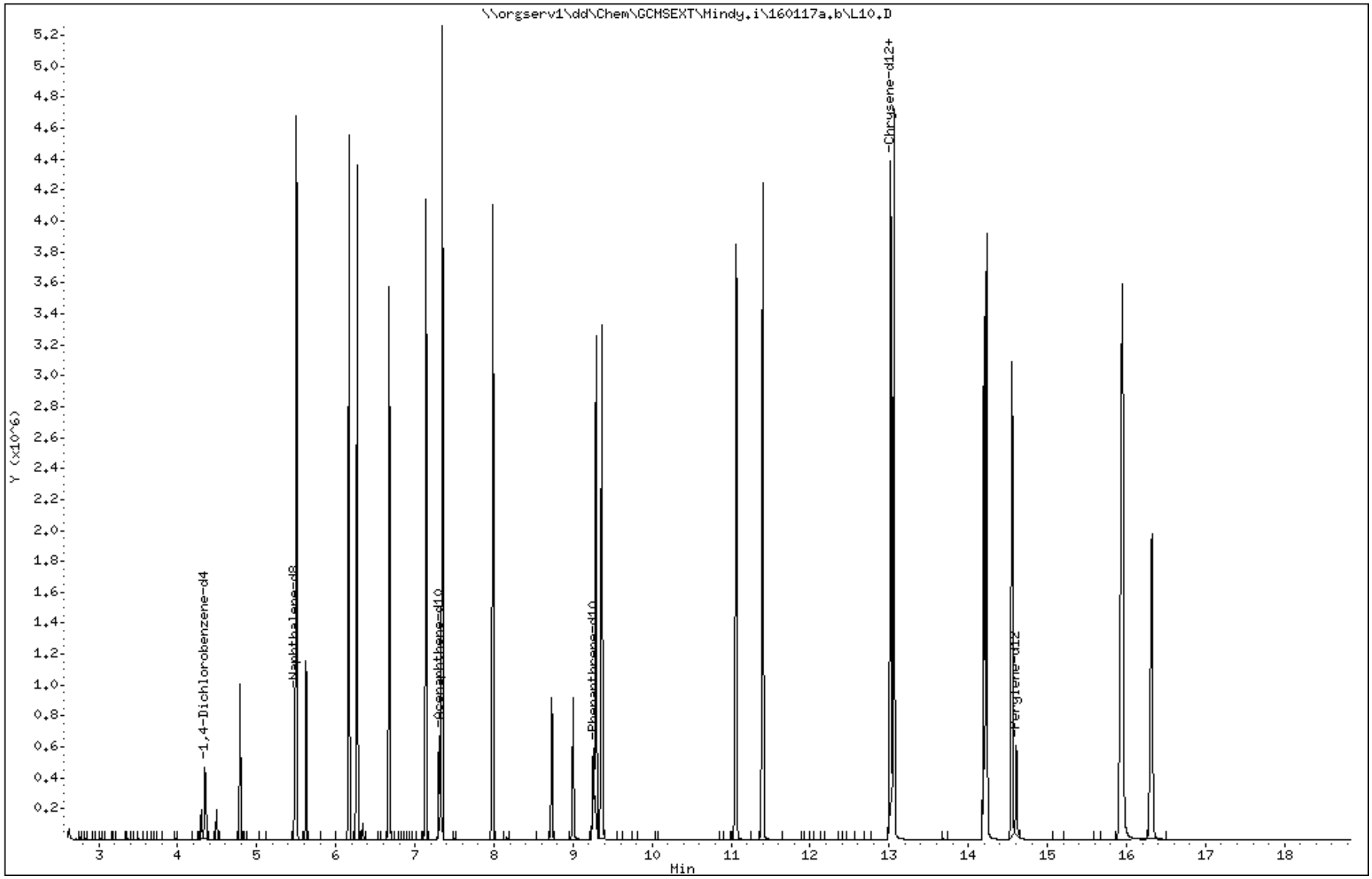
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	156249	78125	312498	170060	8.84
6 Naphthalene-d8	640802	320401	1281604	687507	7.29
14 Acenaphthene-d10	360503	180252	721006	373457	3.59
20 Phenanthrene-d10	631565	315783	1263130	647642	2.55
28 Chrysene-d12	574055	287028	1148110	569689	-0.76
34 Perylene-d12	540725	270363	1081450	527973	-2.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.03
6 Naphthalene-d8	5.48	4.98	5.98	5.48	0.04
14 Acenaphthene-d10	7.31	6.81	7.81	7.30	-0.05
20 Phenanthrene-d10	9.25	8.75	9.75	9.26	0.07
28 Chrysene-d12	13.02	12.52	13.52	13.03	0.05
34 Perylene-d12	14.60	14.10	15.10	14.61	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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\L10.D
Date : 17-JAN-2016 08:51
Client ID:
Sample Info: L10 20.0/0.0 ug/mL#5783

Instrument: Mindy.i
Operator: kv
Column phase: RTx-5
Column diameter: 0.32



Alpha Analytical Labs

Manual Integration

Sample Info : L10 20.0/0.0 ug/mL#5783

Instrument ID : Mindy.i
Method : 8270D.m
File : L10.D
Injection Date : 17-JAN-2016 08:51
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_10

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Mindy.i Injection Date: 17-JAN-2016 09:16
Lab File ID: ICV.D Init. Cal. Date(s): 17-JAN-2016 17-JAN-2016
Analysis Type: Init. Cal. Times: 05:04 08:51
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.33383	1.50024	0.050	12.47593	30.00000	Averaged
$ 2 Phenol-d6	1.59063	1.79791	0.050	13.03090	30.00000	Averaged
4 Hexachloroethane	0.53460	0.61966	0.050	15.91098	30.00000	Averaged
$ 5 Nitrobenzene-d5	1.30424	1.51612	0.050	16.24535	30.00000	Averaged
7 Naphthalene	1.06121	1.17870	0.050	11.07094	30.00000	Averaged
8 Hexachlorobutadiene	0.16780	0.18305	0.050	9.08486	30.00000	Averaged
9 2-Methylnaphthalene	0.71411	0.81928	0.050	14.72667	30.00000	Averaged
10 1-Methylnaphthalene	0.65620	0.75094	0.050	14.43689	30.00000	Averaged
$ 11 2-Fluorobiphenyl	0.72662	0.77264	0.050	6.33382	30.00000	Averaged
12 2-Chloronaphthalene	0.65535	0.74238	0.050	13.27953	30.00000	Averaged
13 Acenaphthylene	0.99772	1.14277	0.050	14.53762	30.00000	Averaged
15 Acenaphthene	1.20570	1.32627	0.050	9.99974	30.00000	Averaged
16 Fluorene	1.29160	1.47497	0.050	14.19698	30.00000	Averaged
$ 17 2,4,6-Tribromophenol	0.14089	0.17976	0.050	27.59034	30.00000	Averaged
18 Hexachlorobenzene	0.20317	0.21972	0.050	8.14680	30.00000	Averaged
19 Pentachlorophenol	0.12014	0.13779	0.050	14.69414	30.00000	Averaged
21 Phenanthrene	1.11352	1.21804	0.050	9.38629	30.00000	Averaged
22 Anthracene	1.07472	1.20336	0.050	11.96953	30.00000	Averaged
$ 23 O-Terphenyl-MS	0.63574	0.67085	0.050	5.52159	30.00000	Averaged
24 Fluoranthene	1.15277	1.32165	0.050	14.64963	30.00000	Averaged
25 Pyrene	1.26637	1.37051	0.050	8.22376	30.00000	Averaged
$ 26 4-Terphenyl-d14	0.69600	0.72514	0.050	4.18723	30.00000	Averaged
27 Benzo(a)anthracene	1.26052	1.36984	0.050	8.67253	30.00000	Averaged
29 Chrysene	1.26900	1.31407	0.050	3.55160	30.00000	Averaged
30 Benzo(b)fluoranthene	1.12412	1.41733	0.050	26.08372	30.00000	Averaged
31 Benzo(k)fluoranthene	1.41669	1.47059	0.050	3.80397	30.00000	Averaged
33 Benzo(a)pyrene	1.09798	1.36637	0.050	24.44392	30.00000	Averaged
36 Indeno(1,2,3-cd)pyrene	1.36491	1.58045	0.050	15.79196	30.00000	Averaged
37 Dibenzo(a,h)anthracene	1.10066	1.32096	0.050	20.01493	30.00000	Averaged
38 Benzo(ghi)perylene	1.16512	1.32698	0.050	13.89164	30.00000	Averaged

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\ICV.D
Lab Smp Id:
Inj Date : 17-JAN-2016 09:16
Operator : kv Inst ID: Mindy.i
Smp Info : ICV 5.0/40.0 ug/mL #5773
Misc Info :
Comment   : Splitless Injection - Aug 24th 2009 edits.
Method   : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Meth Date : 18-Jan-2016 14:51 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	REVIEW CODE
$	1 2-Fluorophenol	112	3.343	3.343	(0.770)	2344108	40.0000	45.0	
$	2 Phenol-d6	99	4.014	4.014	(0.925)	2809209	40.0000	45.2	
*	3 1,4-Dichlorobenzene-d4	152	4.342	4.342	(1.000)	156249	4.00000		
	4 Hexachloroethane	117	4.787	4.787	(1.103)	121027	5.00000	5.80	
$	5 Nitrobenzene-d5	82	4.825	4.825	(1.111)	2368915	40.0000	46.5	
*	6 Naphthalene-d8	136	5.480	5.480	(1.000)	640802	4.00000		
	7 Naphthalene	128	5.501	5.501	(1.004)	944142	5.00000	5.55	
	8 Hexachlorobutadiene	225	5.623	5.623	(1.026)	146621	5.00000	5.45	
	9 2-Methylnaphthalene	142	6.166	6.166	(1.125)	656242	5.00000	5.74	
	10 1-Methylnaphthalene	142	6.267	6.267	(1.144)	601501	5.00000	5.72	
$	11 2-Fluorobiphenyl	172	6.553	6.553	(1.196)	4951099	40.0000	42.5	
	12 2-Chloronaphthalene	162	6.677	6.677	(1.218)	594648	5.00000	5.66	
	13 Acenaphthylene	152	7.137	7.137	(1.302)	915359	5.00000	5.73	
*	14 Acenaphthene-d10	164	7.308	7.308	(1.000)	360503	4.00000		
	15 Acenaphthene	153	7.345	7.345	(1.005)	597656	5.00000	5.50	
	16 Fluorene	166	7.983	7.983	(1.092)	664665	5.00000	5.71	
$	17 2,4,6-Tribromophenol	330	8.305	8.305	(1.136)	648045	40.0000	51.0	
	18 Hexachlorobenzene	284	8.731	8.731	(0.944)	173461	5.00000	5.41	
	19 Pentachlorophenol	266	8.994	8.994	(0.972)	108779	5.00000	5.73	
*	20 Phenanthrene-d10	188	9.251	9.251	(1.000)	631565	4.00000		
	21 Phenanthrene	178	9.286	9.286	(1.004)	961592	5.00000	5.47	
	22 Anthracene	178	9.362	9.362	(1.012)	949997	5.00000	5.60	
$	23 O-Terphenyl-MS	230	9.847	9.847	(1.064)	4236840	40.0000	42.2	
	24 Fluoranthene	202	11.055	11.055	(1.195)	1043384	5.00000	5.73	
	25 Pyrene	202	11.393	11.393	(1.232)	1081960	5.00000	5.41	
$	26 4-Terphenyl-d14	244	11.670	11.670	(1.262)	4579748	40.0000	41.7	
	27 Benzo(a)anthracene	228	13.011	13.011	(0.999)	982954	5.00000	5.43	
*	28 Chrysene-d12	240	13.022	13.022	(1.000)	574055	4.00000		
	29 Chrysene	228	13.053	13.053	(1.002)	942936	5.00000	5.18	
	30 Benzo(b)fluoranthene	252	14.192	14.192	(0.972)	957985	5.00000	6.30	
	31 Benzo(k)fluoranthene	252	14.218	14.218	(0.974)	993978	5.00000	5.19	
	33 Benzo(a)pyrene	252	14.540	14.540	(0.996)	923540	5.00000	6.22	
*	34 Perylene-d12	264	14.604	14.604	(1.000)	540725	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.917	15.917	(1.090)	1068238	5.00000	5.79	
37 Dibenzo(a,h)anthracene	278	15.937	15.937	(1.091)	892844	5.00000	6.00	
38 Benzo(ghi)perylene	276	16.297	16.297	(1.116)	896911	5.00000	5.69	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: ICV.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\8270D.m
Misc Info:

Calibration Date: 17-JAN-2016
Calibration Time: 07:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	178325	89163	356650	156249	-12.38
6 Naphthalene-d8	724452	362226	1448904	640802	-11.55
14 Acenaphthene-d10	407300	203650	814600	360503	-11.49
20 Phenanthrene-d10	707474	353737	1414948	631565	-10.73
28 Chrysene-d12	632708	316354	1265416	574055	-9.27
34 Perylene-d12	593309	296655	1186618	540725	-8.86

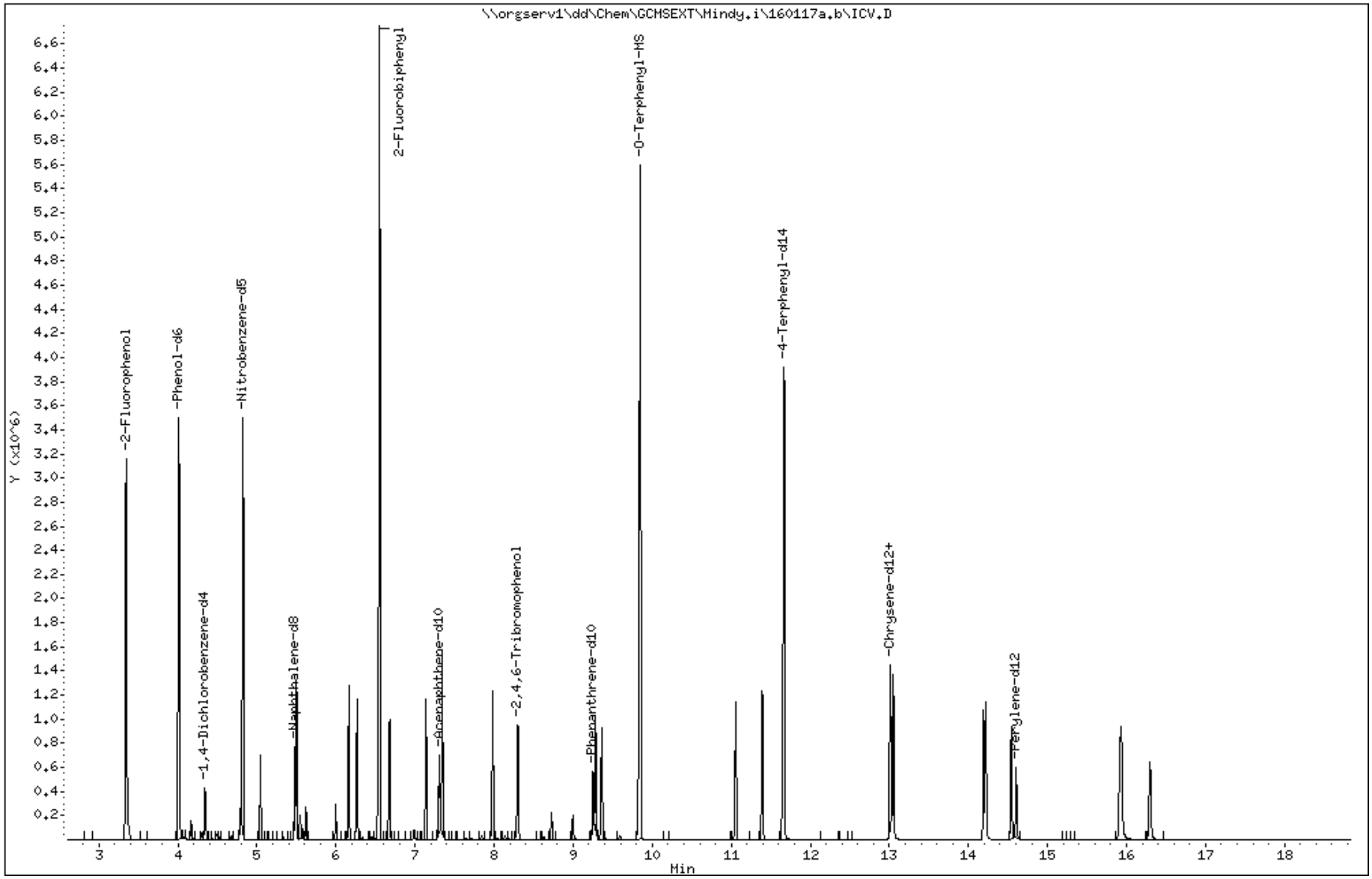
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.34	3.84	4.84	4.34	0.01
6 Naphthalene-d8	5.48	4.98	5.98	5.48	-0.03
14 Acenaphthene-d10	7.30	6.80	7.80	7.31	0.06
20 Phenanthrene-d10	9.25	8.75	9.75	9.25	-0.00
28 Chrysene-d12	13.02	12.52	13.52	13.02	0.01
34 Perylene-d12	14.61	14.11	15.11	14.60	-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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160117a.b\ICV.D
Date : 17-JAN-2016 09:16
Client ID:
Sample Info: ICV 5.0/40.0 ug/mL #5773

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : ICV 5.0/40.0 ug/mL #5773

Instrument ID : Mindy.i
Method : 8270D.m
File : ICV.D
Injection Date : 17-JAN-2016 09:16
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_7

There are no manual integrations in this file.

Continuing Calibration

7B

SemiVolatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1606763

Instrument ID: Mindy.i Calibration Date: 15-MAR-2016 Time: 06:27

Lab File ID: CCV0315 Init. Calib. Date(s): 17-JAN-2016 17-JAN-2016

Sample No: CCV 5.0/40.0 ug Init. Calib. Times : 05:04 08:51

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
Hexachloroethane	.5346	.5277	.05	-1	20	
Naphthalene	1.0612	.99948	.05	-6	20	
Hexachlorobutadiene	.1678	.18757	.05	12	20	
2-Methylnaphthalene	.71411	.69353	.05	-3	20	
1-Methylnaphthalene	.6562	.63498	.05	-3	20	
2-Chloronaphthalene	.65535	.66352	.05	1	20	
Acenaphthylene	.99772	1.0167	.05	2	20	
Acenaphthene	1.2057	1.1754	.05	-3	20	
Fluorene	1.2916	1.3210	.05	2	20	
Hexachlorobenzene	.20317	.21492	.05	6	20	
Pentachlorophenol	.12014	.11796	.05	-2	20	
Phenanthrene	1.1135	1.0303	.05	-7	20	
Anthracene	1.0747	1.0480	.05	-2	20	
Fluoranthene	1.1527	1.1550	.05	0	20	
Pyrene	1.2663	1.2798	.05	1	20	
Benzo(a)anthracene	1.2605	1.1895	.05	-6	20	
Chrysene	1.269	1.1784	.05	-7	20	
Benzo(b)fluoranthene	1.1241	1.2394	.05	10	20	
Benzo(k)fluoranthene	1.4166	1.3694	.05	-3	20	
Benzo(a)pyrene	1.0979	1.1901	.05	8	20	
Indeno(1,2,3-cd)pyrene	1.3649	1.5439	.05	13	20	
Dibenzo(a,h)anthracene	1.1006	1.2478	.05	13	20	
Benzo(ghi)perylene	1.1651	1.2691	.05	9	20	
2-Fluorophenol	1.3338	1.2866	.05	-4	20	
Phenol-d6	1.5906	1.5268	.05	-4	20	
Nitrobenzene-d5	1.3042	1.3022	.05	0	20	
2-Fluorobiphenyl	.72662	.8206	.05	13	20	
2,4,6-Tribromophenol	.14089	.22812	.05	62	20	F
O-Terphenyl-MS	.63574	.72665	.05	14	20	
4-Terphenyl-d14	.696	.79924	.05	15	20	

FORM VII NYTCL-8270-SIM

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Mindy.i Injection Date: 15-MAR-2016 06:27
Lab File ID: CCV0315.D Init. Cal. Date(s): 17-JAN-2016 17-JAN-2016
Analysis Type: Init. Cal. Times: 05:04 08:51
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.33383	1.28665	0.050	-3.53717	20.00000	Averaged	
$ 2 Phenol-d6	1.59063	1.52682	0.050	-4.01168	20.00000	Averaged	
4 Hexachloroethane	0.53460	0.52770	0.050	-1.29155	20.00000	Averaged	
$ 5 Nitrobenzene-d5	1.30424	1.30227	0.050	-0.15108	20.00000	Averaged	
7 Naphthalene	1.06121	0.99948	0.050	-5.81730	20.00000	Averaged	
8 Hexachlorobutadiene	0.16780	0.18757	0.050	11.78002	20.00000	Averaged	
9 2-Methylnaphthalene	0.71411	0.69353	0.050	-2.88258	20.00000	Averaged	
10 1-Methylnaphthalene	0.65620	0.63498	0.050	-3.23403	20.00000	Averaged	
$ 11 2-Fluorobiphenyl	0.72662	0.82060	0.050	12.93435	20.00000	Averaged	
12 2-Chloronaphthalene	0.65535	0.66352	0.050	1.24639	20.00000	Averaged	
13 Acenaphthylene	0.99772	1.01673	0.050	1.90466	20.00000	Averaged	
15 Acenaphthene	1.20570	1.17544	0.050	-2.51003	20.00000	Averaged	
16 Fluorene	1.29160	1.32106	0.050	2.28065	20.00000	Averaged	
$ 17 2,4,6-Tribromophenol	0.14089	0.22812	0.050	61.91324	20.00000	Averaged	<-
18 Hexachlorobenzene	0.20317	0.21492	0.050	5.78174	20.00000	Averaged	
19 Pentachlorophenol	0.12014	0.11796	0.050	-1.80807	20.00000	Averaged	
21 Phenanthrene	1.11352	1.03036	0.050	-7.46869	20.00000	Averaged	
22 Anthracene	1.07472	1.04805	0.050	-2.48120	20.00000	Averaged	
$ 23 O-Terphenyl-MS	0.63574	0.72665	0.050	14.29952	20.00000	Averaged	
24 Fluoranthene	1.15277	1.15508	0.050	0.20032	20.00000	Averaged	
25 Pyrene	1.26637	1.27988	0.050	1.06682	20.00000	Averaged	
$ 26 4-Terphenyl-d14	0.69600	0.79924	0.050	14.83309	20.00000	Averaged	
27 Benzo(a)anthracene	1.26052	1.18959	0.050	-5.62706	20.00000	Averaged	
29 Chrysene	1.26900	1.17844	0.050	-7.13660	20.00000	Averaged	
30 Benzo(b)fluoranthene	1.12412	1.23946	0.050	10.26021	20.00000	Averaged	
31 Benzo(k)fluoranthene	1.41669	1.36948	0.050	-3.33271	20.00000	Averaged	
33 Benzo(a)pyrene	1.09798	1.19017	0.050	8.39622	20.00000	Averaged	
36 Indeno(1,2,3-cd)pyrene	1.36491	1.54395	0.050	13.11746	20.00000	Averaged	
37 Dibenzo(a,h)anthracene	1.10066	1.24788	0.050	13.37584	20.00000	Averaged	
38 Benzo(ghi)perylene	1.16512	1.26918	0.050	8.93153	20.00000	Averaged	

Average %D / Drift Results.
Calculated Average %D/Drift = 7.78706
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\CCV0315.D
Lab Smp Id:
Inj Date : 15-MAR-2016 06:27
Operator : kv Inst ID: Mindy.i
Smp Info : CCV 5.0/40.0 ug/mL#5780
Misc Info : ,ICAL11948
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Meth Date : 15-Mar-2016 07:57 Mindy.i Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 96 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: abncal.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	REVIEW CODE
$	1 2-Fluorophenol	112	3.048	3.048	(0.757)	1711233	40.0000	38.6	
$	2 Phenol-d6	99	3.728	3.728	(0.926)	2030656	40.0000	38.4	
*	3 1,4-Dichlorobenzene-d4	152	4.026	4.026	(1.000)	132999	4.00000		
	4 Hexachloroethane	117	4.459	4.459	(1.107)	87729	5.00000	4.94	
$	5 Nitrobenzene-d5	82	4.509	4.509	(1.120)	1732002	40.0000	39.9	
*	6 Naphthalene-d8	136	5.156	5.156	(1.000)	510804	4.00000		
	7 Naphthalene	128	5.174	5.174	(1.003)	638173	5.00000	4.71	
	8 Hexachlorobutadiene	225	5.293	5.293	(1.027)	119764	5.00000	5.59	
	9 2-Methylnaphthalene	142	5.828	5.828	(1.130)	442820	5.00000	4.86	
	10 1-Methylnaphthalene	142	5.924	5.924	(1.149)	405437	5.00000	4.84	
$	11 2-Fluorobiphenyl	172	6.205	6.205	(1.203)	4191666	40.0000	45.2	
	12 2-Chloronaphthalene	162	6.325	6.325	(1.227)	423661	5.00000	5.06	
	13 Acenaphthylene	152	6.767	6.767	(1.312)	649184	5.00000	5.10	
*	14 Acenaphthene-d10	164	6.932	6.932	(1.000)	289729	4.00000		
	15 Acenaphthene	153	6.965	6.965	(1.005)	425699	5.00000	4.87	
	16 Fluorene	166	7.589	7.589	(1.095)	478437	5.00000	5.11	
$	17 2,4,6-Tribromophenol	330	7.911	7.911	(1.141)	660926	40.0000	64.8	
	18 Hexachlorobenzene	284	8.325	8.325	(0.942)	141334	5.00000	5.29	
	19 Pentachlorophenol	266	8.612	8.612	(0.974)	77576	5.00000	4.91	
*	20 Phenanthrene-d10	188	8.839	8.839	(1.000)	526097	4.00000		
	21 Phenanthrene	178	8.874	8.874	(1.004)	677586	5.00000	4.63	
	22 Anthracene	178	8.945	8.945	(1.012)	689221	5.00000	4.88	
$	23 O-Terphenyl-MS	230	9.435	9.435	(1.067)	3822900	40.0000	45.7	
	24 Fluoranthene	202	10.633	10.633	(1.203)	759606	5.00000	5.01	
	25 Pyrene	202	10.975	10.975	(1.242)	841676	5.00000	5.05	
$	26 4-Terphenyl-d14	244	11.287	11.287	(1.277)	4204767	40.0000	45.9	
	27 Benzo(a)anthracene	228	12.662	12.662	(0.999)	764969	5.00000	4.72	
*	28 Chrysene-d12	240	12.677	12.677	(1.000)	514442	4.00000		
	29 Chrysene	228	12.707	12.707	(1.002)	757797	5.00000	4.64	
	30 Benzo(b)fluoranthene	252	13.857	13.857	(0.973)	795531	5.00000	5.51	
	31 Benzo(k)fluoranthene	252	13.884	13.884	(0.975)	878984	5.00000	4.83	
	33 Benzo(a)pyrene	252	14.183	14.183	(0.996)	763897	5.00000	5.42	
*	34 Perylene-d12	264	14.243	14.243	(1.000)	513470	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	REVIEW CODE
36 Indeno(1,2,3-cd)pyrene	276	15.449	15.449	(1.085)	990964	5.00000	5.66	
37 Dibenzo(a,h)anthracene	278	15.461	15.461	(1.085)	800939	5.00000	5.67	
38 Benzo(ghi)perylene	276	15.788	15.788	(1.108)	814610	5.00000	5.45	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: CCV0315.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: ,ICAL11948

Calibration Date: 14-MAR-2016
Calibration Time: 05:59
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	178325	89163	356650	132999	-25.42
6 Naphthalene-d8	724452	362226	1448904	510804	-29.49
14 Acenaphthene-d10	407300	203650	814600	289729	-28.87
20 Phenanthrene-d10	707474	353737	1414948	526097	-25.64
28 Chrysene-d12	632708	316354	1265416	514442	-18.69
34 Perylene-d12	593309	296655	1186618	513470	-13.46

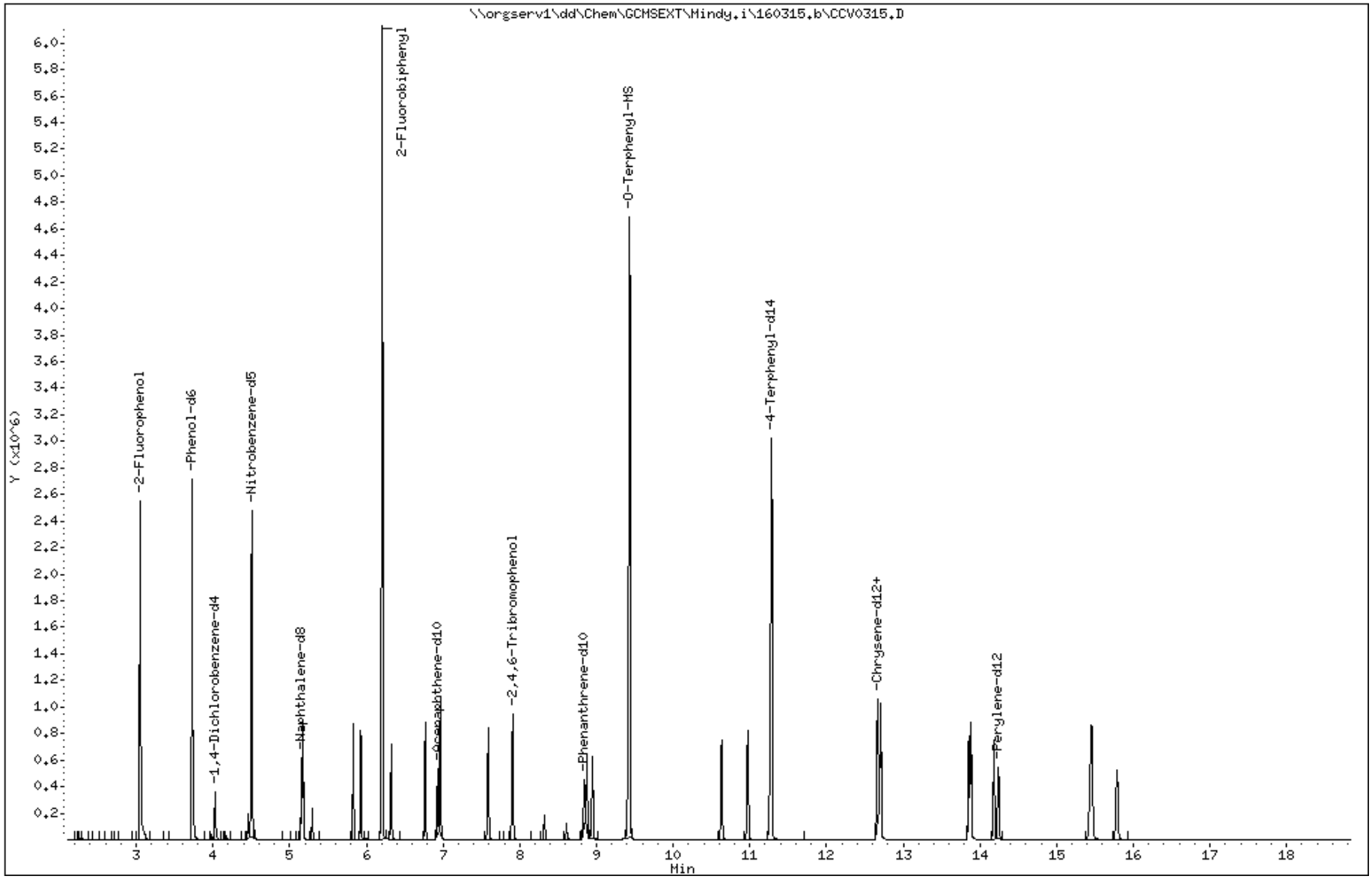
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF

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: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\CCV0315.D
Date : 15-MAR-2016 06:27
Client ID:
Sample Info: CCV 5.0/40.0 ug/mL#5780

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info	: CCV 5.0/40.0 ug/mL#5780 ,ICAL11948		
Instrument ID	: Mindy.i		
Method	: 8270D.m		
File	: CCV0315.D		
Injection Date	: 15-MAR-2016 06:27		
Quantitation	: ISTD	Integrator : HP RTE	
Dilution Factor	: 1.00	Sample Type: CCALIB_7	

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\DEG0315.D
Lab Smp Id:
Inj Date : 15-MAR-2016 06:12
Operator : kv Inst ID: Mindy.i
Smp Info : DEG/DFTPP
Misc Info :
Comment :
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\DDT.m
Meth Date : 03-Mar-2016 09:13 asus Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 100 QC Sample: DFTPP-DEG
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
4 4,4'-DDE	246	Compound Not Detected.						
5 4,4'-DDD	235	6.781	6.850	-0.069	164888			
6 4,4'-DDT	235	7.139	7.200	-0.061	1294106			

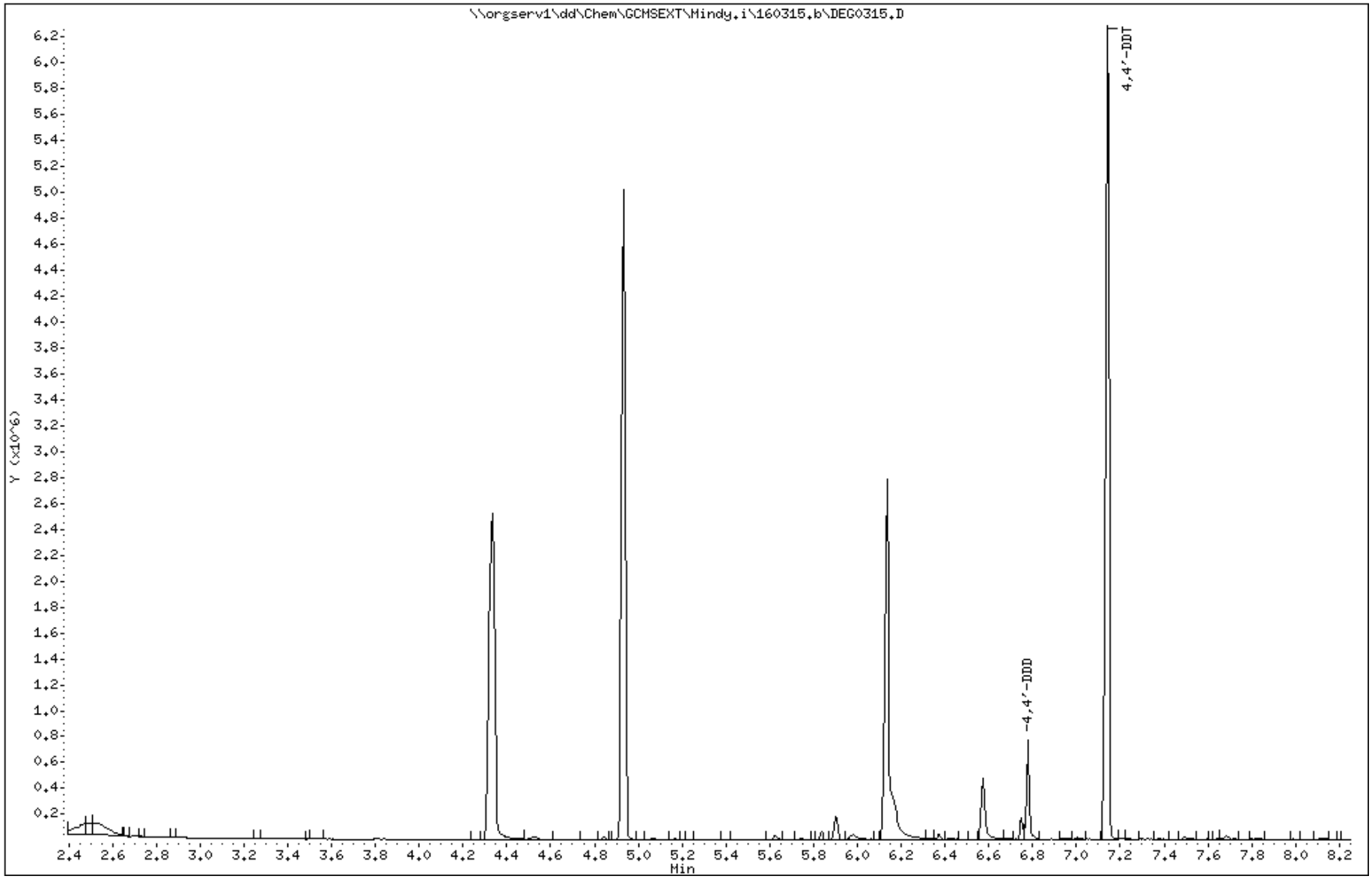
DDT Degradation Percent = 11.30

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\DEG0315.D
Date : 15-MAR-2016 06:12
Client ID:
Sample Info: DEG/DFTPP

Instrument: Mindy.i

Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info : DEG/DFTPP

Instrument ID : Mindy.i
Method : DDT.m
File : DEG0315.D
Injection Date : 15-MAR-2016 06:12
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1.00 Sample Type: DFTPP-DEG

There are no manual integrations in this file.

Alpha Analytical Labs

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\DFT0315.D
Lab Smp Id:
Inj Date : 15-MAR-2016 06:12
Operator : kv Inst ID: Mindy.i
Smp Info : DEG/DFTPP
Misc Info :
Comment : Splitless Injection
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\dftpps.m
Meth Date : 17-Jan-2016 05:10 kvitiello Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 100 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: None
Processing Host: VIRTUALXP-78024

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.933	5.279	-0.346	198	443072			0.00- 100.00	72.40
4.933	5.279	-0.346	51	128960			10.00- 80.00	29.11
4.933	5.279	-0.346	68	0	0.0	0.0	0.00- 2.00	0.00
4.933	5.279	-0.346	69	148160			0.00- 0.00	33.44
4.933	5.279	-0.346	70	913			0.00- 2.00	0.62
4.933	5.279	-0.346	127	208768			10.00- 80.00	47.12
4.933	5.279	-0.346	197	0	0.0	0.0	0.00- 2.00	0.00
4.933	5.279	-0.346	199	30496			5.00- 9.00	6.88
4.933	5.279	-0.346	275	135872			10.00- 60.00	30.67
4.933	5.279	-0.346	365	21680			1.00- 0.00	4.89
4.933	5.279	-0.346	441	67632			0.01- 24.00	11.05
4.933	5.279	-0.346	442	611968			50.00- 0.00	138.12
4.933	5.279	-0.346	443	124200			15.00- 24.00	20.30

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\DFT0315.D

Date : 15-MAR-2016 06:12

Client ID:

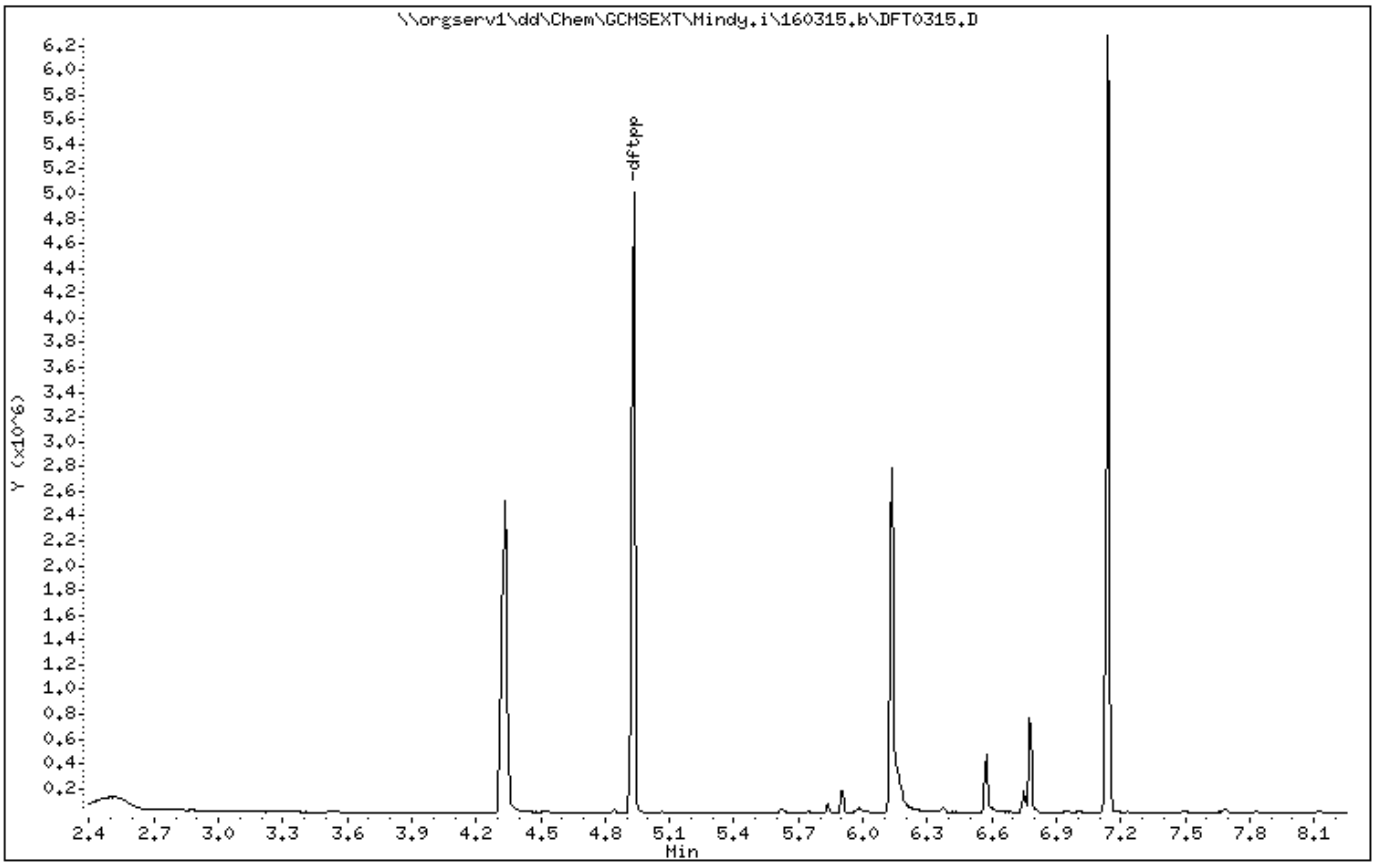
Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase:

Column diameter: 2.00



Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\DFT0315.D

Date : 15-MAR-2016 06:12

Client ID:

Instrument: Mindy.i

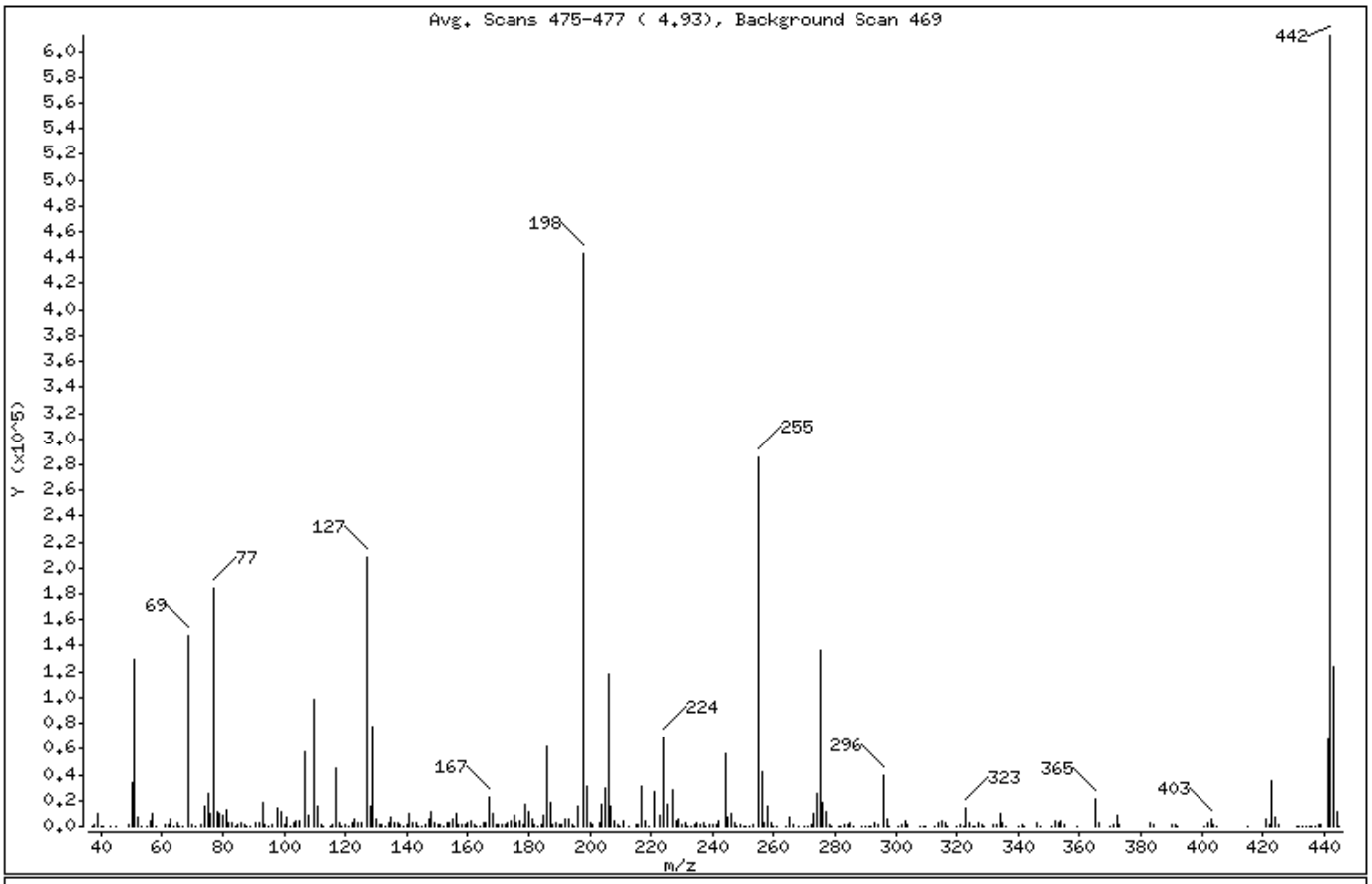
Sample Info: DEG/DFTPP

Operator: kv

Column phase:

Column diameter: 2.00

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	29.11
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	33.44
70	Less than 2.00% of mass 69	0.21 (0.62)
127	10.00 - 80.00% of mass 198	47.12
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 60.00% of mass 198	30.67
365	Greater than 1.00% of mass 198	4.89
441	0.01 - 24.00% of mass 442	15.26 (11.05)
442	Greater than 50.00% of mass 198	138.12
443	15.00 - 24.00% of mass 442	28.03 (20.30)

Date : 15-MAR-2016 06:12

Client ID: Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase: Column diameter: 2.00

Data File: DFT0315.D
Spectrum: Avg. Scans 475-477 (4.93), Background Scan 469
Location of Maximum: 442.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	534	129.00	77776	207.00	15588	298.00	422
38.00	1688	130.00	6299	208.00	3725	301.00	607
39.00	9212	131.00	1376	209.00	1306	302.00	911
40.00	660	132.00	747	210.00	552	303.00	4833
41.00	207	133.00	319	211.00	4732	304.00	1398
43.00	126	134.00	2180	213.00	295	308.00	668
45.00	130	135.00	6371	215.00	1245	309.00	437
49.00	1001	136.00	2473	216.00	1257	310.00	640
50.00	34192	137.00	3175	217.00	31600	313.00	418
51.00	128960	138.00	800	218.00	4148	314.00	2148
52.00	7022	139.00	453	219.00	501	315.00	4504
53.00	285	140.00	1127	221.00	27040	316.00	2692
55.00	693	141.00	9711	223.00	8007	317.00	428
56.00	3955	142.00	3384	224.00	68976	320.00	115
57.00	9149	143.00	2507	225.00	17128	321.00	1493
58.00	530	144.00	700	227.00	27680	322.00	680
61.00	1480	145.00	631	228.00	4043	323.00	13913
62.00	1841	146.00	1832	229.00	6321	324.00	2679
63.00	5407	147.00	5217	230.00	951	325.00	106
64.00	562	148.00	11752	231.00	2576	326.00	118
65.00	2965	149.00	2303	232.00	484	327.00	2625
66.00	108	150.00	786	233.00	596	328.00	1346
67.00	428	151.00	1812	234.00	1852	329.00	250
69.00	148160	152.00	514	235.00	2146	332.00	1224
70.00	913	153.00	2991	236.00	1560	333.00	1521
71.00	255	154.00	2441	237.00	2471	334.00	9432
73.00	1180	155.00	6135	238.00	295	335.00	2322
74.00	15420	156.00	9201	239.00	1235	336.00	218
75.00	25096	157.00	2046	240.00	830	340.00	250
76.00	9333	158.00	1832	241.00	1629	341.00	1692
77.00	183616	159.00	1432	242.00	4110	342.00	470
78.00	11787	160.00	3350	244.00	56680	346.00	3316
79.00	10213	161.00	4894	245.00	7150	347.00	681
80.00	8462	162.00	1538	246.00	10533	351.00	399
81.00	12160	163.00	514	247.00	2150	352.00	4334

Date : 15-MAR-2016 06:12

Client ID: Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase: Column diameter: 2.00

Data File: DFT0315.D
Spectrum: Avg. Scans 475-477 (4.93), Background Scan 469
Location of Maximum: 442.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	3294	164.00	688	248.00	531	353.00	3443
83.00	2663	165.00	3150	249.00	2021	354.00	4506
84.00	307	166.00	3304	250.00	384	355.00	954
85.00	2098	167.00	22272	251.00	550	359.00	365
86.00	3326	168.00	9705	252.00	667	365.00	21680
87.00	1517	169.00	1775	253.00	1794	366.00	3026
88.00	530	170.00	736	255.00	286016	370.00	580
89.00	236	171.00	949	256.00	42440	371.00	1305
91.00	2686	172.00	1871	257.00	3402	372.00	8282
92.00	2836	173.00	2610	258.00	16134	373.00	1920
93.00	18720	174.00	4445	259.00	2619	383.00	2402
94.00	1426	175.00	8559	260.00	473	384.00	764
95.00	618	176.00	2760	261.00	498	390.00	1229
96.00	1103	177.00	3870	264.00	419	391.00	793
98.00	14394	178.00	976	265.00	6784	392.00	623
99.00	10995	179.00	16212	266.00	1258	401.00	435
100.00	1013	180.00	10775	268.00	117	402.00	3385
101.00	7174	181.00	5499	270.00	501	403.00	5157
102.00	384	182.00	1010	271.00	686	404.00	1805
103.00	2124	183.00	572	272.00	819	405.00	258
104.00	4131	184.00	1426	273.00	10456	415.00	145
105.00	4183	185.00	8081	274.00	25440	421.00	5075
107.00	57272	186.00	61960	275.00	135872	422.00	1847
108.00	8788	187.00	17736	276.00	17888	423.00	34704
110.00	98272	188.00	1696	277.00	11106	424.00	6870
111.00	15253	189.00	3500	278.00	1881	425.00	796
112.00	2000	190.00	734	279.00	367	431.00	104
113.00	623	191.00	1840	281.00	116	432.00	115
115.00	385	192.00	5357	282.00	360	433.00	278
116.00	1988	193.00	6210	283.00	1388	434.00	107
117.00	45064	194.00	1414	284.00	882	435.00	490
118.00	3040	195.00	334	285.00	2191	436.00	468
119.00	391	196.00	15092	286.00	325	437.00	435
120.00	863	198.00	443072	289.00	480	438.00	976
121.00	285	199.00	30496	290.00	466	439.00	924

Date : 15-MAR-2016 06:12

Client ID: Instrument: Mindy.i

Sample Info: DEG/DFTPP

Operator: kv

Column phase: Column diameter: 2.00

Data File: DFT0315.D
Spectrum: Avg. Scans 475-477 (4.93), Background Scan 469
Location of Maximum: 442.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	3380	200.00	2472	291.00	186	441.00	67632
123.00	5596	201.00	1998	292.00	617	442.00	611968
124.00	2676	203.00	3358	293.00	2582	443.00	124200
125.00	2682	204.00	17216	294.00	768	444.00	10898
127.00	208768	205.00	30032	296.00	40016	445.00	640
128.00	15790	206.00	118200	297.00	5585		

Alpha Analytical Labs

Manual Integration

Sample Info : DEG/DFTPP

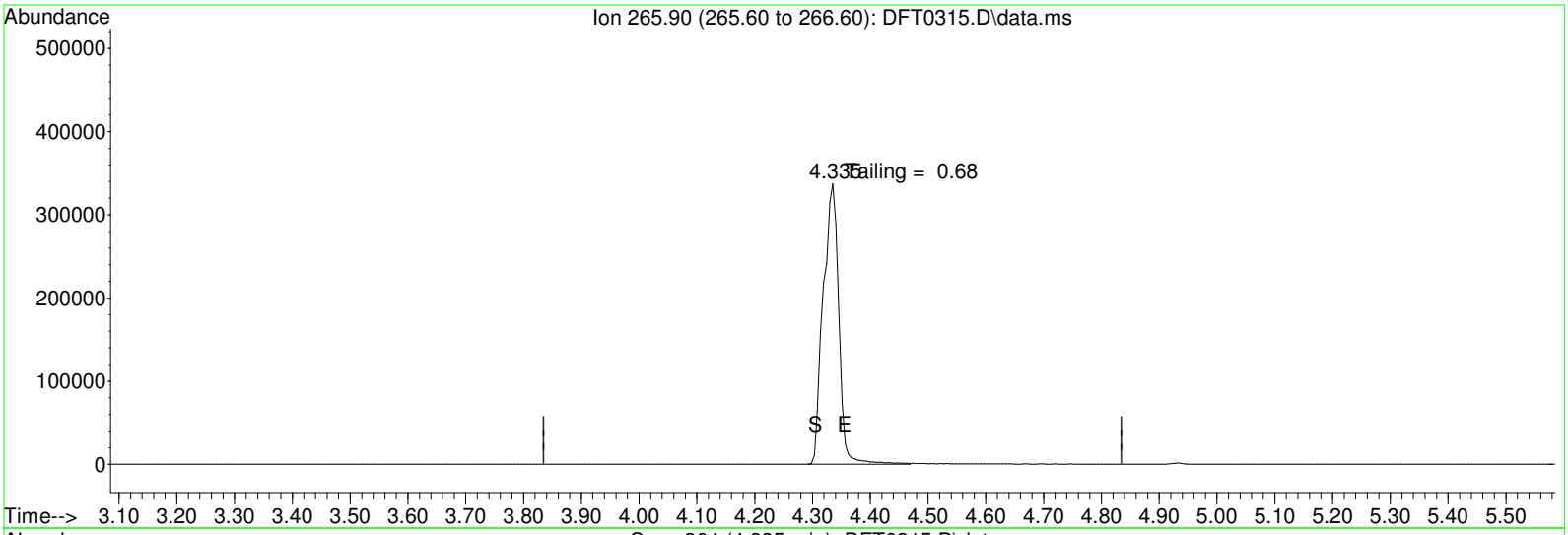
Instrument ID : Mindy.i
Method : dftpps.m
File : DFT0315.D
Injection Date : 15-MAR-2016 06:12
Quantitation : ESTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: DFTPP

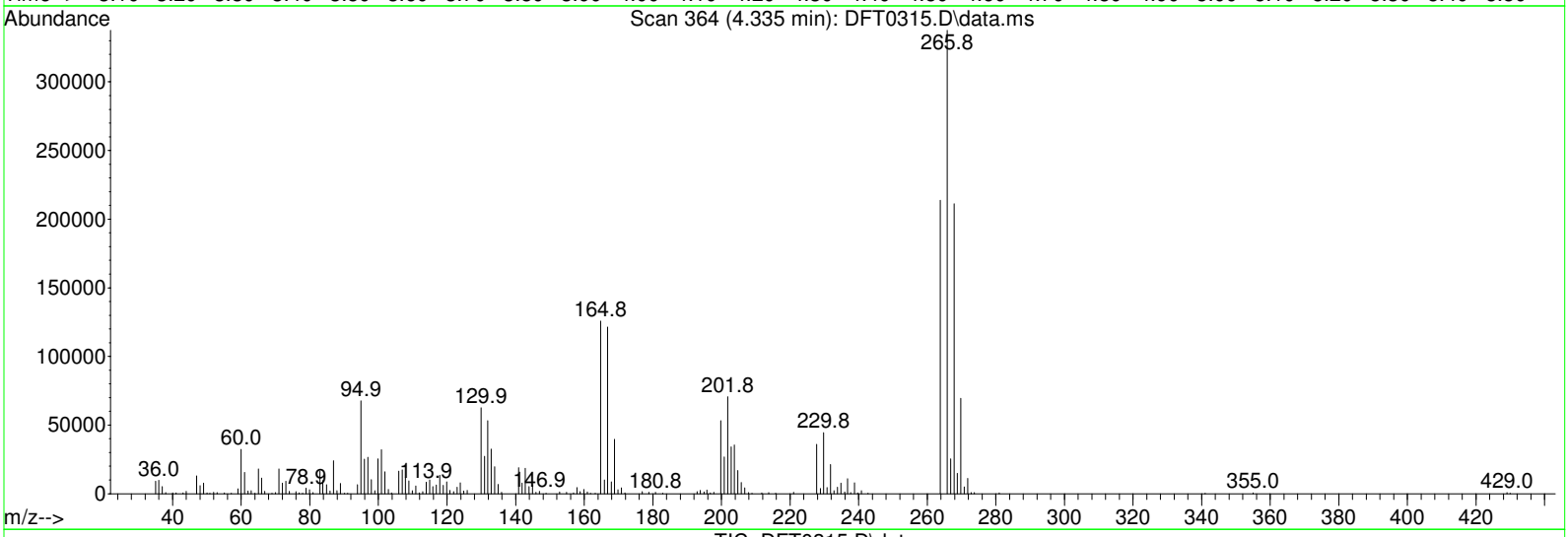
There are no manual integrations in this file.

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\Mindy.i\160315.b\
Data File : DFT0315.D
Acq On : 15 Mar 2016 6:12 am
Operator : kv
Sample : DEG/DFTPP
Misc :
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Mar 15 07:01:38 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 06:40:31 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: DFT0315.D\data.ms

(1) pentachlorophenol (T)

4.335min 0.00 d

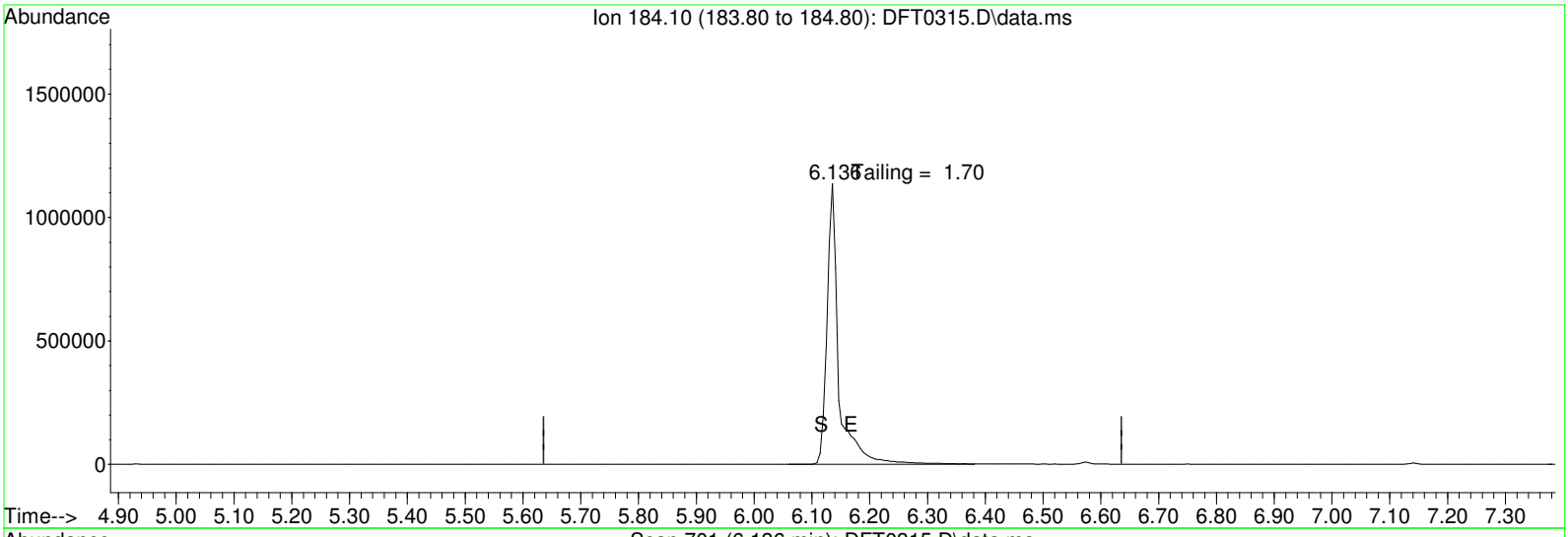
response 0

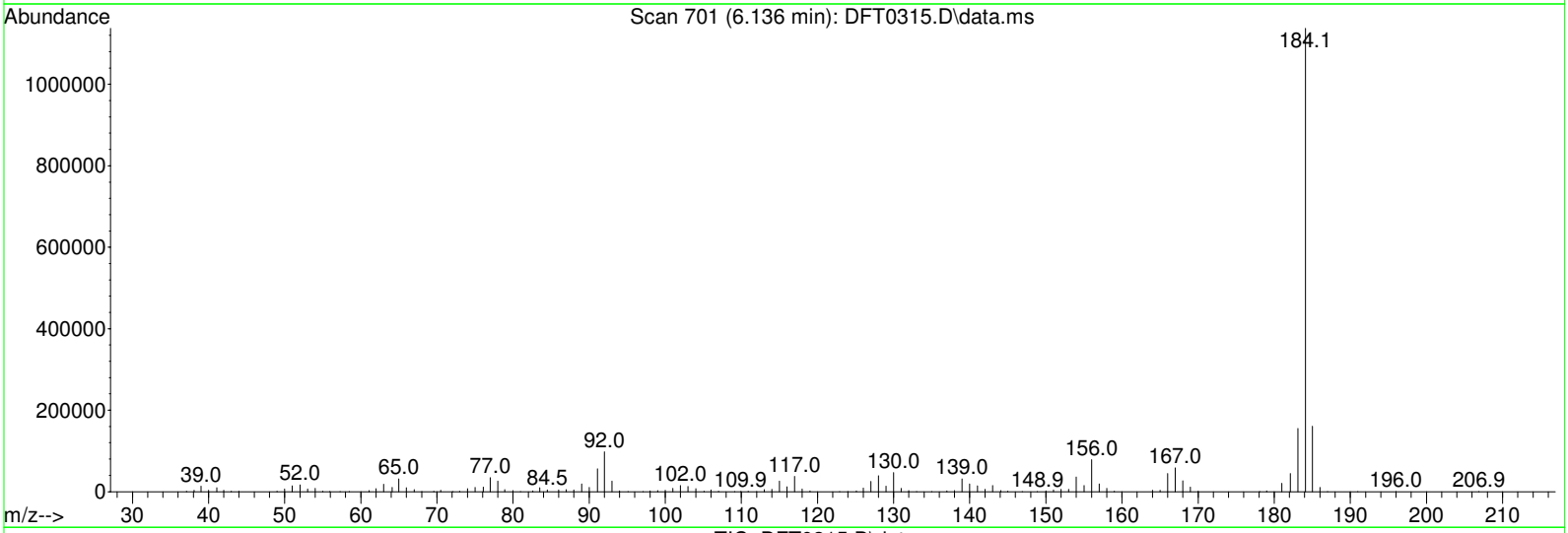
Ion	Exp%	Act%
265.90	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : Z:\Chem\GCMSEXT\Mindy.i\160315.b\
Data File : DFT0315.D
Acq On : 15 Mar 2016 6:12 am
Operator : kv
Sample : DEG/DFTPP
Misc :
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Mar 15 07:01:38 2016
Quant Method : C:\EnvDemo\tailing.m
Quant Title : dftpp
QLast Update : Tue Mar 15 06:40:31 2016
Response via : Continuing Cal File: C:\ENVDEMO\BNADATA\DLWB002.D





TIC: DFT0315.D\data.ms

(3) benzidine (T)

6.136min 0.00 d

response 0

Ion	Exp%	Act%
184.10	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Semivolatiles Raw QC Data

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-1.D
Lab Smp Id:
Inj Date : 15-MAR-2016 07:18
Operator : kv Inst ID: Mindy.i
Smp Info : wg873664-1,32,ny,kv
Misc Info : wg873828, wg873664,ICAL11948
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Meth Date : 15-Mar-2016 08:39 kvitiello Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270nj-ny.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.055	3.048	(0.760)	717061	21.2928	21.3	
$ 2	Phenol-d6	99	3.727	3.728	(0.927)	582576	14.5064	14.5	
* 3	1,4-Dichlorobenzene-d4	152	4.021	4.026	(1.000)	100991	4.00000		
4	Hexachloroethane	117	Compound Not Detected.						
$ 5	Nitrobenzene-d5	82	4.500	4.509	(1.119)	580051	17.6152	17.6	
* 6	Naphthalene-d8	136	5.154	5.156	(1.000)	401456	4.00000		
7	Naphthalene	128	Compound Not Detected.						
8	Hexachlorobutadiene	225	Compound Not Detected.						
9	2-Methylnaphthalene	142	Compound Not Detected.						
$ 11	2-Fluorobiphenyl	172	6.201	6.205	(1.203)	1544741	21.1822	21.2	
12	2-Chloronaphthalene	162	Compound Not Detected.						
13	Acenaphthylene	152	Compound Not Detected.						
* 14	Acenaphthene-d10	164	6.928	6.932	(1.000)	250693	4.00000		
15	Acenaphthene	153	Compound Not Detected.						
16	Fluorene	166	Compound Not Detected.						
$ 17	2,4,6-Tribromophenol	330	7.911	7.911	(1.142)	487242	55.1803	55.2	
18	Hexachlorobenzene	284	Compound Not Detected.						
19	Pentachlorophenol	266	Compound Not Detected.						
* 20	Phenanthrene-d10	188	8.834	8.839	(1.000)	488308	4.00000		
21	Phenanthrene	178	Compound Not Detected.						
22	Anthracene	178	Compound Not Detected.						
24	Fluoranthene	202	Compound Not Detected.						
25	Pyrene	202	Compound Not Detected.						
$ 26	4-Terphenyl-d14	244	11.270	11.287	(1.276)	1694295	19.9410	19.9	
27	Benzo(a)anthracene	228	Compound Not Detected.						
* 28	Chrysene-d12	240	12.668	12.677	(1.000)	477801	4.00000		
29	Chrysene	228	Compound Not Detected.						
30	Benzo(b)fluoranthene	252	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
	31 Benzo(k)fluoranthene	252	Compound Not Detected.						
	33 Benzo(a)pyrene	252	Compound Not Detected.						
*	34 Perylene-d12	264	14.235	14.243	(1.000)	499836	4.00000		
	36 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
	37 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
	38 Benzo(ghi)perylene	276	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: 873664-1.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

Calibration Date: 15-MAR-2016
Calibration Time: 06:27
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	132999	66500	265998	100991	-24.07
6 Naphthalene-d8	510804	255402	1021608	401456	-21.41
14 Acenaphthene-d10	289729	144865	579458	250693	-13.47
20 Phenanthrene-d10	526097	263049	1052194	488308	-7.18
28 Chrysene-d12	514442	257221	1028884	477801	-7.12
34 Perylene-d12	513470	256735	1026940	499836	-2.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.03	3.53	4.53	4.02	-0.13
6 Naphthalene-d8	5.16	4.66	5.66	5.15	-0.05
14 Acenaphthene-d10	6.93	6.43	7.43	6.93	-0.06
20 Phenanthrene-d10	8.84	8.34	9.34	8.83	-0.06
28 Chrysene-d12	12.68	12.18	13.18	12.67	-0.07
34 Perylene-d12	14.24	13.74	14.74	14.24	-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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa01132
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: kv
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SIMLCS.spk Quant Type: ISTD
Sublist File: 8270nj-ny.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

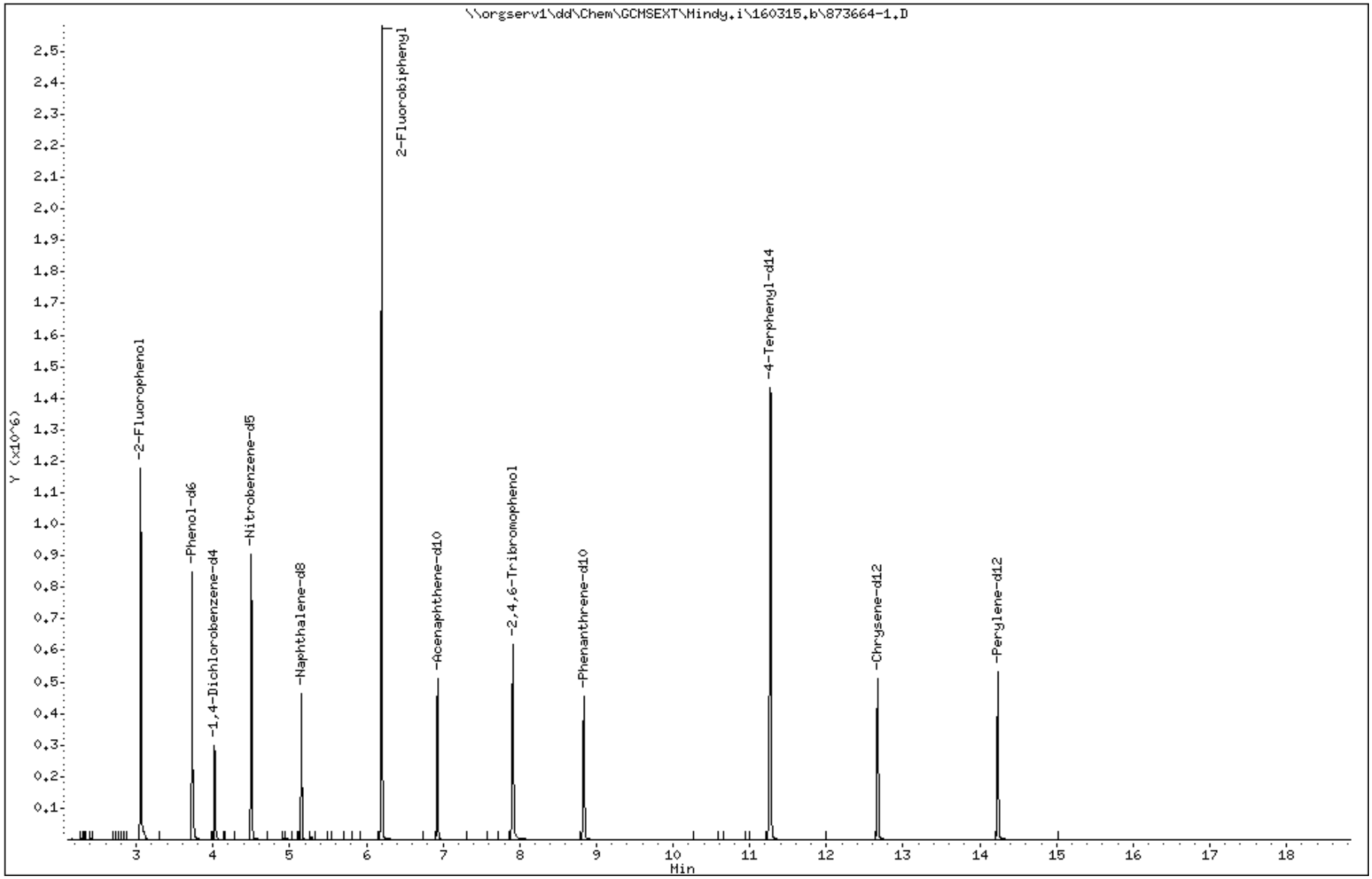
SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	50.0	21.3	42.59	21-120
$ 2 Phenol-d6	50.0	14.5	29.01	10-120
$ 5 Nitrobenzene-d5	25.0	17.6	70.46	23-120
$ 11 2-Fluorobiphenyl	25.0	21.2	84.73	15-120
$ 17 2,4,6-Tribromophen	50.0	55.2	110.36	10-120
$ 26 4-Terphenyl-d14	25.0	19.9	79.76	33-120

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-1.D
Date : 15-MAR-2016 07:18
Client ID:
Sample Info: wg873664-1,32,ng,kv

Instrument: Mindy.i

Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Alpha Analytical Labs

Manual Integration

Sample Info	:	wg873664-1,32,ny,kv wg873828, wg873664,ICAL11948	
Instrument ID	:	Mindy.i	
Method	:	8270D.m	
File	:	873664-1.D	
Injection Date	:	15-MAR-2016 07:18	
Quantitation	:	ISTD	Integrator : HP RTE
Dilution Factor	:	1.00	Sample Type: SAMPLE

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D
Lab Smp Id:
Inj Date : 15-MAR-2016 07:43
Operator : kv Inst ID: Mindy.i
Smp Info : wg873664-2,32,ny,kv
Misc Info : wg873828, wg873664,ICAL11948
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Meth Date : 15-Mar-2016 08:39 kvitiello Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270nj-ny.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.056	3.048	(0.760)	789569	22.1841	22.2	
$ 2	Phenol-d6	99	3.728	3.728	(0.927)	672016	15.8330	15.8	
* 3	1,4-Dichlorobenzene-d4	152	4.022	4.026	(1.000)	106735	4.00000		
4	Hexachloroethane	117	4.455	4.459	(1.108)	102208	7.16486	7.16	
$ 5	Nitrobenzene-d5	82	4.501	4.509	(1.119)	674234	19.3735	19.4	
* 6	Naphthalene-d8	136	5.154	5.156	(1.000)	418805	4.00000		
7	Naphthalene	128	5.175	5.174	(1.004)	825519	7.42972	7.43	
8	Hexachlorobutadiene	225	5.291	5.293	(1.027)	145207	8.26491	8.26	
9	2-Methylnaphthalene	142	5.827	5.828	(1.130)	594983	7.95769	7.96	
$ 11	2-Fluorobiphenyl	172	6.200	6.205	(1.203)	1858672	24.4312	24.4	
12	2-Chloronaphthalene	162	6.324	6.325	(1.227)	591590	8.62173	8.62	
13	Acenaphthylene	152	6.771	6.767	(1.314)	892263	8.54145	8.54	
* 14	Acenaphthene-d10	164	6.932	6.932	(1.000)	236816	4.00000		
15	Acenaphthene	153	6.968	6.965	(1.005)	605728	8.48566	8.48	
16	Fluorene	166	7.591	7.589	(1.095)	737687	9.64699	9.65	
$ 17	2,4,6-Tribromophenol	330	7.912	7.911	(1.141)	566212	67.8812	67.9	
18	Hexachlorobenzene	284	8.327	8.325	(0.942)	208314	9.39921	9.40	
19	Pentachlorophenol	266	8.613	8.612	(0.974)	105126	8.02172	8.02	
* 20	Phenanthrene-d10	188	8.841	8.839	(1.000)	436342	4.00000		
21	Phenanthrene	178	8.876	8.874	(1.004)	1042244	8.58030	8.58	
22	Anthracene	178	8.946	8.945	(1.012)	1044067	8.90568	8.90	
24	Fluoranthene	202	10.632	10.633	(1.203)	1155920	9.19215	9.19	
25	Pyrene	202	10.972	10.975	(1.241)	1183118	8.56447	8.56	
$ 26	4-Terphenyl-d14	244	11.269	11.287	(1.275)	1824501	24.0308	24.0	
27	Benzo(a)anthracene	228	12.661	12.662	(0.999)	1161949	8.56714	8.57	
* 28	Chrysene-d12	240	12.676	12.677	(1.000)	430389	4.00000		
29	Chrysene	228	12.706	12.707	(1.002)	1112078	8.14465	8.14	
30	Benzo(b)fluoranthene	252	13.861	13.857	(0.973)	1258853	10.2523	10.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
	31 Benzo(k)fluoranthene	252	13.883	13.884	(0.975)	1253116	8.09791	8.10	
	33 Benzo(a)pyrene	252	14.190	14.183	(0.996)	1211110	10.0982	10.1	
*	34 Perylene-d12	264	14.247	14.243	(1.000)	436920	4.00000		
	36 Indeno(1,2,3-cd)pyrene	276	15.455	15.449	(1.085)	1482540	9.94400	9.94	
	37 Dibenzo(a,h)anthracene	278	15.462	15.461	(1.085)	1223915	10.1802	10.2	
	38 Benzo(ghi)perylene	276	15.797	15.788	(1.109)	1238157	9.72888	9.73	

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: 873664-2.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

Calibration Date: 15-MAR-2016
Calibration Time: 06:27
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	132999	66500	265998	106735	-19.75
6 Naphthalene-d8	510804	255402	1021608	418805	-18.01
14 Acenaphthene-d10	289729	144865	579458	236816	-18.26
20 Phenanthrene-d10	526097	263049	1052194	436342	-17.06
28 Chrysene-d12	514442	257221	1028884	430389	-16.34
34 Perylene-d12	513470	256735	1026940	436920	-14.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.03	3.53	4.53	4.02	-0.11
6 Naphthalene-d8	5.16	4.66	5.66	5.15	-0.04
14 Acenaphthene-d10	6.93	6.43	7.43	6.93	-0.01
20 Phenanthrene-d10	8.84	8.34	9.34	8.84	0.02
28 Chrysene-d12	12.68	12.18	13.18	12.68	-0.01
34 Perylene-d12	14.24	13.74	14.74	14.25	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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa01132
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: kv
Data Type: MS DATA SampleType: LCS
SpikeList File: SIMLCS.spk Quant Type: ISTD
Sublist File: 8270nj-ny.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

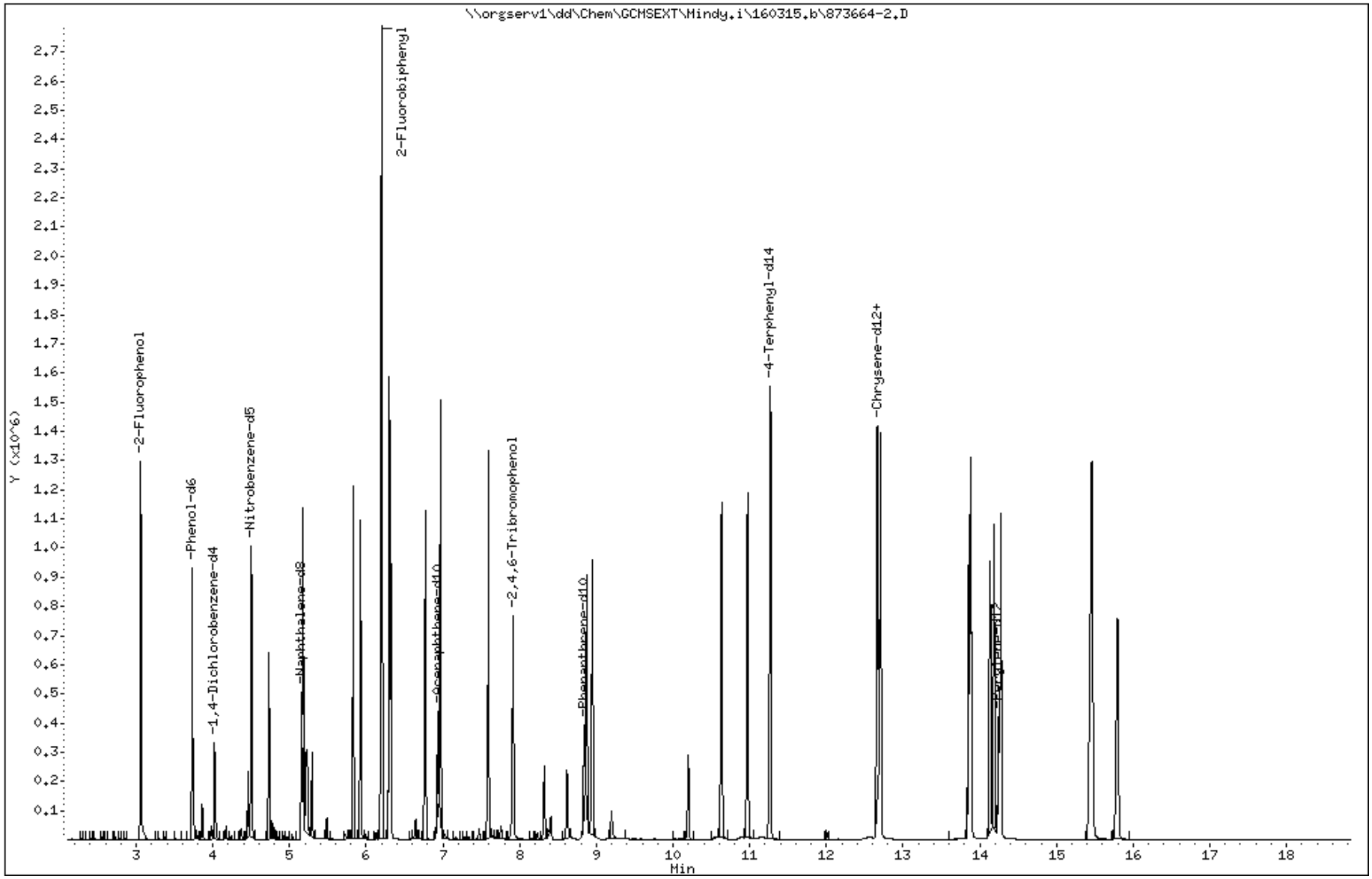
SPIKE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
4 Hexachloroethane	10.0	7.16	71.65	40-140
7 Naphthalene	10.0	7.43	74.30	40-140
8 Hexachlorobutadien	10.0	8.26	82.65	40-140
9 2-Methylnaphthalen	10.0	7.96	79.58	40-140
10 1-Methylnaphthale	10.0	0.000	*	40-140
12 2-Chloronaphthalen	10.0	8.62	86.22	40-140
13 Acenaphthylene	10.0	8.54	85.41	45-123
15 Acenaphthene	10.0	8.48	84.86	37-111
16 Fluorene	10.0	9.65	96.47	40-140
18 Hexachlorobenzene	10.0	9.40	93.99	40-140
19 Pentachlorophenol	10.0	8.02	80.22	9-103
21 Phenanthrene	10.0	8.58	85.80	40-140
22 Anthracene	10.0	8.90	89.06	40-140
24 Fluoranthene	10.0	9.19	91.92	40-140
25 Pyrene	10.0	8.56	85.64	35-127
27 Benzo(a)anthracene	10.0	8.57	85.67	40-140
29 Chrysene	10.0	8.14	81.45	40-140
30 Benzo(b)fluoranthe	10.0	10.2	102.52	40-140
31 Benzo(k)fluoranthe	10.0	8.10	80.98	40-140
33 Benzo(a)pyrene	10.0	10.1	100.98	40-140
36 Indeno(1,2,3-cd)py	10.0	9.94	99.44	40-140
37 Dibenzo(a,h)anthra	10.0	10.2	101.80	40-140
38 Benzo(ghi)perylene	10.0	9.73	97.29	40-140

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	50.0	22.2	44.37	21-120
$ 2 Phenol-d6	50.0	15.8	31.67	10-120
$ 5 Nitrobenzene-d5	25.0	19.4	77.49	23-120
$ 11 2-Fluorobiphenyl	25.0	24.4	97.72	15-120
$ 17 2,4,6-Tribromophen	50.0	67.9	135.76*	10-120
$ 26 4-Terphenyl-d14	25.0	24.0	96.12	33-120

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D
Date : 15-MAR-2016 07:43
Client ID:
Sample Info: wg873664-2,32,ng,kv

Instrument: Mindy.i
Operator: kv
Column diameter: 0.32

Column phase: RTx-5



Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

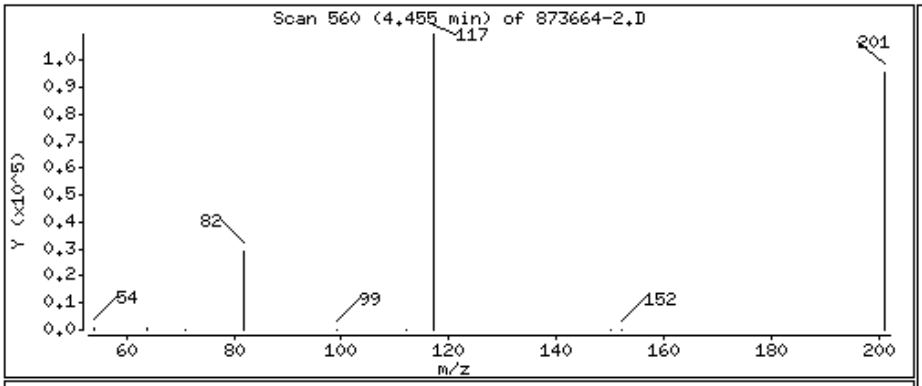
Operator: kv

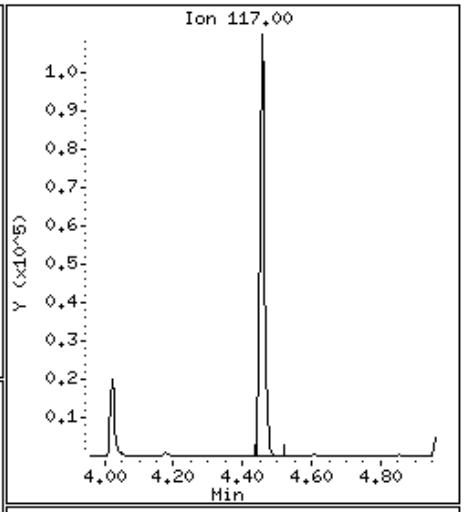
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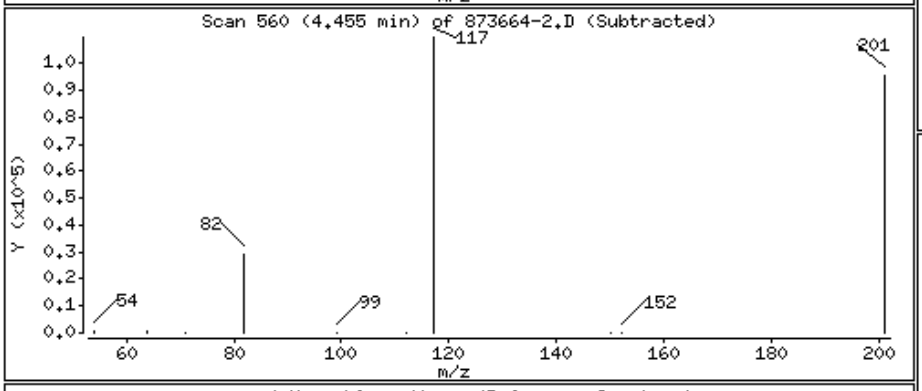
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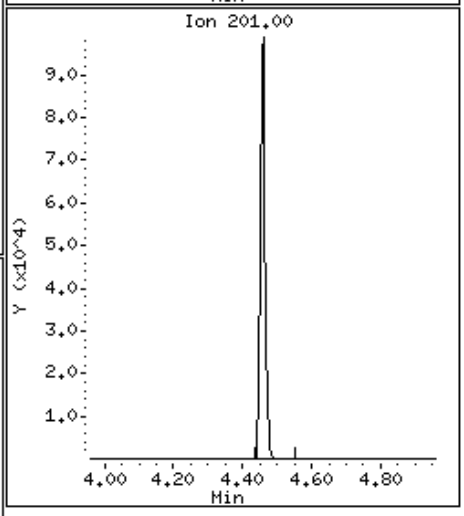
4 Hexachloroethane

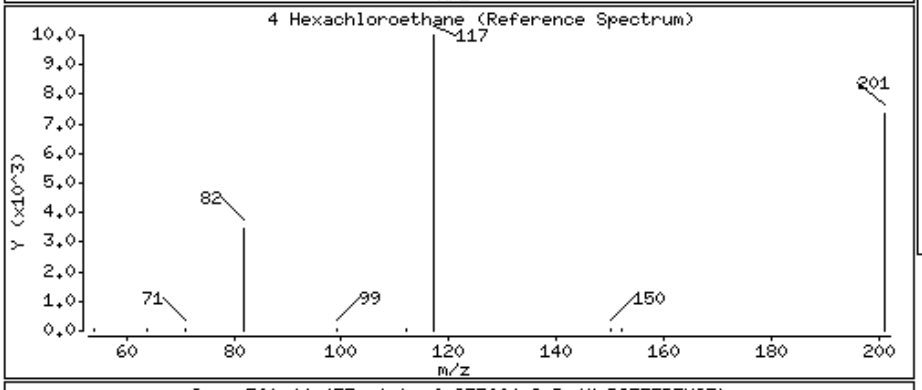
Concentration: 7.16 ng

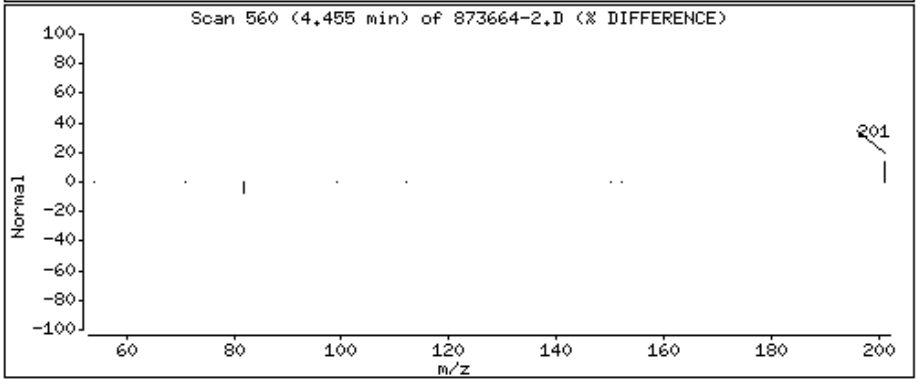












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

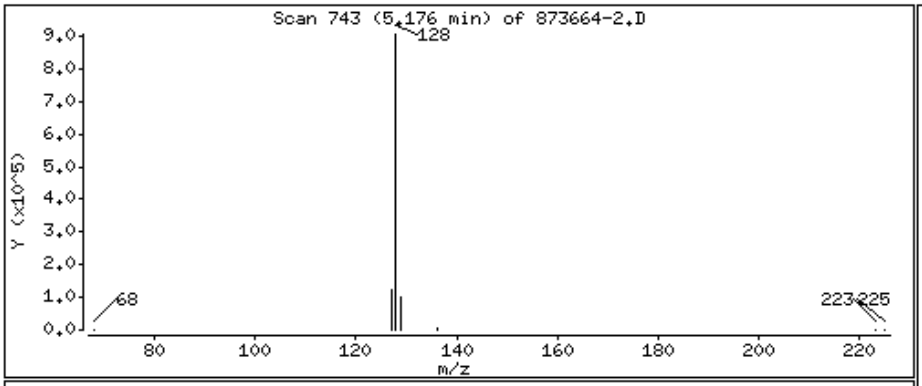
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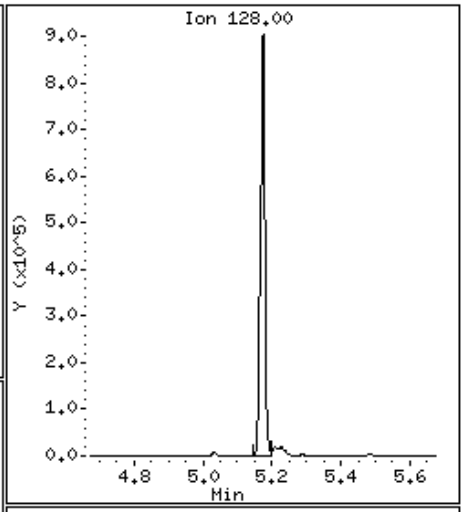
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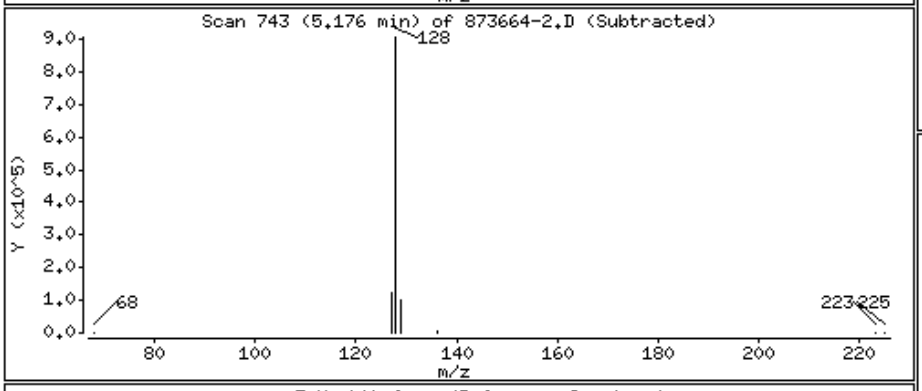
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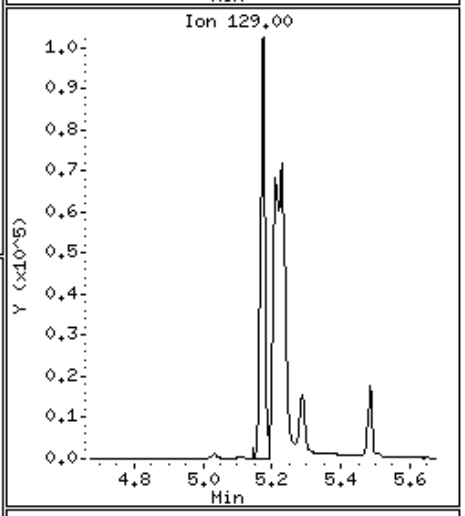
7 Naphthalene

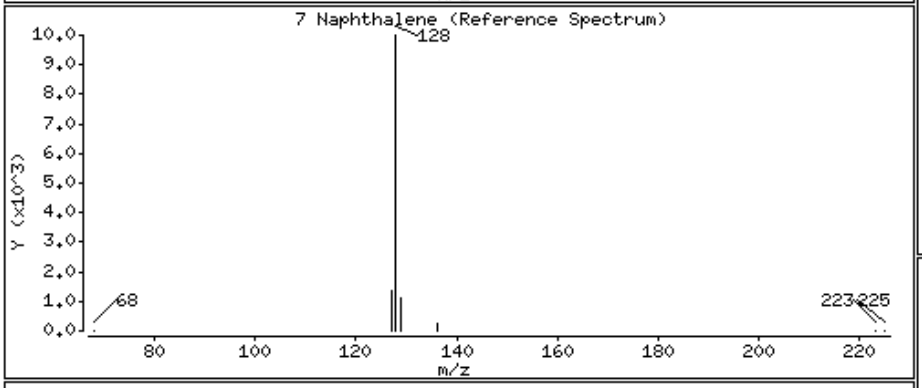
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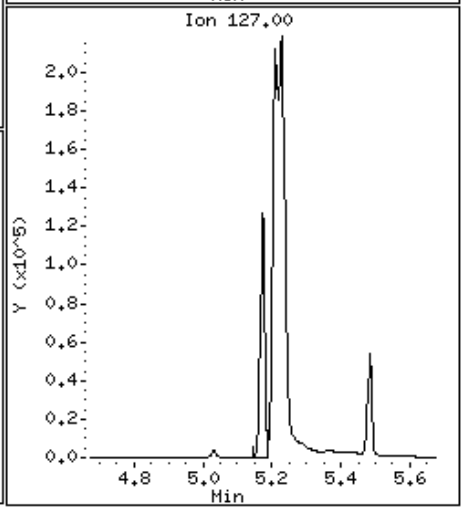


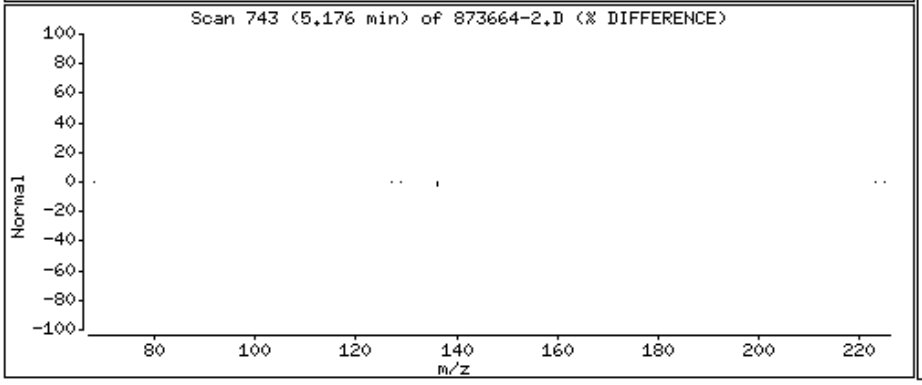












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ng,kv

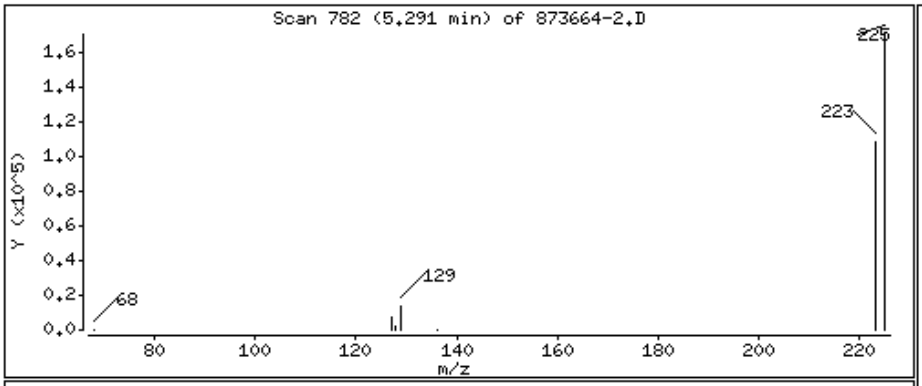
Operator: kv

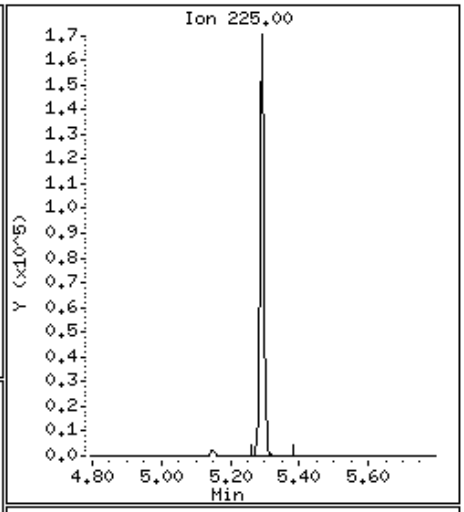
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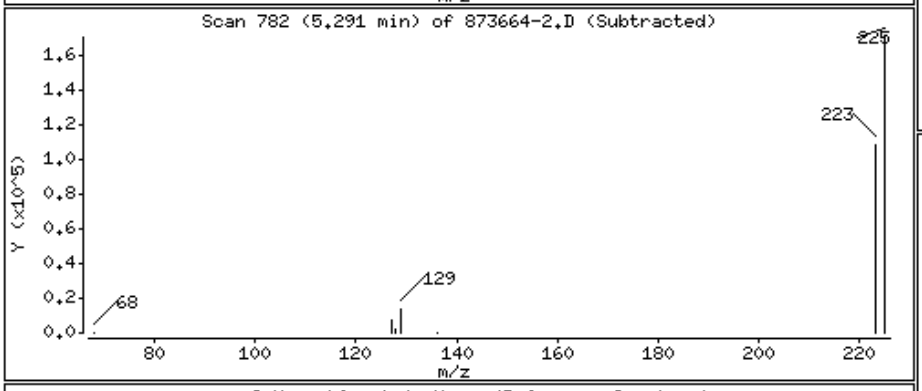
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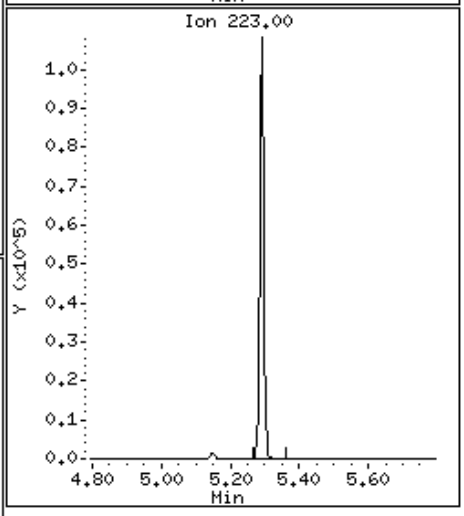
8 Hexachlorobutadiene

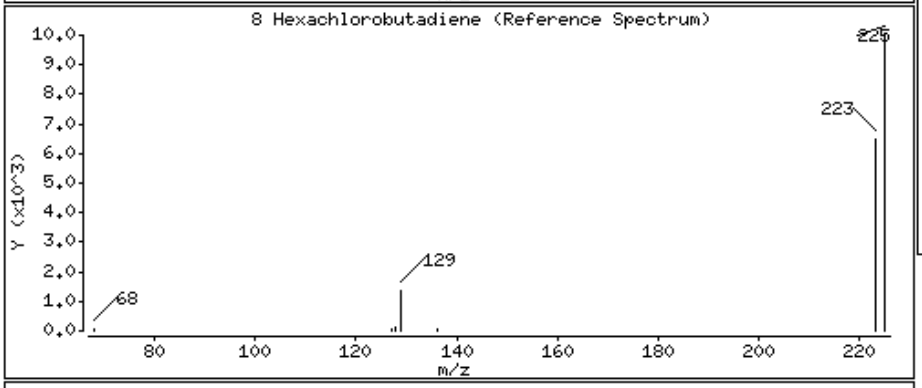
Concentration: 8.26 ng

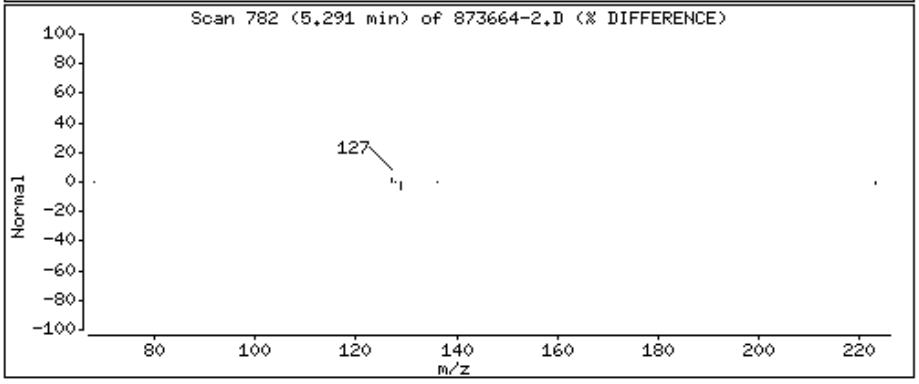












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

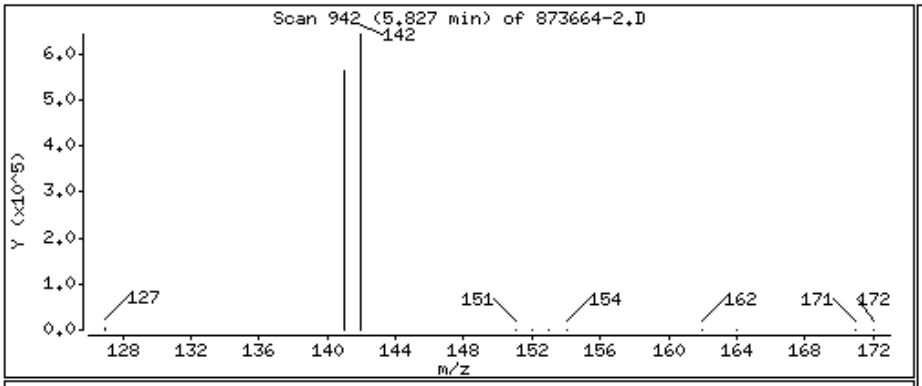
Operator: kv

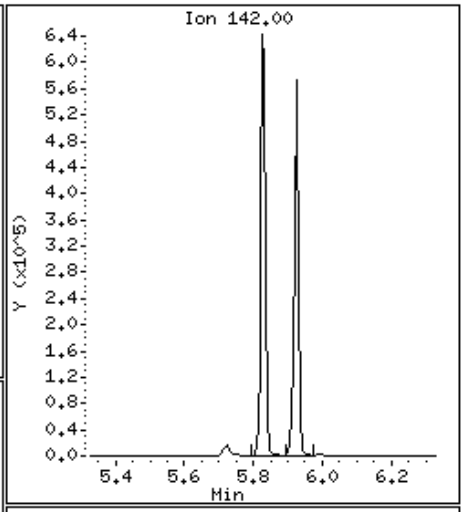
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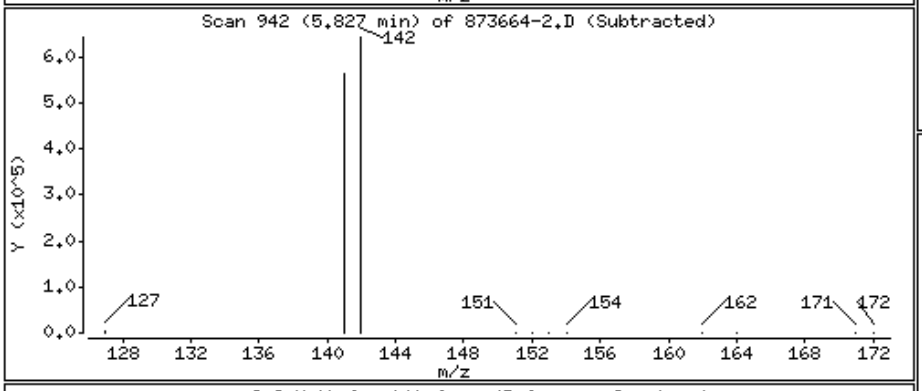
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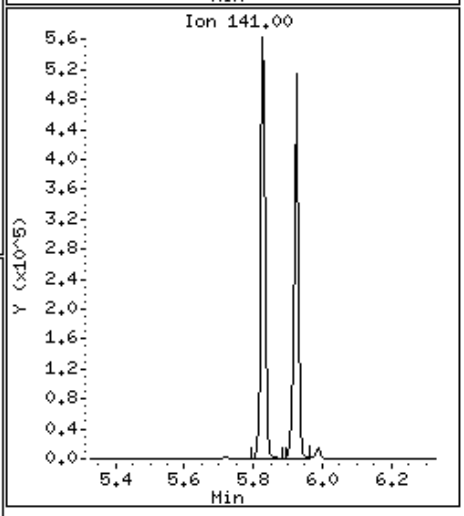
9 2-Methylnaphthalene

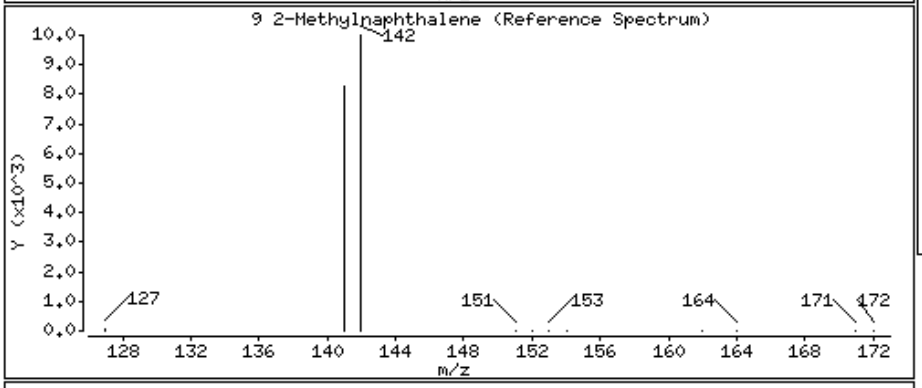
Concentration: 7.96 ng

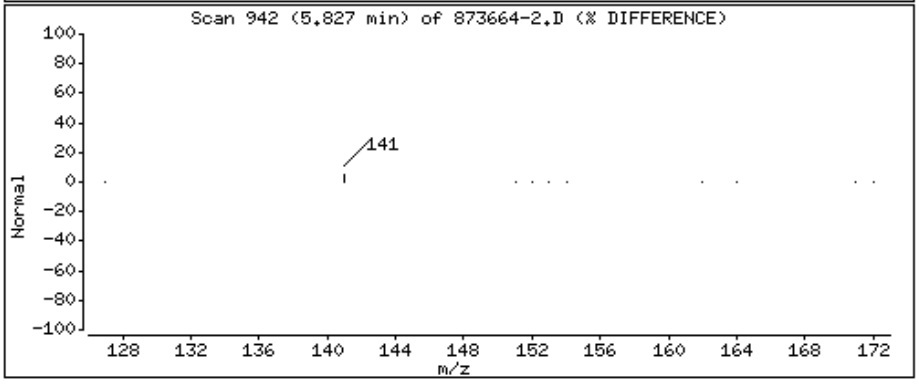












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

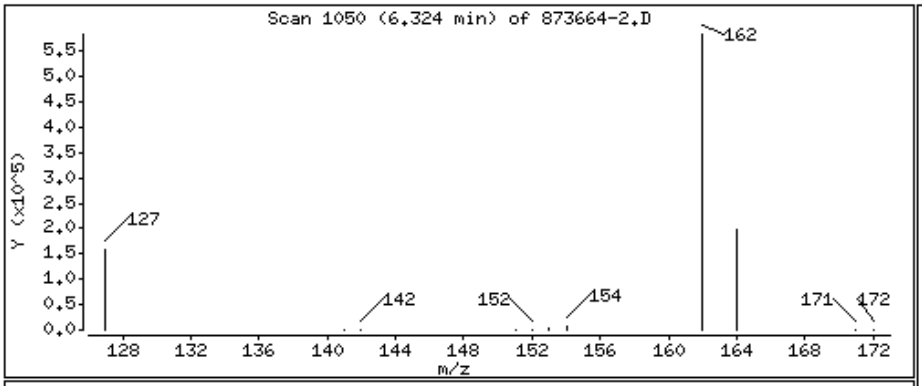
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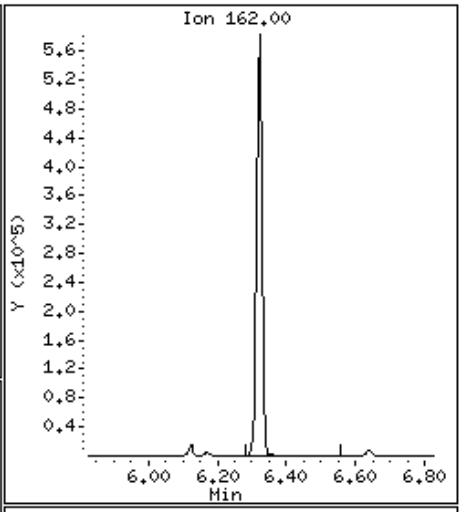
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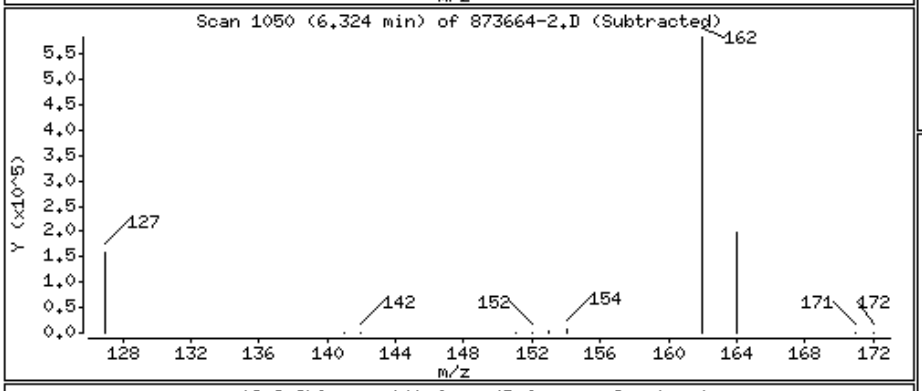
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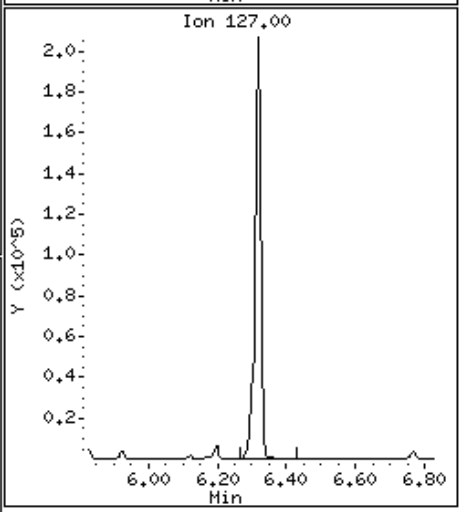
12 2-Chloronaphthalene

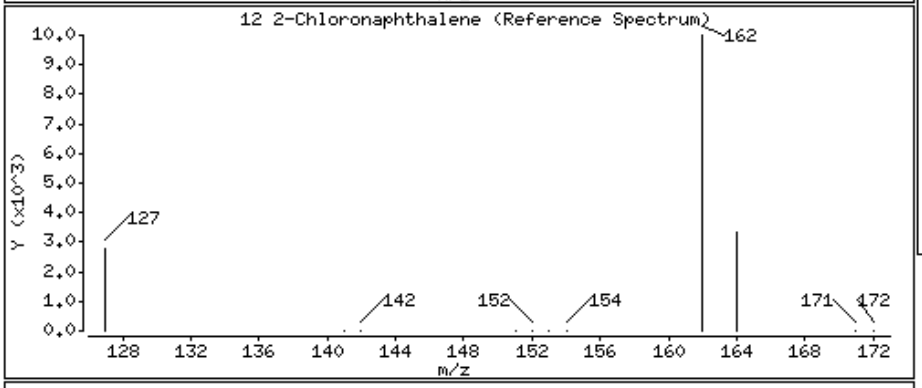
Concentration: 8.62 ng

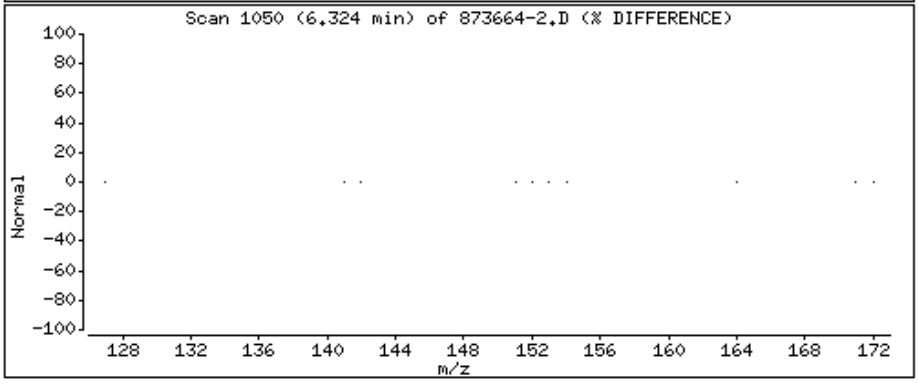












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

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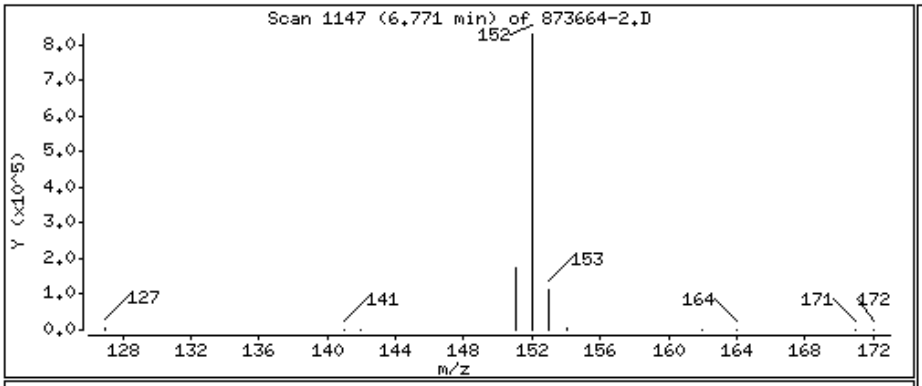
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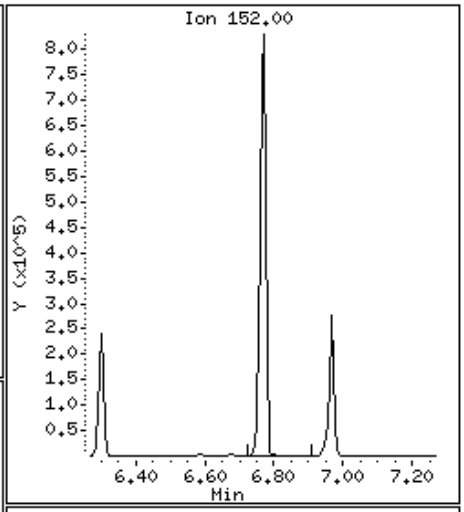
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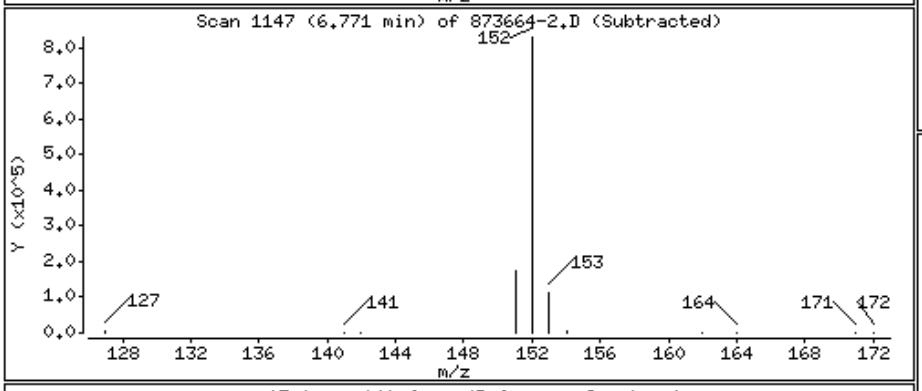
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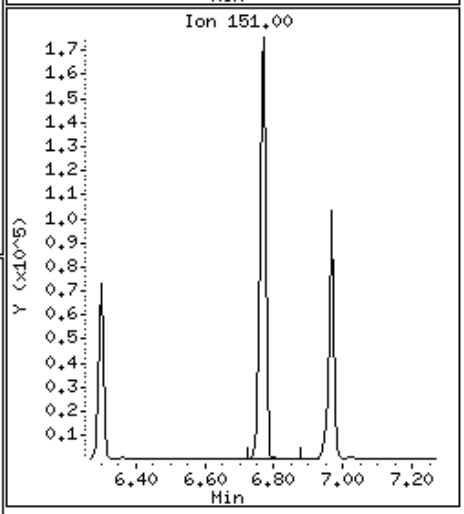
13 Acenaphthylene

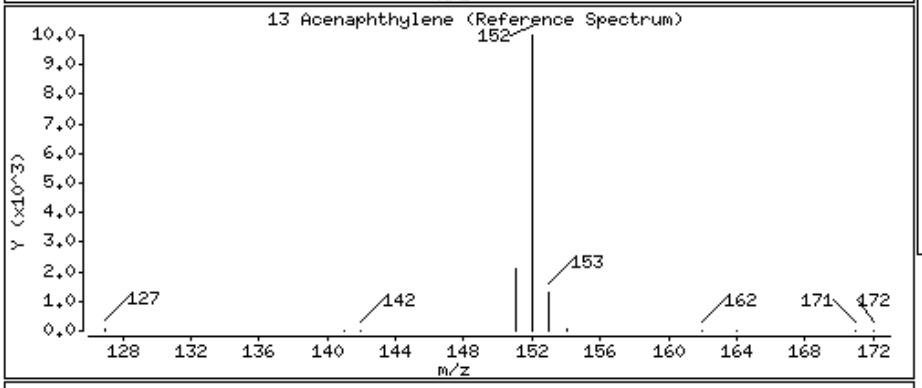
Concentration: 8.54 ng

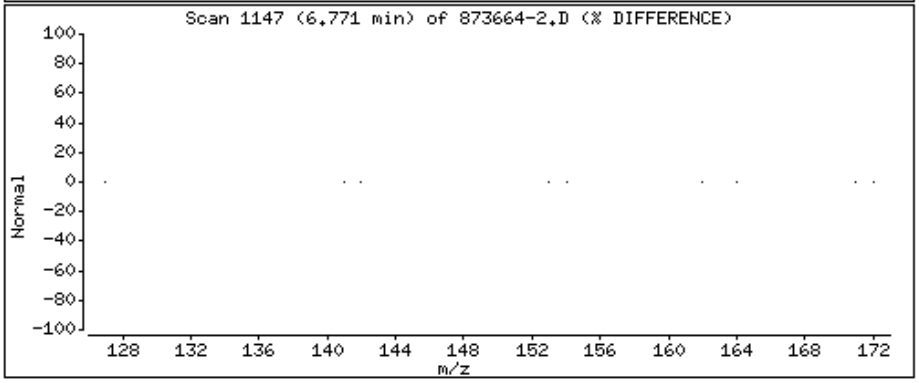












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Date : 15-MAR-2016 07:43

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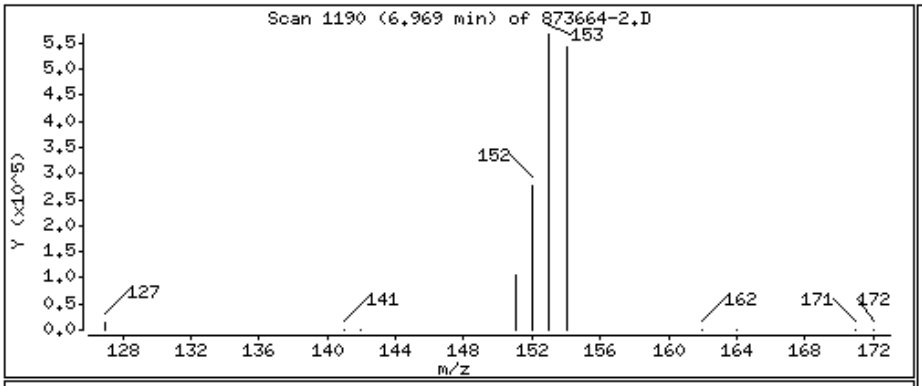
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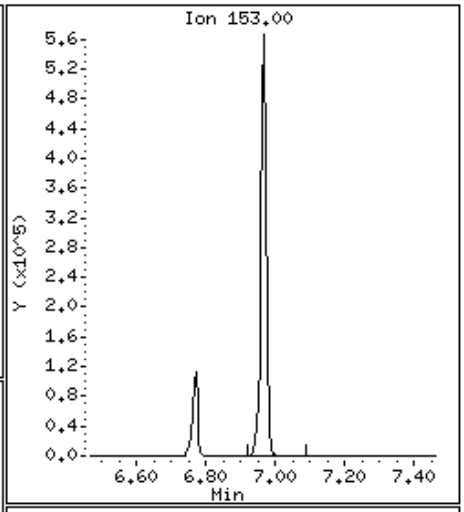
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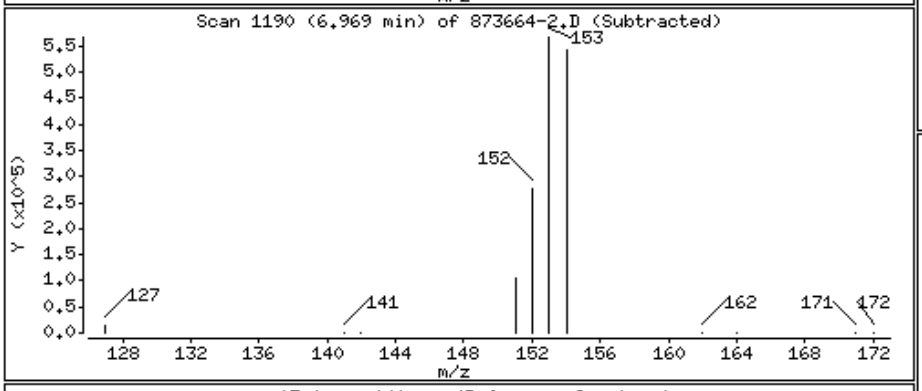
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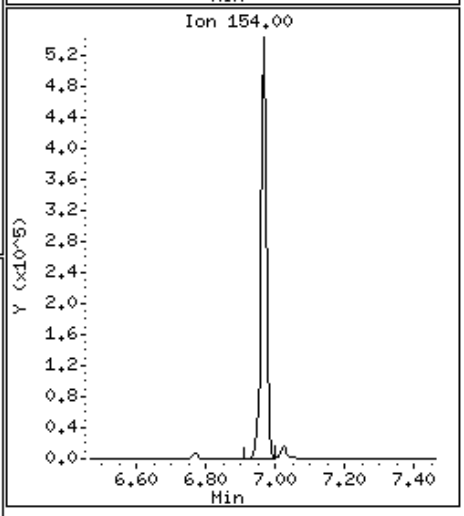
15 Acenaphthene

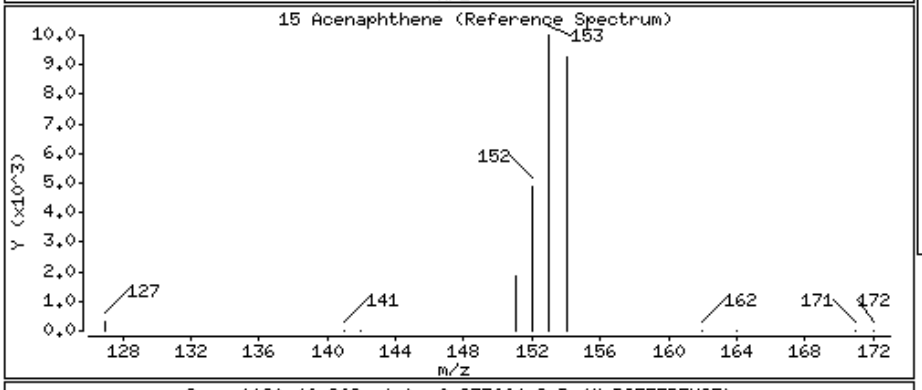
Concentration: 8.48 ng

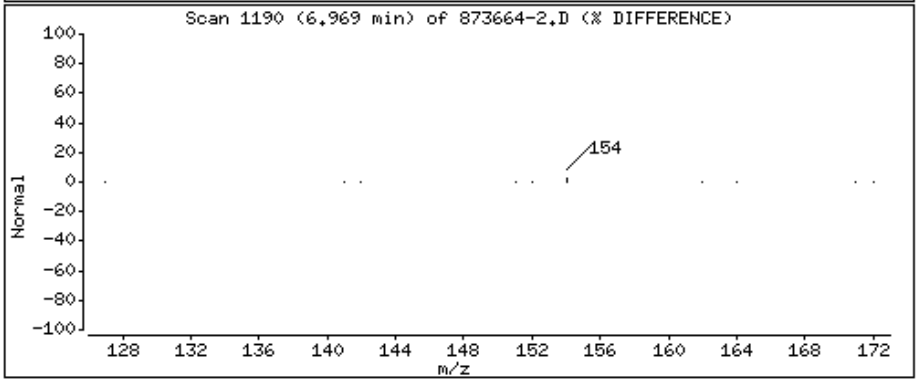












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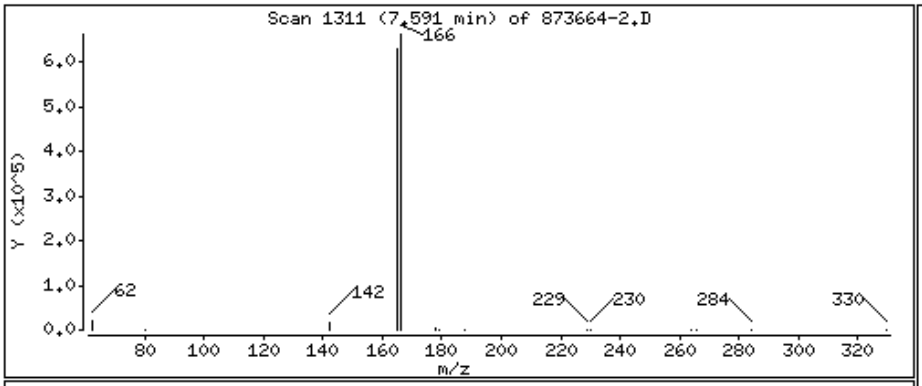
Operator: kv

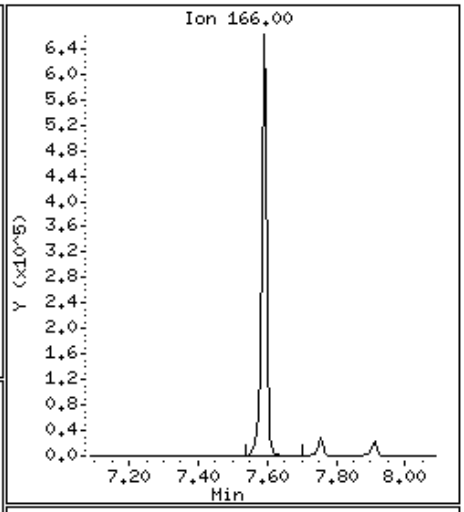
Column phase: RTx-5

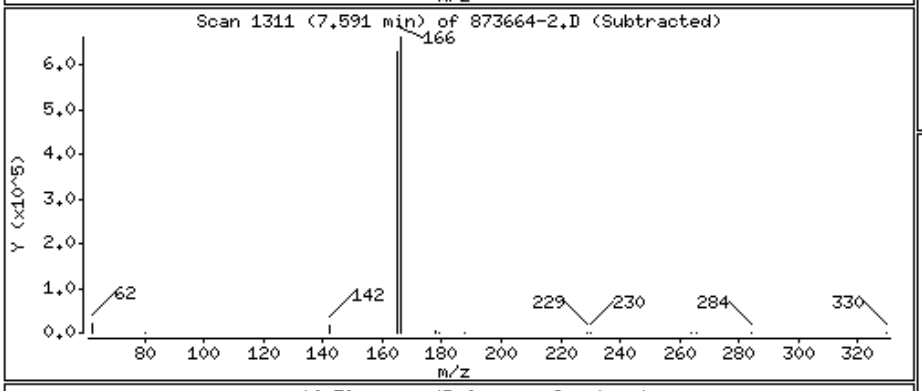
Column diameter: 0.32

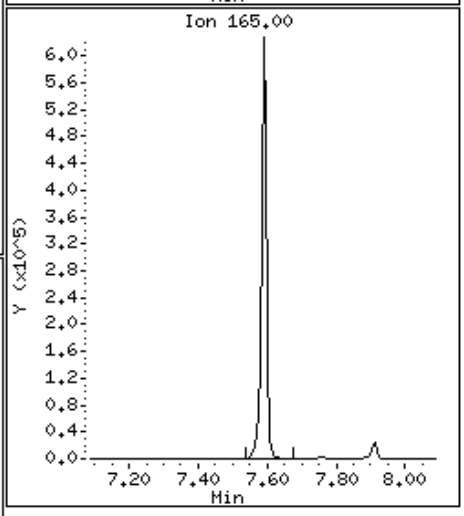
16 Fluorene

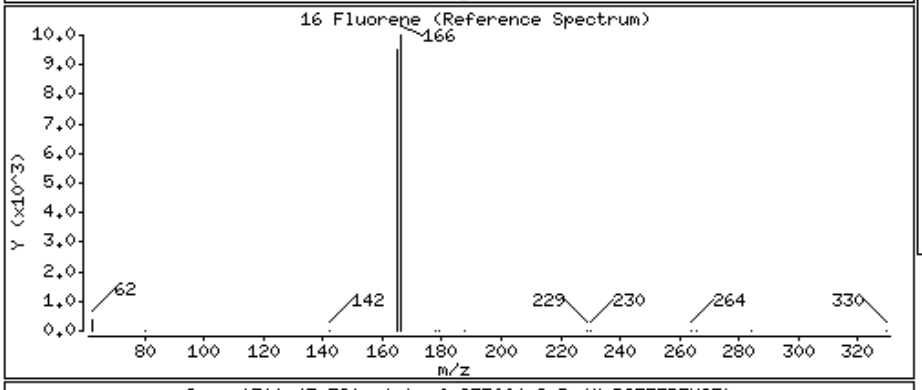
Concentration: 9.65 ng

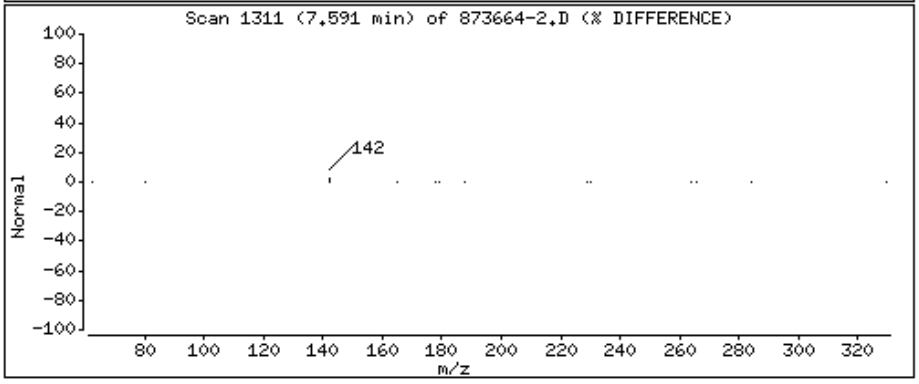












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

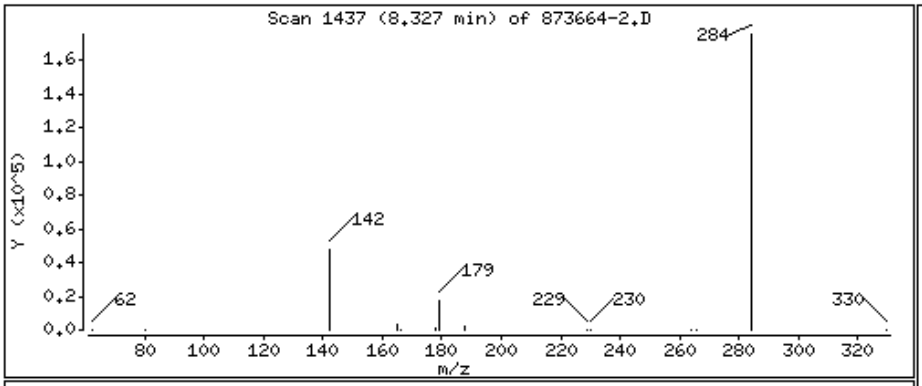
Operator: kv

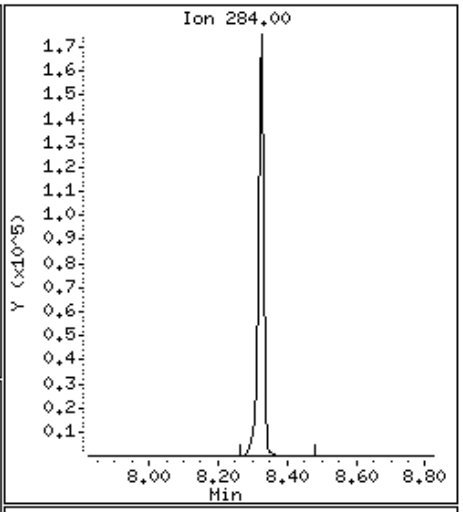
Column phase: RTx-5

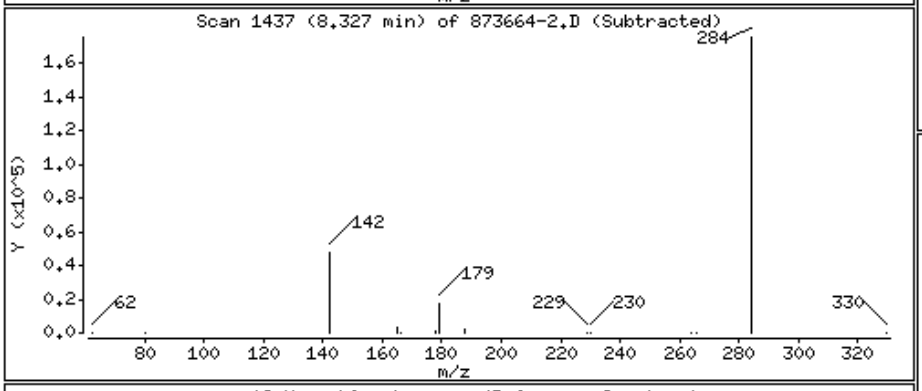
Column diameter: 0.32

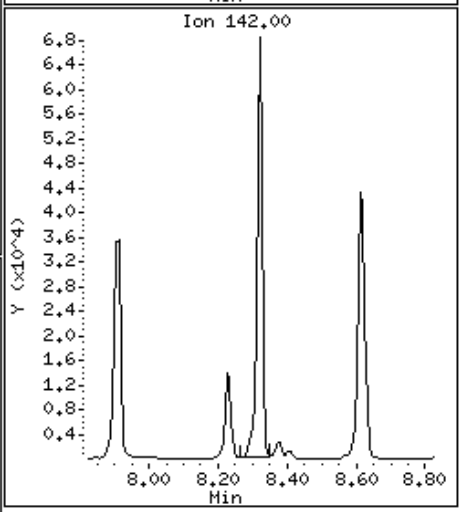
18 Hexachlorobenzene

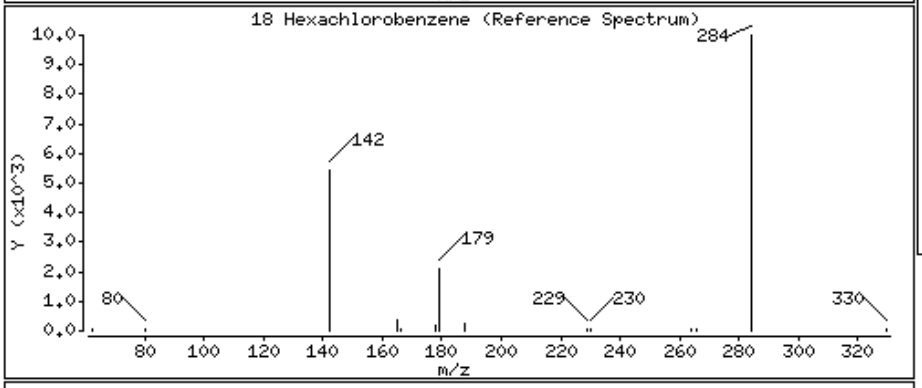
Concentration: 9.40 ng

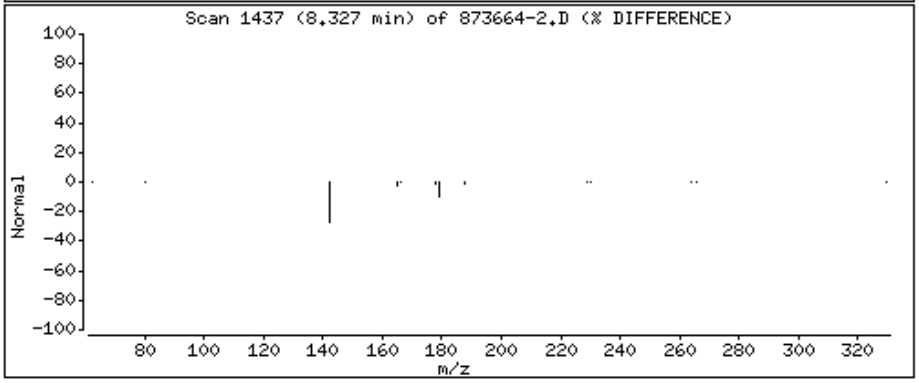












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

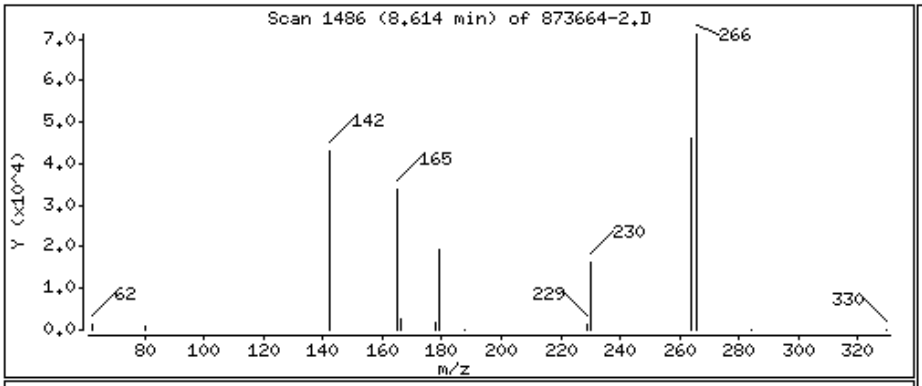
Operator: kv

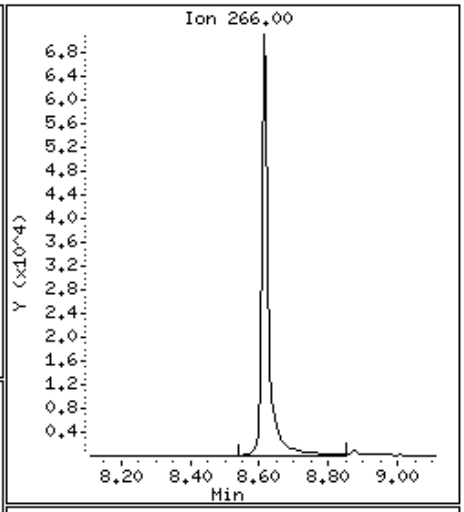
Column phase: RTx-5

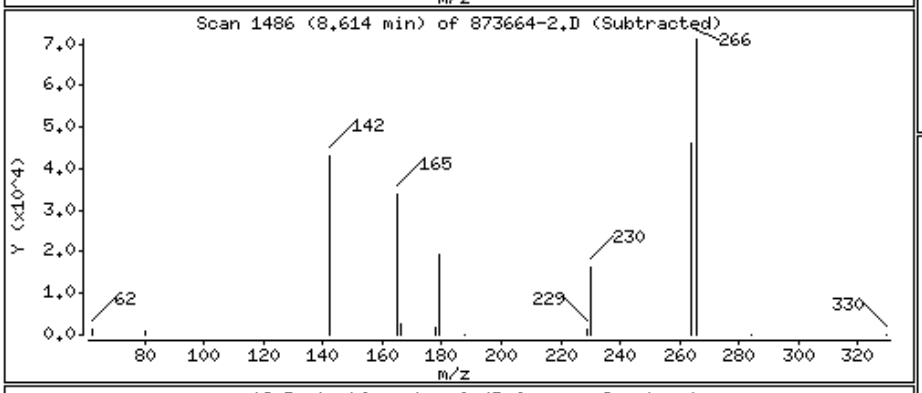
Column diameter: 0.32

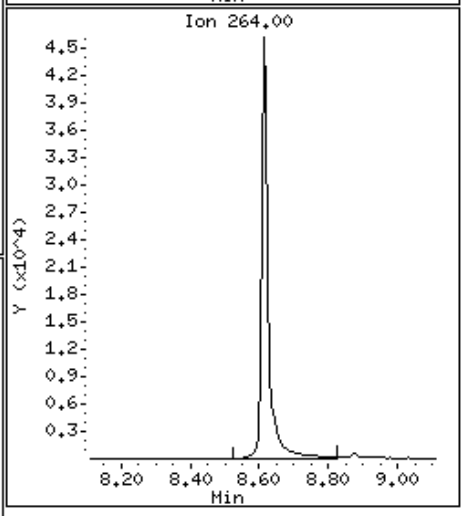
19 Pentachlorophenol

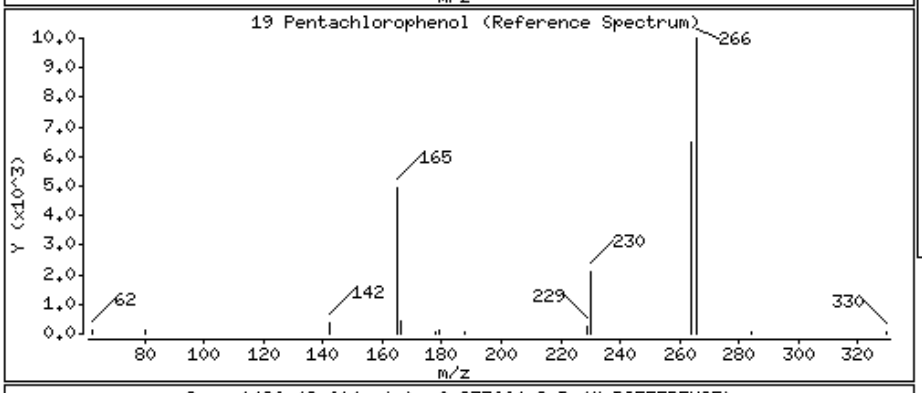
Concentration: 8.02 ng

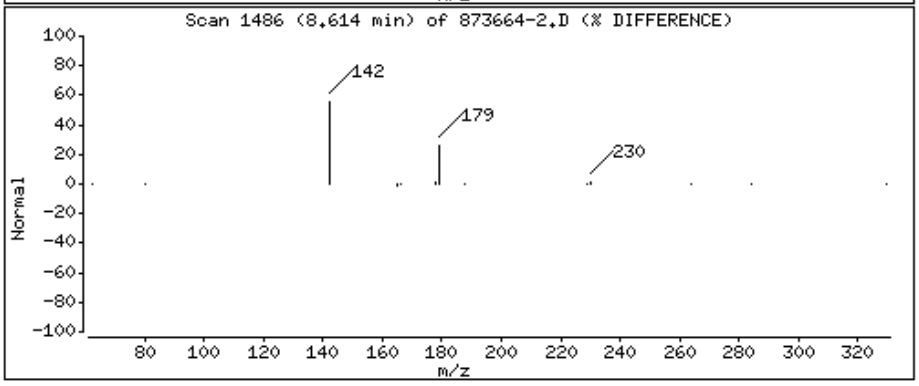












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

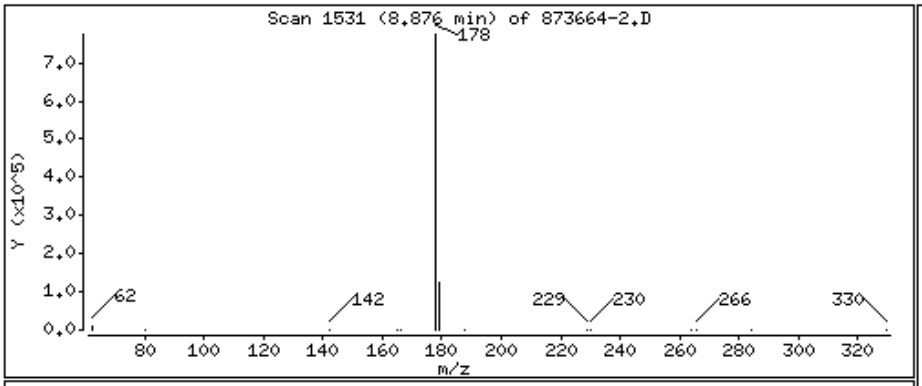
Operator: kv

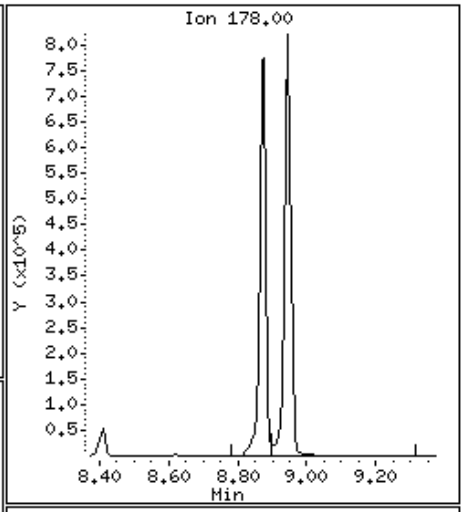
Column phase: RTx-5

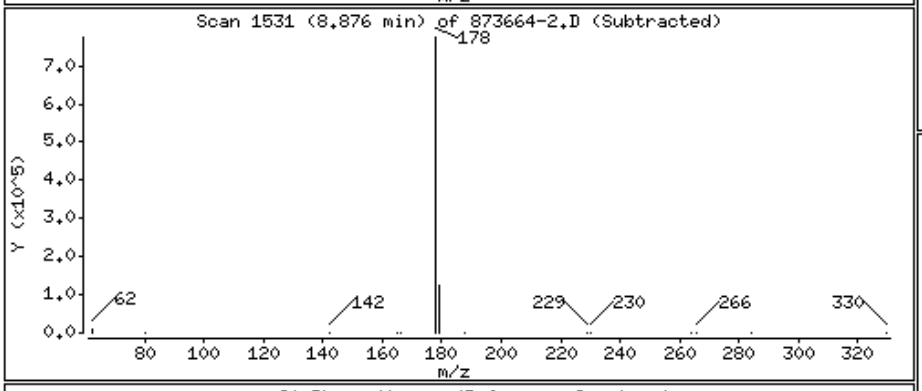
Column diameter: 0.32

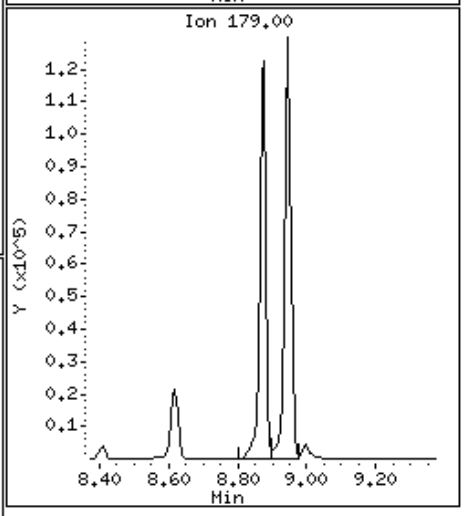
21 Phenanthrene

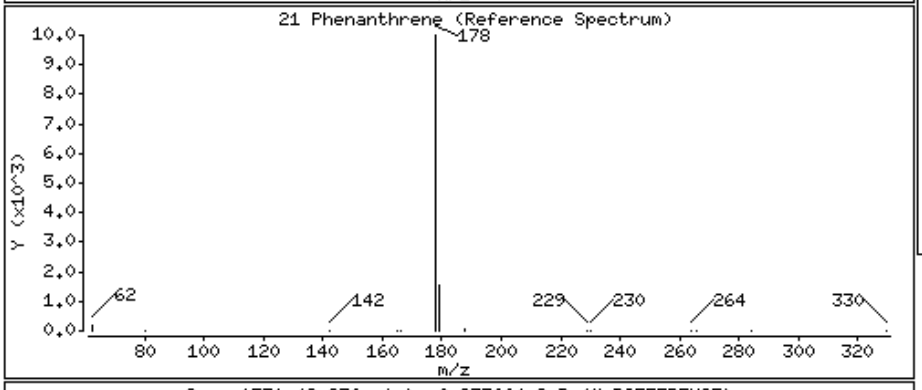
Concentration: 8.58 ng

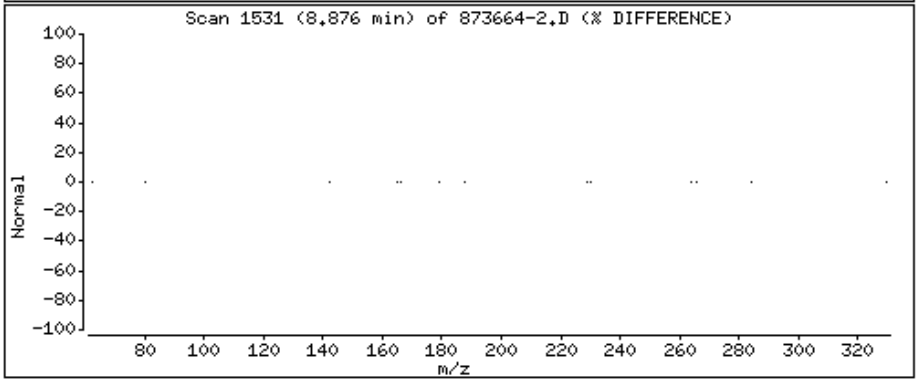












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ng,kv

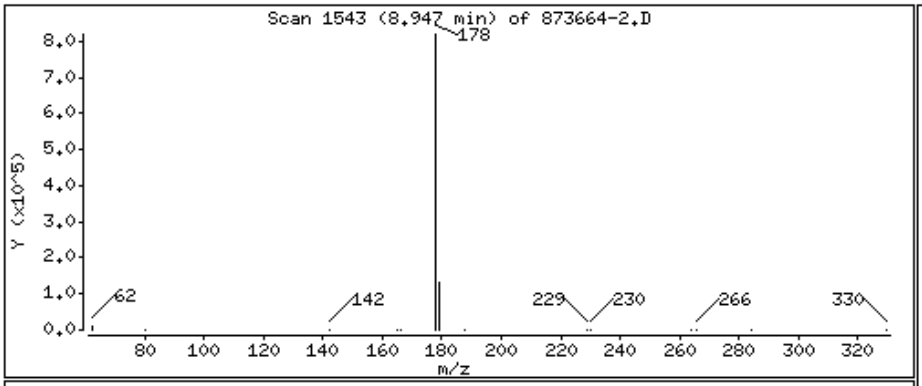
Operator: kv

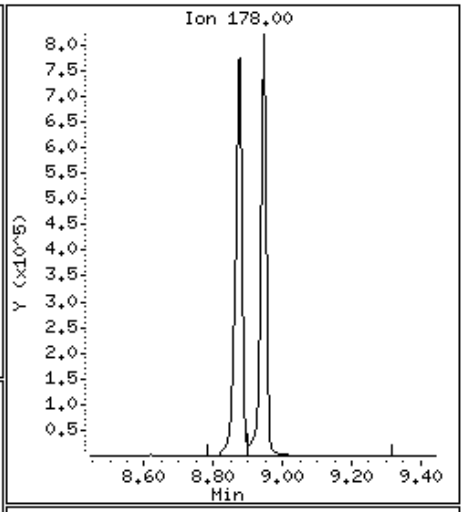
Column phase: RTx-5

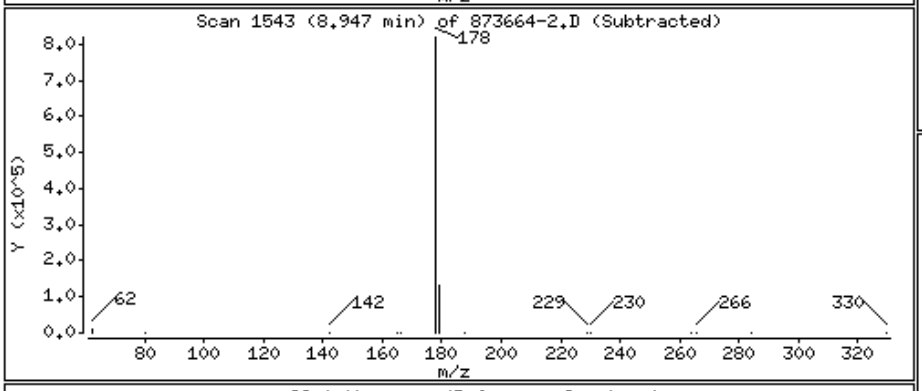
Column diameter: 0.32

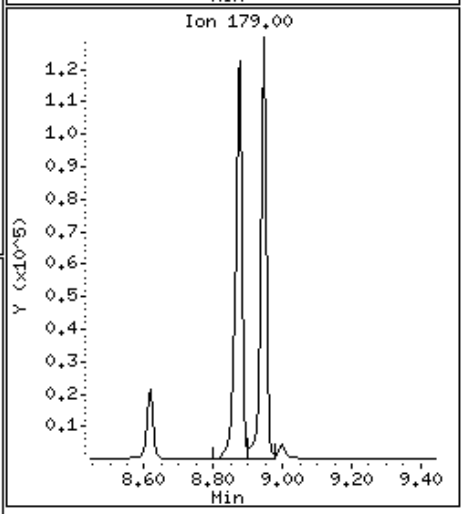
22 Anthracene

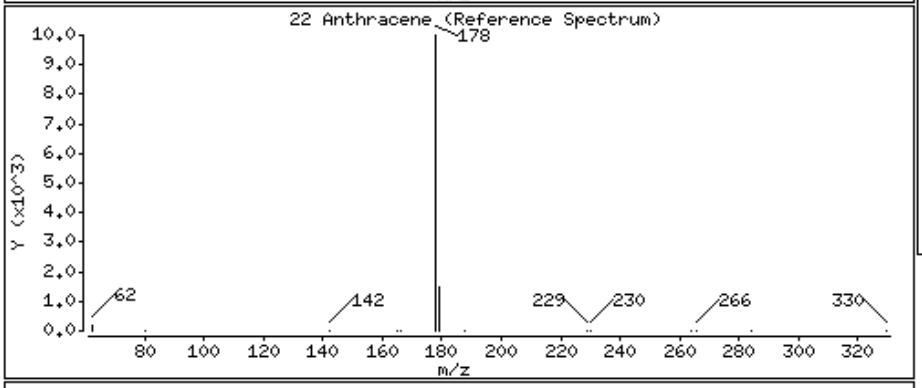
Concentration: 8.90 ng

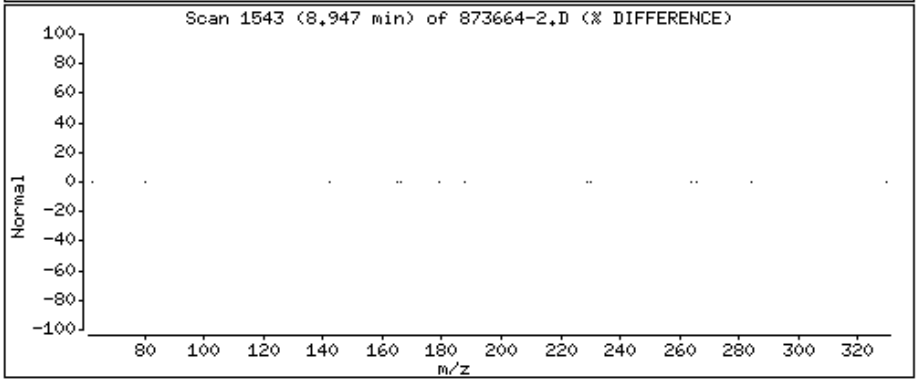












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

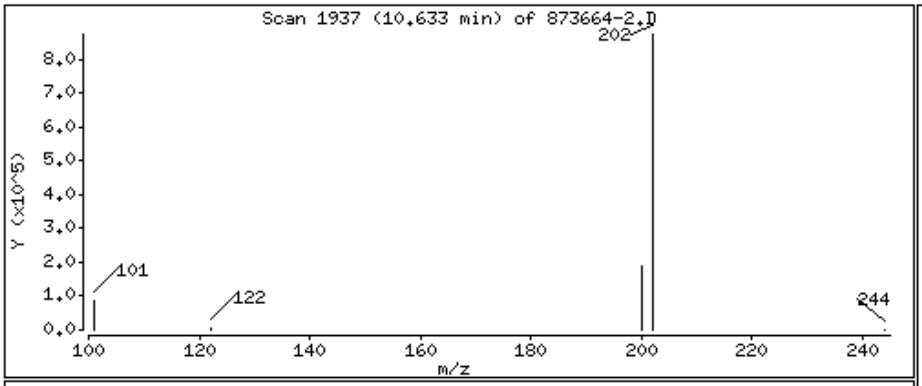
Operator: kv

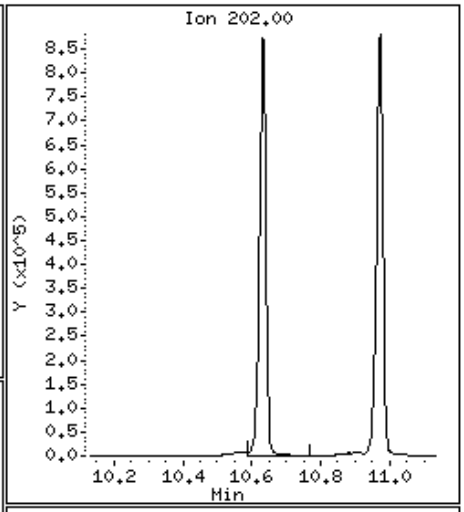
Column phase: RTx-5

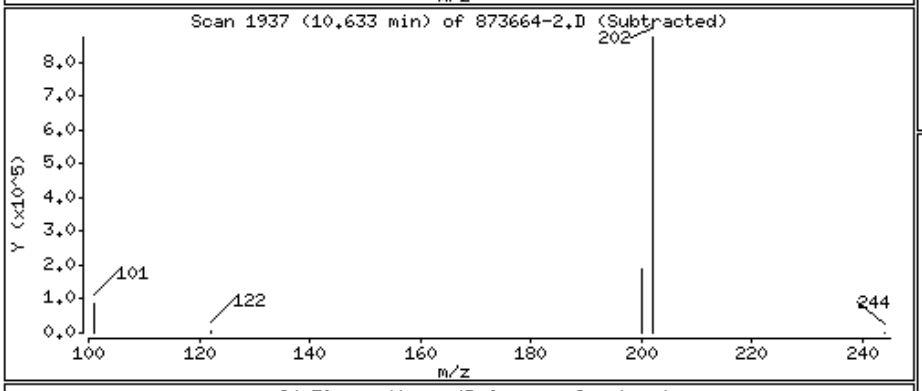
Column diameter: 0.32

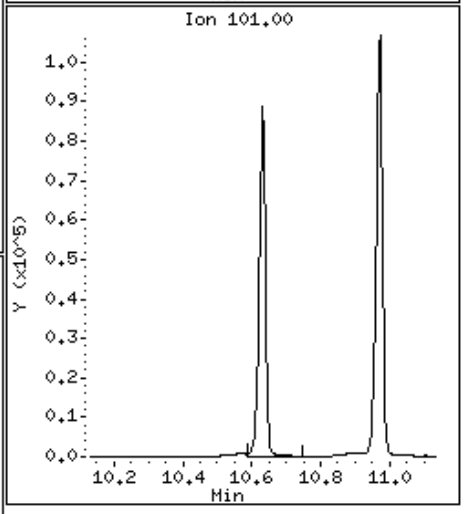
24 Fluoranthene

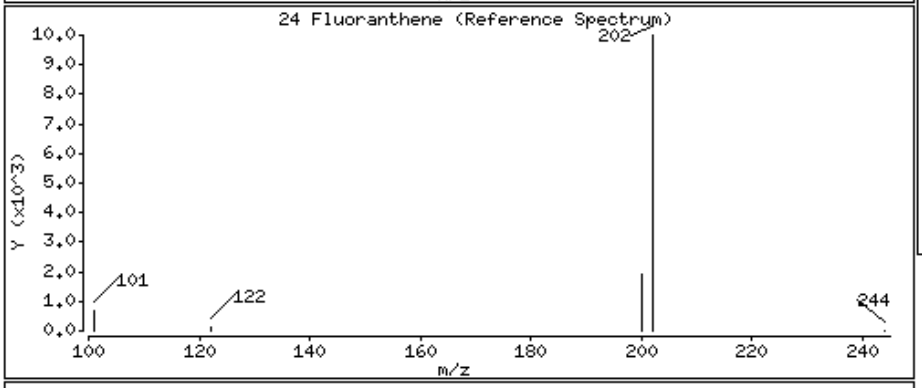
Concentration: 9.19 ng

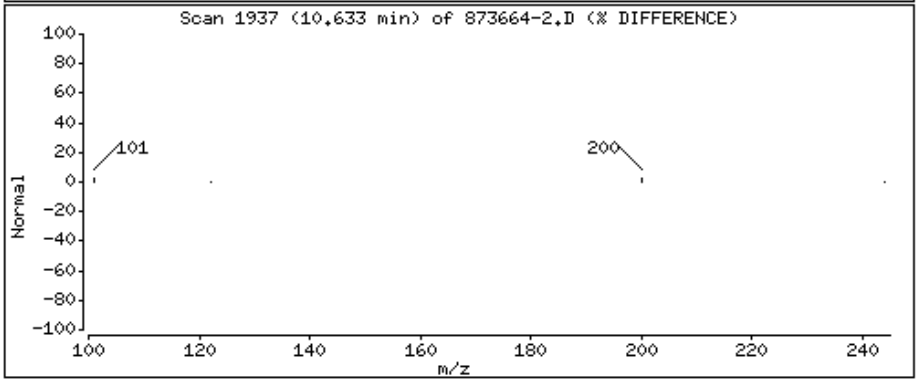












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

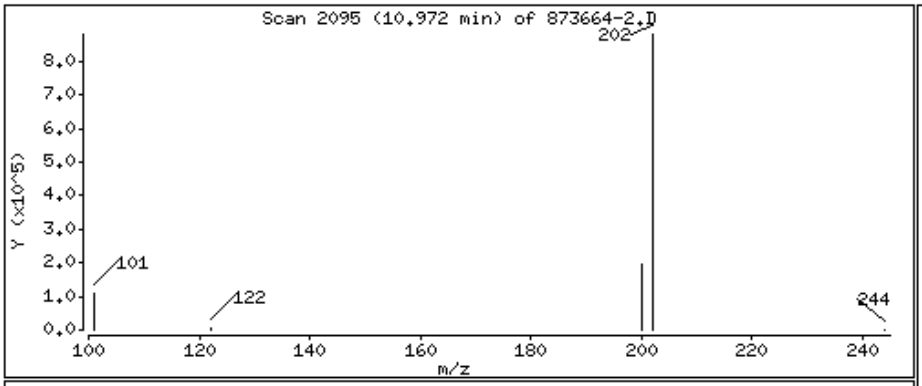
Operator: kv

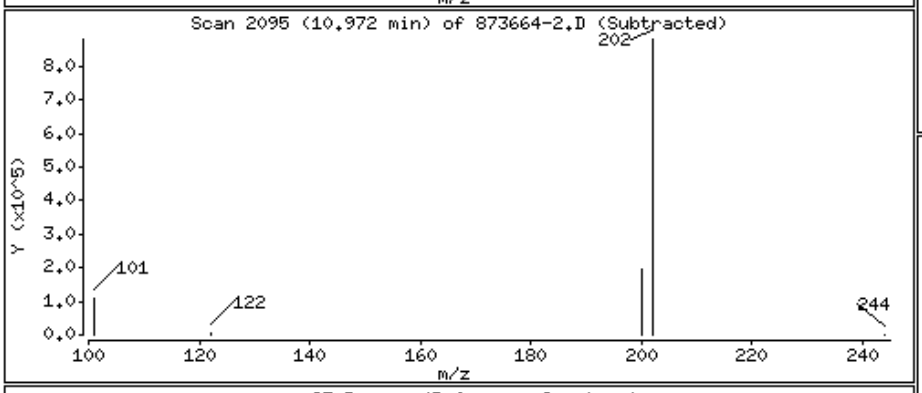
Column phase: RTx-5

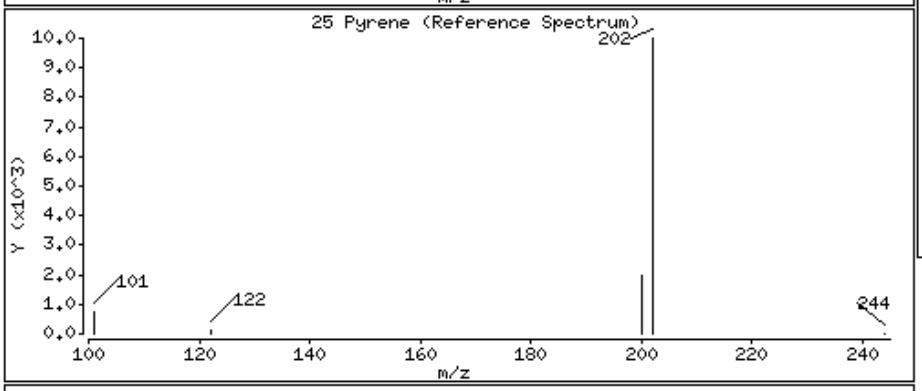
Column diameter: 0.32

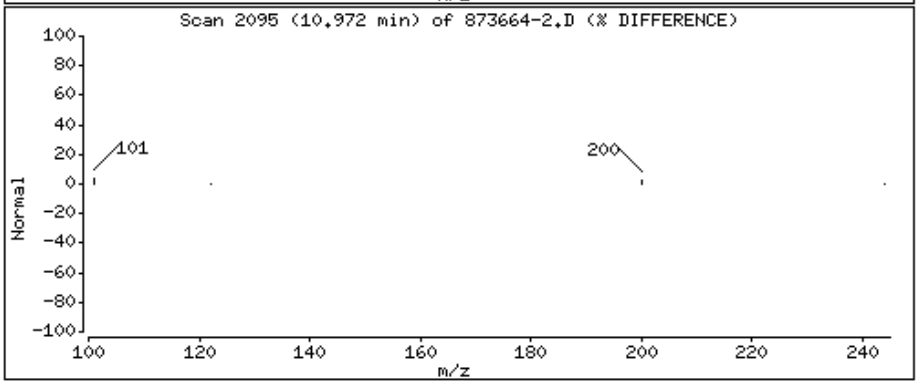
25 Pyrene

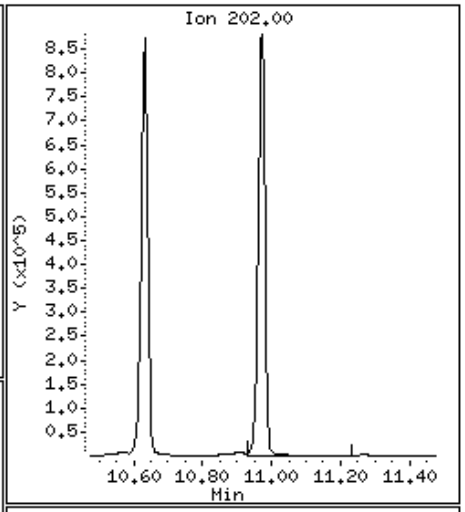
Concentration: 8.56 ng

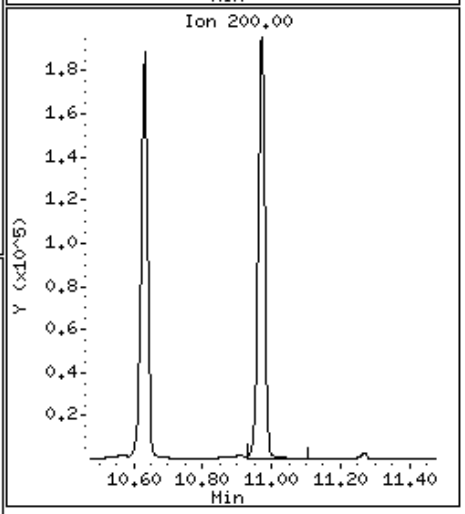












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ng,kv

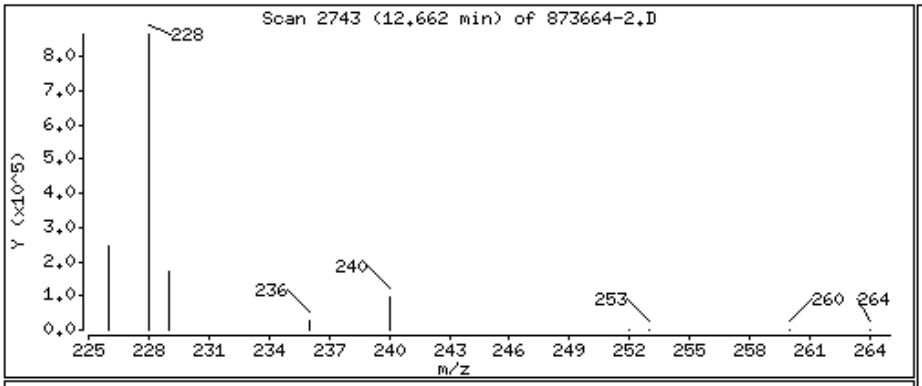
Operator: kv

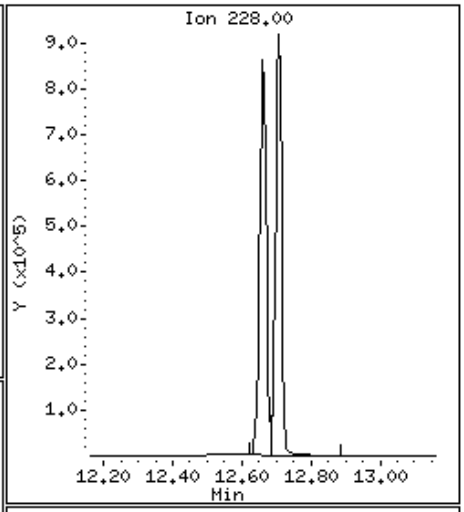
Column phase: RTx-5

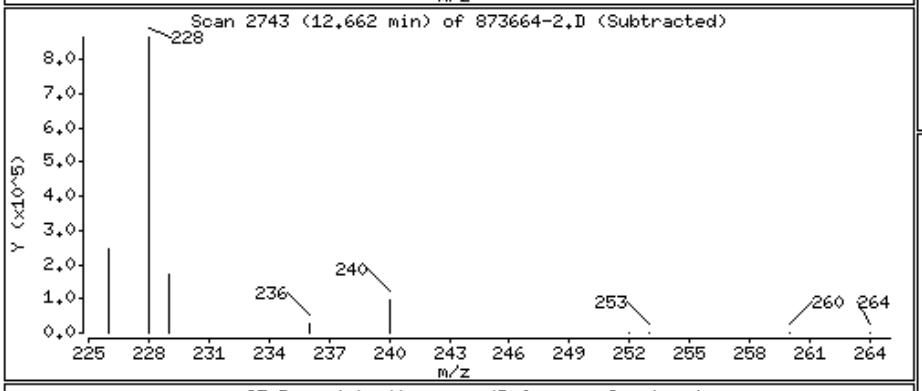
Column diameter: 0.32

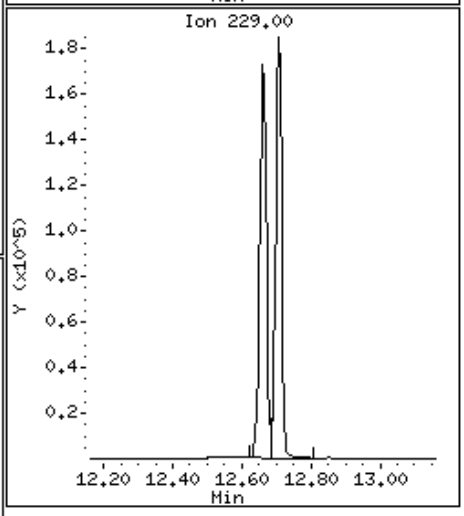
27 Benzo(a)anthracene

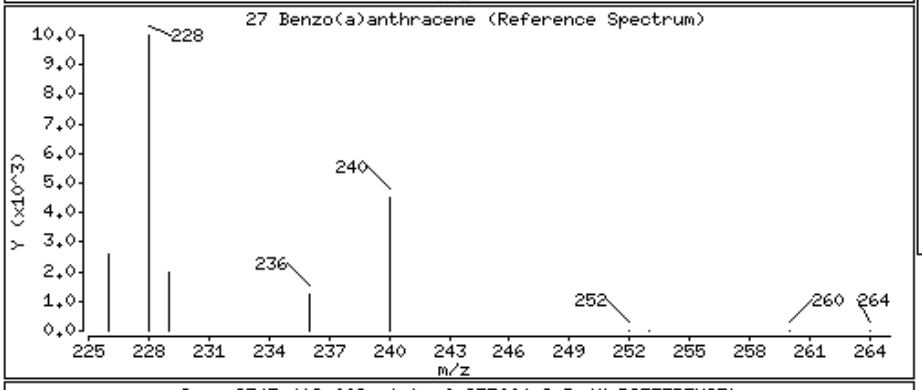
Concentration: 8.57 ng

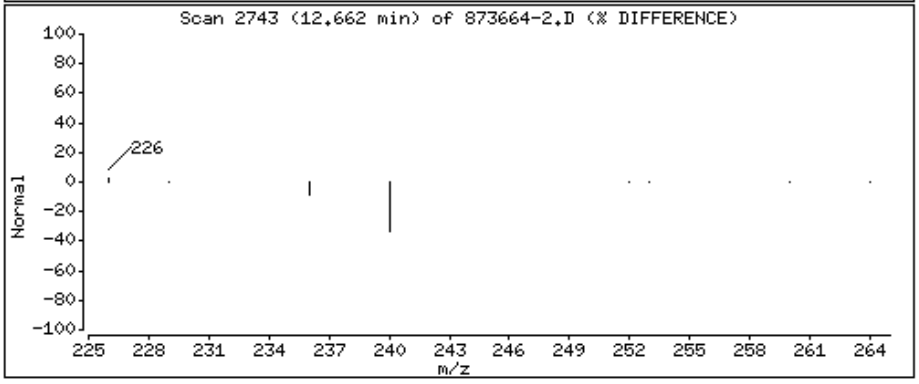












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ng,kv

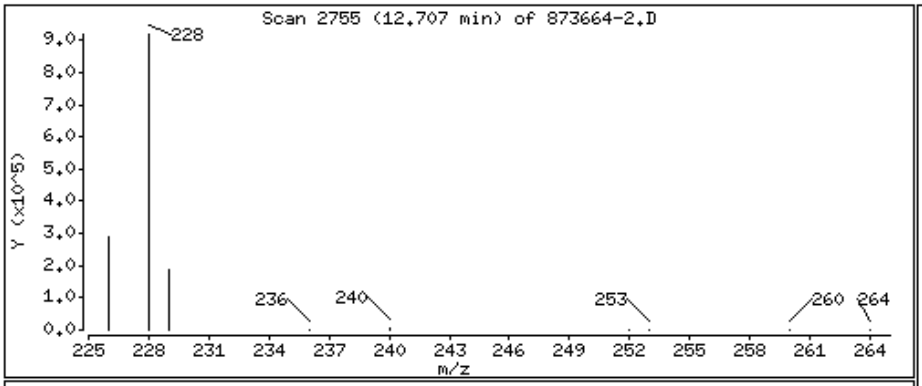
Operator: kv

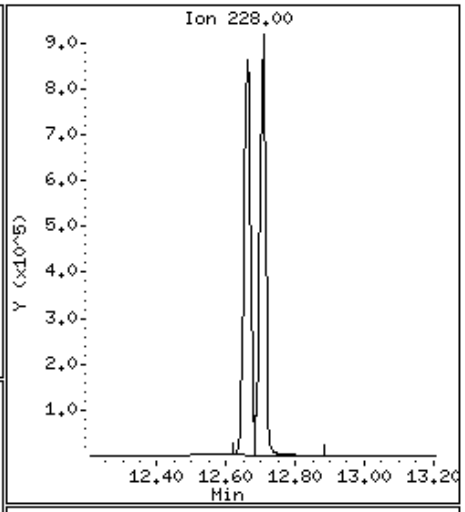
Column phase: RTx-5

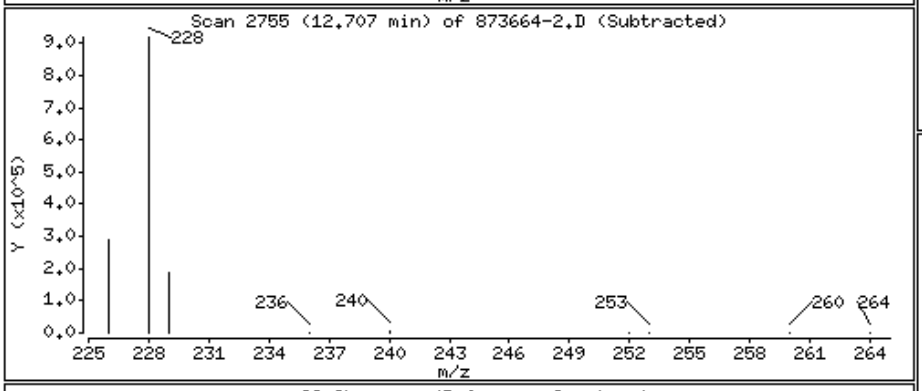
Column diameter: 0.32

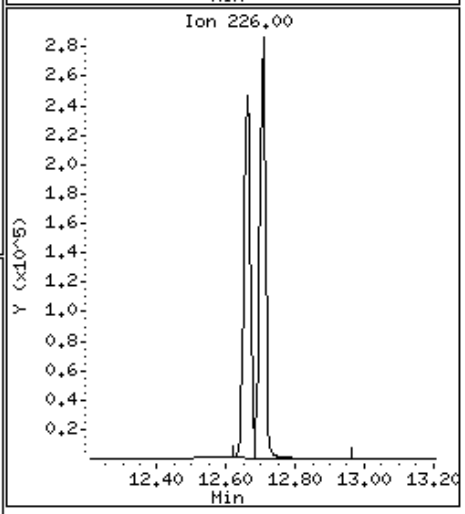
29 Chrysene

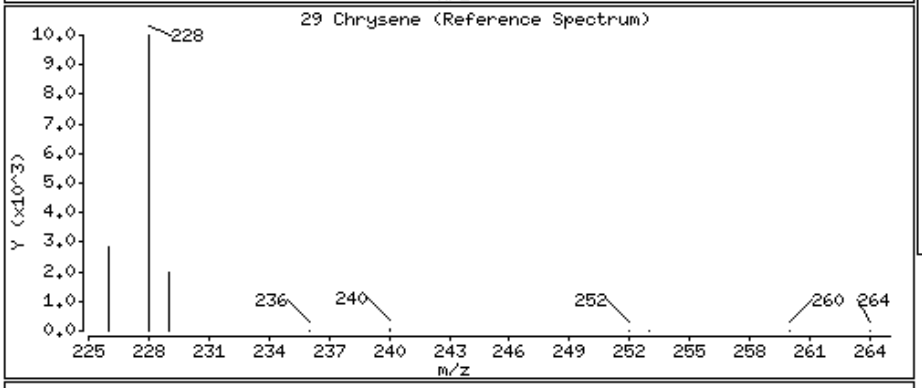
Concentration: 8.14 ng

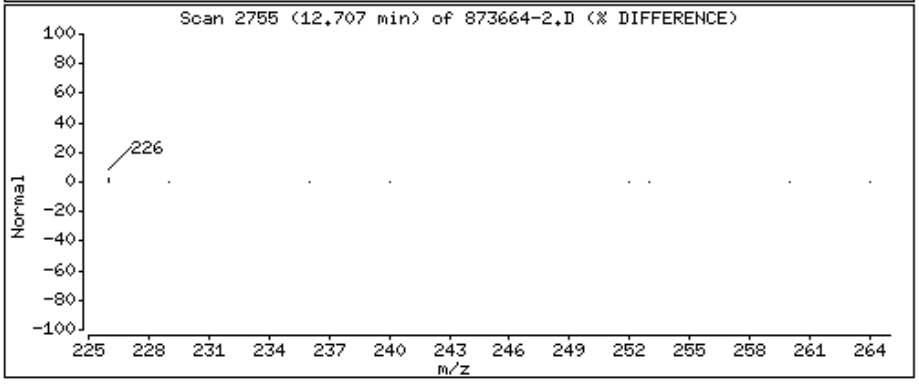












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

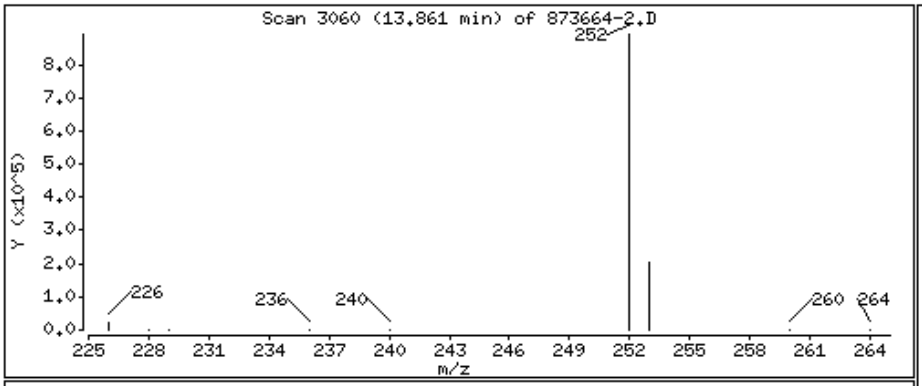
Operator: kv

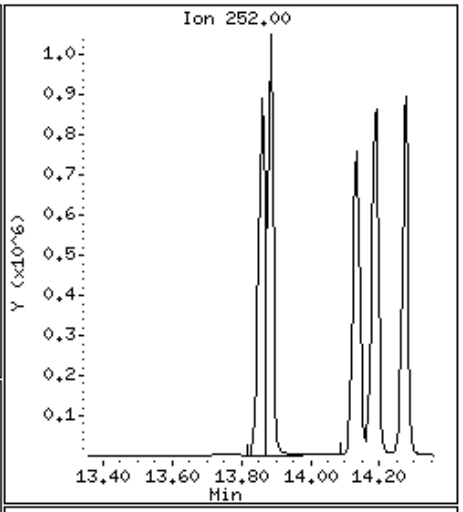
Column phase: RTx-5

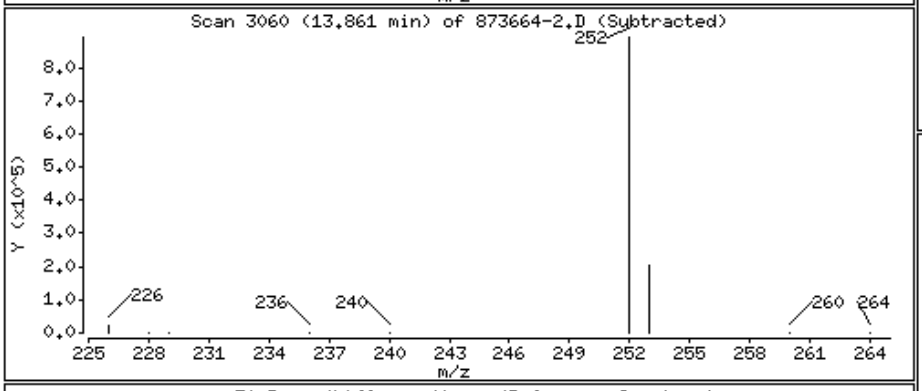
Column diameter: 0.32

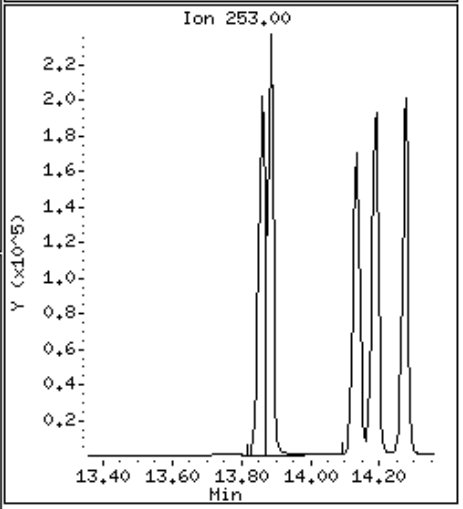
30 Benzo(b)fluoranthene

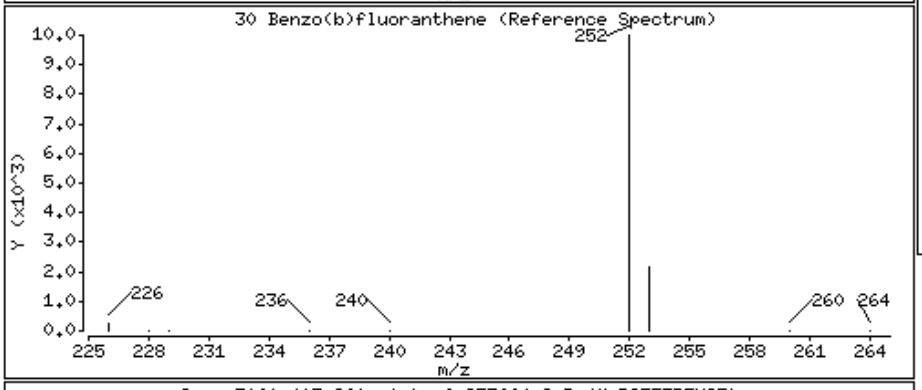
Concentration: 10.2 ng

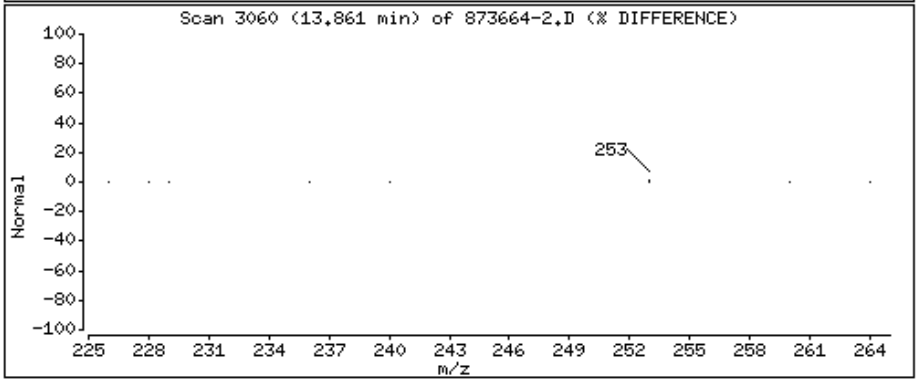












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

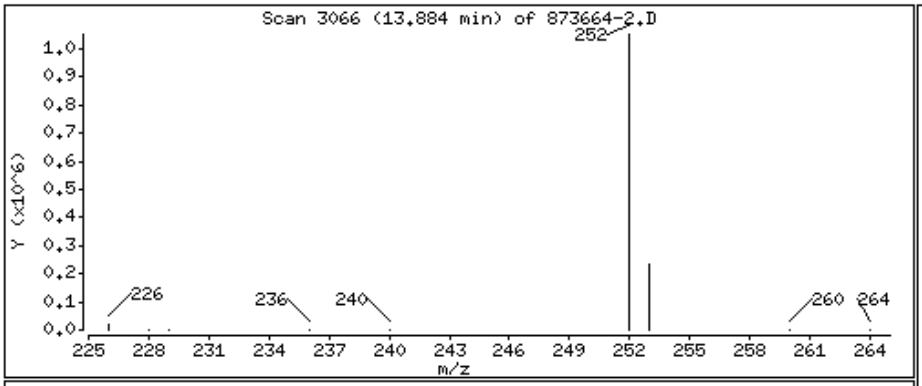
Operator: kv

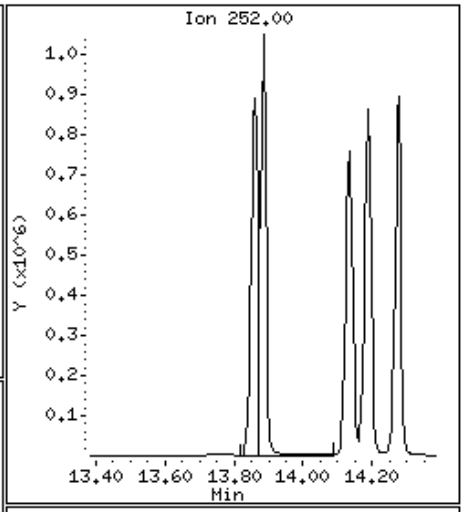
Column phase: RTx-5

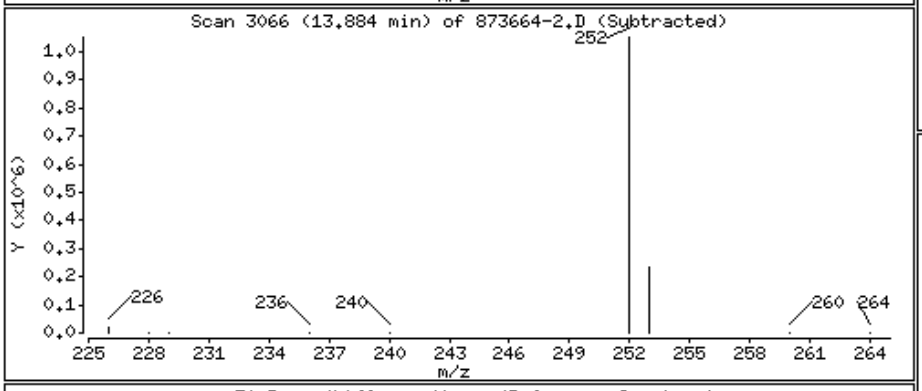
Column diameter: 0.32

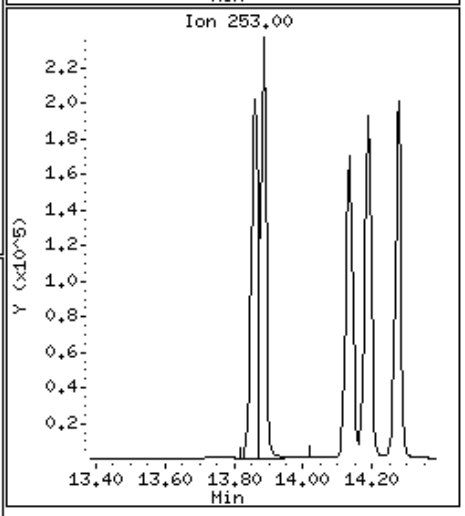
31 Benzo(k)fluoranthene

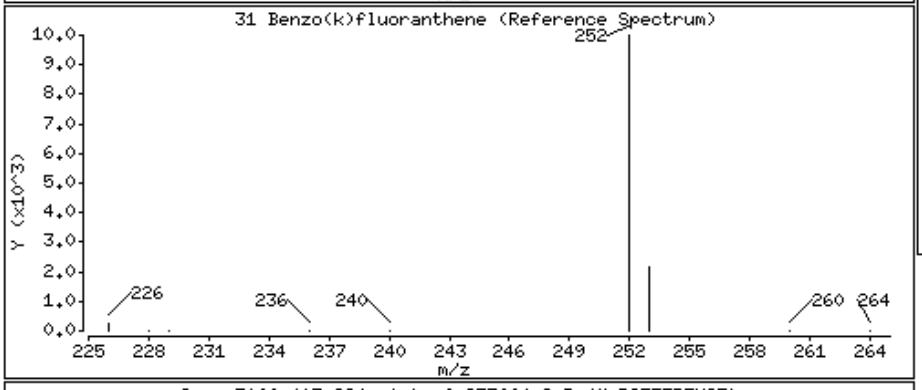
Concentration: 8.10 ng

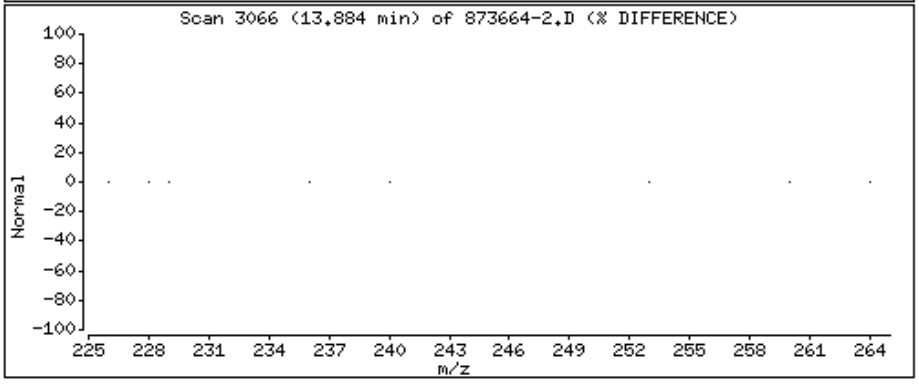












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

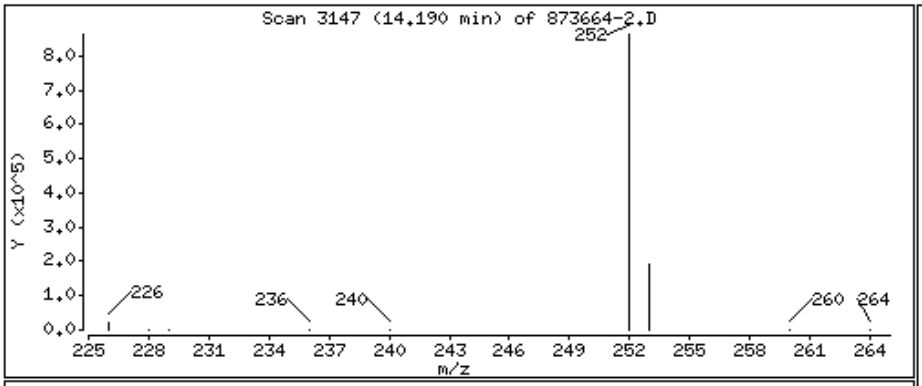
Operator: kv

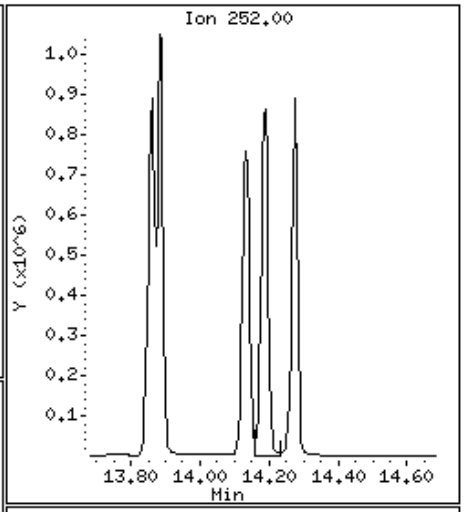
Column phase: RTx-5

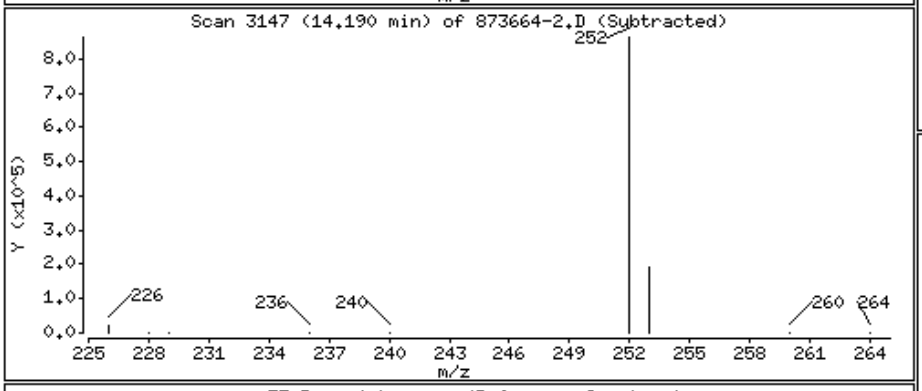
Column diameter: 0.32

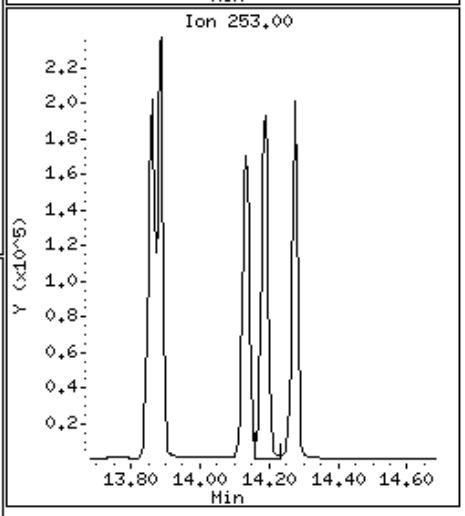
33 Benzo(a)pyrene

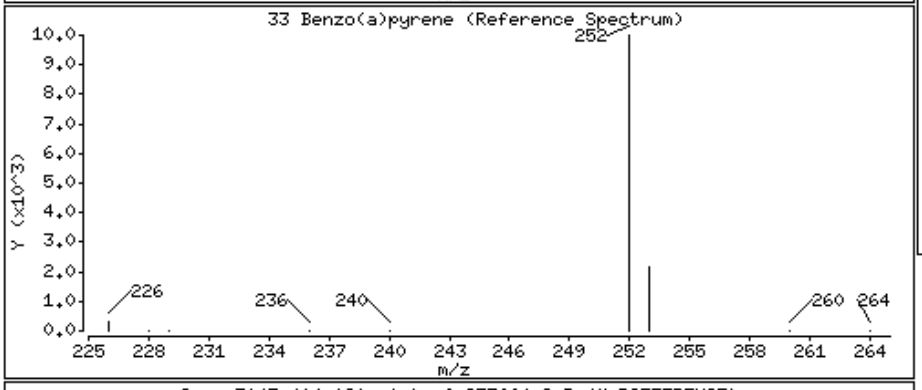
Concentration: 10.1 ng

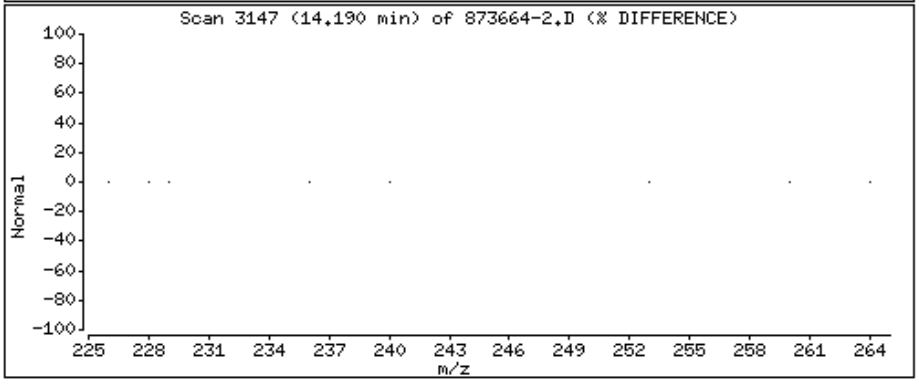












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

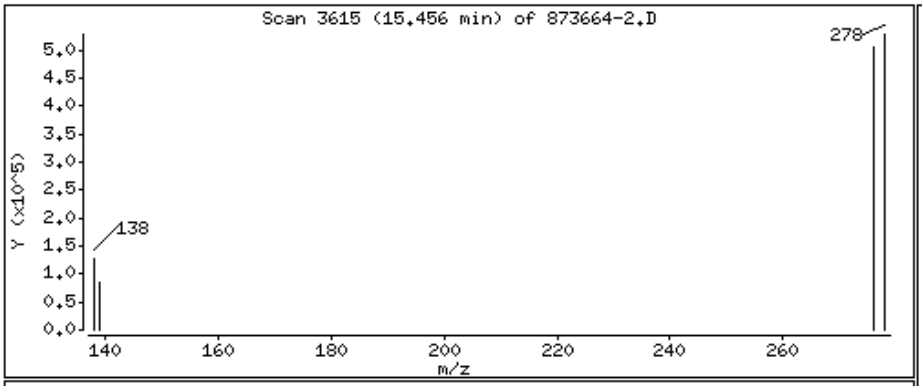
Operator: kv

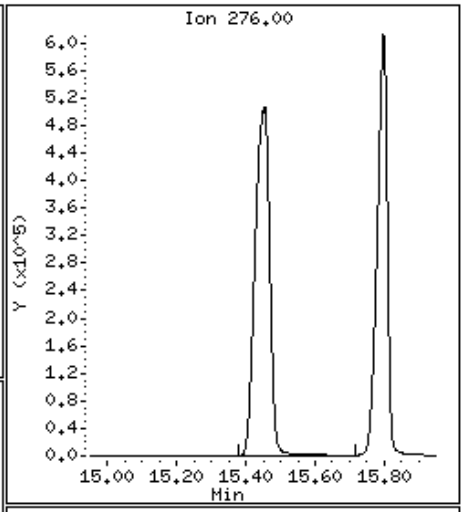
Column phase: RTx-5

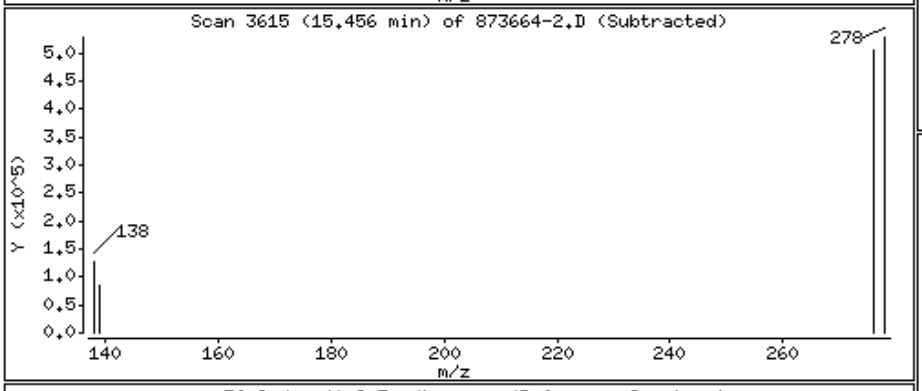
Column diameter: 0.32

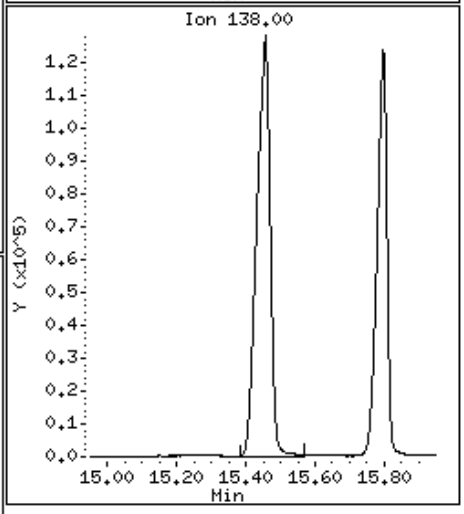
36 Indeno(1,2,3-cd)pyrene

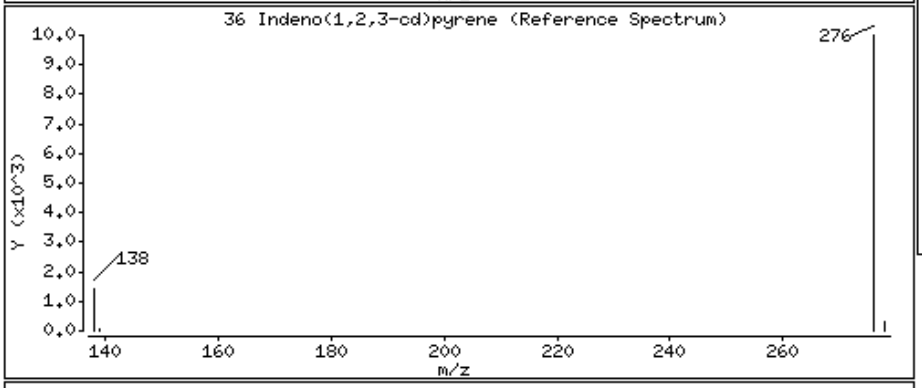
Concentration: 9.94 ng

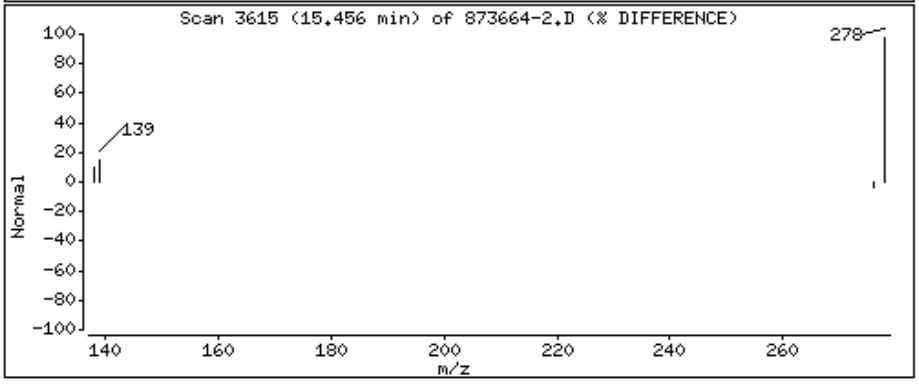












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ny,kv

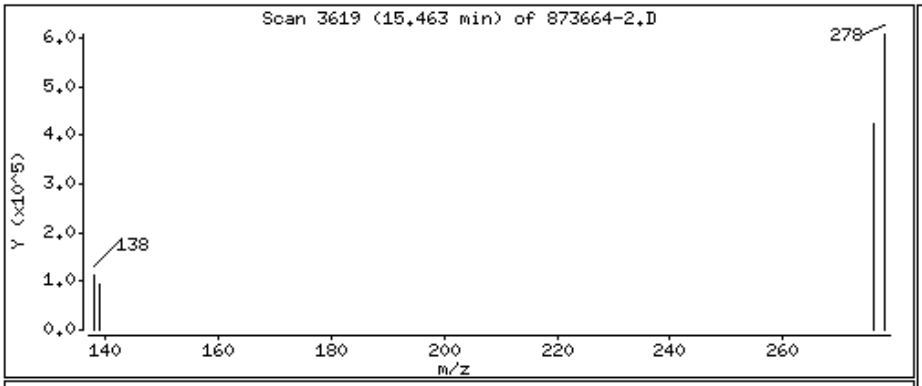
Operator: kv

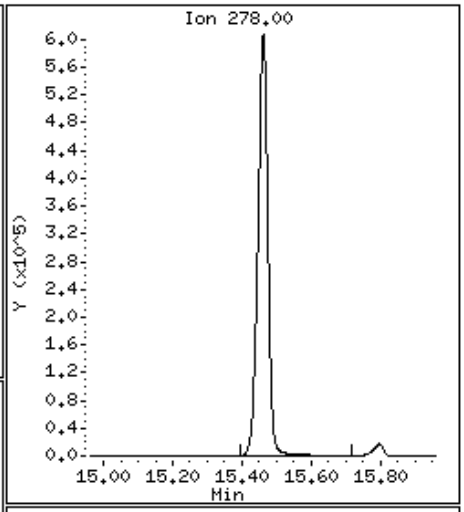
Column phase: RTx-5

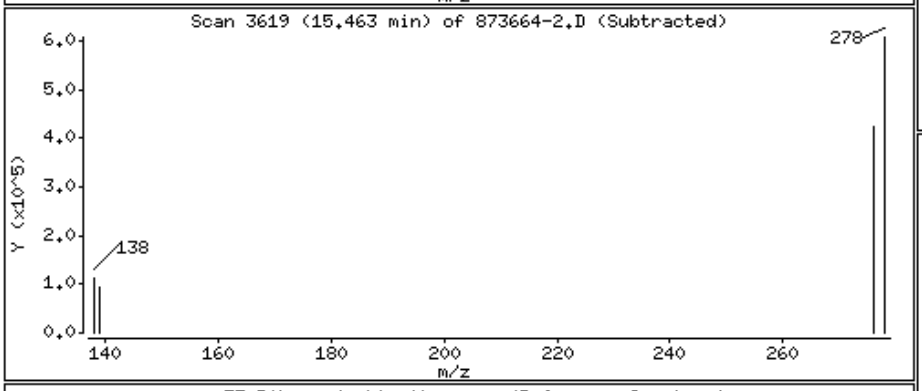
Column diameter: 0.32

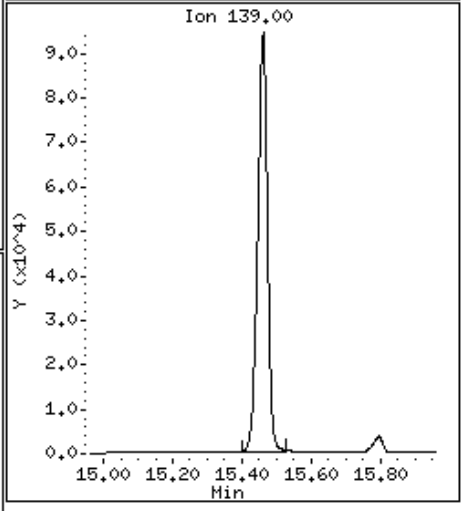
37 Dibenzo(a,h)anthracene

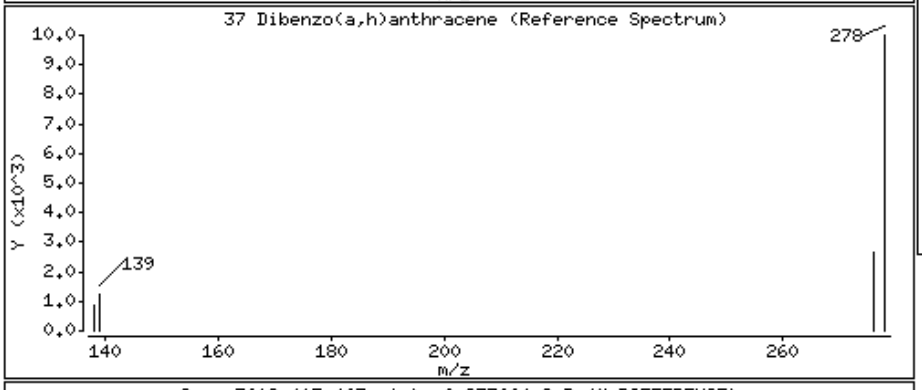
Concentration: 10.2 ng

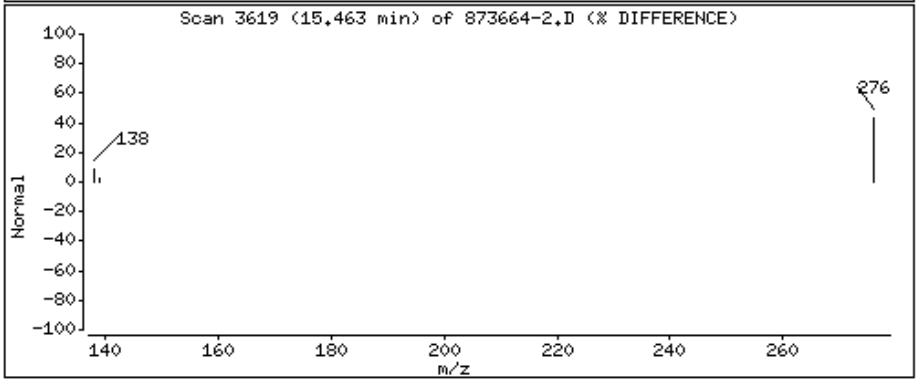












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-2.D

Date : 15-MAR-2016 07:43

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-2,32,ng,kv

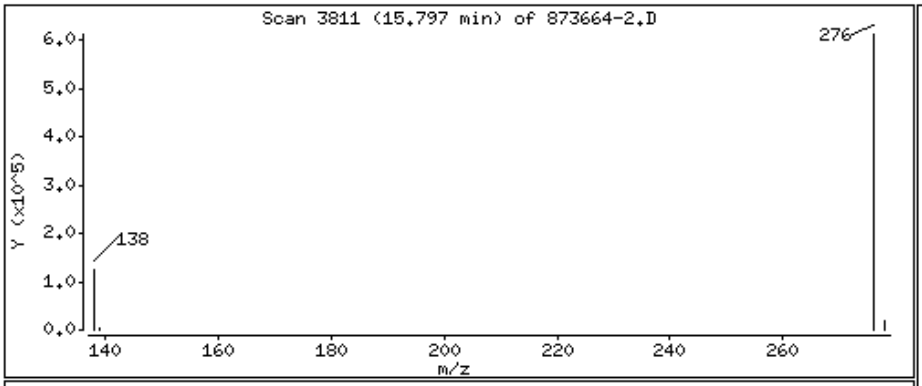
Operator: kv

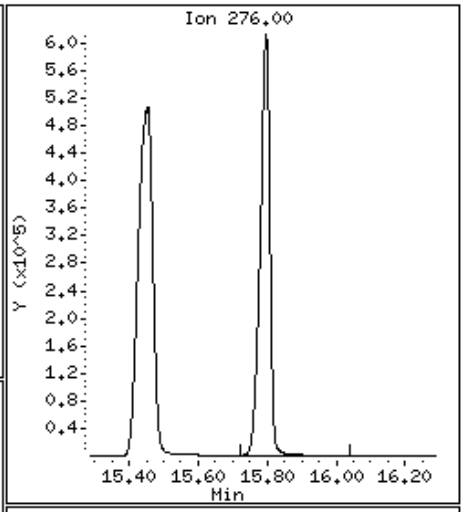
Column phase: RTx-5

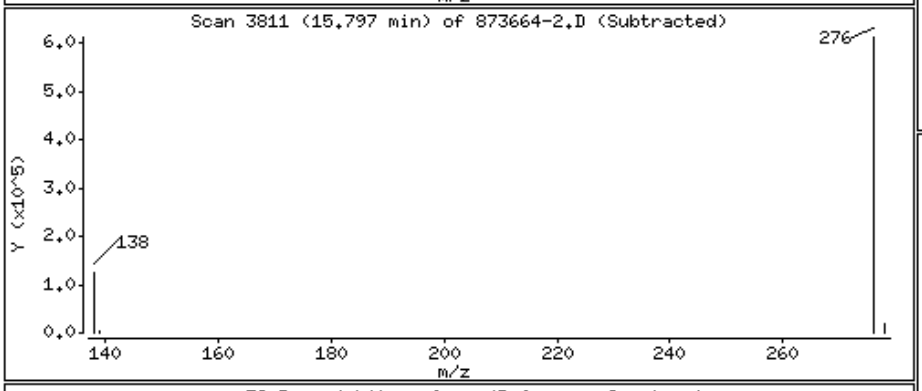
Column diameter: 0.32

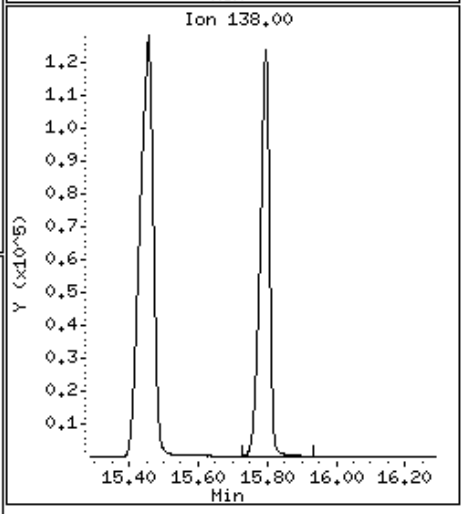
38 Benzo(ghi)perylene

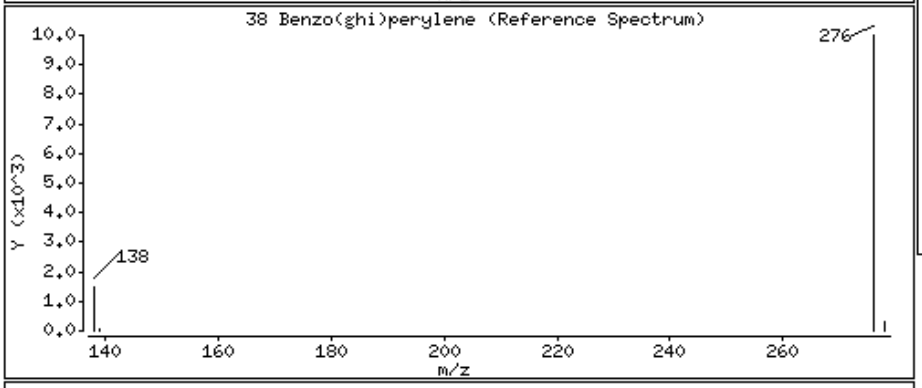
Concentration: 9.73 ng

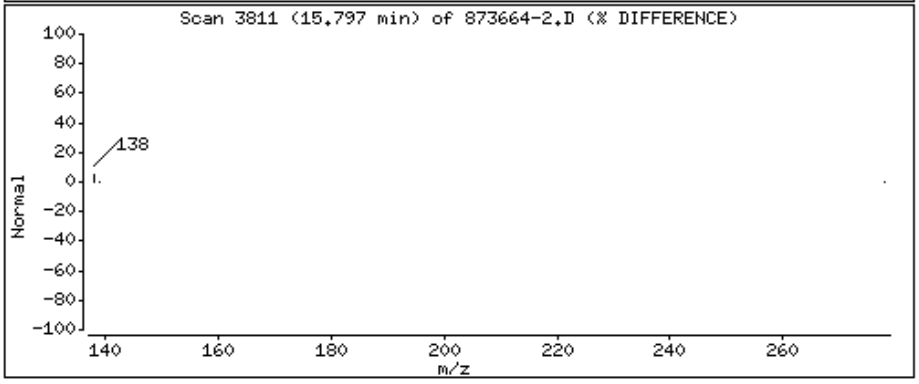












Alpha Analytical Labs

Manual Integration

Sample Info	:	wg873664-2,32,ny,kv wg873828, wg873664,ICAL11948	
Instrument ID	:	Mindy.i	
Method	:	8270D.m	
File	:	873664-2.D	
Injection Date	:	15-MAR-2016 07:43	
Quantitation	:	ISTD	Integrator : HP RTE
Dilution Factor	:	1.00	Sample Type: LCS

There are no manual integrations in this file.

Alpha Analytical Labs

GC/MS Semi - Quantitation Report

Data file : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D
Lab Smp Id:
Inj Date : 15-MAR-2016 08:08
Operator : kv Inst ID: Mindy.i
Smp Info : wg873664-3,32,ny,kv
Misc Info : wg873828, wg873664,ICAL11948
Comment : Splitless Injection - Aug 24th 2009 edits.
Method : \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Meth Date : 15-Mar-2016 08:39 kvitiello Quant Type: ISTD
Cal Date : 17-JAN-2016 08:51 Cal File: L10.D
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270nj-ny.sub
Target Version: 4.12
Processing Host: VIRTUALXP-78024

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	REVIEW CODE
$ 1	2-Fluorophenol	112	3.061	3.048	(0.761)	740928	21.4667	21.5	
$ 2	Phenol-d6	99	3.729	3.728	(0.927)	624587	15.1745	15.2	
* 3	1,4-Dichlorobenzene-d4	152	4.023	4.026	(1.000)	103507	4.00000		
4	Hexachloroethane	117	4.455	4.459	(1.107)	92439	6.68213	6.68	
$ 5	Nitrobenzene-d5	82	4.502	4.509	(1.119)	603961	17.8954	17.9	
* 6	Naphthalene-d8	136	5.153	5.156	(1.000)	406900	4.00000		
7	Naphthalene	128	5.174	5.174	(1.004)	744301	6.89474	6.89	
8	Hexachlorobutadiene	225	5.293	5.293	(1.027)	130664	7.65474	7.65	
9	2-Methylnaphthalene	142	5.826	5.828	(1.131)	539657	7.42890	7.43	
$ 11	2-Fluorobiphenyl	172	6.199	6.205	(1.203)	1691210	22.8804	22.9	
12	2-Chloronaphthalene	162	6.324	6.325	(1.227)	538355	8.07544	8.08	
13	Acenaphthylene	152	6.770	6.767	(1.314)	810704	7.98776	7.99	
* 14	Acenaphthene-d10	164	6.931	6.932	(1.000)	228027	4.00000		
15	Acenaphthene	153	6.968	6.965	(1.005)	556705	8.09950	8.10	
16	Fluorene	166	7.596	7.589	(1.096)	681210	9.25178	9.25	
$ 17	2,4,6-Tribromophenol	330	7.912	7.911	(1.141)	524246	65.2725	65.3	
18	Hexachlorobenzene	284	8.326	8.325	(0.942)	194017	9.06618	9.07	
19	Pentachlorophenol	266	8.619	8.612	(0.975)	96466	7.62331	7.62	
* 20	Phenanthrene-d10	188	8.840	8.839	(1.000)	421323	4.00000		
21	Phenanthrene	178	8.876	8.874	(1.004)	967052	8.24508	8.24	
22	Anthracene	178	8.946	8.945	(1.012)	958006	8.46289	8.46	
24	Fluoranthene	202	10.634	10.633	(1.203)	1074465	8.84899	8.85	
25	Pyrene	202	10.974	10.975	(1.241)	1102515	8.26549	8.26	
$ 26	4-Terphenyl-d14	244	11.270	11.287	(1.275)	1695852	23.1326	23.1	
27	Benzo(a)anthracene	228	12.661	12.662	(0.999)	1078863	8.21257	8.21	
* 28	Chrysene-d12	240	12.676	12.677	(1.000)	416867	4.00000		
29	Chrysene	228	12.706	12.707	(1.002)	1038475	7.85230	7.85	
30	Benzo(b)fluoranthene	252	13.857	13.857	(0.973)	1190653	10.1917	10.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)	REVIEW CODE
	31 Benzo(k)fluoranthene	252	13.883	13.884	(0.975)	1092660	7.42138	7.42(M)	M3
	33 Benzo(a)pyrene	252	14.186	14.183	(0.996)	1097255	9.61585	9.62	
*	34 Perylene-d12	264	14.246	14.243	(1.000)	415704	4.00000		
	36 Indeno(1,2,3-cd)pyrene	276	15.446	15.449	(1.084)	1353848	9.54427	9.54	
	37 Dibenzo(a,h)anthracene	278	15.462	15.461	(1.085)	1118713	9.78004	9.78	
	38 Benzo(ghi)perylene	276	15.794	15.788	(1.109)	1131752	9.34665	9.35	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Mindy.i
Lab File ID: 873664-3.D
Lab Smp Id:
Analysis Type: SV
Quant Type: ISTD
Operator: kv
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

Calibration Date: 15-MAR-2016
Calibration Time: 06:27
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 7

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	132999	66500	265998	103507	-22.17
6 Naphthalene-d8	510804	255402	1021608	406900	-20.34
14 Acenaphthene-d10	289729	144865	579458	228027	-21.30
20 Phenanthrene-d10	526097	263049	1052194	421323	-19.92
28 Chrysene-d12	514442	257221	1028884	416867	-18.97
34 Perylene-d12	513470	256735	1026940	415704	-19.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
3 1,4-Dichlorobenze	4.03	3.53	4.53	4.02	-0.09
6 Naphthalene-d8	5.16	4.66	5.66	5.15	-0.05
14 Acenaphthene-d10	6.93	6.43	7.43	6.93	-0.02
20 Phenanthrene-d10	8.84	8.34	9.34	8.84	0.01
28 Chrysene-d12	12.68	12.18	13.18	12.68	-0.01
34 Perylene-d12	14.24	13.74	14.74	14.25	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.

Alpha Analytical Labs

RECOVERY REPORT

Client Name: Client SDG: SDGa01132
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id:
Level: LOW Operator: kv
Data Type: MS DATA SampleType: LCS
SpikeList File: SIMLCS.spk Quant Type: ISTD
Sublist File: 8270nj-ny.sub
Method File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\8270D.m
Misc Info: wg873828, wg873664,ICAL11948

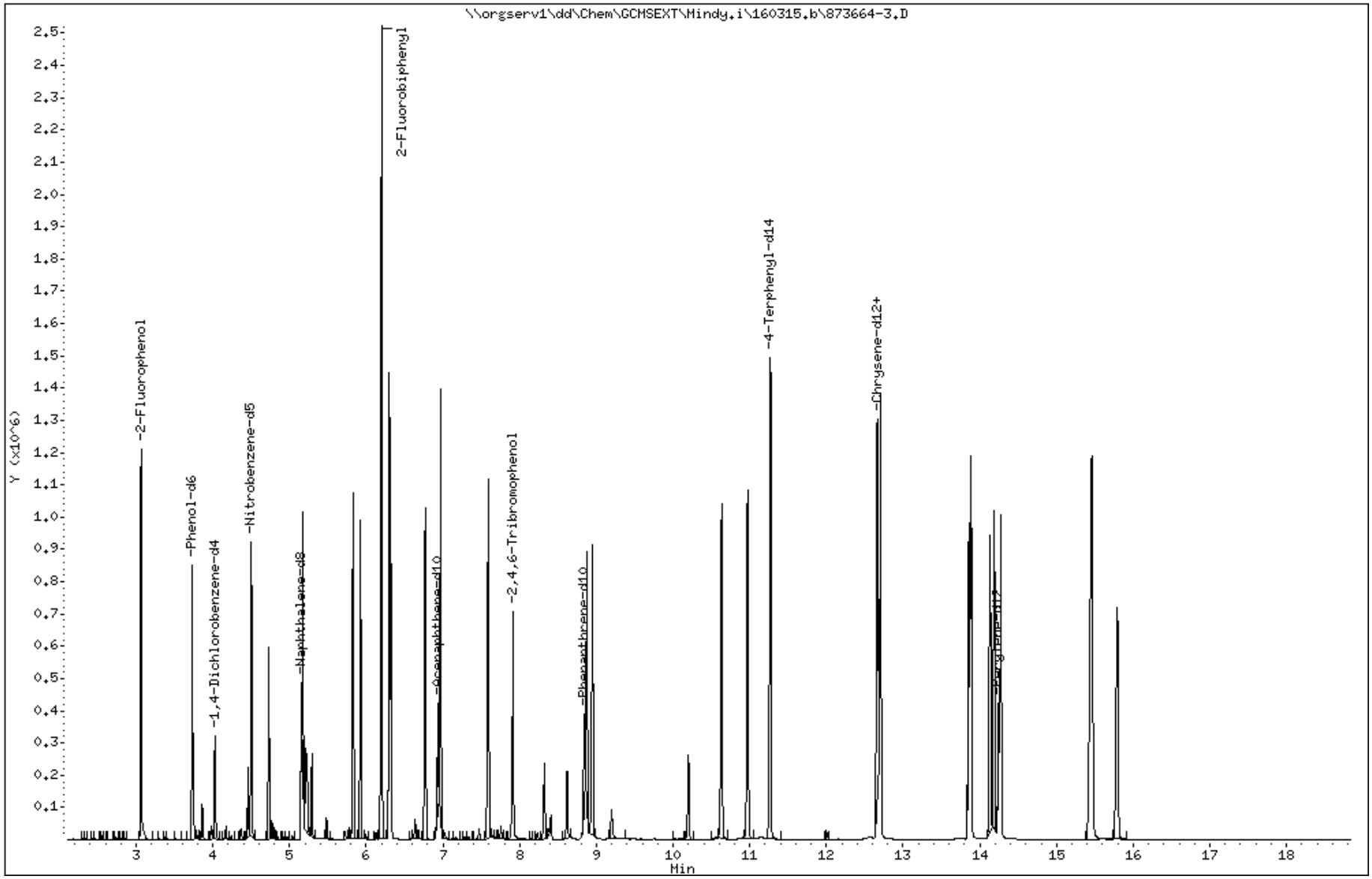
SPIKE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
4 Hexachloroethane	10.0	6.68	66.82	40-140
7 Naphthalene	10.0	6.89	68.95	40-140
8 Hexachlorobutadien	10.0	7.65	76.55	40-140
9 2-Methylnaphthalen	10.0	7.43	74.29	40-140
10 1-Methylnaphthale	10.0	0.000	*	40-140
12 2-Chloronaphthalen	10.0	8.08	80.75	40-140
13 Acenaphthylene	10.0	7.99	79.88	45-123
15 Acenaphthene	10.0	8.10	80.99	37-111
16 Fluorene	10.0	9.25	92.52	40-140
18 Hexachlorobenzene	10.0	9.07	90.66	40-140
19 Pentachlorophenol	10.0	7.62	76.23	9-103
21 Phenanthrene	10.0	8.24	82.45	40-140
22 Anthracene	10.0	8.46	84.63	40-140
24 Fluoranthene	10.0	8.85	88.49	40-140
25 Pyrene	10.0	8.26	82.65	35-127
27 Benzo(a)anthracene	10.0	8.21	82.13	40-140
29 Chrysene	10.0	7.85	78.52	40-140
30 Benzo(b)fluoranthe	10.0	10.2	101.92	40-140
31 Benzo(k)fluoranthe	10.0	7.42	74.21	40-140
33 Benzo(a)pyrene	10.0	9.62	96.16	40-140
36 Indeno(1,2,3-cd)py	10.0	9.54	95.44	40-140
37 Dibenzo(a,h)anthra	10.0	9.78	97.80	40-140
38 Benzo(ghi)perylene	10.0	9.35	93.47	40-140

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	50.0	21.5	42.93	21-120
$ 2 Phenol-d6	50.0	15.2	30.35	10-120
$ 5 Nitrobenzene-d5	25.0	17.9	71.58	23-120
$ 11 2-Fluorobiphenyl	25.0	22.9	91.52	15-120
$ 17 2,4,6-Tribromophen	50.0	65.3	130.55*	10-120
$ 26 4-Terphenyl-d14	25.0	23.1	92.53	33-120

Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D
Date : 15-MAR-2016 08:08
Client ID:
Sample Info: wg873664-3,32,ng,kv

Instrument: Mindy.i

Operator: kv
Column phase: RTx-5
Column diameter: 0.32



Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

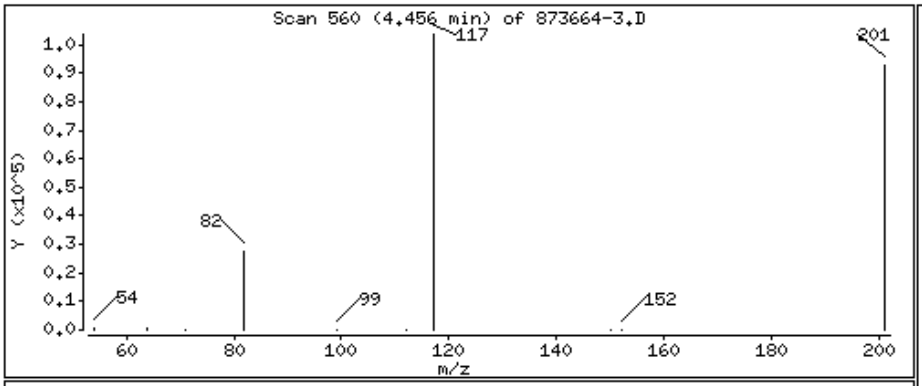
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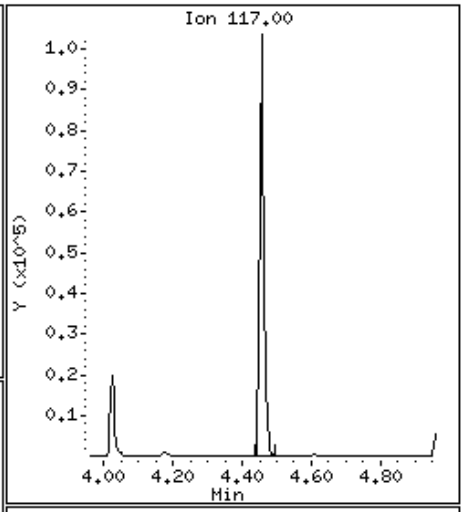
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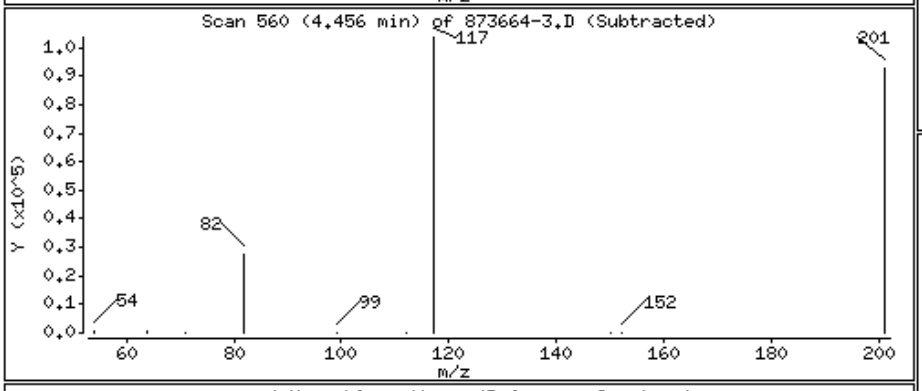
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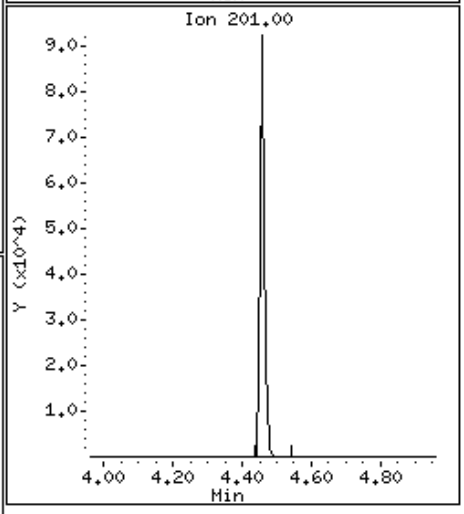
4 Hexachloroethane

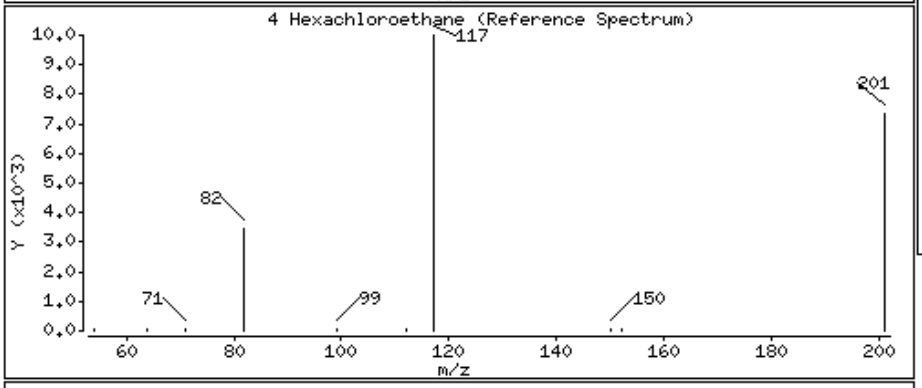
Concentration: 6.68 ng

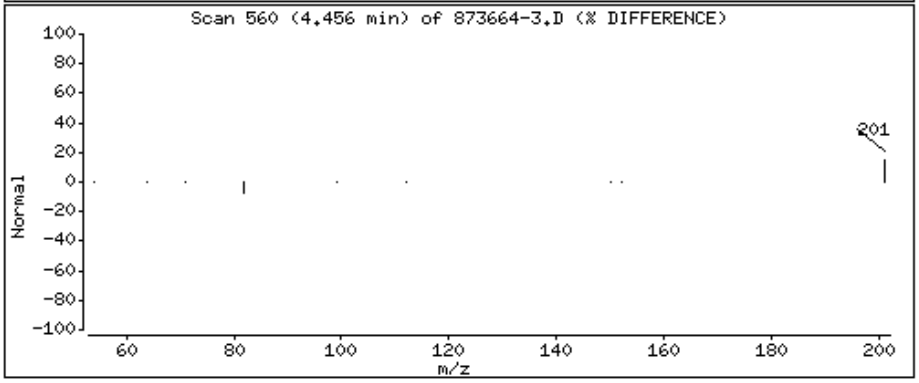












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ng,kv

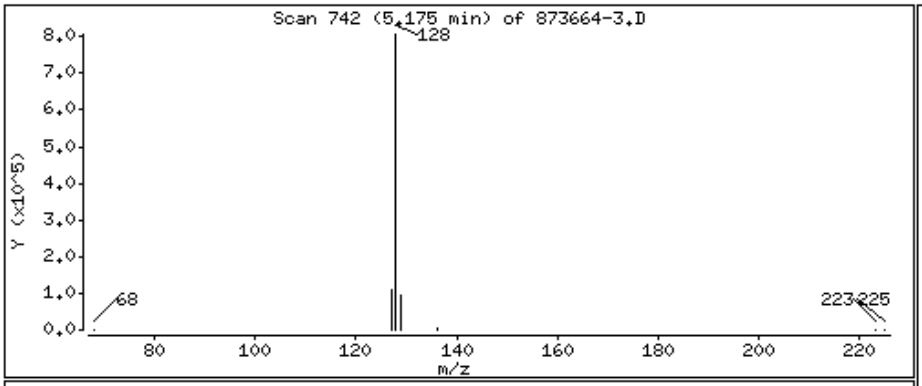
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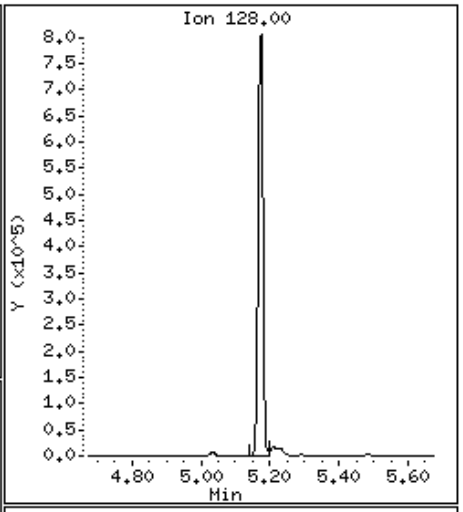
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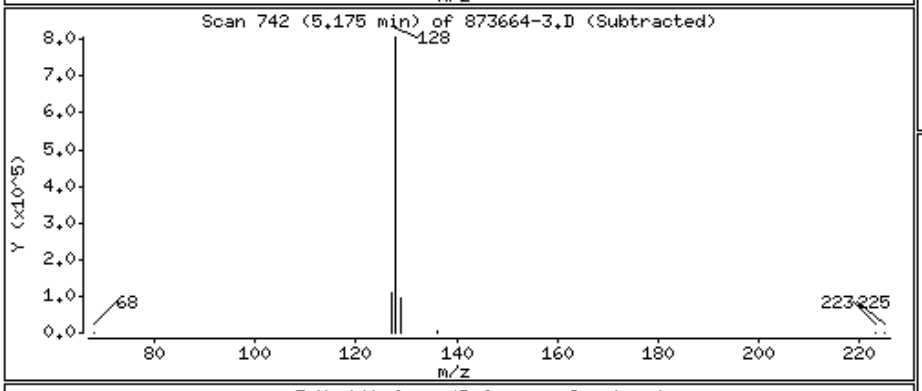
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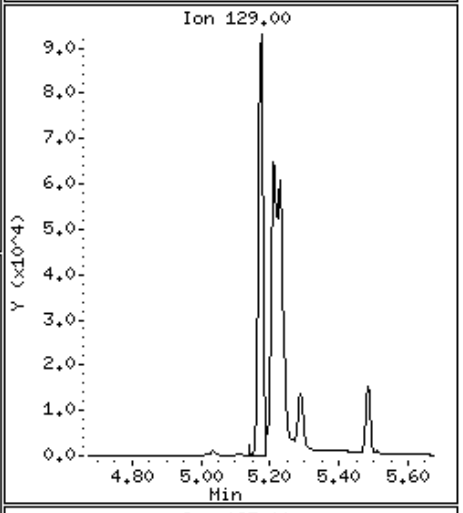
7 Naphthalene

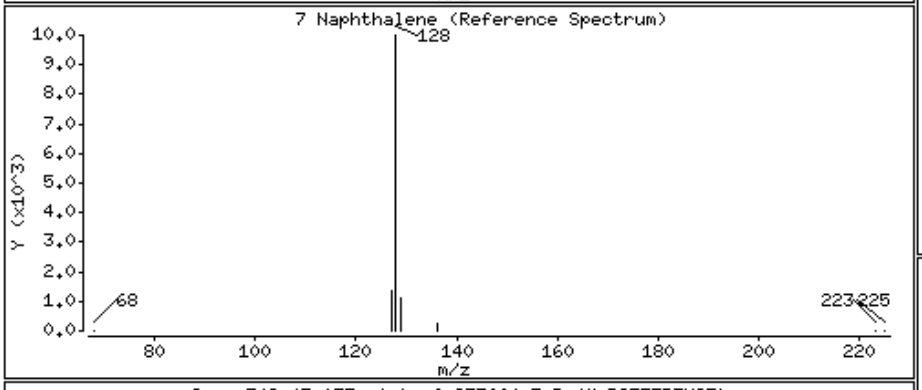
Concentration: 6.89 ng

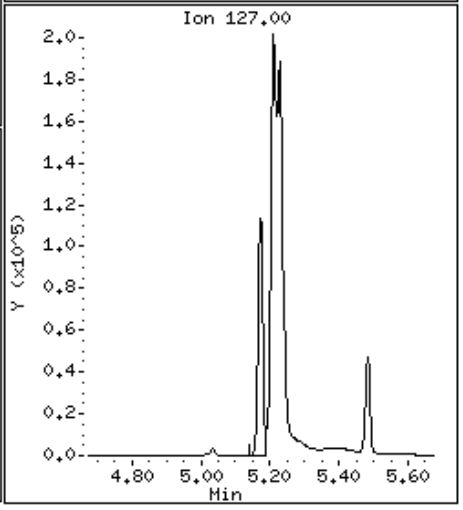


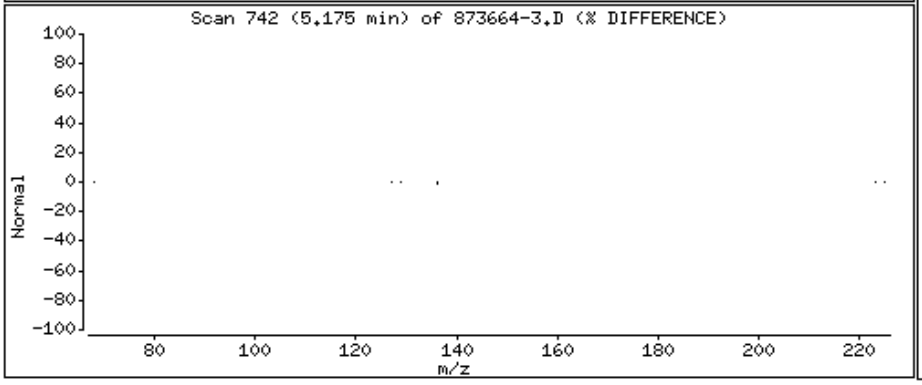












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ng,kv

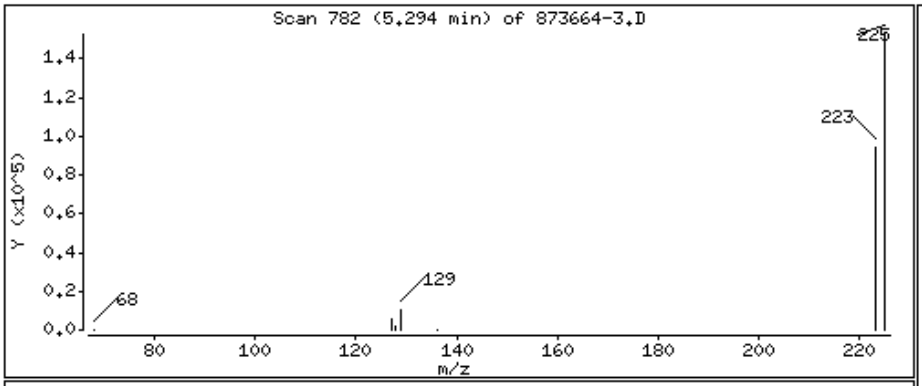
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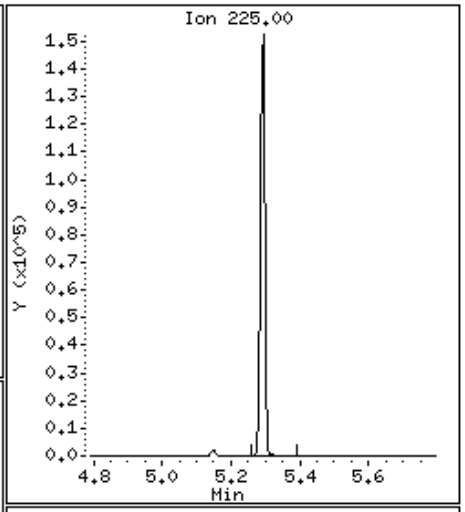
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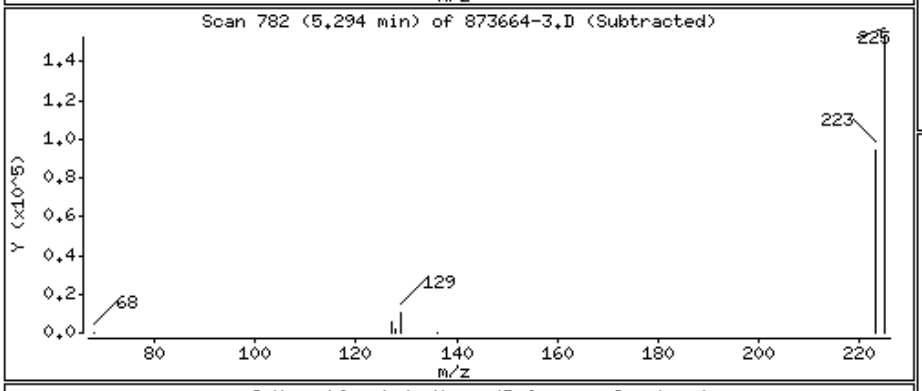
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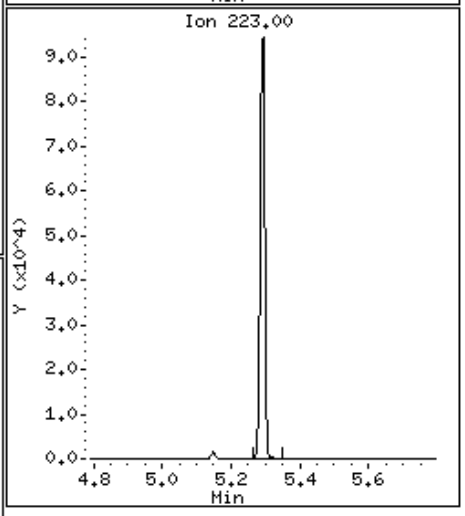
8 Hexachlorobutadiene

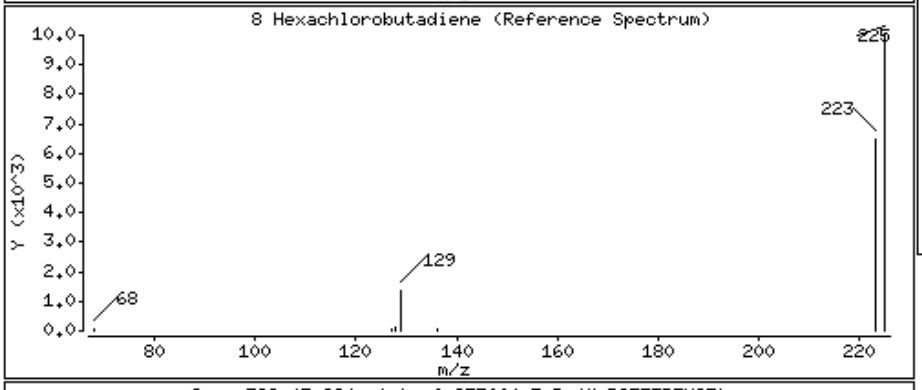
Concentration: 7.65 ng

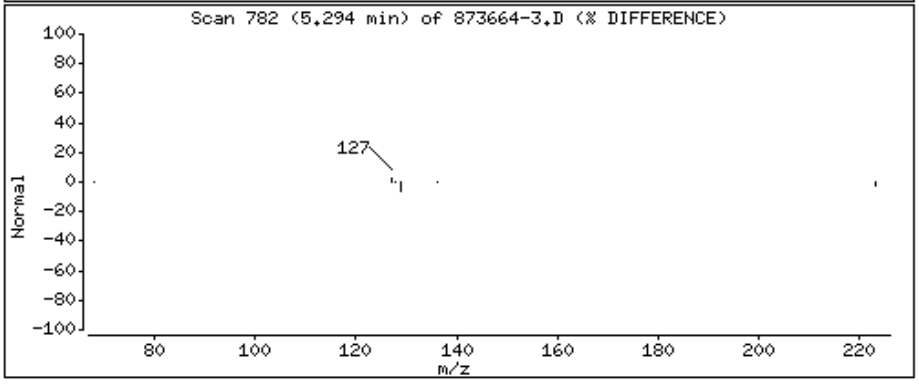












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

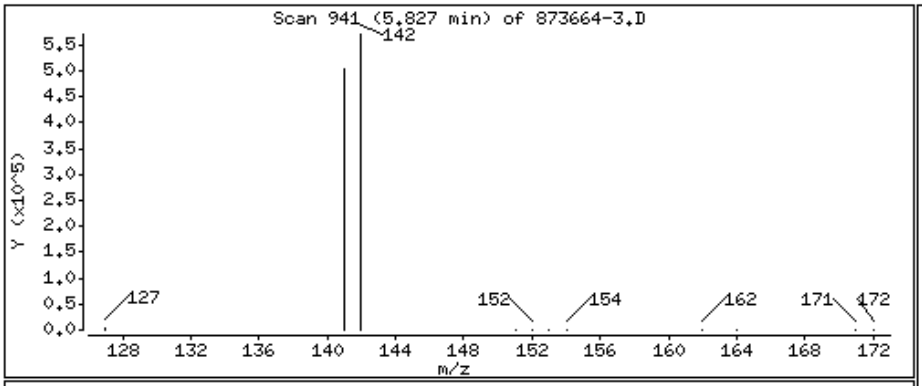
Operator: kv

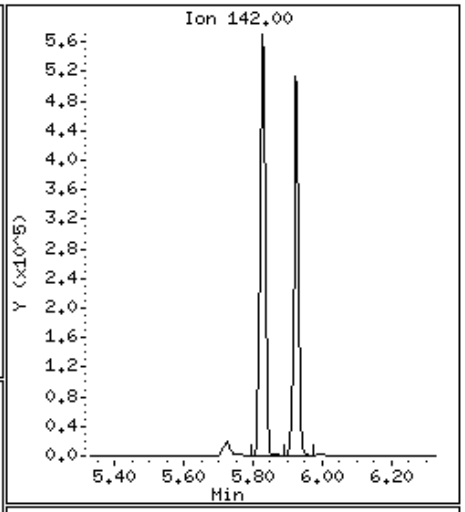
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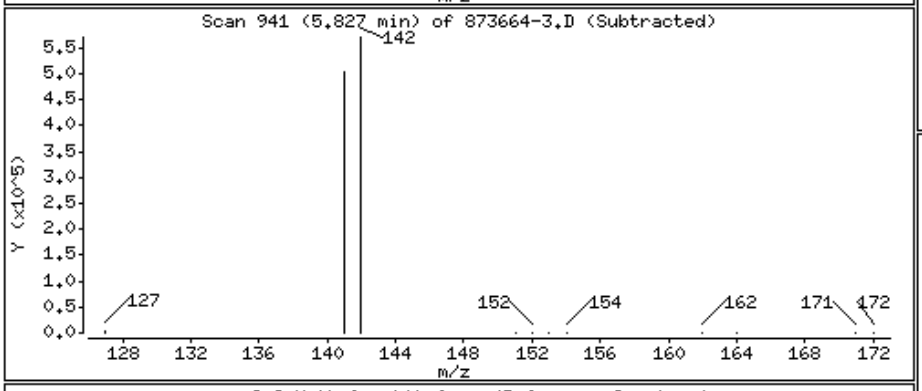
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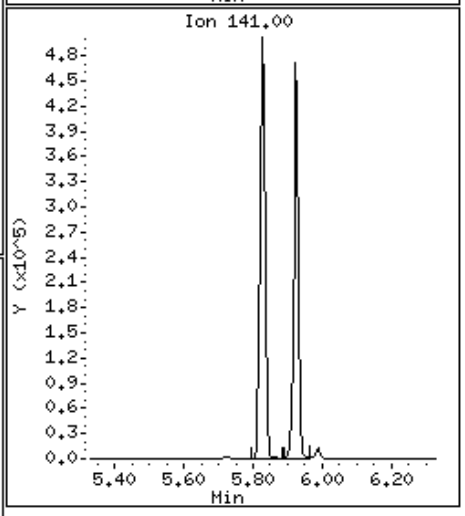
9 2-Methylnaphthalene

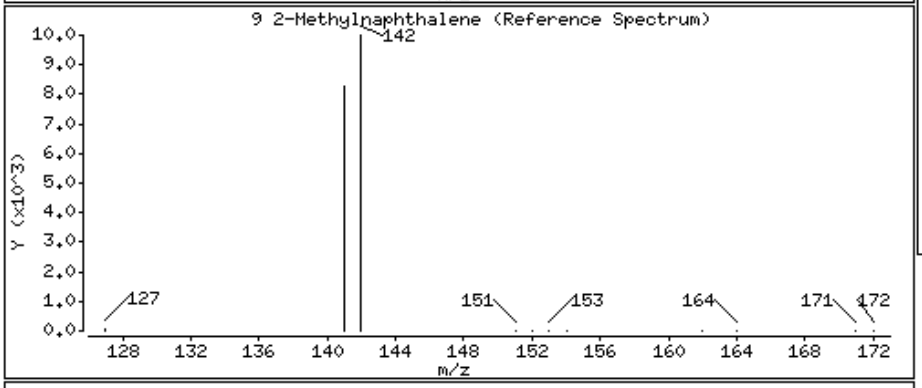
Concentration: 7.43 ng

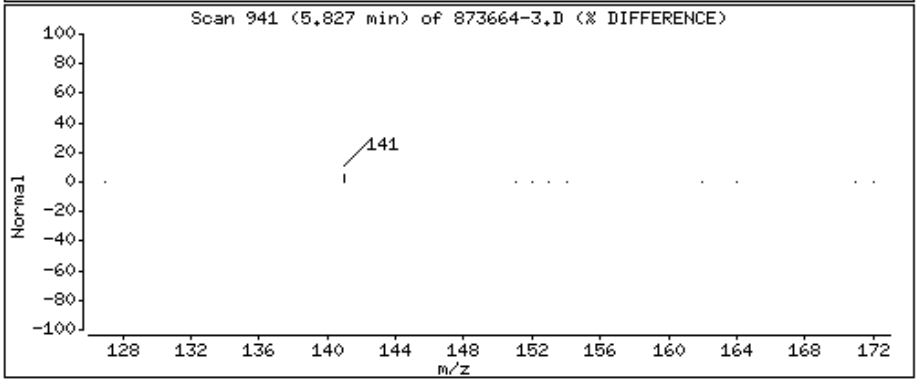












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

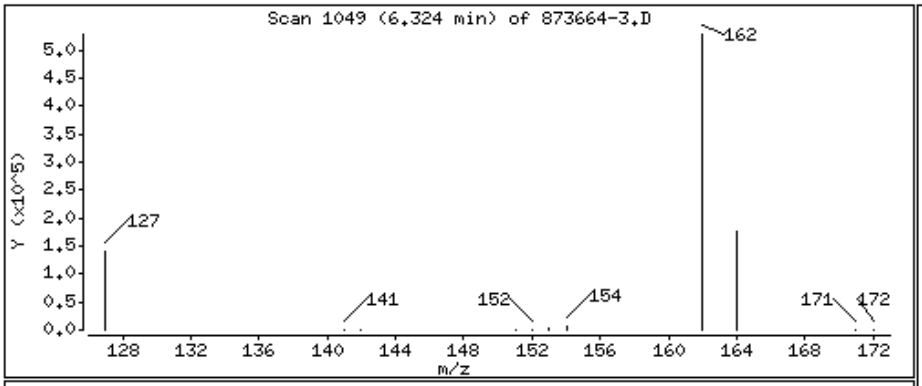
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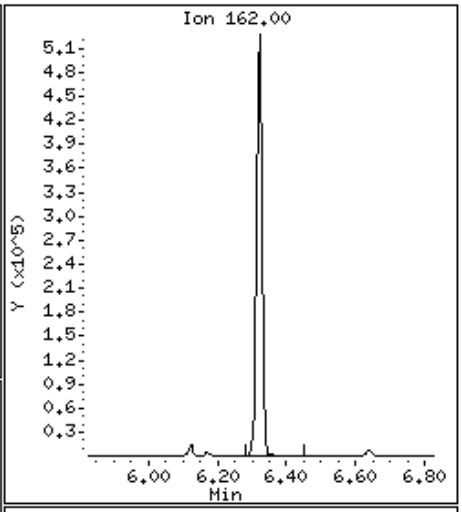
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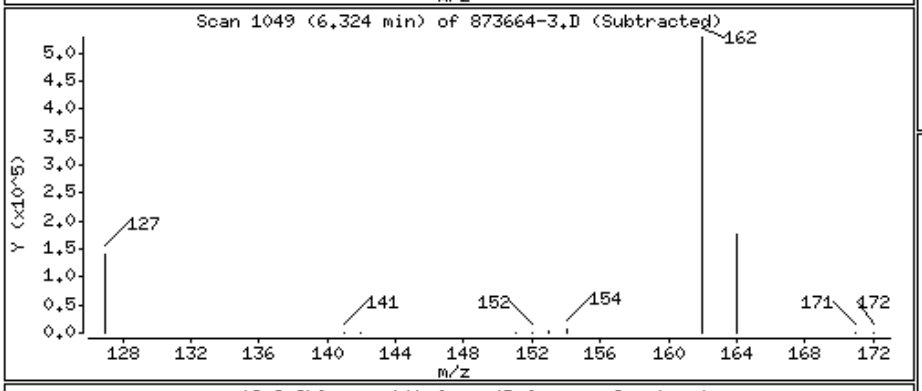
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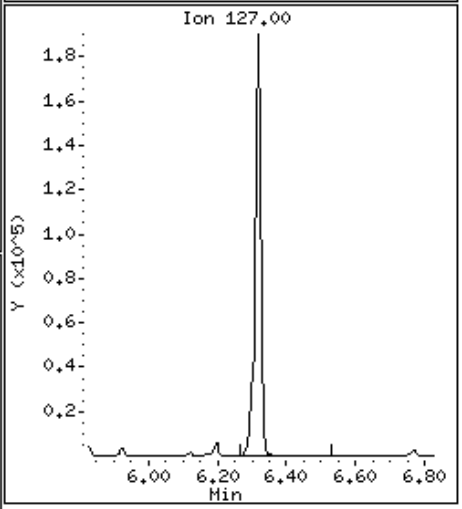
12 2-Chloronaphthalene

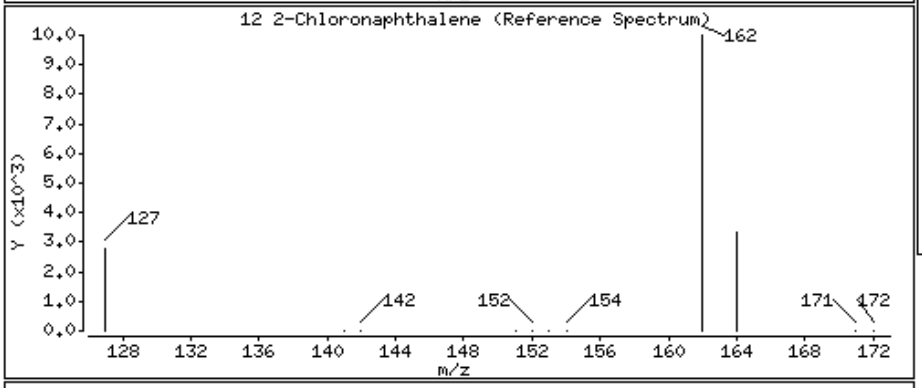
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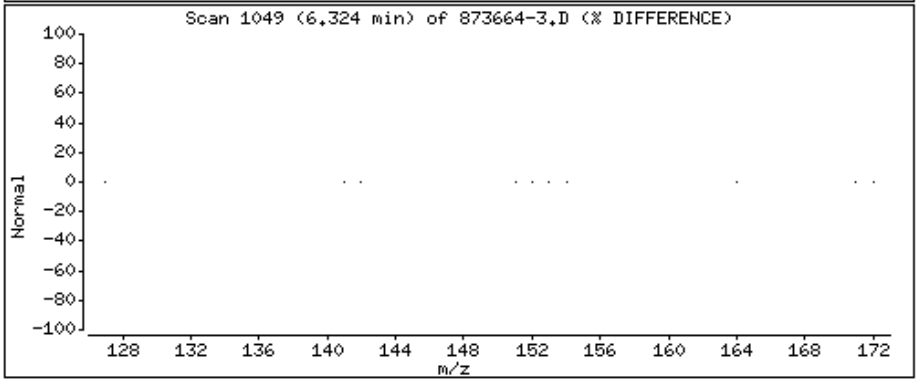












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

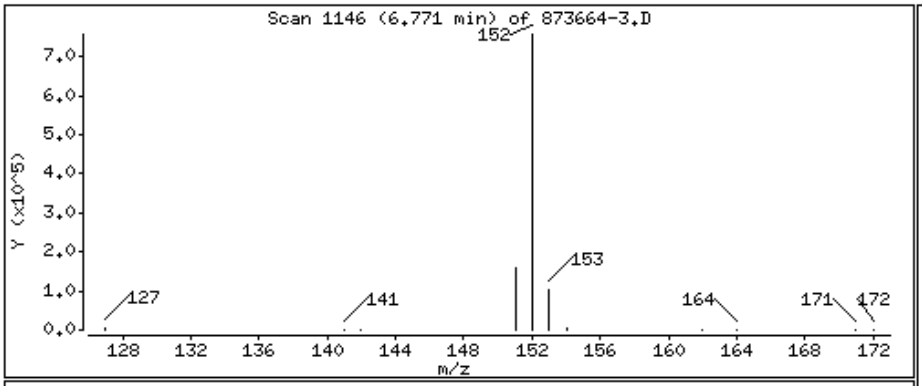
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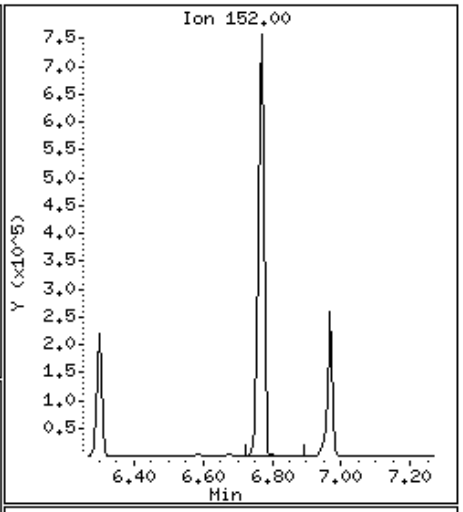
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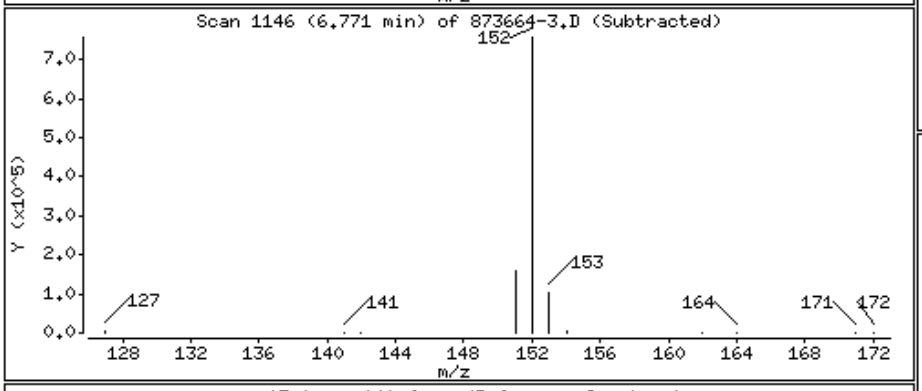
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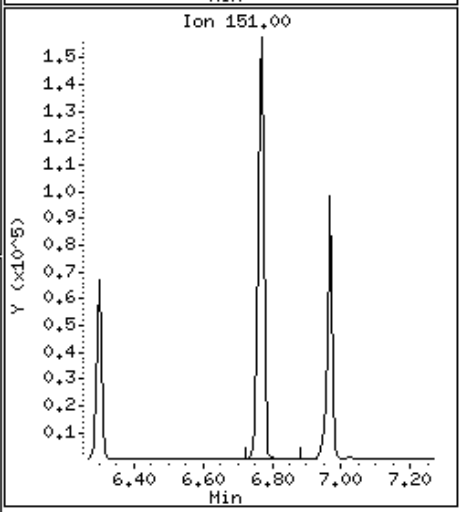
13 Acenaphthylene

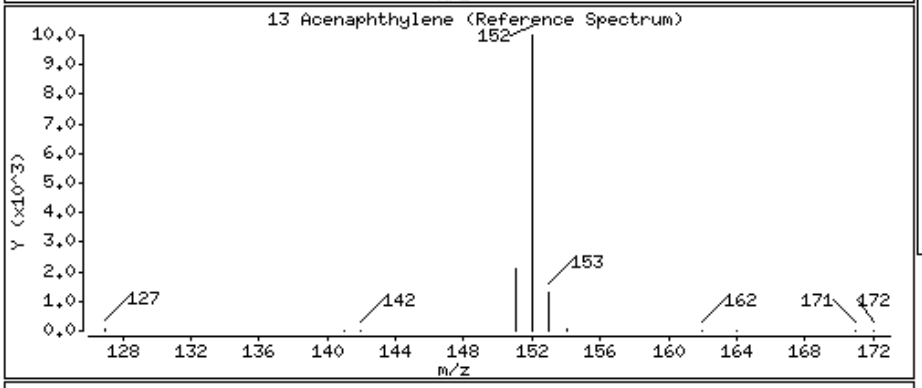
Concentration: 7.99 ng

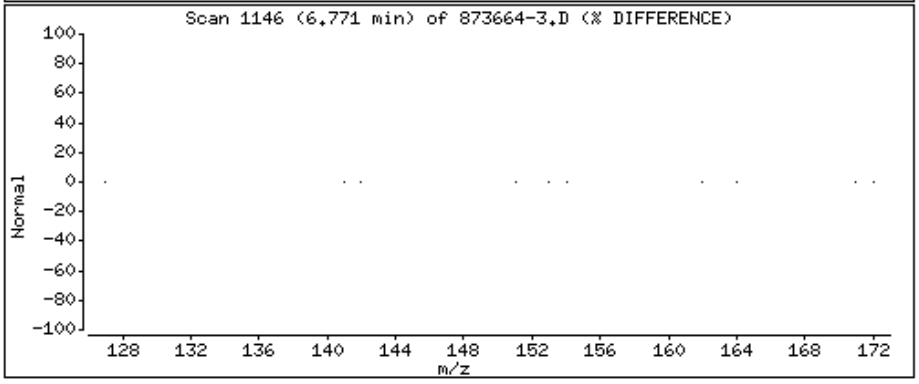












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

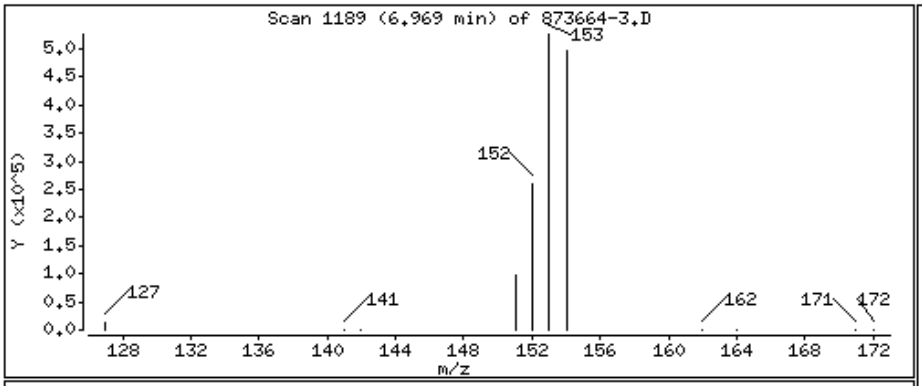
Operator: kv

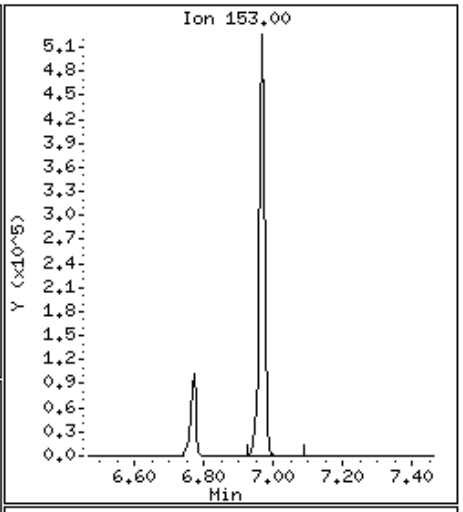
Column phase: RTx-5

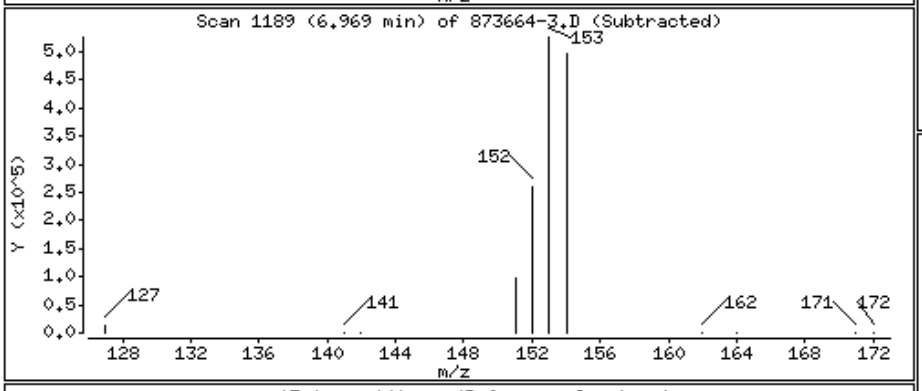
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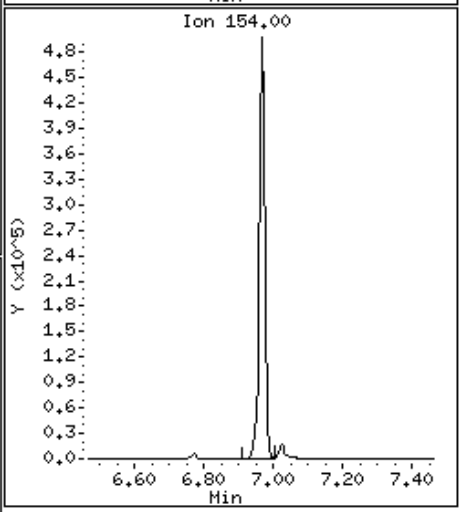
15 Acenaphthene

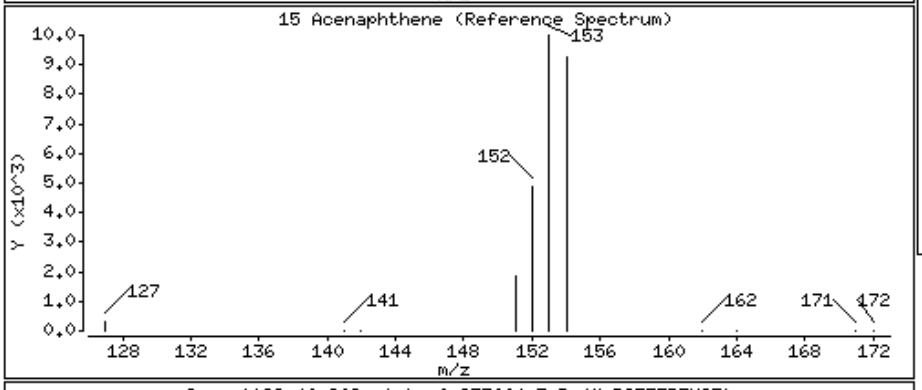
Concentration: 8.10 ng

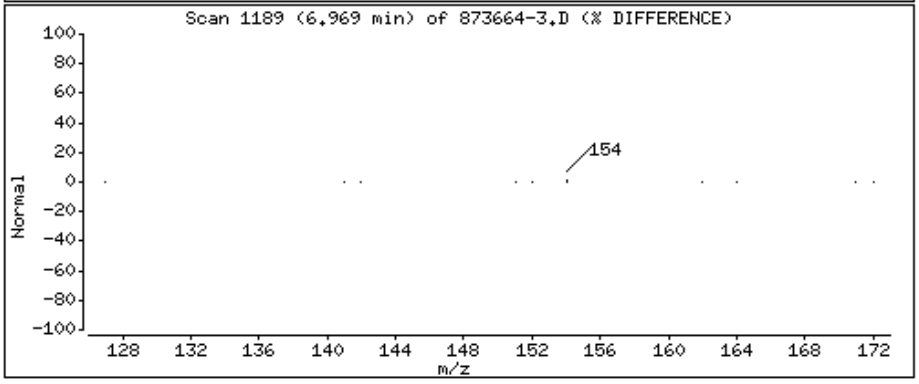












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

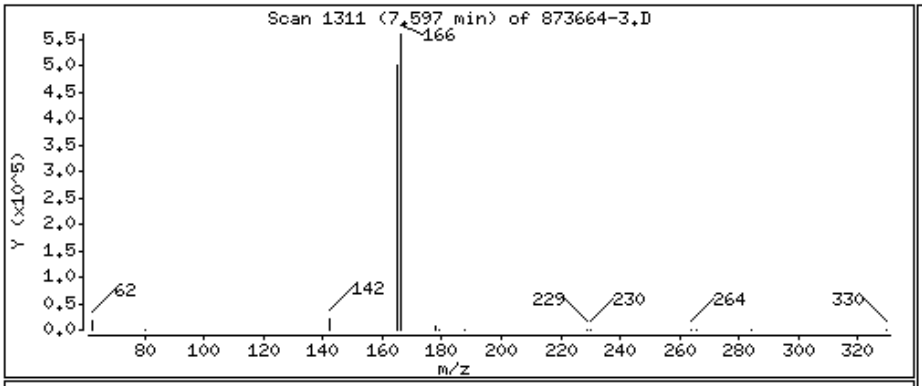
Operator: kv

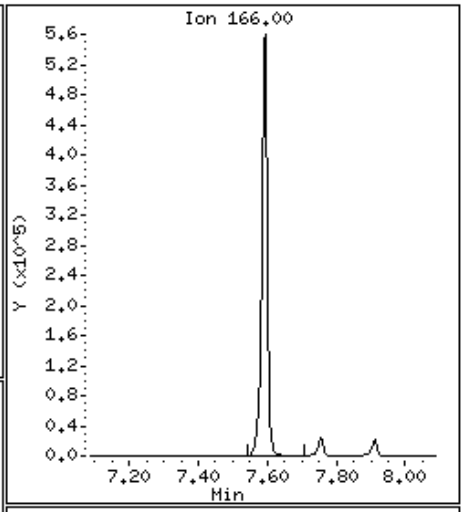
Column phase: RTx-5

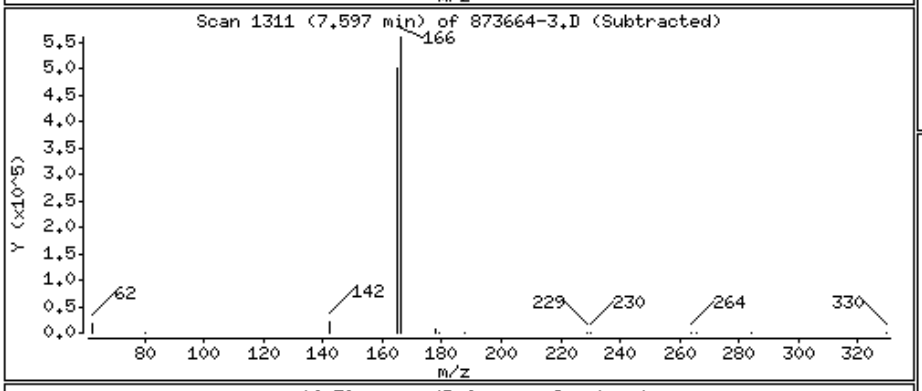
Column diameter: 0.32

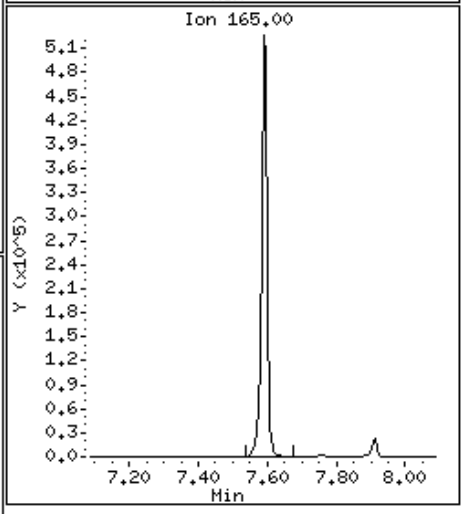
16 Fluorene

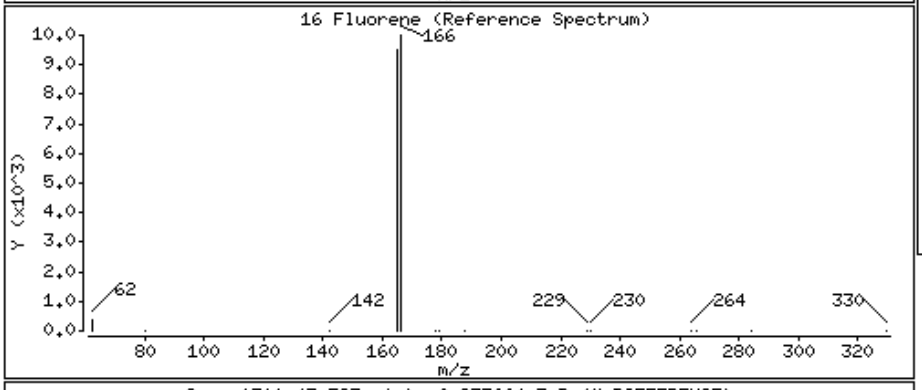
Concentration: 9.25 ng

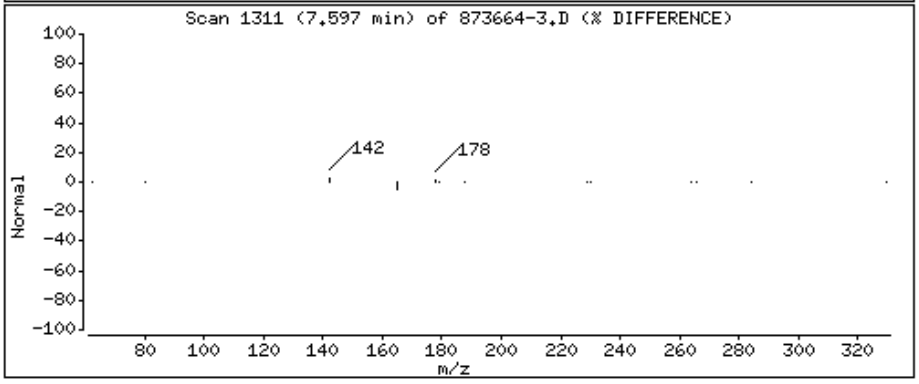












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

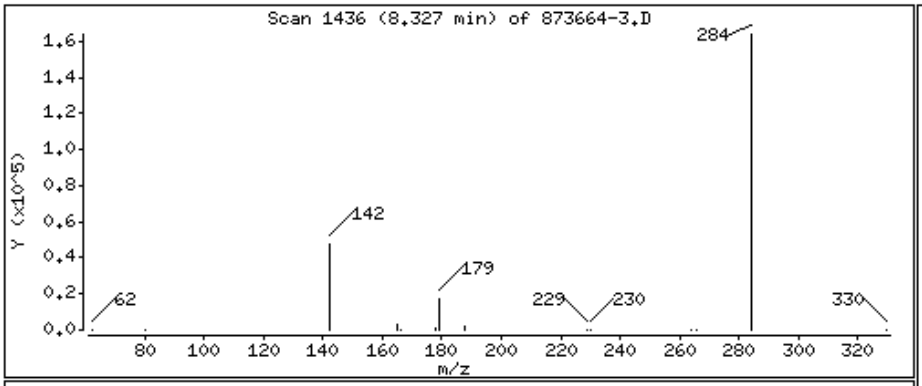
Operator: kv

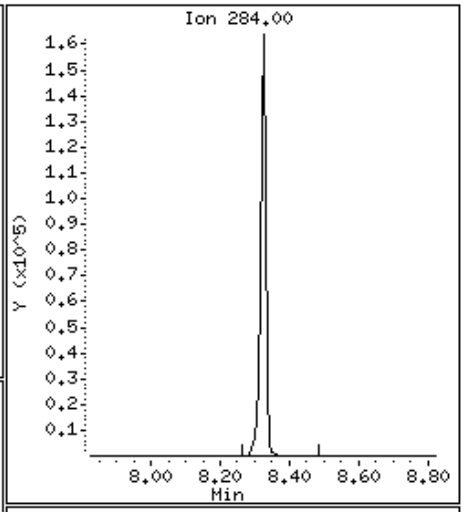
Column phase: RTx-5

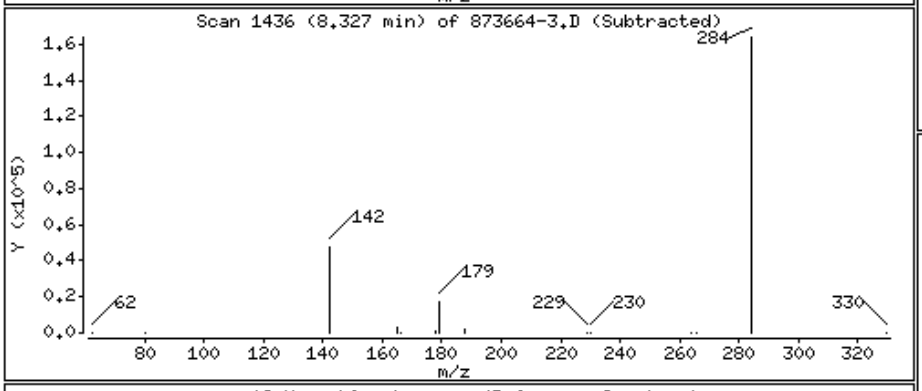
Column diameter: 0.32

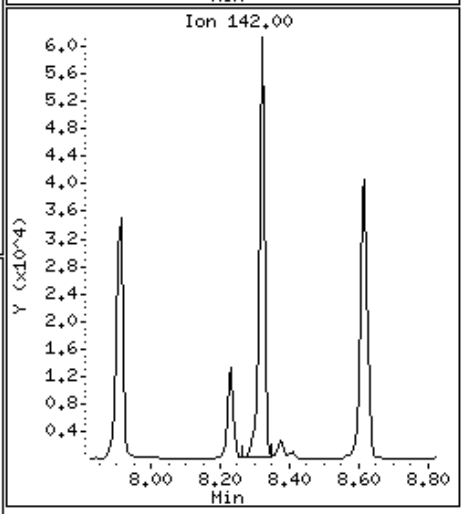
18 Hexachlorobenzene

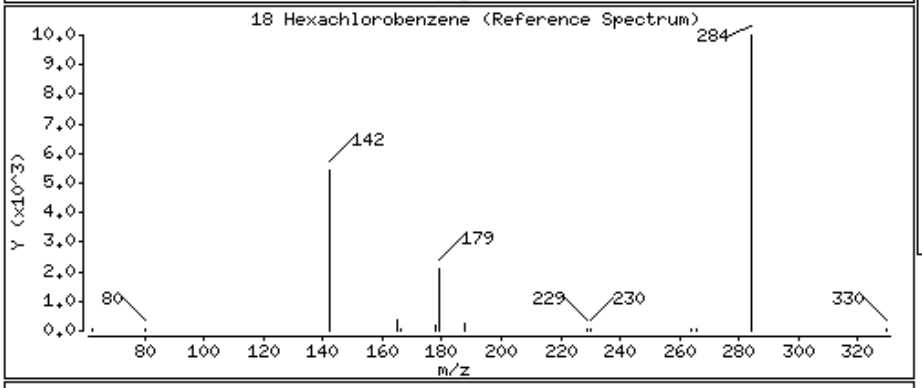
Concentration: 9.07 ng

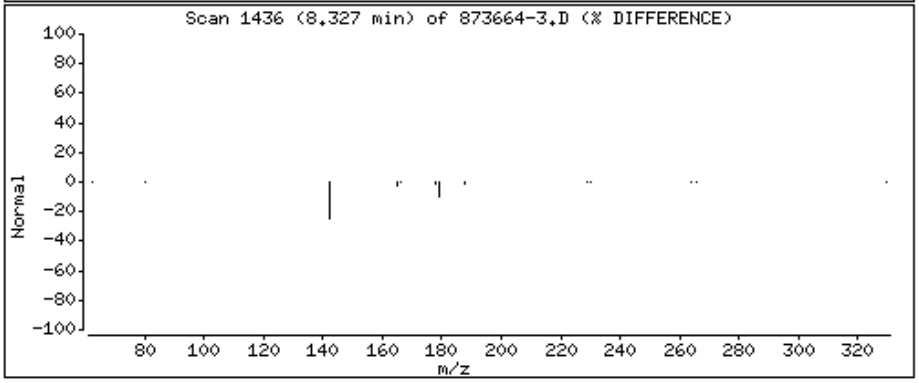












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

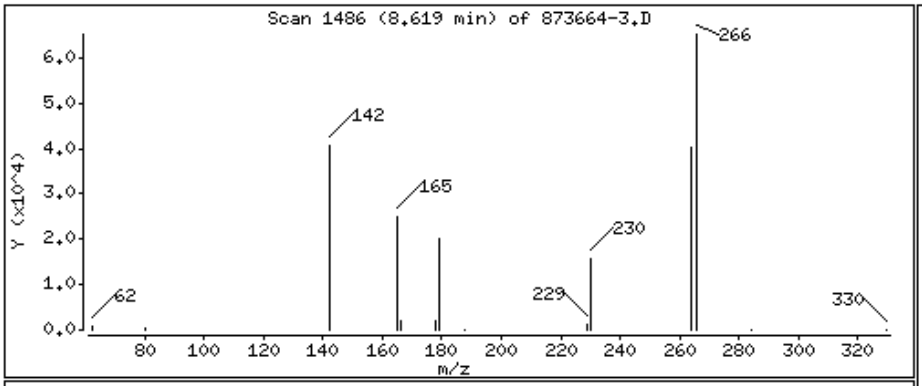
Operator: kv

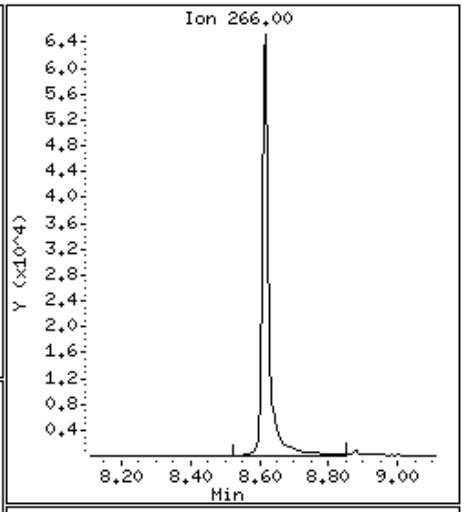
Column phase: RTx-5

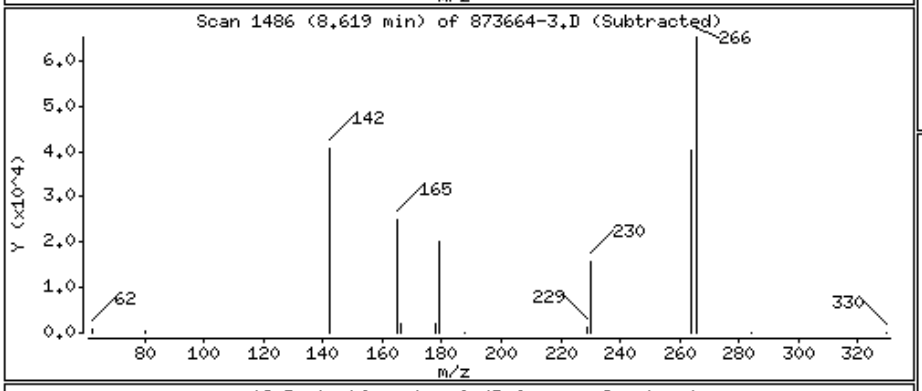
Column diameter: 0.32

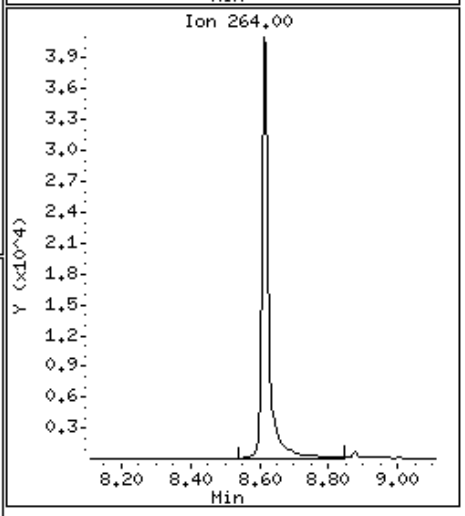
19 Pentachlorophenol

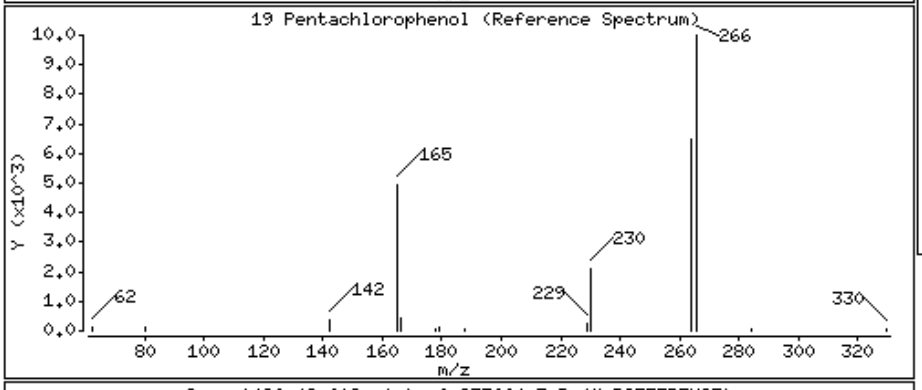
Concentration: 7.62 ng

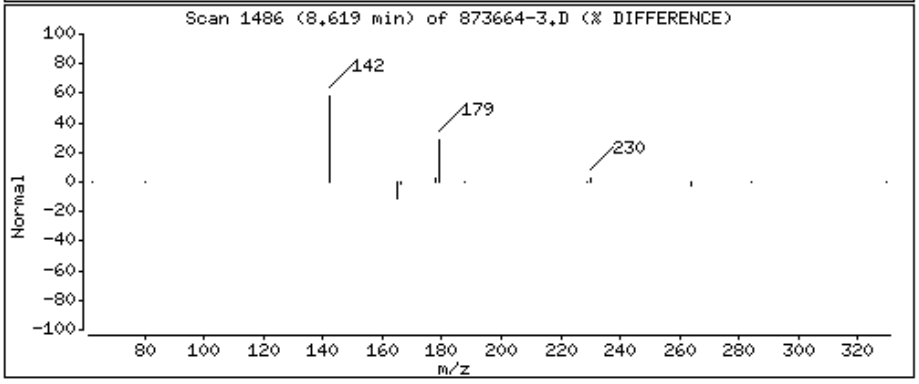












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

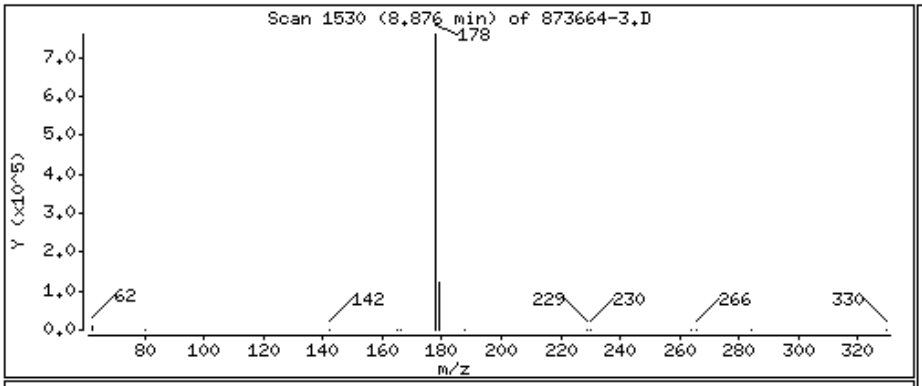
Operator: kv

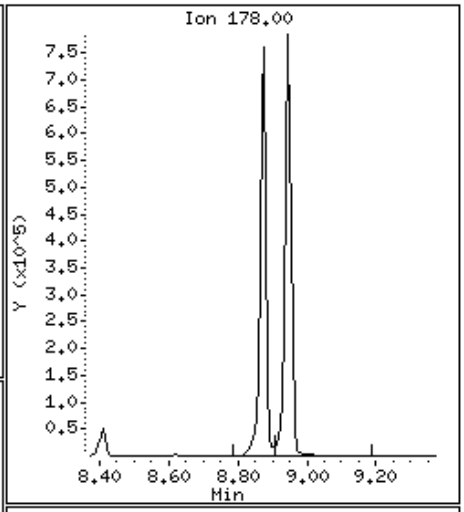
Column phase: RTx-5

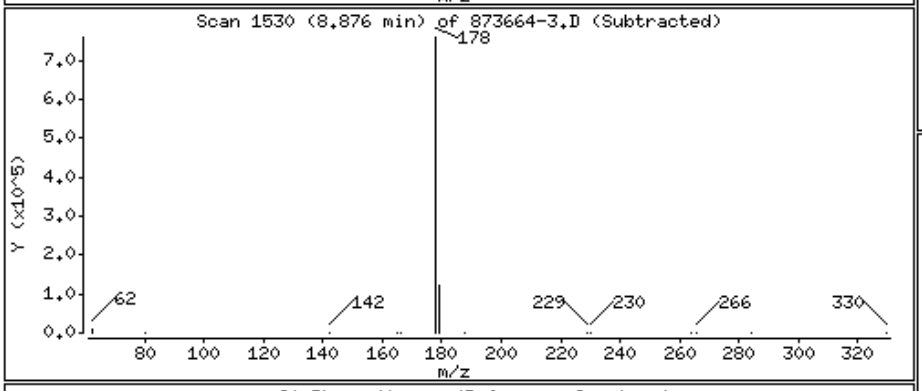
Column diameter: 0.32

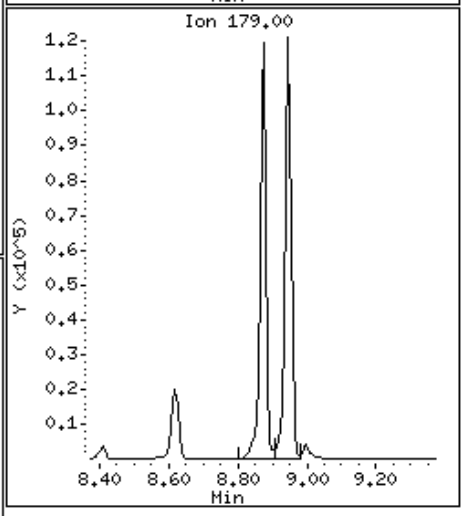
21 Phenanthrene

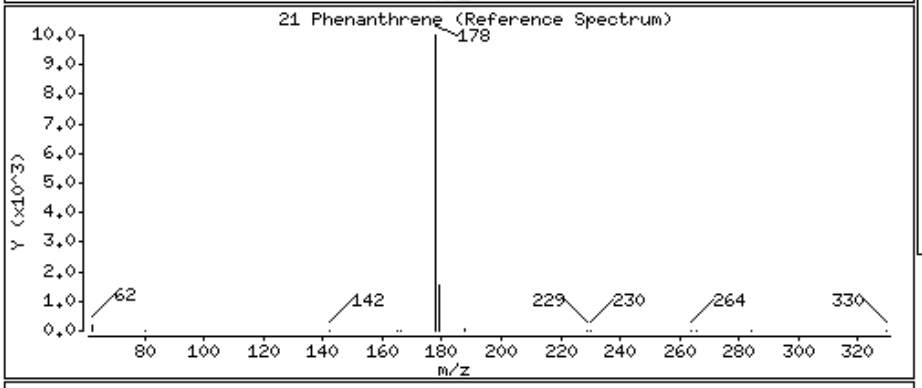
Concentration: 8.24 ng

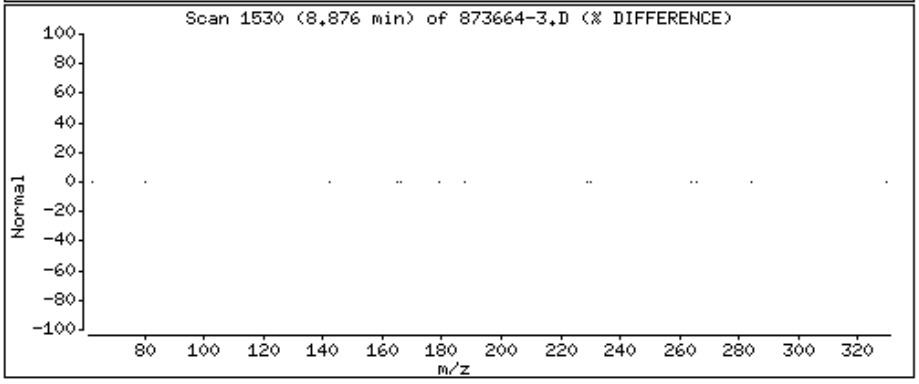












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

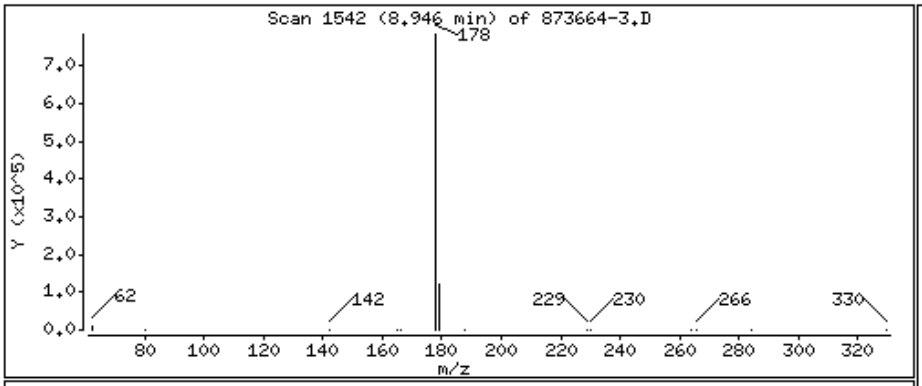
Operator: kv

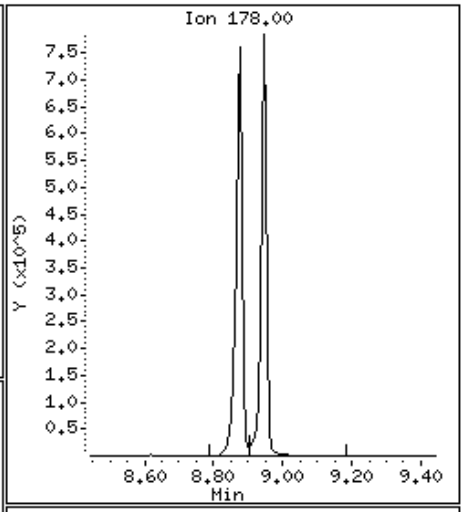
Column phase: RTx-5

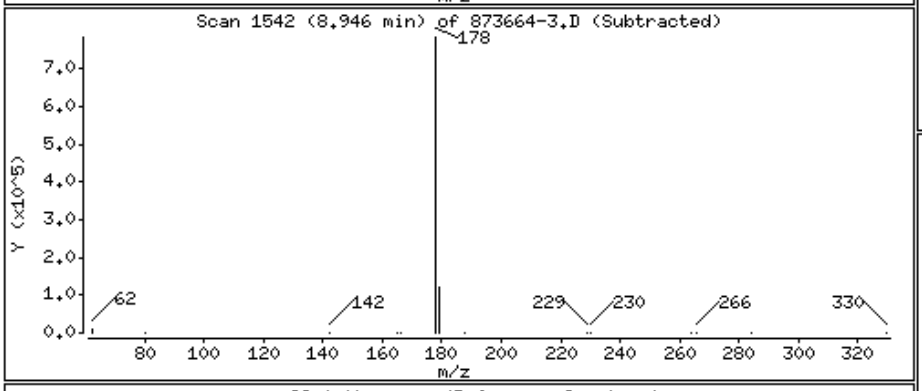
Column diameter: 0.32

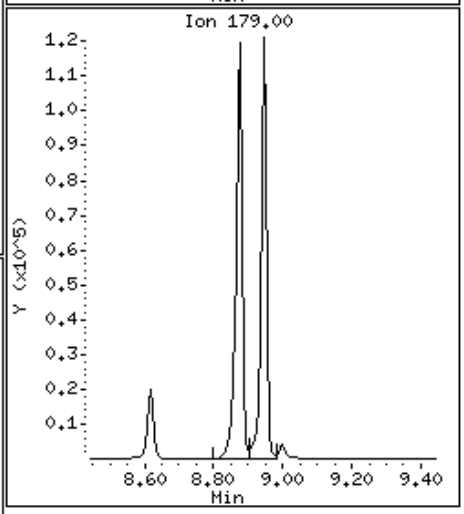
22 Anthracene

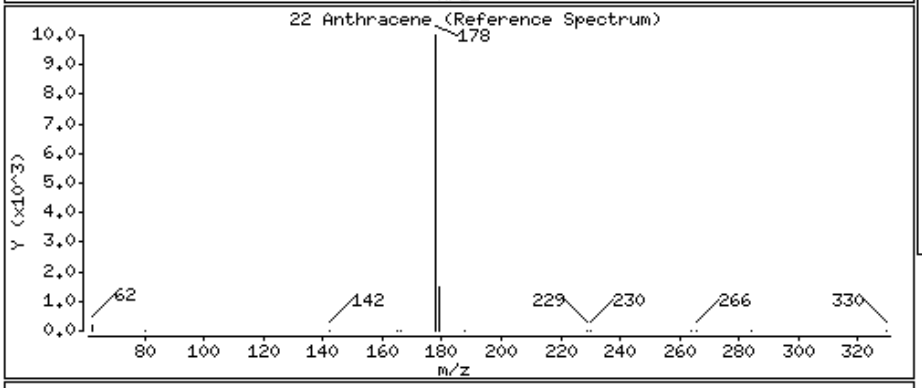
Concentration: 8.46 ng

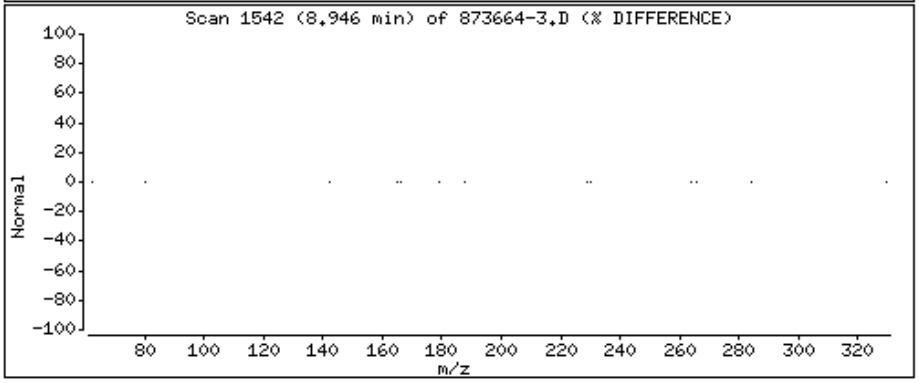












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

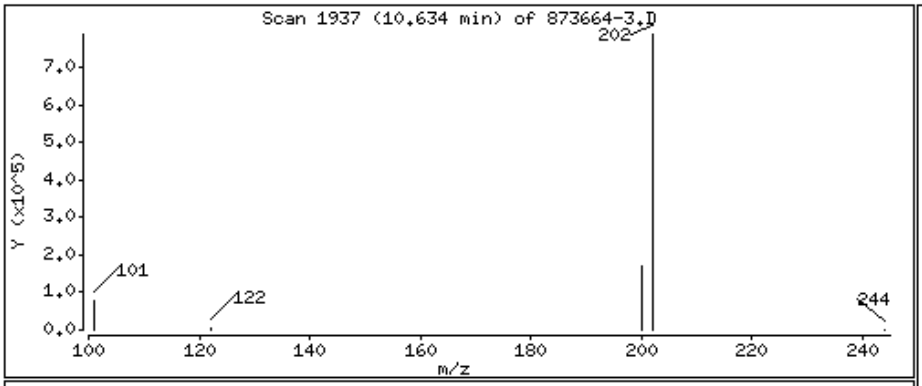
Operator: kv

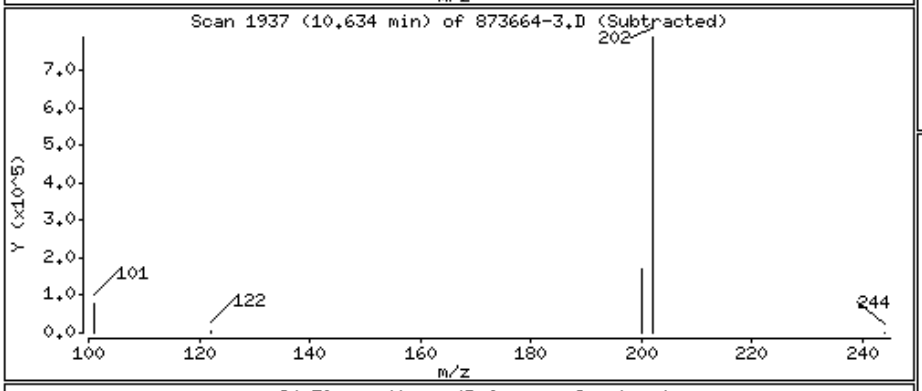
Column phase: RTx-5

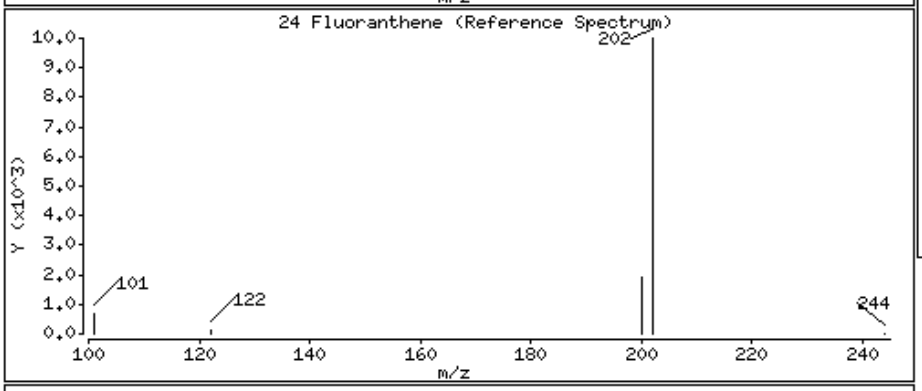
Column diameter: 0.32

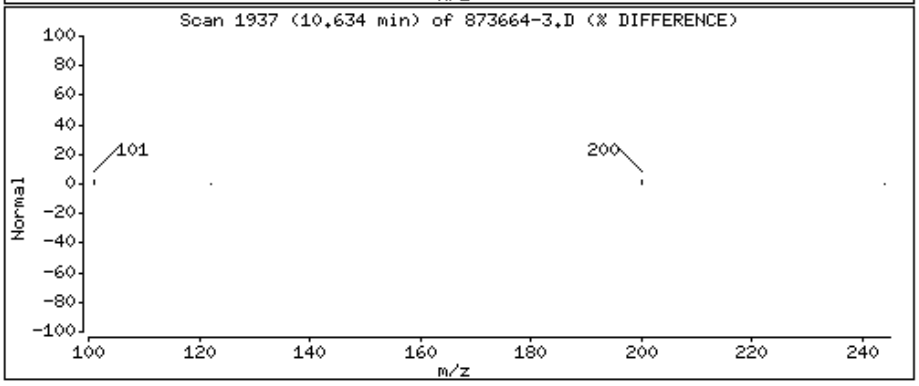
24 Fluoranthene

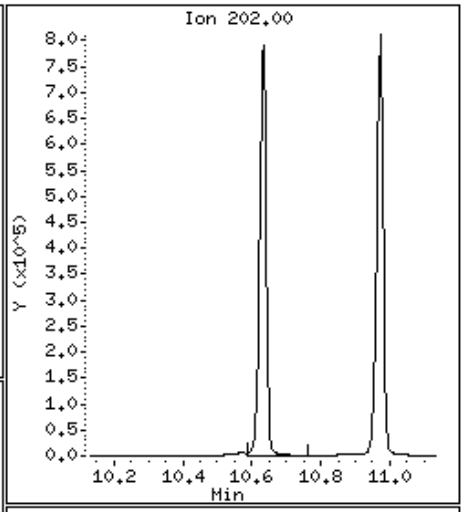
Concentration: 8.85 ng

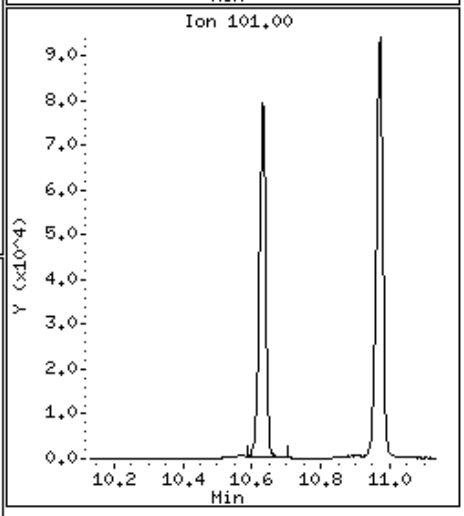












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

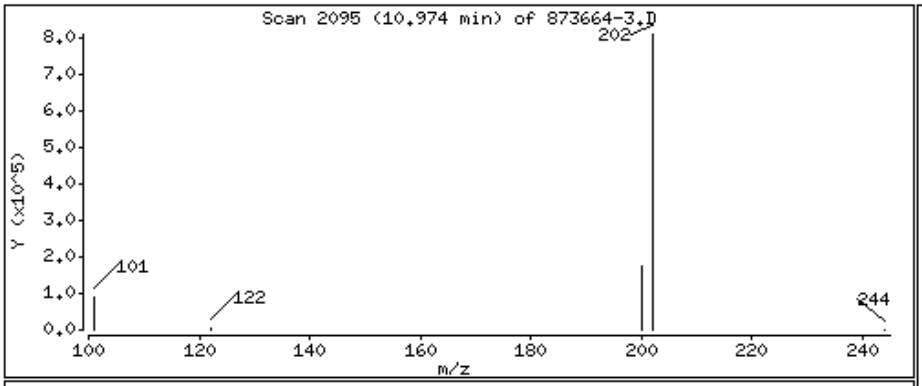
Operator: kv

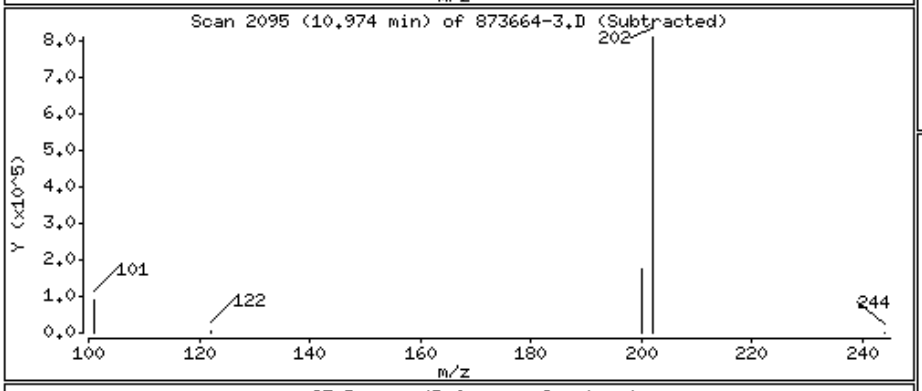
Column phase: RTx-5

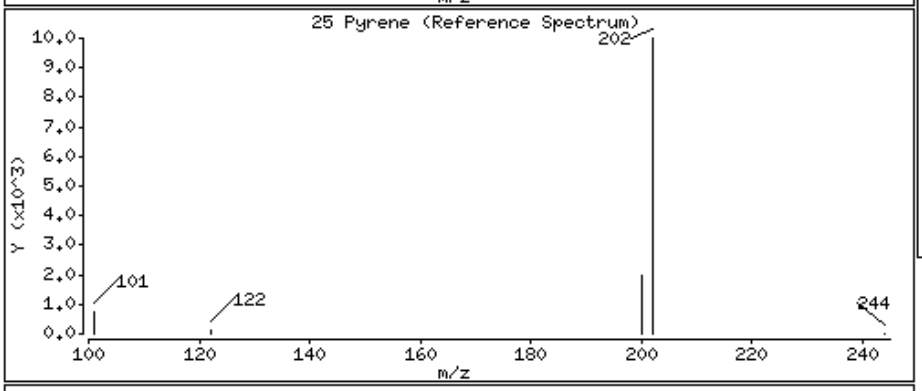
Column diameter: 0.32

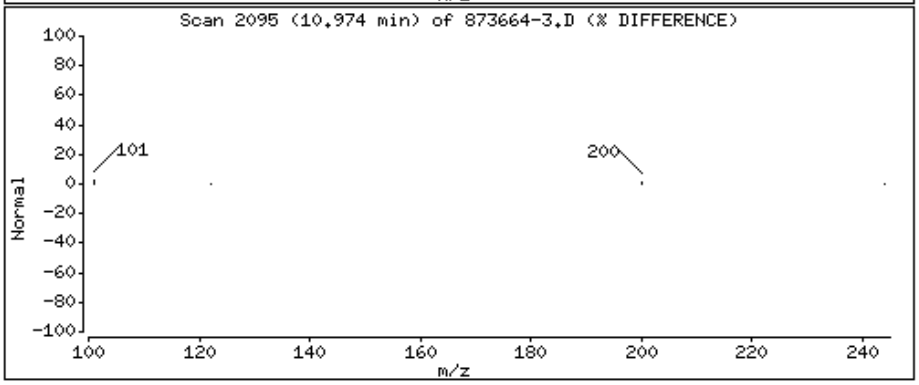
25 Pyrene

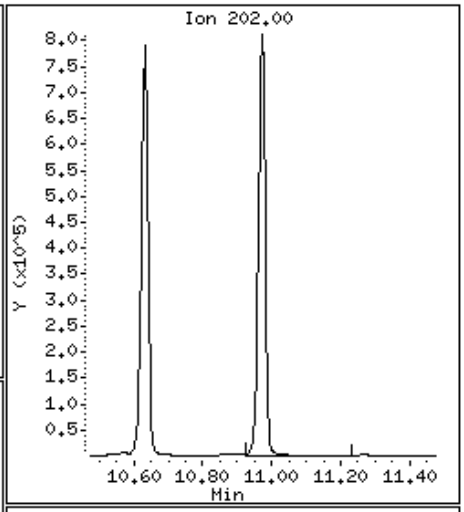
Concentration: 8.26 ng

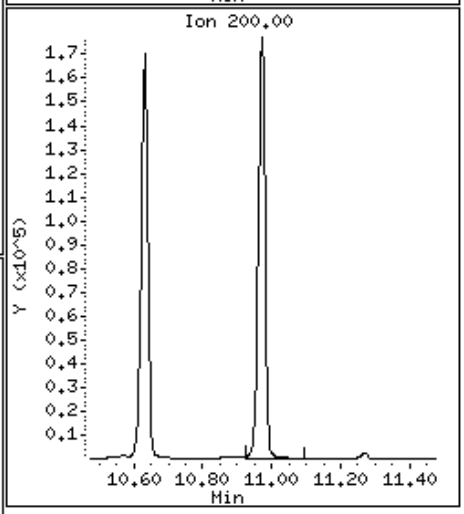












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

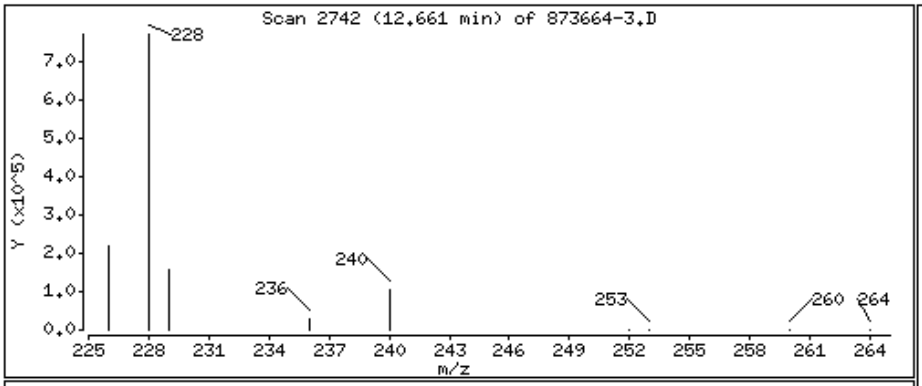
Operator: kv

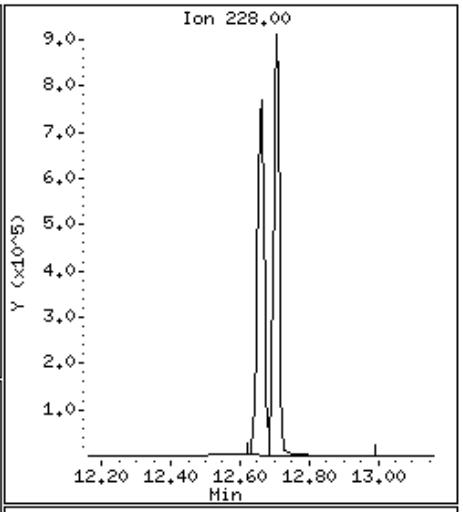
Column phase: RTx-5

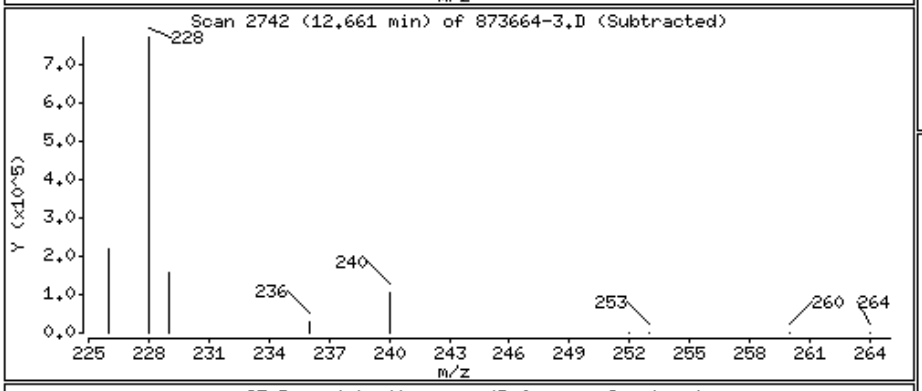
Column diameter: 0.32

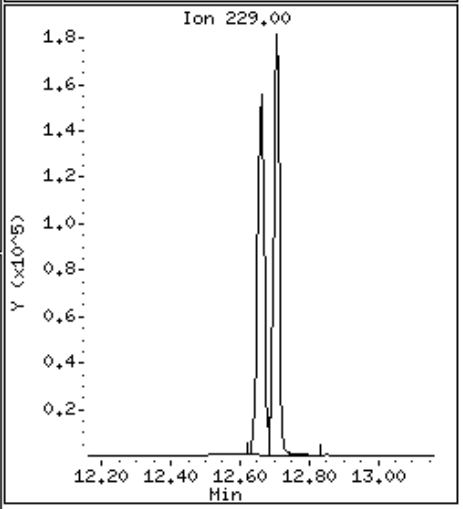
27 Benzo(a)anthracene

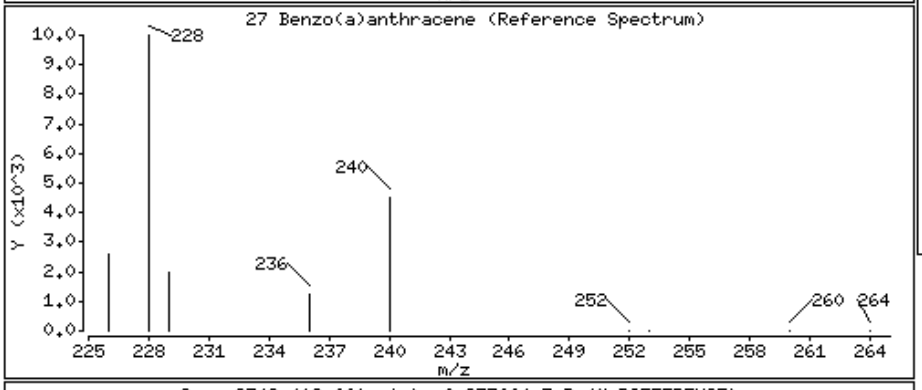
Concentration: 8.21 ng

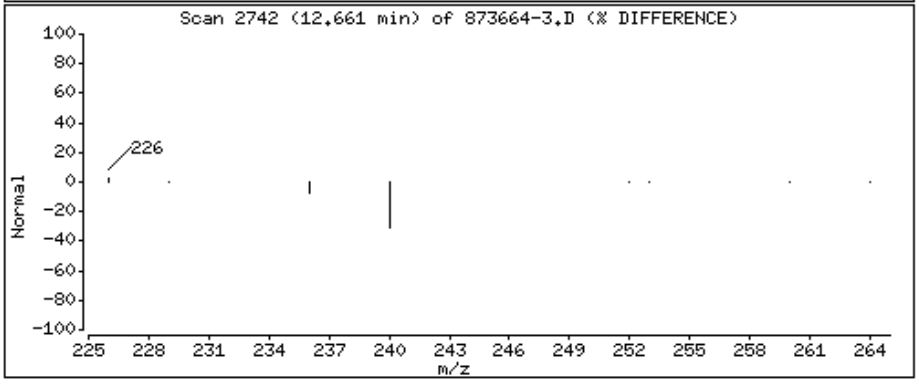












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

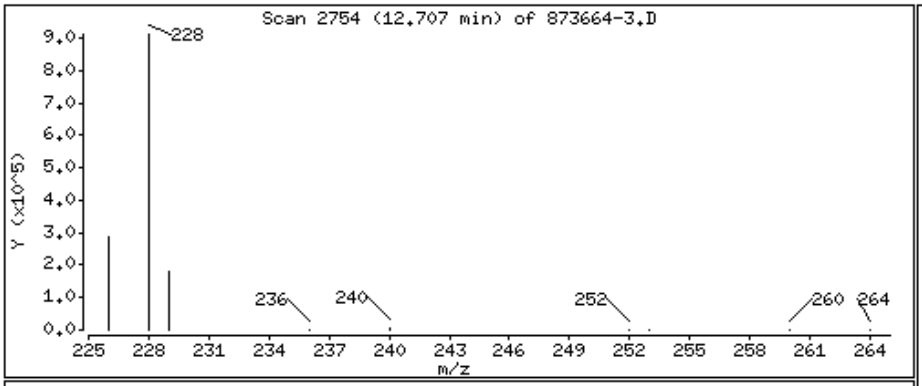
Operator: kv

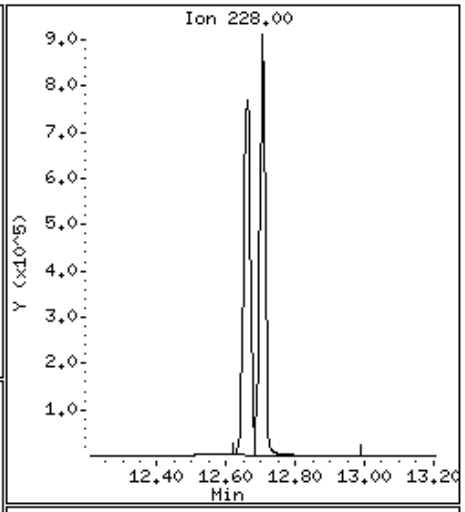
Column phase: RTx-5

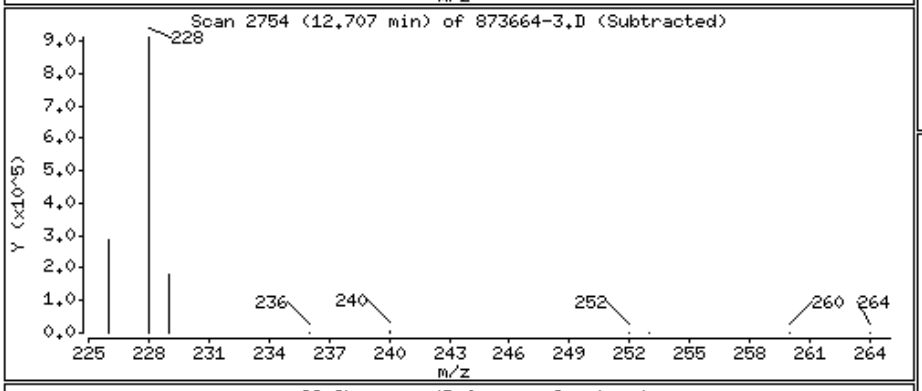
Column diameter: 0.32

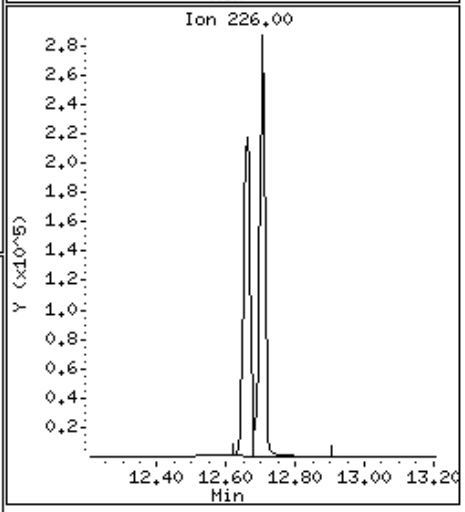
29 Chrysene

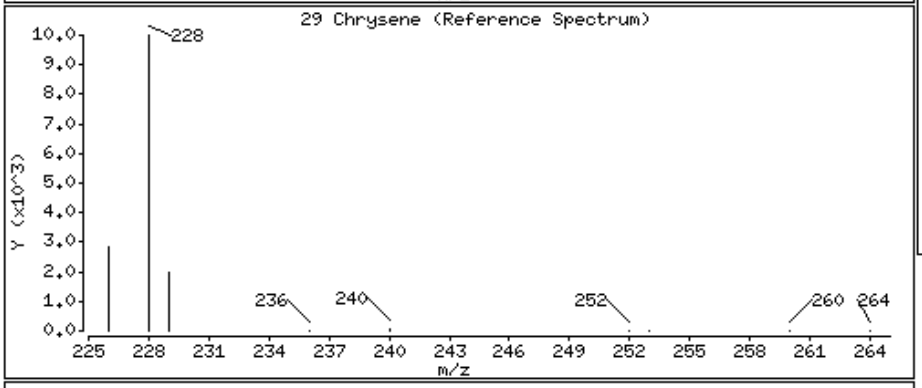
Concentration: 7.85 ng

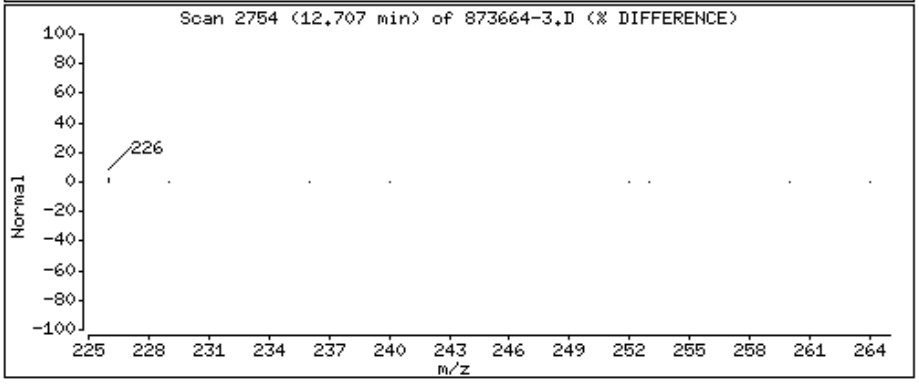












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

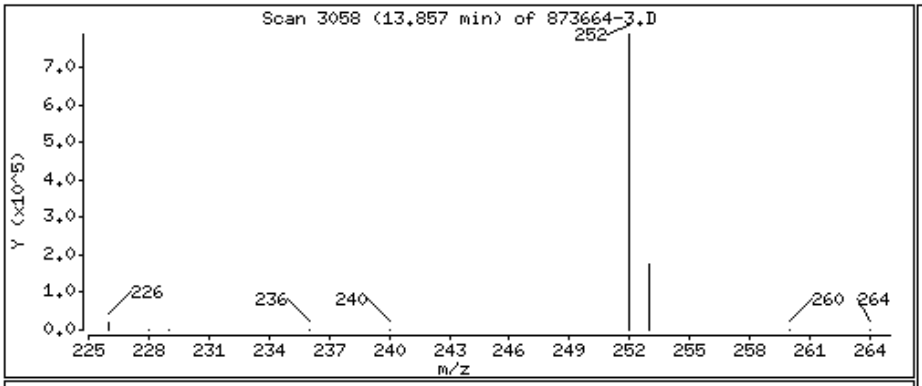
Operator: kv

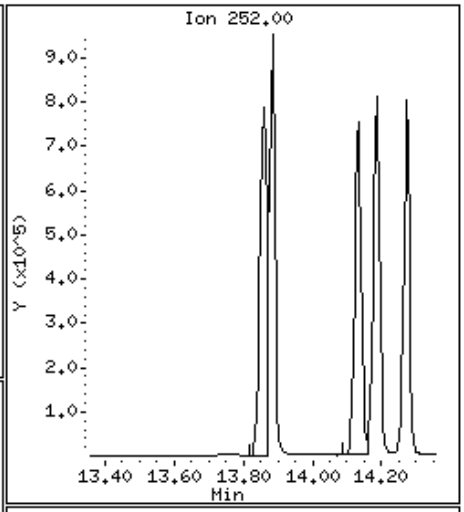
Column phase: RTx-5

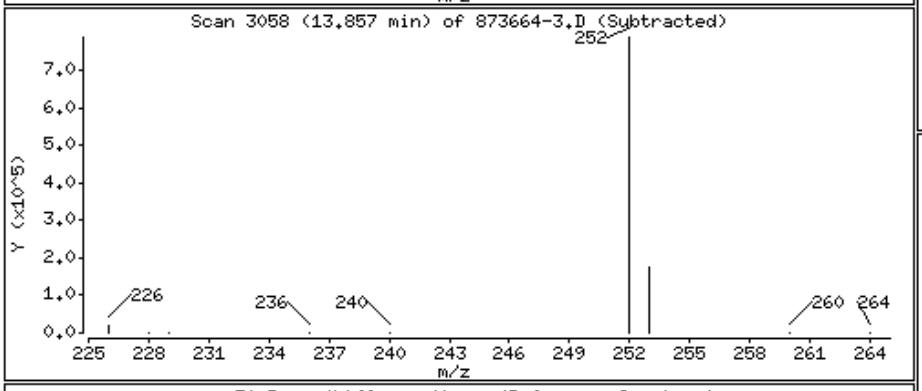
Column diameter: 0.32

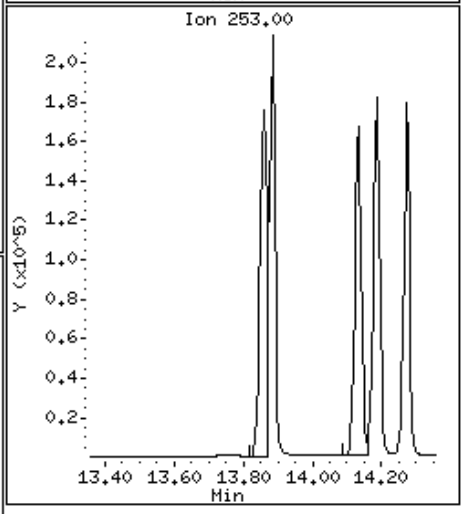
30 Benzo(b)fluoranthene

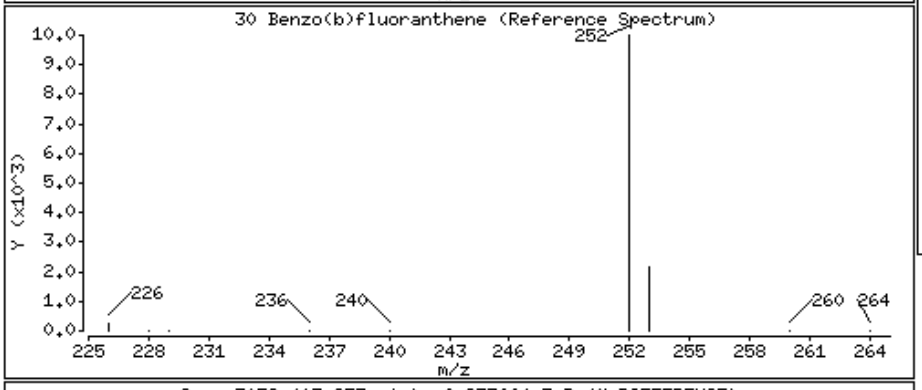
Concentration: 10.2 ng

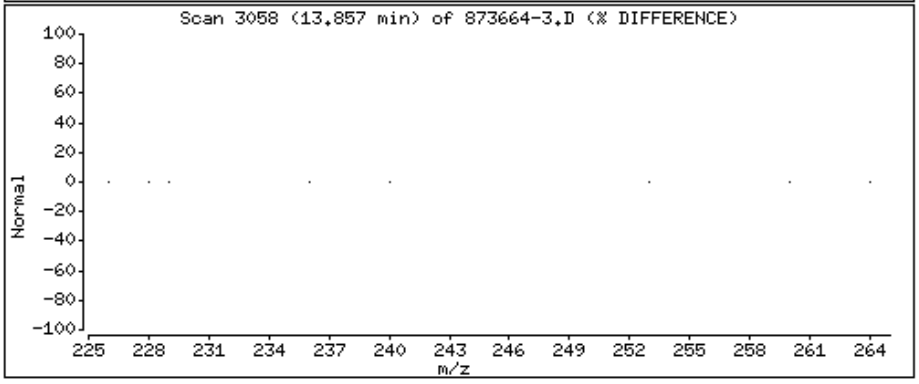












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

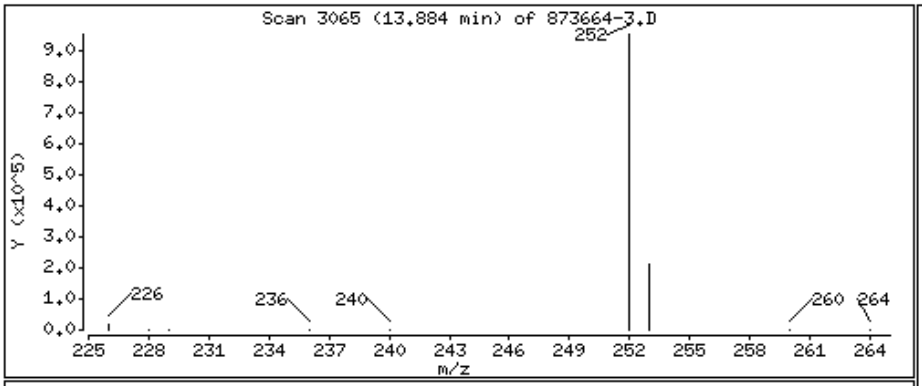
Operator: kv

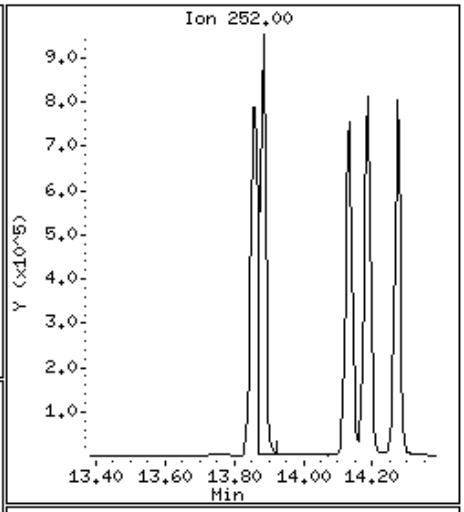
Column phase: RTx-5

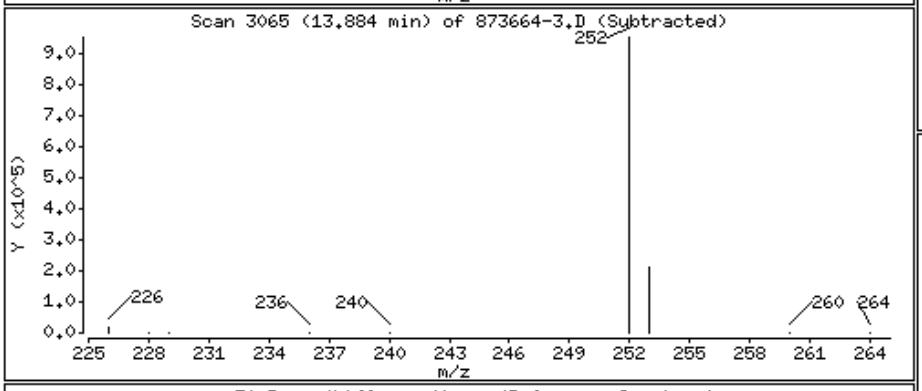
Column diameter: 0.32

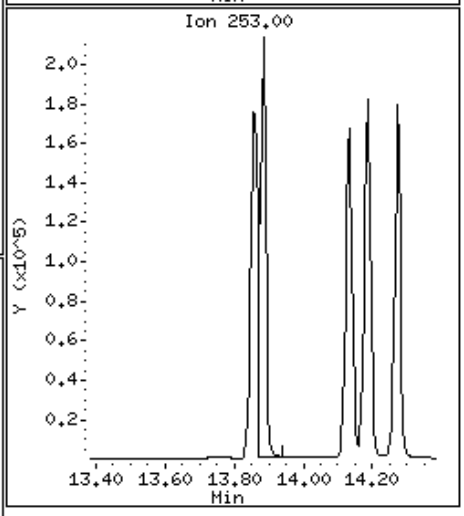
31 Benzo(k)fluoranthene

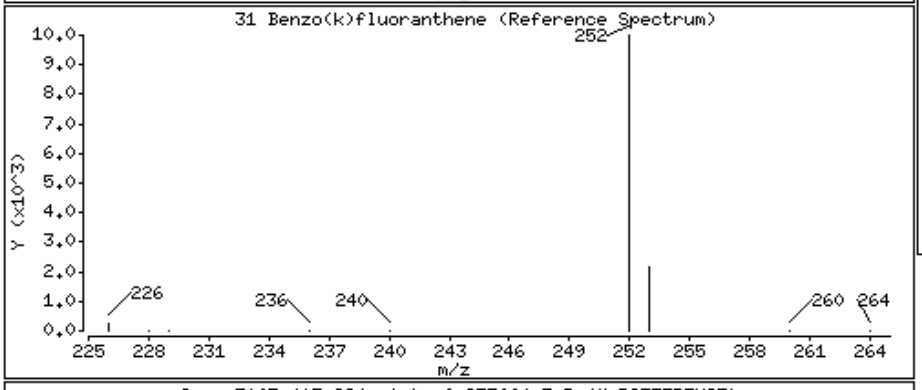
Concentration: 7.42 ng

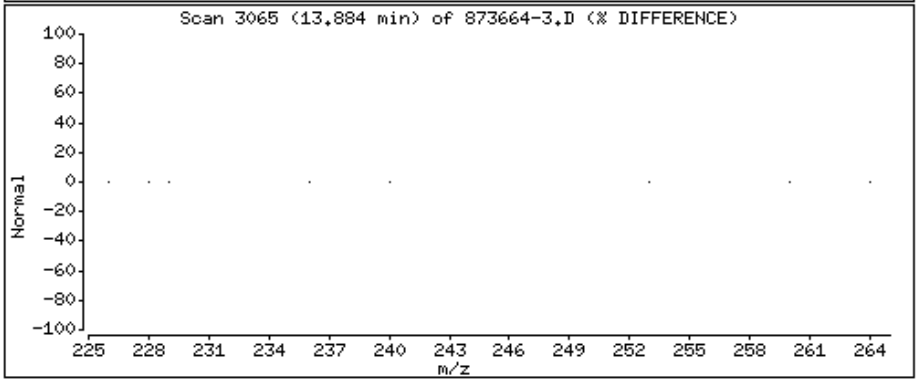












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ng,kv

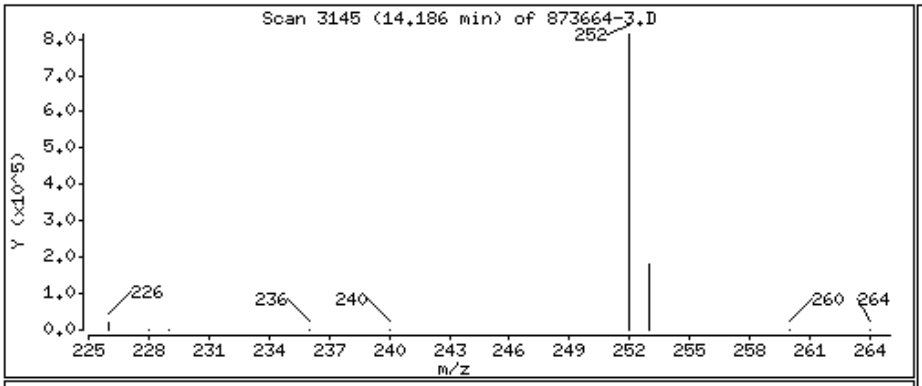
Operator: kv

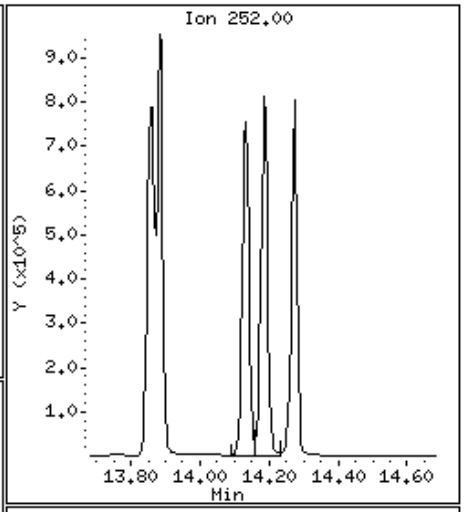
Column phase: RTx-5

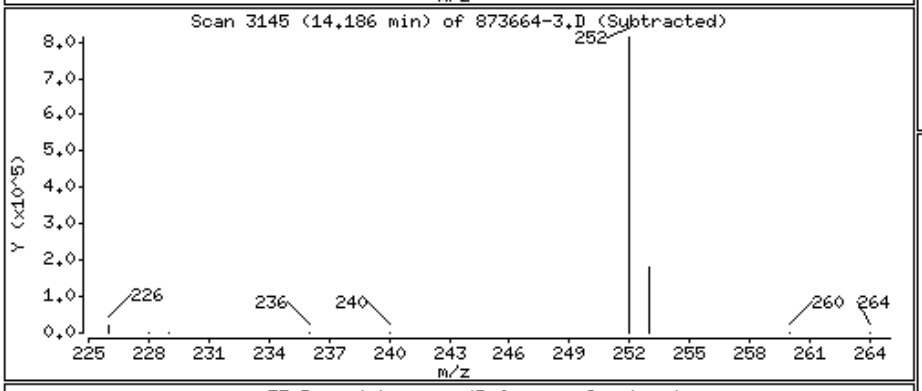
Column diameter: 0.32

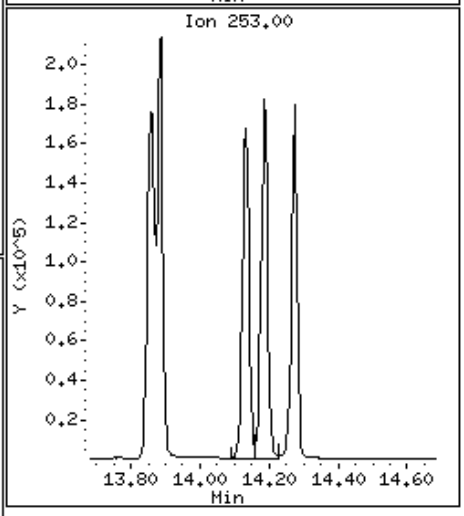
33 Benzo(a)pyrene

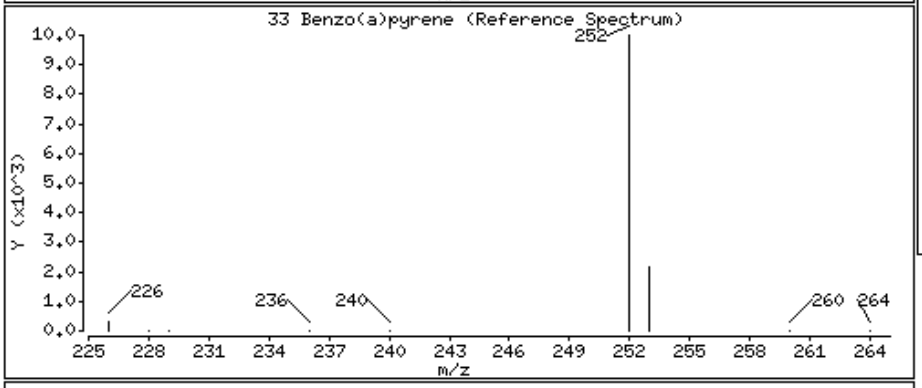
Concentration: 9.62 ng

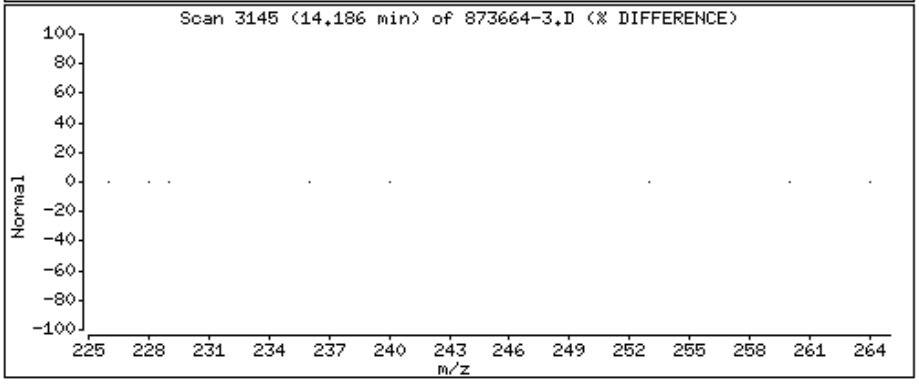












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

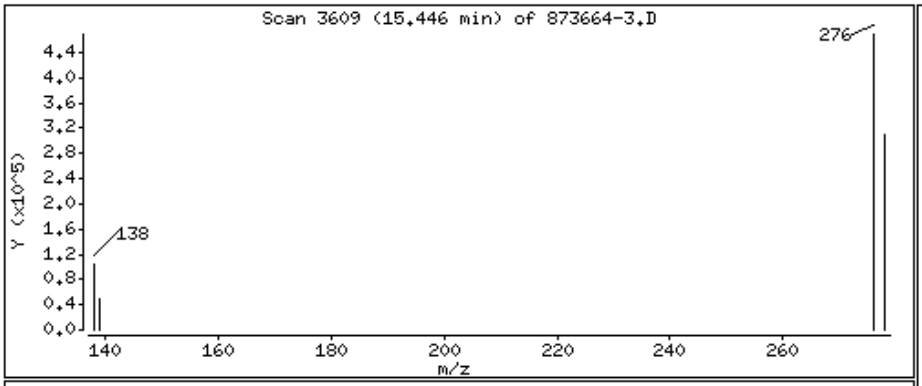
Operator: kv

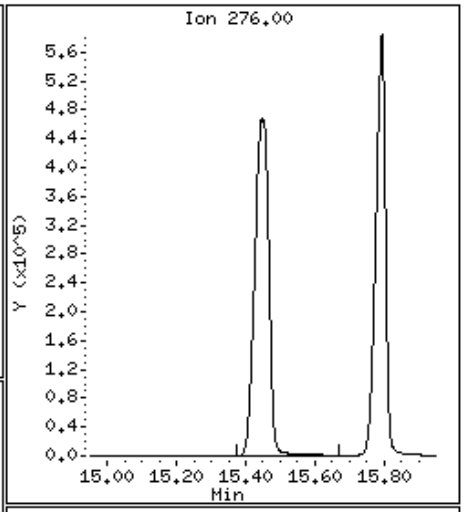
Column phase: RTx-5

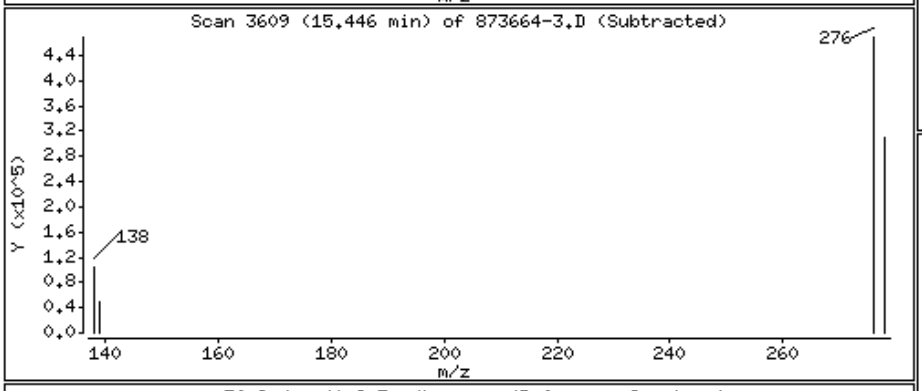
Column diameter: 0.32

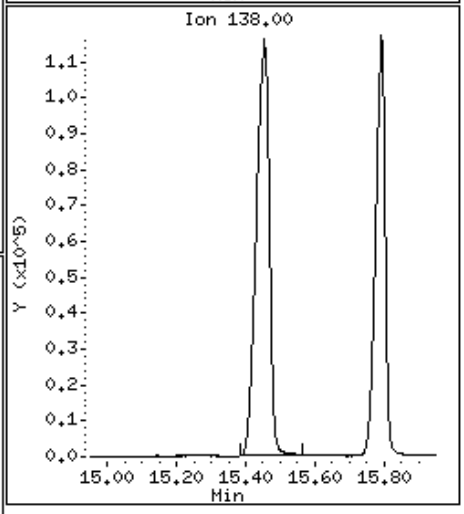
36 Indeno(1,2,3-cd)pyrene

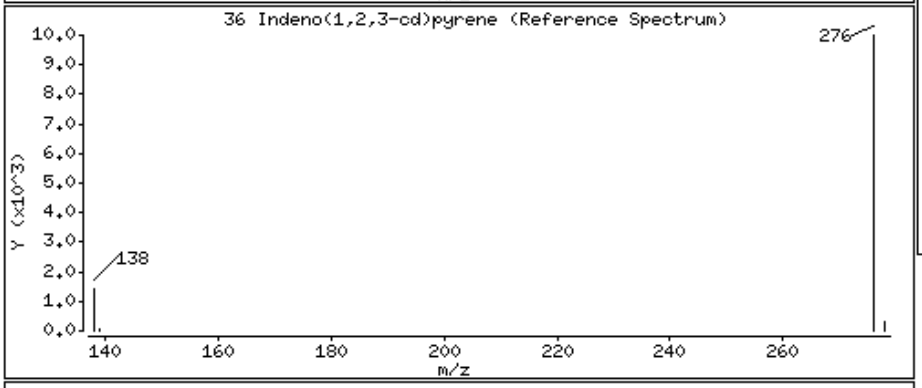
Concentration: 9.54 ng

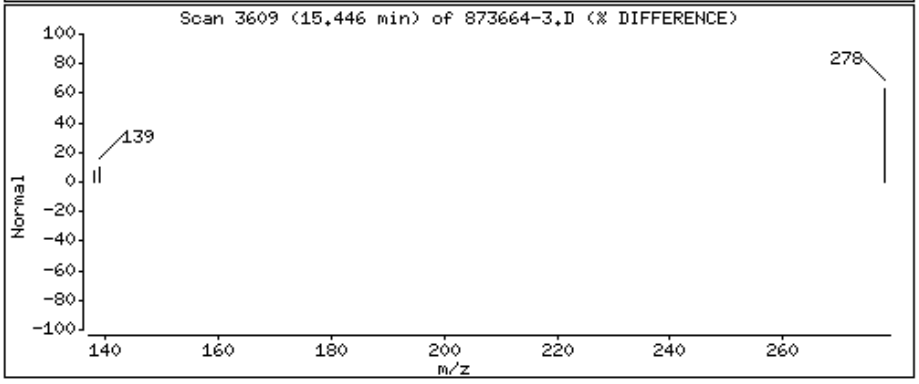












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

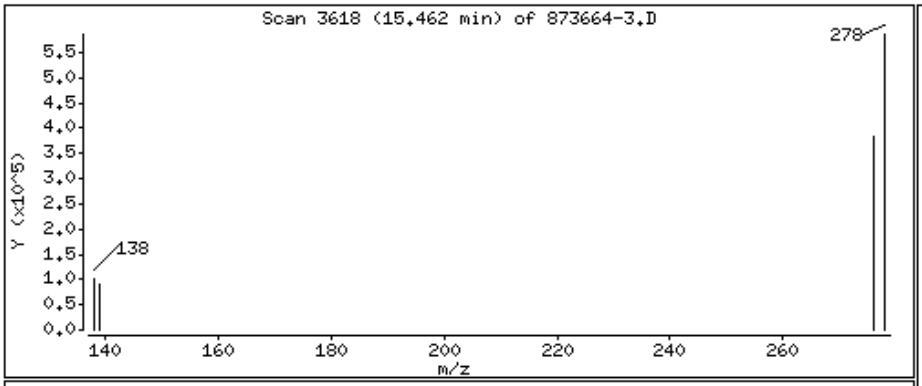
Operator: kv

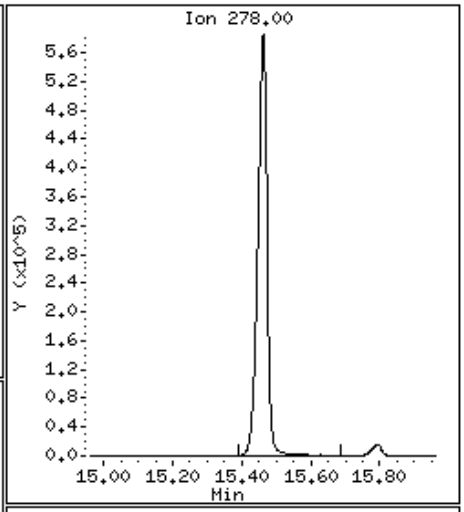
Column phase: RTx-5

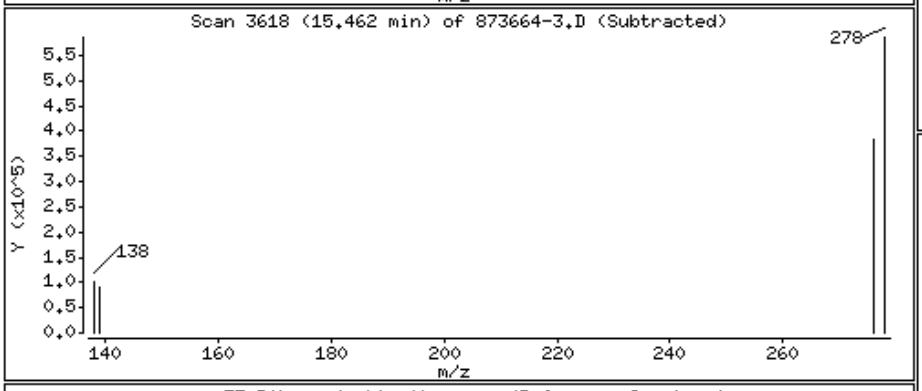
Column diameter: 0.32

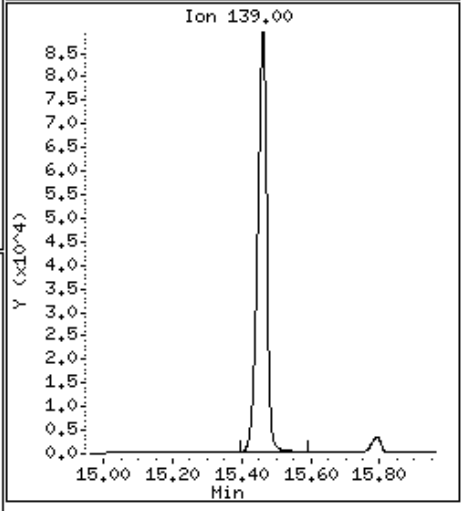
37 Dibenzo(a,h)anthracene

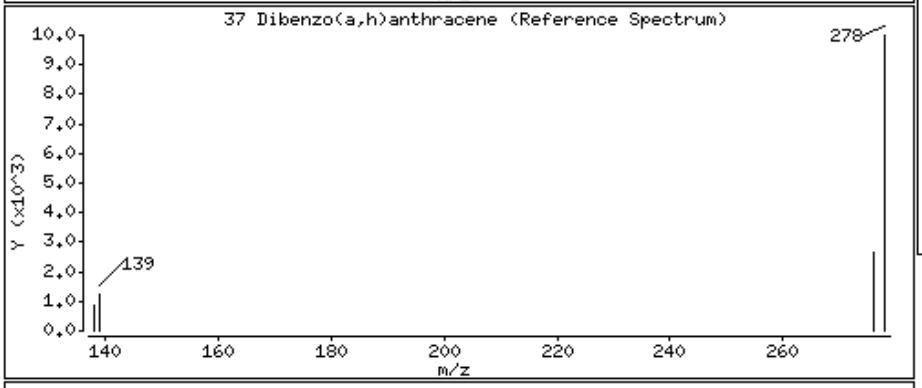
Concentration: 9.78 ng

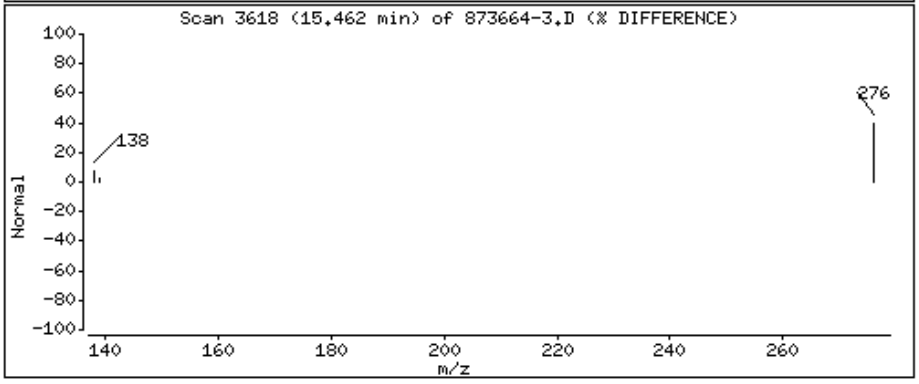












Data File: \\orgserv1\dd\Chem\GCMSEXT\Mindy.i\160315.b\873664-3.D

Date : 15-MAR-2016 08:08

Client ID:

Instrument: Mindy.i

Sample Info: wg873664-3,32,ny,kv

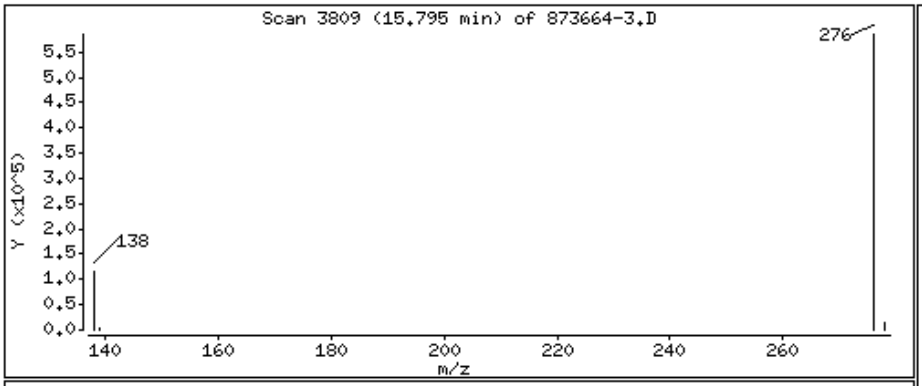
Operator: kv

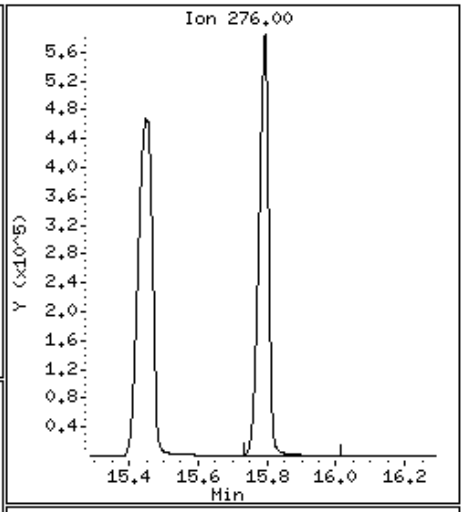
Column phase: RTx-5

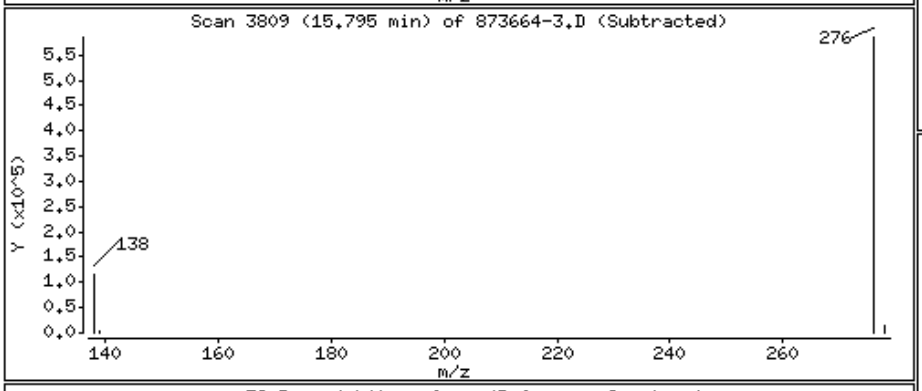
Column diameter: 0.32

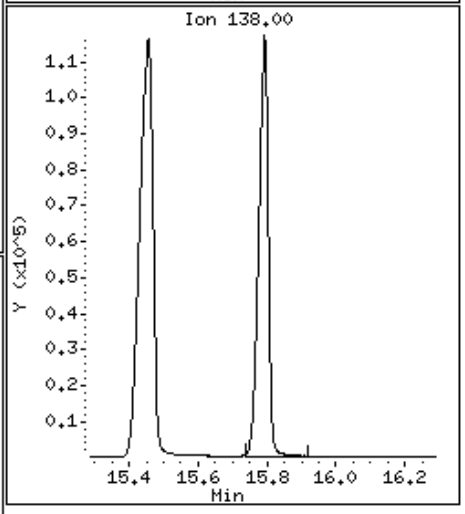
38 Benzo(ghi)perylene

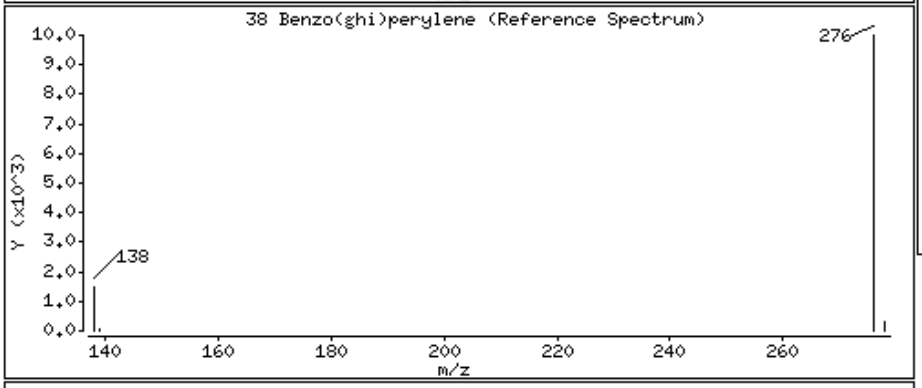
Concentration: 9.35 ng

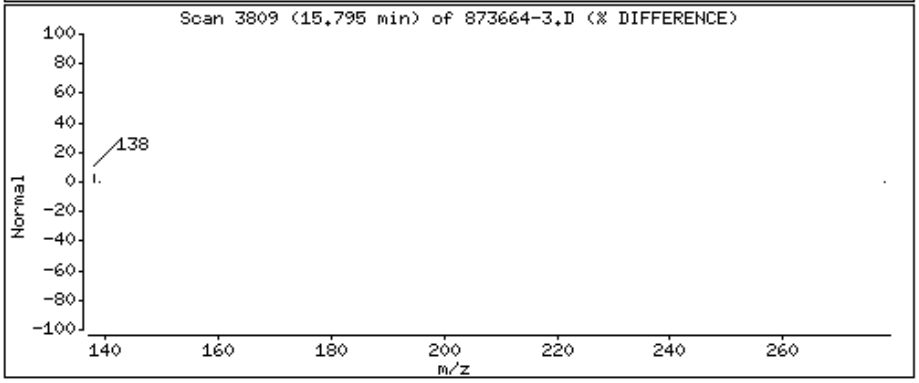












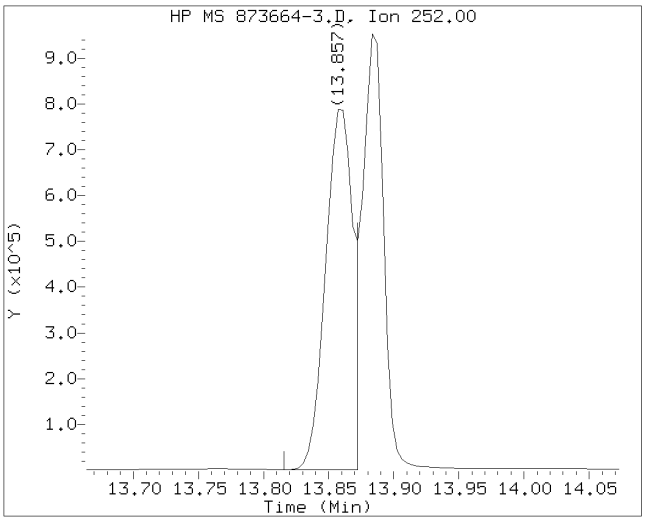
Alpha Analytical Labs

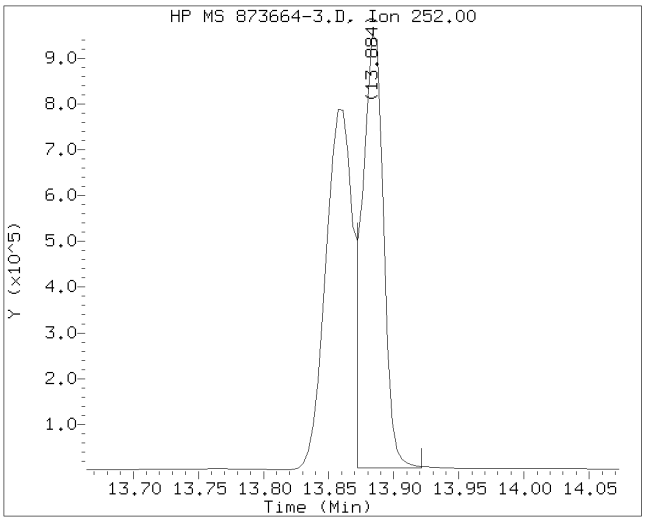
Manual Integration

Sample Info : wg873664-3,32,ny,kv
wg873828, wg873664,ICAL11948

Instrument ID : Mindy.i
Method : 8270D.m
File : 873664-3.D
Injection Date : 15-MAR-2016 08:08
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 31: Benzo(k)fluoranthene





Original Peak Response = 1190653 Manual Peak Response = 1092660 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Calculation of Semi Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * 1000 * (1/Vo) * Vf

Where:
DF = Dilution Factor
Vo = Volume of Sample (mL)
Vf = Extraction Lab Final Volume (mL)

Soil Concentration Formula: Amt * DF * 1000 * (1/Wt) * Vf * (100/TS)
Where:
DF = Dilution Factor
Wt = Weight of Sample (g)
Vf = Extraction Lab Final Volume (mL)
TS = Total Solids

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 23 2016, 02:10 pm

Work Group: WG873664 for Department: 2 Organic Preparation

Created: 14-MAR-16 Due: Operator: DR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1606534-01	AUGER RINSE	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-01	MW05_030816	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-02	GWDUP01_030816	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-03	MW01_030816	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-04	MW07_030816	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-05	GWFB01_030816	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606616-01	TERMINAL BASIN #1	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0316	S0	Amber-A1
L1606705-01	GW-GRAB	C	NYTCL-8270-SIM	WATER	DONE	U	0315	0316	S0	Amber-A1
L1606763-01	MW12_030916	C	NYTCL-8270-SIM	WATER	DONE	U	0316	0316	S0	Amber-A1
L1606772-01	EFF-20160309	C	NYTCL-8270-SIM	WATER	DONE	U	0316	0316	S0	Amber-A1
L1606772-02	MID-20160309	C	NYTCL-8270-SIM	WATER	DONE	U	0316	0316	S0	Amber-A1
WG873664-1	Laboratory Method Bl	S	NYTCL-8270-SIM	WATER	DONE	U				
WG873664-2	Laboratory Control S	S	NYTCL-8270-SIM	WATER	DONE	U				
WG873664-3	LCS Duplicate	S	NYTCL-8270-SIM	WATER	DONE	U				

Comments:

WG873664-3 WG873664-2

Sequence Name: C:\HPCHEM\1\SEQUENCE\151217a.S
Comment: mindy
Operator: kv
Data Path: C:\HPCHEM\1\DATA\160117a\
Pre-Seq Cmd:
Post-Seq Cmd:

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

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

processed by KV
reviewed by JL

ICAL 11998

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	DEG0117	DFTPP2	DEG/DFTPP
2	Sample	1	L1	PAT-SIM2	L1 0.05/0.5 ug/mL #5774
3	Sample	2	L2	PAT-SIM2	L2 0.1/1.0ug/mL #5775
4	Sample	3	L3	PAT-SIM2	L3 0.2/2.0 ug/mL #5776
5	Sample	4	L4	PAT-SIM2	L4 0.5/5.0 ug/mL#5784
6	Sample	5	L5	PAT-SIM2	L5 1.0/10.0 ug/mL #5778
7	Sample	6	L6	PAT-SIM2	L6 2.0/20.0ug/mL #5779
8	Sample	7	L7	PAT-SIM2	L7 5.0/40.0 ug/mL#5780
9	Sample	8	L8	PAT-SIM2	L8 10.0/60.0 ug/mL #5781
10	Sample	9	L9	PAT-SIM2	L9 15.0/0.0 ug/mL #5782
11	Sample	10	L10	PAT-SIM2	L10 20.0/0.0 ug/mL#5783
12	Sample	11	ICV	PAT-SIM2	ICV 5.0/40.0 ug/mL #5773
13					

Last Modified: Sun Jan 17 04:46:47 2016

Sequence Name: C:\HPCHEM\1\SEQUENCE\160315.S
Comment: mindy
Operator: kv
Data Path: C:\HPCHEM\1\DATA\160315\
Pre-Seq Cmd:
Post-Seq Cmd:

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

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

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	DEG0315	DFTPP2	DEG/DFTPP
2	Sample	96	CCV0315	PAT-SIM2	CCV 5.0/40.0 ug/mL#5780
3	Sample	1	06175-01	PAT-SIM2	l1606175-01,32,ny,kv
4	Sample	2	873664-1	PAT-SIM2	wg873664-1,32,ny,kv
5	Sample	3	873664-2	PAT-SIM2	wg873664-2,32,ny,kv
6	Sample	4	873664-3	PAT-SIM2	wg873664-3,32,ny,kv
7	Sample	5	06616-01	PAT-SIM2	l1606616-01,32,ny,kv
8	Sample	6	06355-05	PAT-SIM2	l1606355-05d,32m,kv,4x,occ
9	Sample	7	873453-1	PAT-SIM2	wg873453-1,32m,kv
10	Sample	8	873453-2	PAT-SIM2	wg873453-2,32m,kv
11	Sample	9	873453-3	PAT-SIM2	wg873453-3,32m,kv
12	Sample	10	06751-12	PAT-SIM2	l1606751-12,32m,kv
13	Sample	11	06751-13	PAT-SIM2	l1606751-13,32m,kv
14	Sample	12	06751-14	PAT-SIM2	l1606751-14,32m,kv
15	Sample	13	06751-15	PAT-SIM2	l1606751-15,32m,kv
16	Sample	14	06751-16	PAT-SIM2	l1606751-16,32m,kv
17	Sample	15	06751-17	PAT-SIM2	l1606751-17,32m,kv
18	Sample	16	06751-25	PAT-SIM2	l1606751-25,32m,kv
19	Sample	17	06751-11	PAT-SIM2	l1606751-11d,32m,kv,5x
20	Sample	18	06705-01	PAT-SIM2	l1606075-01,32,ny,kv — 10x, occ KV 3/16
21	Sample	19	06763-01	PAT-SIM2	l1606763-01,32,ny,kv
22	Sample	20	06705-1D	PAT-SIM2	l1606075-01d,32,ny,kv,10x,occ — 10x occ KV 3/16
23	Sample	21	06772-01	PAT-SIM2	l1606772-01,32,ny,kv
24	Sample	22	06772-02	PAT-SIM2	l1606772-02,32,ny,kv
25	Sample	23	873351-1	PAT-SIM2	wg873351-1,32,splp,kv
26	Sample	24	873351-2	PAT-SIM2	wg873351-2,32,splp,kv
27	Sample	25	873351-3	PAT-SIM2	wg873351-3,32,splp,kv
28	Sample	26	05381-01	PAT-SIM2	l1605831-01,32,splp,kv
29	Sample	27	05381-03	PAT-SIM2	l1605831-03,32,splp,kv
30	Sample	28	05381-04	PAT-SIM2	l1605831-04,32,splp,kv

5-ext KV 3/16

Last Modified: Wed Mar 16 05:10:32 2016

Page: 1

KV 3/16

ORGANIC ELN REPORT

Workgroup: WG873664

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP470
Surrogate Type: ABN **Lot #:** 5866
Spike Type: ABN-SIM **Lot #:** 5870
Spike Verify by: DR
Lims Spikelot: 8270-USAC1

Additional Reagents/Stds

H2SO4	A030416
NaOH	Na031016

Conc.Method: Buchi
Solvent Type: DCM
Lot #: dp 470

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
WG873664-1 BLANK	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/14/16 19:20	Thomas Asare	1	J
	WG873638									
WG873664-2 LCS	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1	1	03/15/16 03:28	Lindsey Cappuccio	1	I
WG873664-3 LCSD	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1	1	03/15/16 03:28	Lindsey Cappuccio	1	I
L1606534-01 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:13	Felicia Macnicol	1	J
L1606544-01 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:13	Felicia Macnicol	1	J
L1606544-02 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:13	Felicia Macnicol	1	J
L1606544-03 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:13	Felicia Macnicol	1	J

Reported: 23-MAR-16 02:11 PM

ORGANIC ELN REPORT

Workgroup: WG873664

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1606544-04 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:13	Felicia Macnicol	1	J
L1606544-05 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/16/16 04:13	Felicia Macnicol	1	J
L1606616-01 WATER	03/14/16 19:14	Daniel Robbins	940	<2/>12	1		03/15/16 04:58	Lindsey Cappuccio	.90	I
L1606705-01 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/15/16 03:28	Lindsey Cappuccio	1	I
L1606763-01 WATER	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/15/16 03:28	Lindsey Cappuccio	1	I
L1606772-01 SAMP	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/15/16 03:28	Lindsey Cappuccio	1	I
L1606772-02 SAMP	03/14/16 19:14	Daniel Robbins	1000	<2/>12	1		03/15/16 03:28	Lindsey Cappuccio	1	I

Reported: 23-MAR-16 02:11 PM

GC Extractable Analysis Polychlorinated Biphenyls (PCB)

Aroclor QC Summary

Form 2
Surrogate Recovery
PCBS

Client: Langan Engineering & Environmental
Project Name: 450 UNION STREET

Lab Number: L1606763
Project Number: 170301202
Matrix: Water

GC Column 1: CLP-Pesticide
GC Column 2: CLP-PesticideII

CLIENT ID (LAB SAMPLE NO.)	TCX 1 %REC	TCX 2 %REC	DCB 1 %REC	DCB 2 %REC	OTHER (1)	OTHER (2)	TOT OUT
WG873675-3LCSD	68	58	83	91			0
WG873675-2LCS	67	57	71	78			0
WG873675-1BLANK	65	58	71	75			0
MW12_030916 (L1606763-01)	67	55	78	80			0

	QC LIMITS
TCX = 2,4,5,6-TETRACHLORO-M-XYLENE	(30-150)
DCBP = DECACHLOROBIPHENYL	(30-150)

* Values outside of QC limits

Laboratory Control Sample
Form 3

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Matrix	: WATER		
LCS Sample ID	: WG873675-2	**Analysis Date :** 03/16/16 01:21	**File ID** : 12160315-66
LCSD Sample ID	: WG873675-3	**Analysis Date :** 03/16/16 01:33	**File ID** : 12160315-67

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Aroclor 1016	2.6	1.90	73	2.6	2.01	77	6	40-140	50
Aroclor 1260	2.6	1.82	70	2.6	1.92	74	5	40-140	50

Method Blank Summary
Form 4

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab Sample ID	: WG873675-1	**Lab File ID**	: 12160315-65
Matrix	: WATER	**Extraction Date**	: 03/14/16
Sulfur Cleanup	: Y		
Analysis Date (1)	: 03/16/16 01:08	**Analysis Date (2)**	: 03/16/16 01:08
Instrument ID (1)	: PEST12	**Instrument ID (2)**	: PEST12

Client Sample No.	Lab Sample ID	Analysis Date 1	Analysis Date 2
WG873675-2LCS	WG873675-2	03/16/16 01:21	03/16/16 01:21
WG873675-3LCSD	WG873675-3	03/16/16 01:33	03/16/16 01:33
MW12_030916	L1606763-01	03/16/16 03:13	03/16/16 03:13

Analytical Sequence
Form 8

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: PEST12	**Initial Calib. Date(s)**	: 01/22/15 01/22/15

Client ID	Lab ID	Date/Time Analyzed
1242/1268 L1	R736804-1	01/22/15 16:21
1242/1268 L2	R736804-2	01/22/15 16:33
1242/1268 L3	R736804-3	01/22/15 16:46
1242/1268 L4	R736804-4	01/22/15 16:58
1242/1268 L5	R736804-5	01/22/15 17:11
1242/1268 L6	R736804-6	01/22/15 17:23
1232/1262 L1	R736804-7	01/22/15 17:35
1232/1262 L2	R736804-8	01/22/15 17:48
1232/1262 L3	R736804-9	01/22/15 18:00
1232/1262 L4	R736804-10	01/22/15 18:12
1232/1262 L5	R736804-11	01/22/15 18:25
1232/1262 L6	R736804-12	01/22/15 18:37
1248 L1	R736804-13	01/22/15 18:49
1248 L2	R736804-14	01/22/15 19:02
1248 L3	R736804-15	01/22/15 19:14
1248 L4	R736804-16	01/22/15 19:26
1248 L5	R736804-17	01/22/15 19:39
1248 L6	R736804-18	01/22/15 19:51
1221/1254 L1	R736804-19	01/22/15 20:03
1221/1254 L2	R736804-20	01/22/15 20:16
1221/1254 L3	R736804-21	01/22/15 20:28
1221/1254 L4	R736804-22	01/22/15 20:41
1221/1254 L5	R736804-23	01/22/15 20:53
1221/1254 L6	R736804-24	01/22/15 21:05
1016/1260 L1	R736804-25	01/22/15 21:18
1016/1260 L2	R736804-26	01/22/15 21:30
1016/1260 L3	R736804-27	01/22/15 21:42
1016/1260 L4	R736804-28	01/22/15 21:55
1016/1260 L5	R736804-30	01/22/15 22:07
1016/1260 L6	R736804-29	01/22/15 22:19
R736804-31 ICV	R736804-31	01/22/15 22:32
R736804-32 ICV	R736804-32	01/22/15 22:44
R736804-33 ICV	R736804-33	01/22/15 22:57
R736804-35 ICV	R736804-35	01/22/15 23:09
R736804-34 ICV	R736804-34	01/22/15 23:21
WG873883-3 CCAL	WG873883-3	03/16/16 00:19
WG873675-1 BLANK	WG873675-1	03/16/16 01:08
WG873675-2 LCS	WG873675-2	03/16/16 01:21
WG873675-3 LCSD	WG873675-3	03/16/16 01:33
MW12_030916	L1606763-01	03/16/16 03:13

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	KB, GT
Date:	9/12, 9/23, 9/28/2011
Instrument ID:	Pest 12
Column ID:	RTC-CLP
Prep Method:	EPA 3510C
Prep Chemist:	JB, AD, GN, EM, JO, NS

Method: EPA 8082 — 2011

GC — **PCBs** — **Liquid**

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	9/12/2011	9/23/2011	9/23/2011	9/23/2011	9/28/2011	9/28/2011	9/28/2011						
No.	Analytes	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
	Channel A														
1	Aroclor 1016	0.05	0.0456	0.0364	0.0461	0.0435	0.0482	0.0566	0.0580	0.0478	0.9556	0.00752	0.02363	0.125	
2	Aroclor 1221	0.05	0.0418	0.0469	0.0505	0.0367	0.0438	0.0483	0.0388	0.0438	0.8766	0.00507	0.01595	0.125	
3	Aroclor 1232	0.05	0.0473	0.0455	0.0493	0.0573	0.0609	0.0504	0.0450	0.0508	1.0165	0.00605	0.01903	0.125	
4	Aroclor 1242	0.05	0.0483	0.0415	0.0392	0.0332	0.0569	0.0512	0.0515	0.0460	0.9195	0.00830	0.02610	0.125	
5	Aroclor 1248	0.05	0.0498	0.0439	0.0421	0.0439	0.0546	0.0525	0.0542	0.0487	0.9743	0.00534	0.01679	0.125	
6	Aroclor 1254	0.05	0.0438	0.0384	0.0483	0.0347	0.0570	0.0591	0.0507	0.0474	0.9487	0.00911	0.02863	0.125	
7	Aroclor 1260	0.05	0.0419	0.0453	0.0385	0.0591	0.0518	0.0552	0.0546	0.0495	0.9894	0.00765	0.02404	0.125	
8	Aroclor 1262	0.05	0.0442	0.0407	0.0548	0.0484	0.0541	0.0563	0.0568	0.0508	1.0152	0.00639	0.02009	0.125	
9	Aroclor 1268	0.05	0.0438	0.0412	0.0423	0.0327	0.0520	0.0515	0.0530	0.0452	0.9045	0.00743	0.02334	0.125	
	Channel B														
1	Aroclor 1016	0.05	0.0491	0.0469	0.0414	0.0407	0.0475	0.0479	0.0467	0.0457	0.9143	0.00330	0.01037	0.125	
2	Aroclor 1221	0.05	0.0512	0.0660	0.0404	0.0510	0.0698	0.0645	0.0531	0.0566	1.1315	0.01050	0.03299	0.125	
3	Aroclor 1232	0.05	0.0552	0.0390	0.0365	0.0363	0.0478	0.0418	0.0534	0.0443	0.8859	0.00789	0.02481	0.125	
4	Aroclor 1242	0.05	0.0466	0.0409	0.0418	0.0302	0.0422	0.0473	0.0457	0.0421	0.8421	0.00583	0.01832	0.125	
5	Aroclor 1248	0.05	0.0629	0.0420	0.0435	0.0425	0.0520	0.0505	0.0572	0.0501	1.0018	0.00802	0.02522	0.125	
6	Aroclor 1254	0.05	0.0444	0.0448	0.0467	0.0355	0.0497	0.0466	0.0464	0.0449	0.8971	0.00449	0.01412	0.125	
7	Aroclor 1260	0.05	0.0408	0.0366	0.0323	0.0289	0.0467	0.0497	0.0429	0.0397	0.7941	0.00753	0.02367	0.125	
8	Aroclor 1262	0.05	0.0407	0.0427	0.0482	0.0417	0.0476	0.0494	0.0449	0.0450	0.9000	0.00343	0.01079	0.125	
9	Aroclor 1268	0.05	0.0501	0.0434	0.0461	0.0298	0.0542	0.0562	0.0588	0.0484	0.9674	0.00985	0.03096	0.125	

Comments: 2-Liter Extraction

Aroclor Sample Data

Form 1
GC Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: L1606763-01	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916	**Date Received**	: 03/09/16
Sample Location	: 450 UNION STREET	**Date Analyzed**	: 03/16/16 03:13
Sample Matrix	: WATER	**Date Extracted**	: 03/14/16
Analytical Method	: 1,8082A	**Dilution Factor**	: 1
Lab File ID	: 12160315-75	**Analyst**	: JW
Sample Amount	: 1200 ml	**Instrument ID**	: PEST12
Extraction Method	: EPA 3510C	**GC Column**	: CLP-Pesticide
Extract Volume	: 1000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: Y		

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
12674-11-2	Aroclor 1016	ND	0.083	0.055	U
11104-28-2	Aroclor 1221	ND	0.083	0.053	U
11141-16-5	Aroclor 1232	ND	0.083	0.031	U
53469-21-9	Aroclor 1242	ND	0.083	0.060	U
12672-29-6	Aroclor 1248	ND	0.083	0.051	U
11097-69-1	Aroclor 1254	ND	0.083	0.034	U
11096-82-5	Aroclor 1260	ND	0.083	0.032	U
37324-23-5	Aroclor 1262	ND	0.083	0.029	U
11100-14-4	Aroclor 1268	ND	0.083	0.038	U
1336-36-3	PCBs, Total	ND	0.083	0.029	U

Form 1
GC Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873675-1	Date Collected	: NA
Client ID	: WG873675-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/16/16 01:08
Sample Matrix	: WATER	Date Extracted	: 03/14/16
Analytical Method	: 1,8082A	Dilution Factor	: 1
Lab File ID	: 12160315-65	Analyst	: JW
Sample Amount	: 1200 ml	Instrument ID	: PEST12
Extraction Method	: EPA 3510C	GC Column	: CLP-Pesticide
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL
Sulfur Cleanup	: Y		

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
12674-11-2	Aroclor 1016	ND	0.083	0.055	U
11104-28-2	Aroclor 1221	ND	0.083	0.053	U
11141-16-5	Aroclor 1232	ND	0.083	0.031	U
53469-21-9	Aroclor 1242	ND	0.083	0.060	U
12672-29-6	Aroclor 1248	ND	0.083	0.051	U
11097-69-1	Aroclor 1254	ND	0.083	0.034	U
11096-82-5	Aroclor 1260	ND	0.083	0.032	U
37324-23-5	Aroclor 1262	ND	0.083	0.029	U
11100-14-4	Aroclor 1268	ND	0.083	0.038	U
1336-36-3	PCBs, Total	ND	0.083	0.029	U

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-75.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 3:13 am
Operator : pest12:jw
Sample : l1606763-01,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:59:24 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.199	2.267	227.3E6	648.5E6	250.000	250.000
14) i	2154_1br2nb	2.199	2.267	227.3E6	648.5E6	250.000	250.000
23) i	4268_1br2nb	2.199	2.267	227.3E6	648.5E6	250.000	250.000
34) i	1248_1br2nb	2.199	2.267	227.3E6	648.5E6	250.000	250.000
40) i	3262_1br2nb	2.199	2.267	227.3E6	648.5E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.686	2.874	363.0E6	917.3E6	334.181	277.227
	Spiked Amount 500.000	Range 30 - 150		Recovery =		66.84%	55.45%
3) s	Decachlor...	6.699	7.208	250.1E6	522.9E6	388.063	399.028
	Spiked Amount 500.000	Range 30 - 150		Recovery =		77.61%	79.81%
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\160315\
Data File : 12160315-75.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 3:13 am
Operator : pest12:jw
Sample : l1606763-01,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:59:24 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\160315\
Data File : 12160315-75.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 3:13 am
Operator : pest12:jw
Sample : l1606763-01,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:59:24 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

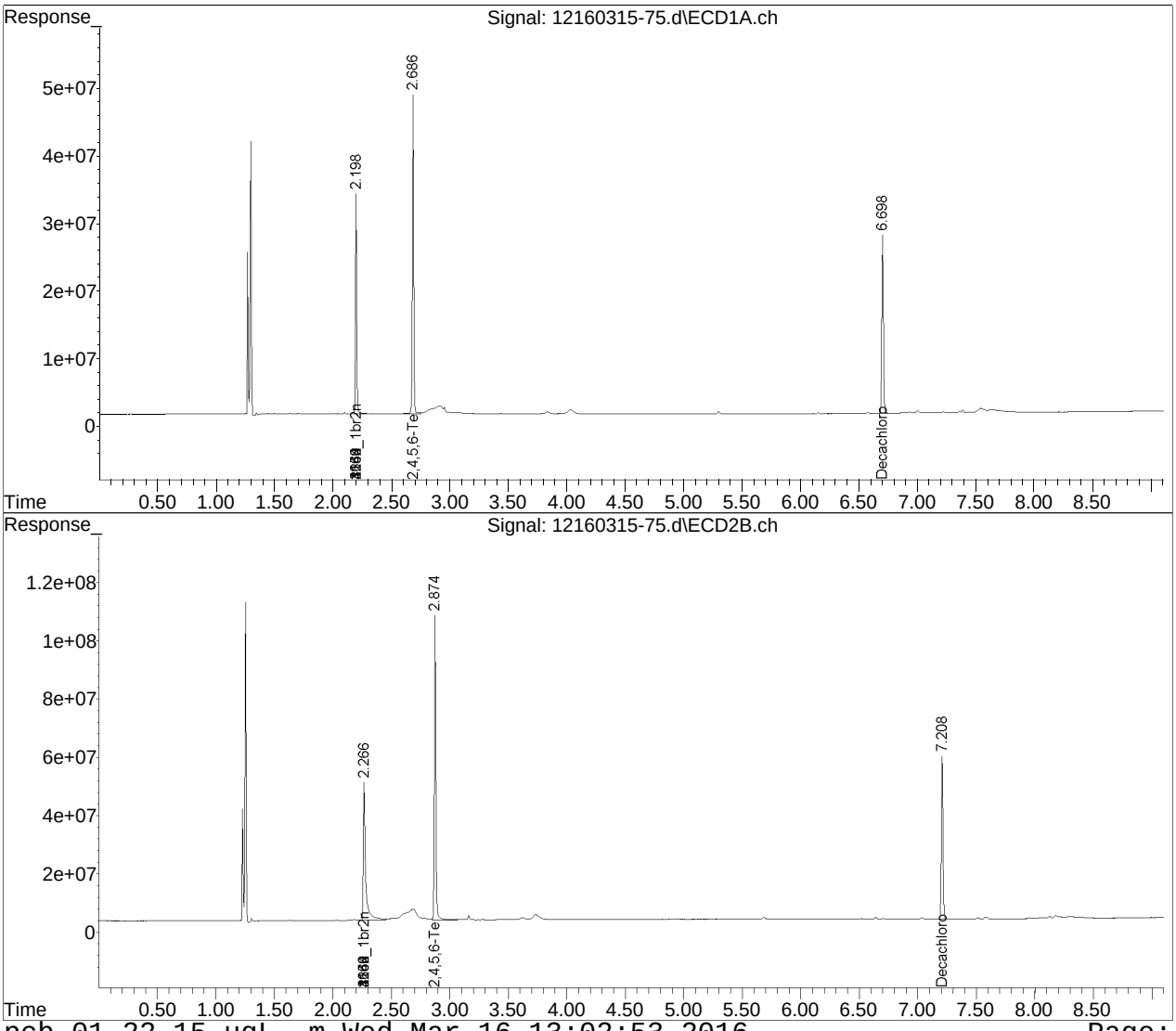
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-75.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 3:13 am
Operator : pest12:jw
Sample : l1606763-01,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:59:24 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration/Negative Proof Report

Data Path	: I:\Pest12\160315\	QMethod	: P12_pcb 01-22-15_ugL_.
Data File	: 12160315-75.d	Operator	: pest12:jw
Date Inj'd	: 3/16/2016 3:13 am	Instrument	: Pest 12
Sample	: l1606763-01,42e,,	Quant Date	: 3/16/2016 1:01 pm

There are no manual integrations or false positives in this file.

Aroclor Standards Data

Initial Calibration

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST12**	**Ical Ref**	**: ICAL10654**
Calibration dates	**: 01/22/15 16:21 01/22/15 22:19**		

Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	1660_1br2nb	----------ISTD----------							
2)	s	2,4,5,6-Tetrachloro-m-xylene	1.196	1.161	1.228	1.193	1.178	1.211	1.195	1.97
3)	s	Decachlorobiphenyl	0.684	0.738	0.764	0.704	0.680	0.684	0.709	4.89
4)	l1	1016-1	0.022	0.022	0.024	0.022	0.019	0.018	0.021	10.20
5)	l1	1016-2	0.050	0.047	0.050	0.045	0.040	0.040	0.045	10.05
6)	l1	1016-3	0.054	0.051	0.055	0.051	0.048	0.049	0.051	5.34
7)	l1	1016-4	0.039	0.039	0.041	0.037	0.033	0.034	0.037	8.27
8)	l1	1016-5	0.039	0.045	0.047	0.040	0.036	0.036	0.041	11.33
9)	l2	1260-1	0.065	0.059	0.061	0.057	0.052	0.051	0.058	9.17
10)	l2	1260-2	0.100	0.090	0.094	0.087	0.080	0.079	0.088	9.13
11)	l2	1260-3	0.054	0.054	0.056	0.052	0.048	0.048	0.052	6.13
12)	l2	1260-4	0.113	0.112	0.122	0.115	0.109	0.108	0.113	4.36
13)	l2	1260-5	0.083	0.080	0.085	0.080	0.074	0.074	0.079	5.58
14)	i	2154_1br2nb	----------ISTD----------							
15)	l3	1221-1	0.013	0.012	0.012	0.012	0.011	0.011	0.012	5.04
16)	l3	1221-2	0.008	0.007	0.008	0.008	0.007	0.007	0.007	7.04
17)	l3	1221-3	0.031	0.029	0.029	0.027	0.026	0.024	0.028	9.05
18)	l4	1254-1	0.052	0.043	0.042	0.040	0.041	0.037	0.042	12.18
19)	l4	1254-2	0.084	0.070	0.070	0.068	0.070	0.065	0.071	9.52
20)	l4	1254-3	0.076	0.067	0.068	0.067	0.070	0.065	0.069	5.50
21)	l4	1254-4	0.059	0.052	0.053	0.052	0.054	0.050	0.054	5.81
22)	l4	1254-5	0.079	0.070	0.071	0.071	0.074	0.069	0.072	5.04
23)	i	4268_1br2nb	----------ISTD----------							
24)	l6	1242-1	0.018	0.018	0.017	0.019	0.015	0.014	0.017	11.50
25)	l6	1242-2	0.040	0.039	0.038	0.035	0.031	0.029	0.036	12.46
26)	l6	1242-3	0.042	0.040	0.041	0.040	0.036	0.035	0.039	7.63
27)	l6	1242-4	0.031	0.032	0.031	0.029	0.026	0.024	0.029	10.37
28)	l6	1242-5	0.026	0.025	0.025	0.024	0.021	0.020	0.024	9.57
29)	l9	1268-1	0.155	0.154	0.155	0.153	0.141	0.133	0.149	6.31
30)	l9	1268-2	0.138	0.148	0.150	0.149	0.137	0.132	0.142	5.29
31)	l9	1268-3	0.094	0.098	0.099	0.098	0.090	0.088	0.095	4.97
32)	l9	1268-4	0.043	0.049	0.047	0.047	0.043	0.042	0.045	6.41
33)	l9	1268-5	0.267	0.275	0.279	0.281	0.259	0.248	0.268	4.68
34)	i	1248_1br2nb	----------ISTD----------							
35)	l7	1248-1	0.035	0.033	0.031	0.029	0.030	0.028	0.031	8.73
36)	l7	1248-2	0.059	0.053	0.051	0.049	0.048	0.045	0.051	8.98
37)	l7	1248-3	0.052	0.045	0.043	0.041	0.042	0.041	0.044	9.79
38)	l7	1248-4	0.041	0.037	0.036	0.034	0.035	0.034	0.036	6.92
39)	l7	1248-5	0.084	0.071	0.070	0.068	0.067	0.063	0.071	10.18
40)	i	3262_1br2nb	----------ISTD----------							

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST12**	**Ical Ref**	**: ICAL10654**
Calibration dates	**: 01/22/15 16:21 01/22/15 22:19**		

Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

	Compound	1	2	3	4	5	6	Avg	%RSD
41) l5	1232-1	0.030	0.026	0.025	0.023	0.024	0.021	0.025	11.78
42) l5	1232-2	0.032	0.026	0.024	0.022	0.022	0.021	0.024	16.52
43) l5	1232-3	0.032	0.027	0.026	0.024	0.026	0.023	0.026	11.69
44) l5	1232-4	0.018	0.017	0.017	0.019	0.019	0.018	0.018	4.29
45) l5	1232-5	0.015	0.016	0.015	0.013	0.013	0.013	0.014	7.63
46) l8	1262-1	0.081	0.071	0.068	0.065	0.063	0.061	0.068	10.52
47) l8	1262-2	0.096	0.083	0.081	0.075	0.076	0.073	0.081	10.46
48) l8	1262-3	0.161	0.148	0.147	0.136	0.137	0.133	0.144	7.39
49) l8	1262-4	0.073	0.053	0.053	0.052	0.048	0.047	0.054	17.78
50) l8	1262-5	0.053	0.045	0.044	0.042	0.042	0.041	0.044	9.81

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST12**	**Ical Ref**	**: ICAL10654**
Calibration dates	**: 01/22/15 16:21 01/22/15 22:19**		

Signal #2 Calibration Files

1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d

6 =12150122n-26.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	1660_1br2nb	----------ISTD----------							
2)	s	2,4,5,6-Tetra	1.117	1.453	1.396	1.278	1.221	1.190	1.276	10.00
3)	s	Decachlorobip	0.441	0.553	0.552	0.513	0.493	0.479	0.505	8.58
4)	l1	1016-1	0.021	0.023	0.024	0.021	0.019	0.018	0.021	10.08
5)	l1	1016-2	0.050	0.053	0.054	0.048	0.043	0.041	0.048	11.15
6)	l1	1016-3	0.056	0.054	0.064	0.057	0.050	0.049	0.055	9.73
7)	l1	1016-4	0.036	0.038	0.042	0.038	0.033	0.032	0.037	9.63
8)	l1	1016-5	0.028	0.030	0.032	0.030	0.026	0.026	0.028	8.24
9)	l2	1260-1	0.064	0.057	0.059	0.053	0.048	0.046	0.055	12.33
10)	l2	1260-2	0.065	0.067	0.069	0.060	0.056	0.054	0.062	9.85
11)	l2	1260-3	0.059	0.049	0.053	0.048	0.043	0.042	0.049	12.62
12)	l2	1260-4	0.106	0.097	0.103	0.097	0.090	0.088	0.097	7.24
13)	l2	1260-5	0.068	0.065	0.069	0.064	0.059	0.058	0.064	7.41
14)	i	2154_1br2nb	----------ISTD----------							
15)	l3	1221-1	0.018	0.015	0.015	0.013	0.012	0.012	0.014	17.79
16)	l3	1221-2	0.011	0.009	0.009	0.008	0.007	0.007	0.009	16.13
17)	l3	1221-3	0.029	0.031	0.031	0.030	0.026	0.026	0.029	8.23
18)	l4	1254-1	0.050	0.044	0.046	0.041	0.040	0.038	0.043	9.62
19)	l4	1254-2	0.061	0.052	0.052	0.048	0.046	0.044	0.050	11.92
20)	l4	1254-3	0.079	0.070	0.071	0.066	0.066	0.063	0.069	8.21
21)	l4	1254-4	0.052	0.048	0.052	0.047	0.048	0.045	0.049	5.71
22)	l4	1254-5	0.072	0.063	0.067	0.062	0.063	0.060	0.065	6.48
23)	i	4268_1br2nb	----------ISTD----------							
24)	l6	1242-1	0.020	0.019	0.018	0.017	0.015	0.013	0.017	15.09
25)	l6	1242-2	0.045	0.043	0.040	0.039	0.033	0.030	0.038	15.24
26)	l6	1242-3	0.049	0.052	0.044	0.047	0.040	0.035	0.044	14.18
27)	l6	1242-4	0.030	0.033	0.031	0.031	0.027	0.023	0.029	12.49
28)	l6	1242-5	0.023	0.025	0.025	0.025	0.022	0.020	0.023	9.28
29)	l9	1268-1	0.120	0.120	0.118	0.114	0.105	0.098	0.112	8.05
30)	l9	1268-2	0.123	0.122	0.119	0.117	0.106	0.099	0.114	8.43
31)	l9	1268-3	0.078	0.078	0.077	0.075	0.068	0.064	0.073	7.95
32)	l9	1268-4	0.035	0.040	0.039	0.037	0.034	0.032	0.036	8.24
33)	l9	1268-5	0.200	0.203	0.201	0.198	0.183	0.172	0.193	6.38
34)	i	1248_1br2nb	----------ISTD----------							
35)	l7	1248-1	0.039	0.033	0.030	0.029	0.029	0.028	0.031	13.10
36)	l7	1248-2	0.043	0.039	0.037	0.035	0.035	0.034	0.037	8.93
37)	l7	1248-3	0.043	0.044	0.040	0.041	0.040	0.038	0.041	5.27
38)	l7	1248-4	0.050	0.051	0.046	0.045	0.045	0.042	0.046	6.67
39)	l7	1248-5	0.049	0.045	0.042	0.041	0.041	0.039	0.043	8.68
40)	i	3262_1br2nb	----------ISTD----------							

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST12**	**Ical Ref**	**: ICAL10654**
Calibration dates	**: 01/22/15 16:21 01/22/15 22:19**		

Signal #2 Calibration Files

1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d

6 =12150122n-26.d

	Compound	1	2	3	4	5	6	Avg	%RSD
41) l5	1232-1	0.033	0.028	0.027	0.024	0.023	0.021	0.026	15.73
42) l5	1232-2	0.034	0.028	0.028	0.026	0.024	0.022	0.027	14.72
43) l5	1232-3	0.036	0.029	0.031	0.029	0.027	0.024	0.029	13.44
44) l5	1232-4	0.017	0.016	0.015	0.014	0.013	0.012	0.014	11.09
45) l5	1232-5	0.022	0.022	0.021	0.020	0.020	0.018	0.021	6.84
46) l8	1262-1	0.059	0.054	0.057	0.047	0.048	0.047	0.052	10.66
47) l8	1262-2	0.079	0.069	0.071	0.062	0.061	0.061	0.067	10.51
48) l8	1262-3	0.077	0.063	0.059	0.054	0.053	0.051	0.059	15.84
49) l8	1262-4	0.143	0.119	0.114	0.105	0.108	0.104	0.116	12.60
50) l8	1262-5	0.100	0.079	0.075	0.070	0.071	0.067	0.077	15.59

Response Factor Report Pest12

Method Path : I:\Pest12\Methods Pest12\
Method File : P12_pcb 01-22-15_ugL_.m
Title : pcb
Last Update : Mon Jan 26 10:39:10 2015
Response Via : Initial Calibration

Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	1660_1br2nb	----------ISTD----------							
2)	s	2,4,5,6-Tetra...	1.196	1.161	1.228	1.193	1.178	1.211	1.195	1.97
3)	s	Decachlorobip...	0.684	0.738	0.764	0.704	0.680	0.684	0.709	4.89
4)	l1	1016-1	0.022	0.022	0.024	0.022	0.019	0.018	0.021	10.20
5)	l1	1016-2	0.050	0.047	0.050	0.045	0.040	0.040	0.045	10.05
6)	l1	1016-3	0.054	0.051	0.055	0.051	0.048	0.049	0.051	5.34
7)	l1	1016-4	0.039	0.039	0.041	0.037	0.033	0.034	0.037	8.27
8)	l1	1016-5	0.039	0.045	0.047	0.040	0.036	0.036	0.041	11.33
9)	l2	1260-1	0.065	0.059	0.061	0.057	0.052	0.051	0.058	9.17
10)	l2	1260-2	0.100	0.090	0.094	0.087	0.080	0.079	0.088	9.13
11)	l2	1260-3	0.054	0.054	0.056	0.052	0.048	0.048	0.052	6.13
12)	l2	1260-4	0.113	0.112	0.122	0.115	0.109	0.108	0.113	4.36
13)	l2	1260-5	0.083	0.080	0.085	0.080	0.074	0.074	0.079	5.58
14)	i	2154_1br2nb	----------ISTD----------							
15)	l3	1221-1	0.013	0.012	0.012	0.012	0.011	0.011	0.012	5.04
16)	l3	1221-2	0.008	0.007	0.008	0.008	0.007	0.007	0.007	7.04
17)	l3	1221-3	0.031	0.029	0.029	0.027	0.026	0.024	0.028	9.05
18)	l4	1254-1	0.052	0.043	0.042	0.040	0.041	0.037	0.042	12.18
19)	l4	1254-2	0.084	0.070	0.070	0.068	0.070	0.065	0.071	9.52
20)	l4	1254-3	0.076	0.067	0.068	0.067	0.070	0.065	0.069	5.50
21)	l4	1254-4	0.059	0.052	0.053	0.052	0.054	0.050	0.054	5.81
22)	l4	1254-5	0.079	0.070	0.071	0.071	0.074	0.069	0.072	5.04
23)	i	4268_1br2nb	----------ISTD----------							
24)	l6	1242-1	0.018	0.018	0.017	0.019	0.015	0.014	0.017	11.50
25)	l6	1242-2	0.040	0.039	0.038	0.035	0.031	0.029	0.036	12.46
26)	l6	1242-3	0.042	0.040	0.041	0.040	0.036	0.035	0.039	7.63
27)	l6	1242-4	0.031	0.032	0.031	0.029	0.026	0.024	0.029	10.37
28)	l6	1242-5	0.026	0.025	0.025	0.024	0.021	0.020	0.024	9.57
29)	l9	1268-1	0.155	0.154	0.155	0.153	0.141	0.133	0.149	6.31

Method Path : I:\Pest12\Methods Pest12\
Method File : P12_pcb 01-22-15_ugL_.m
Title : pcb
Last Update : Mon Jan 26 10:39:10 2015
Response Via : Initial Calibration

Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

	Compound	1	2	3	4	5	6	Avg	%RSD
30) l9	1268-2	0.138	0.148	0.150	0.149	0.137	0.132	0.142	5.29
31) l9	1268-3	0.094	0.098	0.099	0.098	0.090	0.088	0.095	4.97
32) l9	1268-4	0.043	0.049	0.047	0.047	0.043	0.042	0.045	6.41
33) l9	1268-5	0.267	0.275	0.279	0.281	0.259	0.248	0.268	4.68
34) i	1248_1br2nb	----------ISTD----------							
35) l7	1248-1	0.035	0.033	0.031	0.029	0.030	0.028	0.031	8.73
36) l7	1248-2	0.059	0.053	0.051	0.049	0.048	0.045	0.051	8.98
37) l7	1248-3	0.052	0.045	0.043	0.041	0.042	0.041	0.044	9.79
38) l7	1248-4	0.041	0.037	0.036	0.034	0.035	0.034	0.036	6.92
39) l7	1248-5	0.084	0.071	0.070	0.068	0.067	0.063	0.071	10.18
40) i	3262_1br2nb	----------ISTD----------							
41) l5	1232-1	0.030	0.026	0.025	0.023	0.024	0.021	0.025	11.78
42) l5	1232-2	0.032	0.026	0.024	0.022	0.022	0.021	0.024	16.52
43) l5	1232-3	0.032	0.027	0.026	0.024	0.026	0.023	0.026	11.69
44) l5	1232-4	0.018	0.017	0.017	0.019	0.019	0.018	0.018	4.29
45) l5	1232-5	0.015	0.016	0.015	0.013	0.013	0.013	0.014	7.63
46) l8	1262-1	0.081	0.071	0.068	0.065	0.063	0.061	0.068	10.52
47) l8	1262-2	0.096	0.083	0.081	0.075	0.076	0.073	0.081	10.46
48) l8	1262-3	0.161	0.148	0.147	0.136	0.137	0.133	0.144	7.39
49) l8	1262-4	0.073	0.053	0.053	0.052	0.048	0.047	0.054	17.78
50) l8	1262-5	0.053	0.045	0.044	0.042	0.042	0.041	0.044	9.81

Signal #2 Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

	Compound	1	2	3	4	5	6	Avg	%RSD
1) i	1660_1br2nb	----------ISTD----------							
2) s	2,4,5,6-Tetra...	1.117	1.453	1.396	1.278	1.221	1.190	1.276	10.00

Method Path : I:\Pest12\Methods Pest12\
Method File : P12_pcb 01-22-15_ugL_.m
Title : pcb
Last Update : Mon Jan 26 10:39:10 2015
Response Via : Initial Calibration

Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

		Compound	1	2	3	4	5	6	Avg	%RSD
3)	s	Decachlorobip...	0.441	0.553	0.552	0.513	0.493	0.479	0.505	8.58
4)	l1	1016-1	0.021	0.023	0.024	0.021	0.019	0.018	0.021	10.08
5)	l1	1016-2	0.050	0.053	0.054	0.048	0.043	0.041	0.048	11.15
6)	l1	1016-3	0.056	0.054	0.064	0.057	0.050	0.049	0.055	9.73
7)	l1	1016-4	0.036	0.038	0.042	0.038	0.033	0.032	0.037	9.63
8)	l1	1016-5	0.028	0.030	0.032	0.030	0.026	0.026	0.028	8.24
9)	l2	1260-1	0.064	0.057	0.059	0.053	0.048	0.046	0.055	12.33
10)	l2	1260-2	0.065	0.067	0.069	0.060	0.056	0.054	0.062	9.85
11)	l2	1260-3	0.059	0.049	0.053	0.048	0.043	0.042	0.049	12.62
12)	l2	1260-4	0.106	0.097	0.103	0.097	0.090	0.088	0.097	7.24
13)	l2	1260-5	0.068	0.065	0.069	0.064	0.059	0.058	0.064	7.41
14)	i	2154_1br2nb	----------ISTD----------							
15)	l3	1221-1	0.018	0.015	0.015	0.013	0.012	0.012	0.014	17.79
16)	l3	1221-2	0.011	0.009	0.009	0.008	0.007	0.007	0.009	16.13
17)	l3	1221-3	0.029	0.031	0.031	0.030	0.026	0.026	0.029	8.23
18)	l4	1254-1	0.050	0.044	0.046	0.041	0.040	0.038	0.043	9.62
19)	l4	1254-2	0.061	0.052	0.052	0.048	0.046	0.044	0.050	11.92
20)	l4	1254-3	0.079	0.070	0.071	0.066	0.066	0.063	0.069	8.21
21)	l4	1254-4	0.052	0.048	0.052	0.047	0.048	0.045	0.049	5.71
22)	l4	1254-5	0.072	0.063	0.067	0.062	0.063	0.060	0.065	6.48
23)	i	4268_1br2nb	----------ISTD----------							
24)	l6	1242-1	0.020	0.019	0.018	0.017	0.015	0.013	0.017	15.09
25)	l6	1242-2	0.045	0.043	0.040	0.039	0.033	0.030	0.038	15.24
26)	l6	1242-3	0.049	0.052	0.044	0.047	0.040	0.035	0.044	14.18
27)	l6	1242-4	0.030	0.033	0.031	0.031	0.027	0.023	0.029	12.49
28)	l6	1242-5	0.023	0.025	0.025	0.025	0.022	0.020	0.023	9.28
29)	l9	1268-1	0.120	0.120	0.118	0.114	0.105	0.098	0.112	8.05
30)	l9	1268-2	0.123	0.122	0.119	0.117	0.106	0.099	0.114	8.43
31)	l9	1268-3	0.078	0.078	0.077	0.075	0.068	0.064	0.073	7.95
32)	l9	1268-4	0.035	0.040	0.039	0.037	0.034	0.032	0.036	8.24
33)	l9	1268-5	0.200	0.203	0.201	0.198	0.183	0.172	0.193	6.38

Method Path : I:\Pest12\Methods Pest12\
Method File : P12_pcb 01-22-15_ugL_.m
Title : pcb
Last Update : Mon Jan 26 10:39:10 2015
Response Via : Initial Calibration

Calibration Files
1 =12150122n-21.d 2 =12150122n-22.d 3 =12150122n-23.d 4 =12150122n-24.d 5 =12150122n-25.d
6 =12150122n-26.d

		Compound	1	2	3	4	5	6	Avg	%RSD
34)	i	1248_1br2nb	----------ISTD----------							
35)	l7	1248-1	0.039	0.033	0.030	0.029	0.029	0.028	0.031	13.10
36)	l7	1248-2	0.043	0.039	0.037	0.035	0.035	0.034	0.037	8.93
37)	l7	1248-3	0.043	0.044	0.040	0.041	0.040	0.038	0.041	5.27
38)	l7	1248-4	0.050	0.051	0.046	0.045	0.045	0.042	0.046	6.67
39)	l7	1248-5	0.049	0.045	0.042	0.041	0.041	0.039	0.043	8.68
40)	i	3262_1br2nb	----------ISTD----------							
41)	l5	1232-1	0.033	0.028	0.027	0.024	0.023	0.021	0.026	15.73
42)	l5	1232-2	0.034	0.028	0.028	0.026	0.024	0.022	0.027	14.72
43)	l5	1232-3	0.036	0.029	0.031	0.029	0.027	0.024	0.029	13.44
44)	l5	1232-4	0.017	0.016	0.015	0.014	0.013	0.012	0.014	11.09
45)	l5	1232-5	0.022	0.022	0.021	0.020	0.020	0.018	0.021	6.84
46)	l8	1262-1	0.059	0.054	0.057	0.047	0.048	0.047	0.052	10.66
47)	l8	1262-2	0.079	0.069	0.071	0.062	0.061	0.061	0.067	10.51
48)	l8	1262-3	0.077	0.063	0.059	0.054	0.053	0.051	0.059	15.84
49)	l8	1262-4	0.143	0.119	0.114	0.105	0.108	0.104	0.116	12.60
50)	l8	1262-5	0.100	0.079	0.075	0.070	0.071	0.067	0.077	15.59

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:21 pm
Operator : pest12:jt
Sample : il14268,42e,,6676
Misc : wg756944,
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:51:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:50:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	2.239	2.337	223.6E6	546.5E6	250.000	250.000
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:21 pm
Operator : pest12:jt
Sample : il14268,42e,,6676
Misc : wg756944,
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:51:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:50:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.994	3.371	1605351	4353388	113.292M4	132.973
25) l6	1242-2	3.253	3.704	3613765	9870198	126.160M4	132.624M4
26) l6	1242-3	3.616	4.096	3779513	10627392	114.606	119.660M4
27) l6	1242-4	3.723	4.209	2760065	6563619	116.535M4	111.497
28) l6	1242-5	4.392	4.888	2319588	5075028	119.252	105.447M4
Sum	1242-1			14078282	36489625	589.844	602.201
Average	1242-1					117.969	120.440
29) l9	1268-1	6.119	6.637	13865710	26163163	108.775	113.244
30) l9	1268-2	6.147	6.670	12374240	26943367	99.333	114.711
31) l9	1268-3	6.280	6.847	8421250	17030165	102.383	113.047
32) l9	1268-4	6.519	7.028	3816431	7735184	96.624	103.351
33) l9	1268-5	6.712	7.254	23896193	43767021	101.659	108.537
Sum	1268-1			62373825	121.6E6	NoCal	NoCal
Average	1268-1					101.755	110.578
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:21 pm
Operator : pest12:jt
Sample : il14268,42e,,6676
Misc : wg756944,
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:51:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:50:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

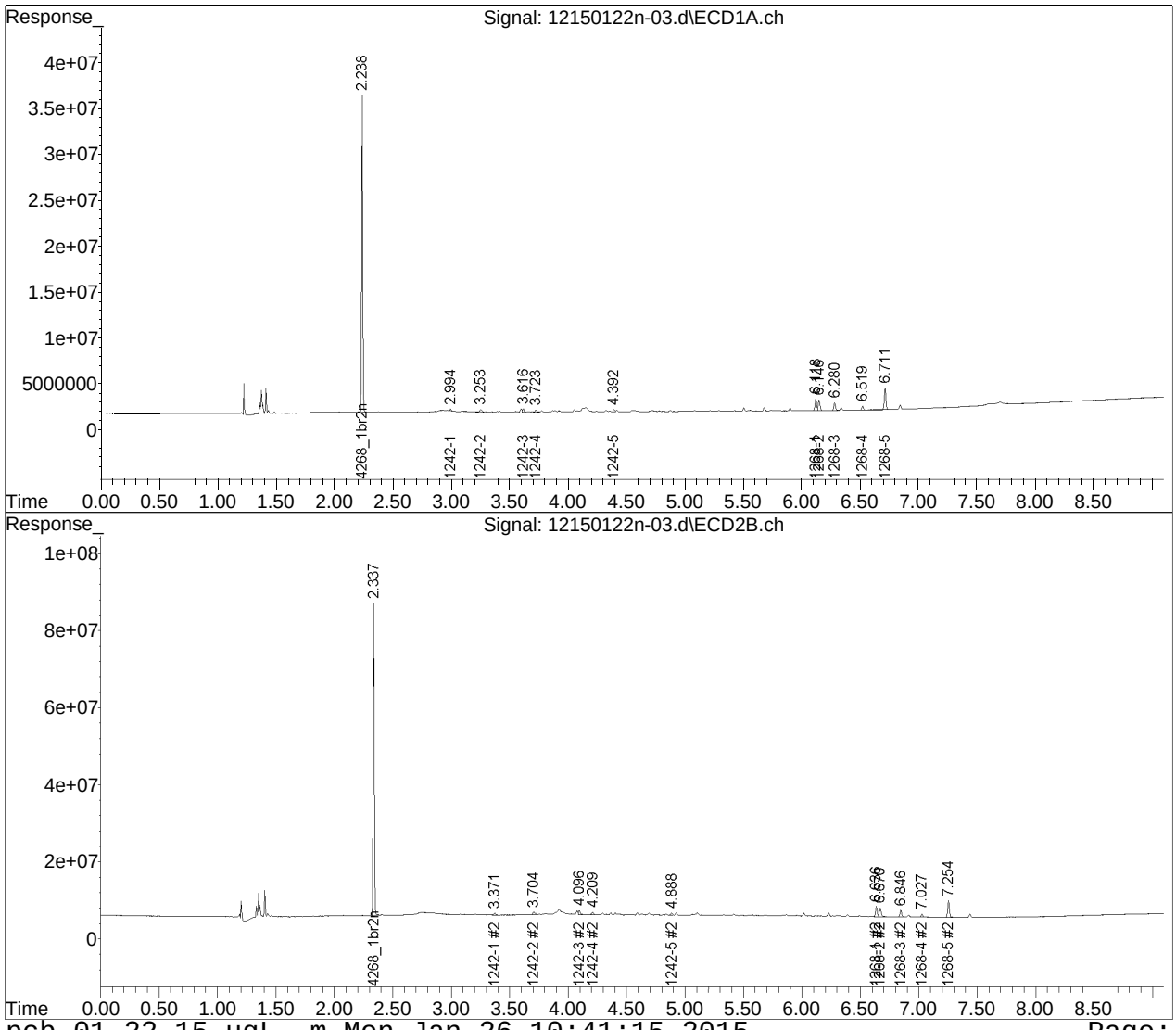
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:21 pm
Operator : pest12:jt
Sample : il14268,42e,,6676
Misc : wg756944,
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:51:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:50:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

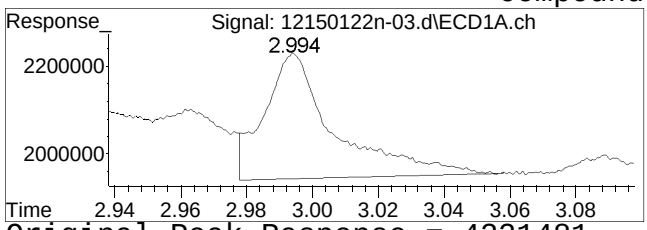


Manual Integration/Negative Proof Report

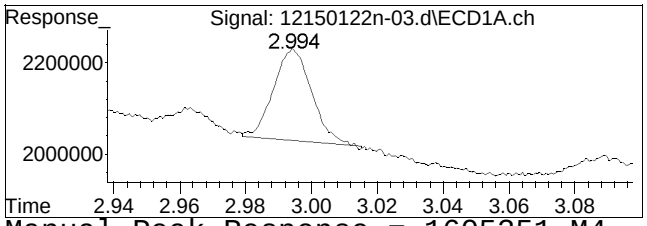
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-03.d
Date Inj'd : 1/22/2015 4:21 pm
Sample : il14268,42e,,6676

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:50 am

Compound #24: 1242-1



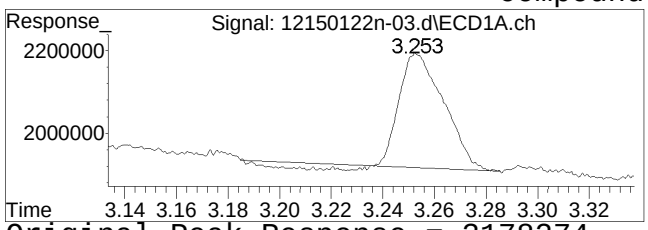
Original Peak Response = 4221481



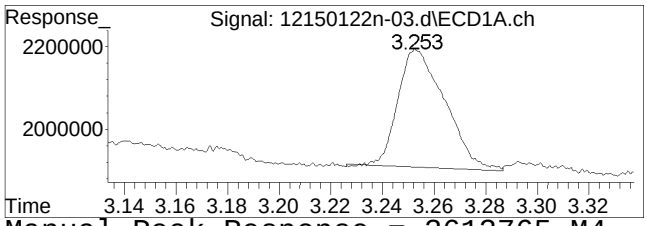
Manual Peak Response = 1605351 M4

M4 = Poor automated baseline construction.

Compound #25: 1242-2



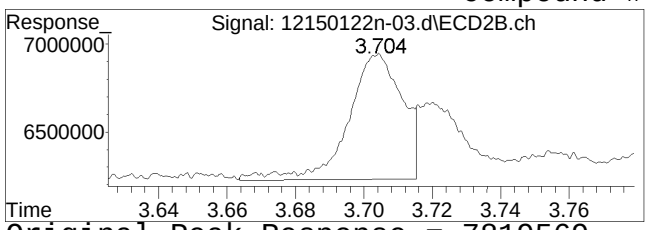
Original Peak Response = 3178274



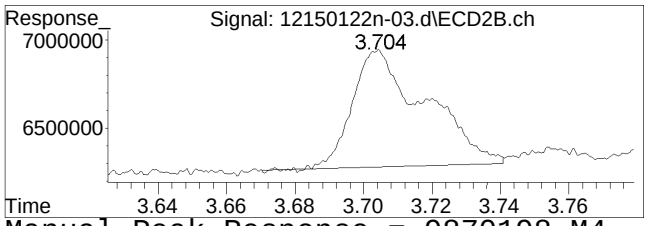
Manual Peak Response = 3613765 M4

M4 = Poor automated baseline construction.

Compound #76: 1242-2 #2



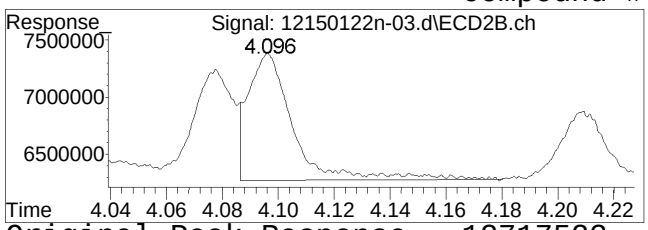
Original Peak Response = 7819569



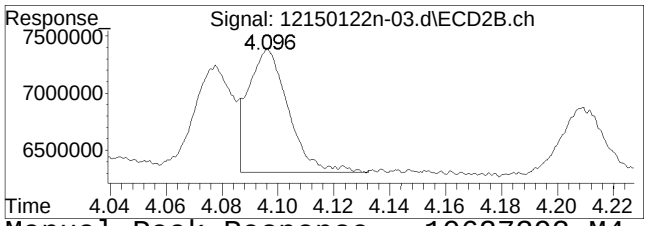
Manual Peak Response = 9870198 M4

M4 = Poor automated baseline construction.

Compound #77: 1242-3 #2



Original Peak Response = 12717523



Manual Peak Response = 10627392 M4

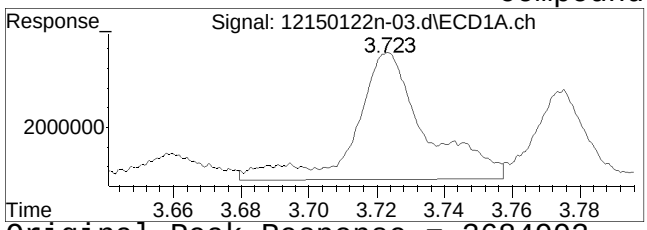
M4 = Poor automated baseline construction.

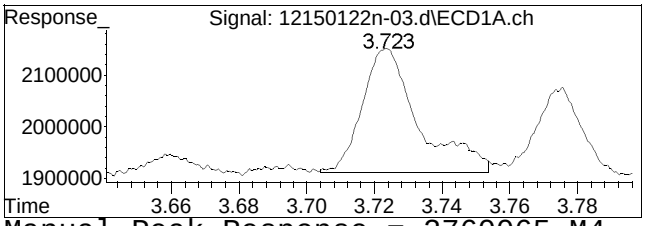
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-03.d
Date Inj'd : 1/22/2015 4:21 pm
Sample : il14268,42e,,6676

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:50 am

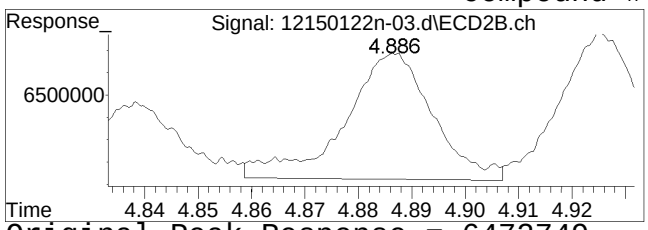
Compound #27: 1242-4

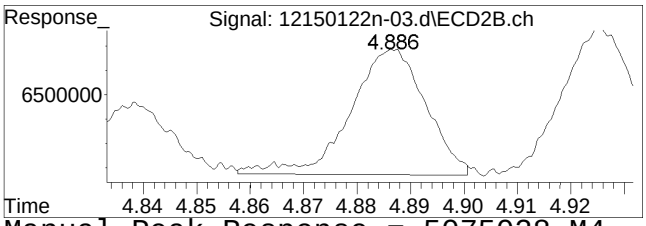




Original Peak Response = 3684993 Manual Peak Response = 2760065 M4
M4 = Poor automated baseline construction.

Compound #79: 1242-5 #2





Original Peak Response = 6472749 Manual Peak Response = 5075028 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:33 pm
Operator : pest12:jt
Sample : il24268,42e,,6638
Misc : wg756944,
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:53:13 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:51:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	2.237	2.335	218.3E6	538.5E6	250.000	250.000
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:33 pm
Operator : pest12:jt
Sample : il24268,42e,,6638
Misc : wg756944,
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:53:13 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:51:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.992	3.369	7648687	20709169	535.226M4	593.122
25) l6	1242-2	3.251	3.701	16891481	46057335	567.070	580.752M4
26) l6	1242-3	3.614	4.094	17676490	56524474	529.797	615.696
27) l6	1242-4	3.721	4.207	13766596	35786395	571.862	599.758
28) l6	1242-5	4.390	4.885	10838227	27262697	544.649	567.200
Sum	1242-1			66821481	186.3E6	2748.604	2956.529
Average	1242-1					549.721	591.306
29) l9	1268-1	6.117	6.635	67390020	129.1E6	530.003	549.136
30) l9	1268-2	6.145	6.668	64803638	131.2E6	533.849	546.829
31) l9	1268-3	6.278	6.844	42946713	84022754	531.764	548.205
32) l9	1268-4	6.517	7.026	21278459	42654144	556.633	573.623
33) l9	1268-5	6.709	7.251	120.2E6	218.5E6	521.586	538.507
Sum	1268-1			316.6E6	605.5E6	NoCal	NoCal
Average	1268-1					534.767	551.260
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:33 pm
Operator : pest12:jt
Sample : il24268,42e,,6638
Misc : wg756944,
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:53:13 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:51:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

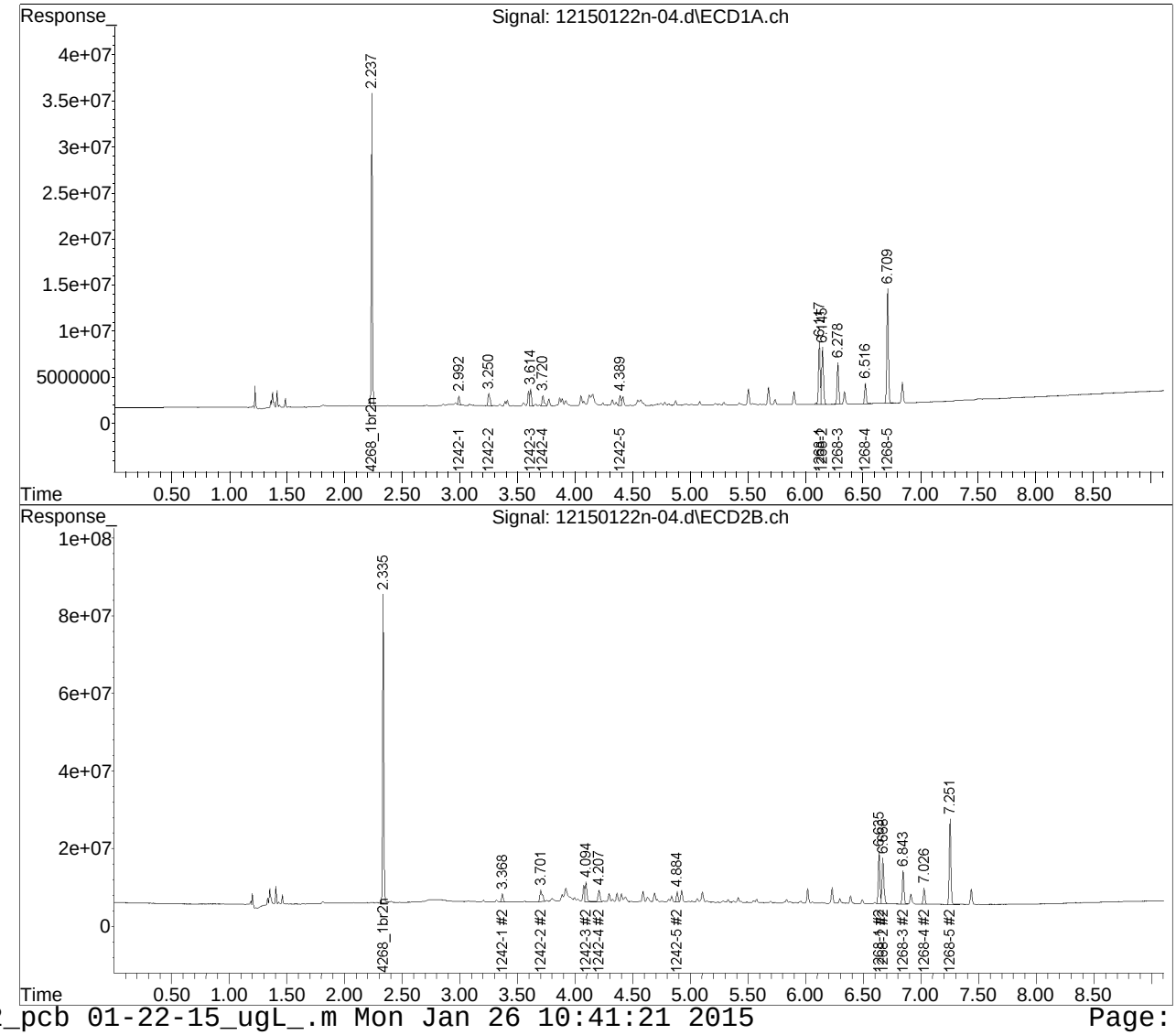
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:33 pm
Operator : pest12:jt
Sample : il24268,42e,,6638
Misc : wg756944,
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:53:13 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:51:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

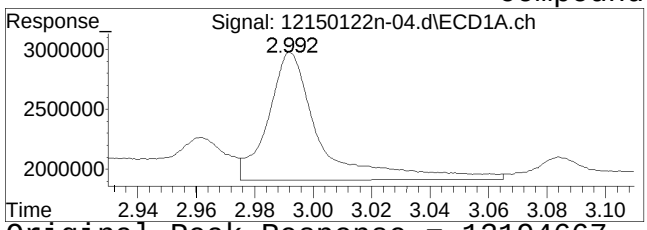


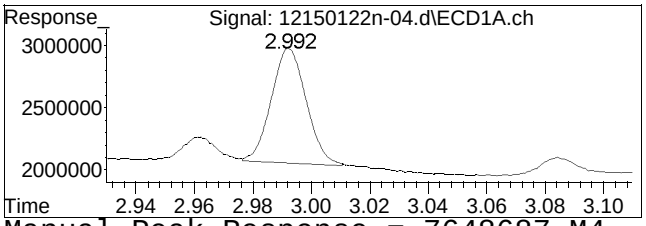
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-04.d
Date Inj'd : 1/22/2015 4:33 pm
Sample : il24268,42e,,6638

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:52 am

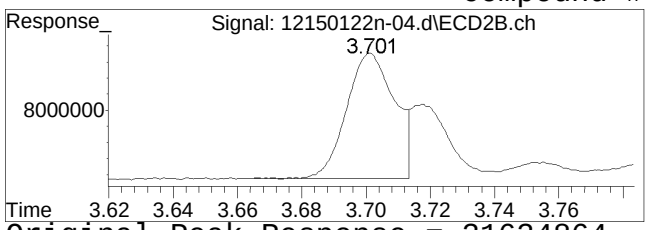
Compound #24: 1242-1

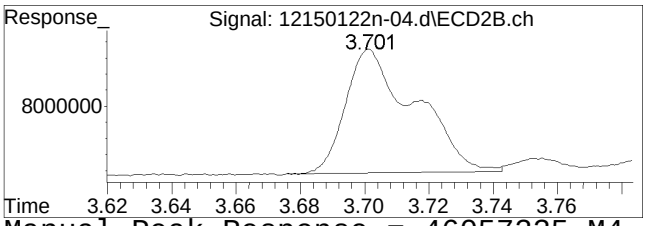




Original Peak Response = 13194667 Manual Peak Response = 7648687 M4
M4 = Poor automated baseline construction.

Compound #76: 1242-2 #2





Original Peak Response = 31634864 Manual Peak Response = 46057335 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:46 pm
Operator : pest12:jt
Sample : il34268,42e,,6639
Misc : wg756944,
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:54:25 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:53:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	2.237	2.336	218.0E6	542.1E6	250.000	250.000
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:46 pm
Operator : pest12:jt
Sample : il34268,42e,,6639
Misc : wg756944,
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:54:25 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:53:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.991	3.369	14947987	39597474	1033.039M4	1085.992
25) l6	1242-2	3.251	3.701	33287766	87060062	1089.973	1056.246M4
26) l6	1242-3	3.613	4.094	35919197	95118927	1065.503	983.581M4
27) l6	1242-4	3.720	4.206	27206607	66624275	1100.251	1066.493M4
28) l6	1242-5	4.389	4.884	21882730	53931617	1082.013	1085.304
Sum	1242-1			133.2E6	342.3E6	5370.779	5277.616
Average	1242-1					1074.156	1055.523
29) l9	1268-1	6.116	6.634	135.5E6	255.6E6	1054.312	1058.792
30) l9	1268-2	6.144	6.667	130.5E6	258.4E6	1062.659	1049.890
31) l9	1268-3	6.277	6.843	86328804	165.9E6	1057.115	1055.058
32) l9	1268-4	6.515	7.023	40898370	83628911	1047.772	1085.119
33) l9	1268-5	6.707	7.248	243.1E6	435.2E6	1047.803	1049.033
Sum	1268-1			636.3E6	1198.7E6	NoCal	NoCal
Average	1268-1					1053.932	1059.578
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:46 pm
Operator : pest12:jt
Sample : il34268,42e,,6639
Misc : wg756944,
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:54:25 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:53:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

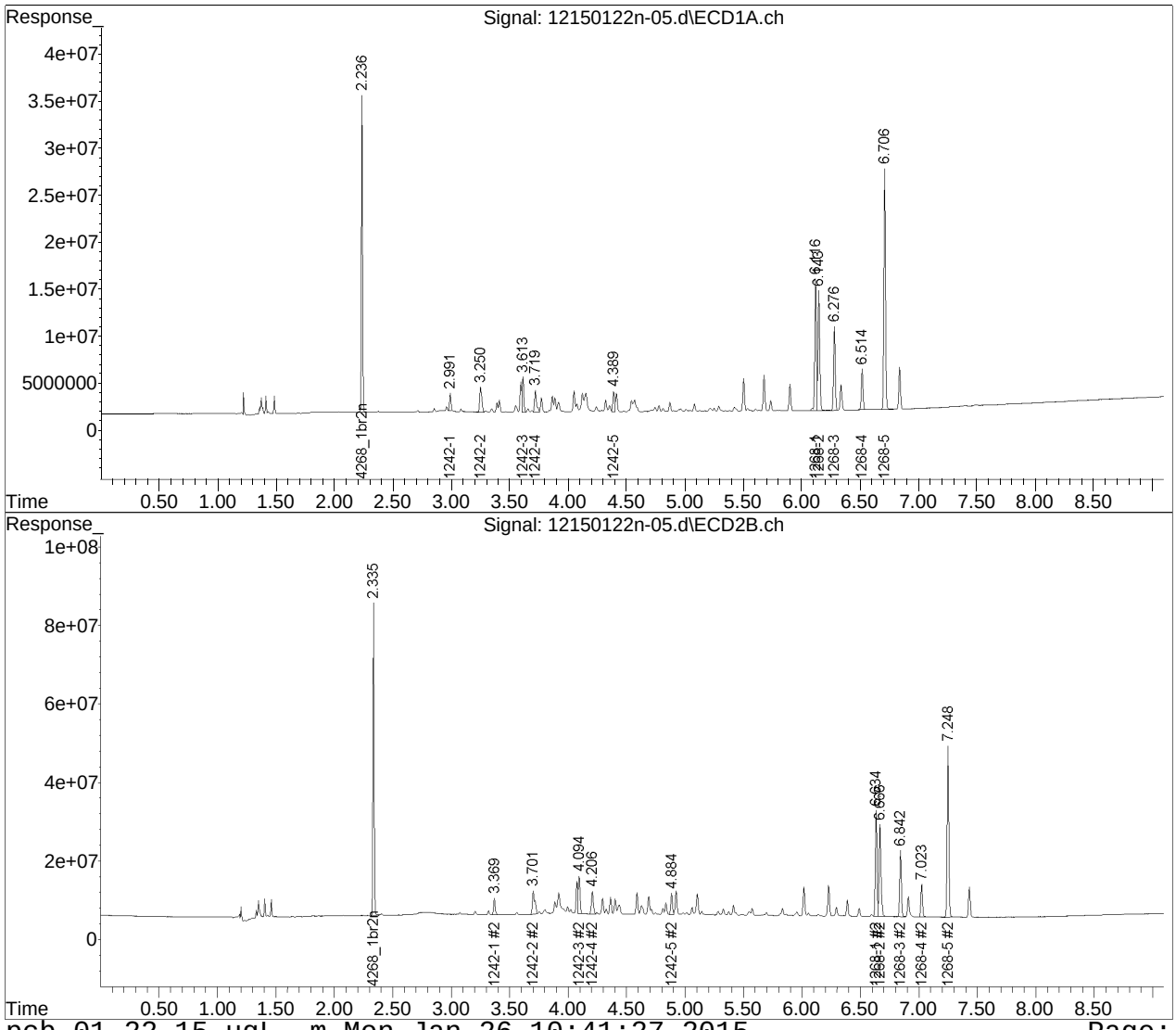
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:46 pm
Operator : pest12:jt
Sample : il34268,42e,,6639
Misc : wg756944,
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:54:25 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:53:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

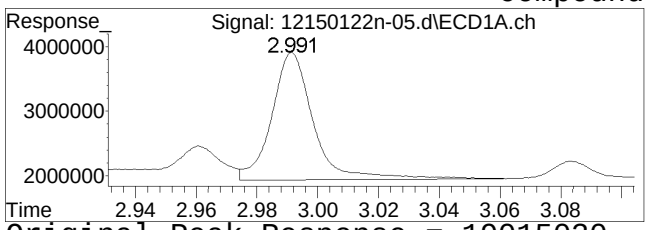


Manual Integration/Negative Proof Report

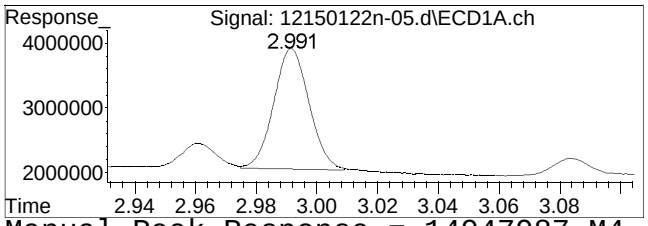
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-05.d
Date Inj'd : 1/22/2015 4:46 pm
Sample : il34268,42e,,6639

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:53 am

Compound #24: 1242-1



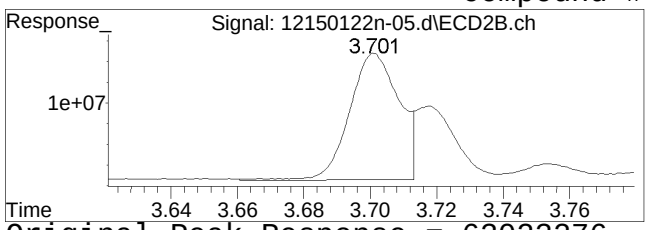
Original Peak Response = 19015030



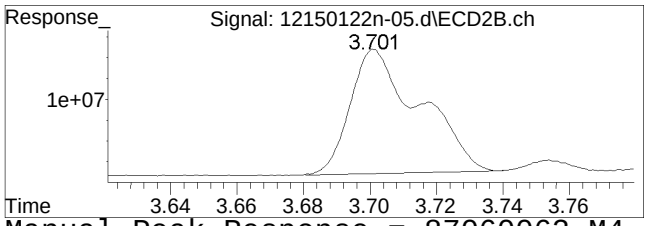
Manual Peak Response = 14947987 M4

M4 = Poor automated baseline construction.

Compound #76: 1242-2 #2



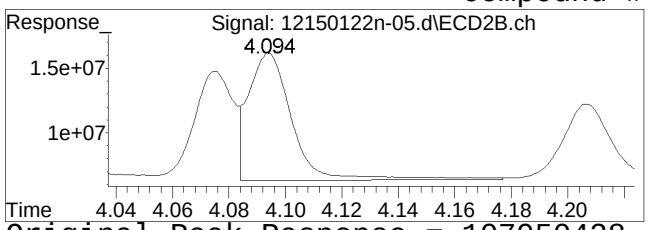
Original Peak Response = 63023276



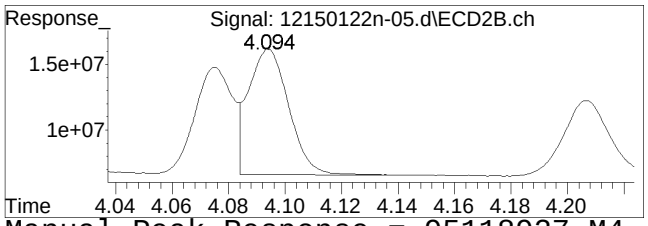
Manual Peak Response = 87060062 M4

M4 = Poor automated baseline construction.

Compound #77: 1242-3 #2



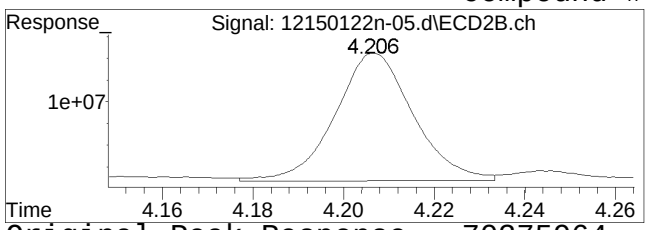
Original Peak Response = 107950428



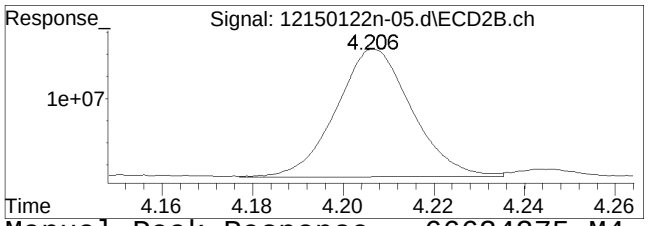
Manual Peak Response = 95118927 M4

M4 = Poor automated baseline construction.

Compound #78: 1242-4 #2



Original Peak Response = 70375964



Manual Peak Response = 66624275 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:58 pm
Operator : pest12:jt
Sample : il44268,42e,,6640
Misc : wg756944,
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:48:01 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	2.238	2.336	220.1E6	545.9E6	250.000	250.000
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:58 pm
Operator : pest12:jt
Sample : il44268,42e,,6640
Misc : wg756944,
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:48:01 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.993	3.369	41193251	91677405	NoCal	NoCal
25) l6	1242-2	3.252	3.701	78107377	213.5E6	NoCal	NoCal
26) l6	1242-3	3.614	4.094	87403583	256.4E6	NoCal	NoCal
27) l6	1242-4	3.721	4.207	63939286	169.4E6	NoCal	NoCal
28) l6	1242-5	4.391	4.885	52042471	134.5E6	NoCal	NoCal
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	6.119	6.637	337.6E6	624.7E6	NoCal	NoCal
30) l9	1268-2	6.147	6.670	327.3E6	639.5E6	NoCal	NoCal
31) l9	1268-3	6.281	6.847	215.3E6	407.6E6	NoCal	NoCal
32) l9	1268-4	6.520	7.029	104.2E6	203.0E6	NoCal	NoCal
33) l9	1268-5	6.713	7.255	617.7E6	1080.9E6	NoCal	NoCal
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:58 pm
Operator : pest12:jt
Sample : il44268,42e,,6640
Misc : wg756944,
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:48:01 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

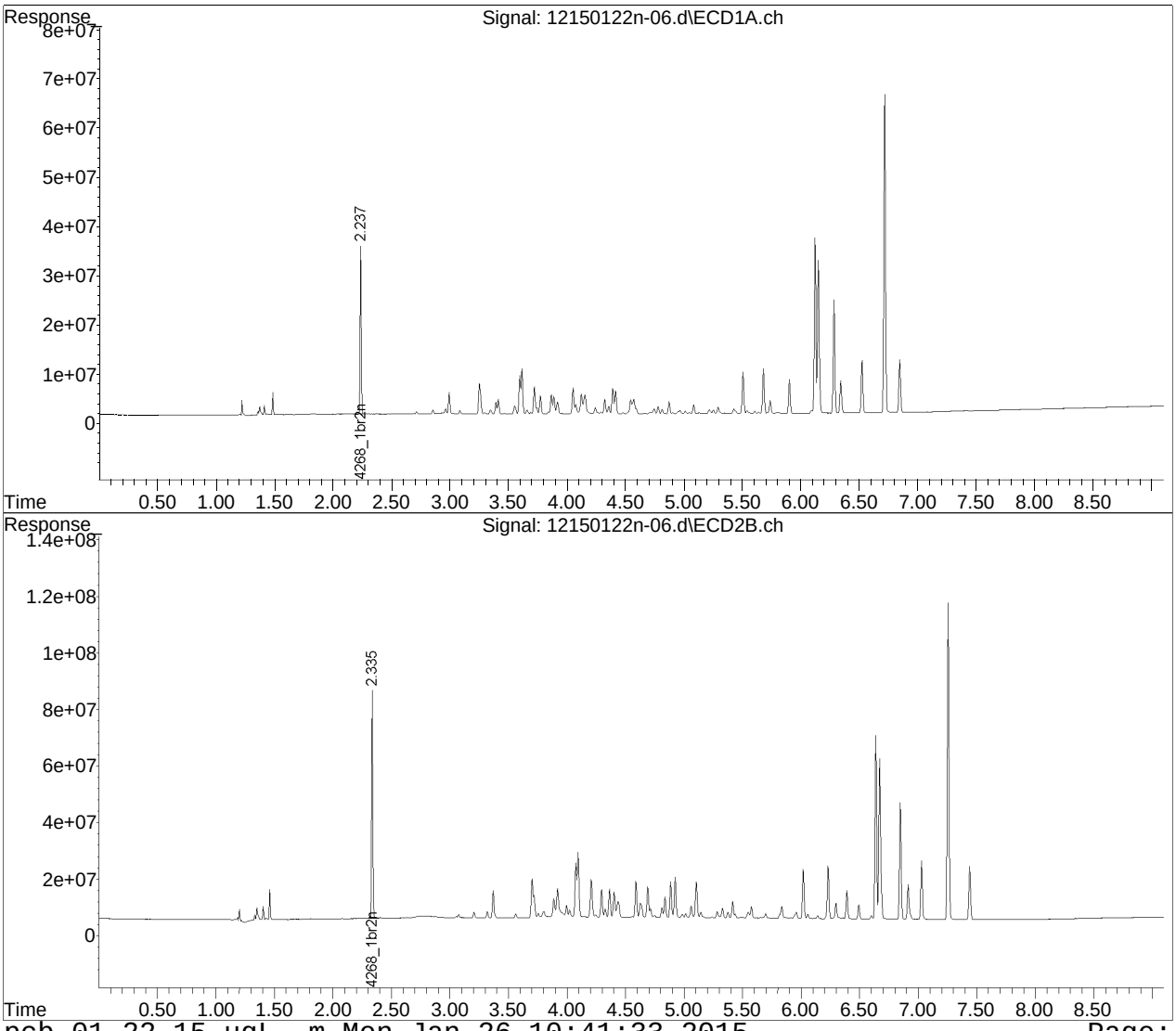
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 4:58 pm
Operator : pest12:jt
Sample : il44268,42e,,6640
Misc : wg756944,
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:48:01 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration/Negative Proof Report

Data Path	: I:\Pest12\150122nical\	QMethod	: P12_pcb 01-22-15_ugL_.
Data File	: 12150122n-06.d	Operator	: pest12:jt
Date Inj'd	: 1/22/2015 4:58 pm	Instrument	: Pest12
Sample	: il44268,42e,,6640	Quant Date	: 1/26/2015 9:47 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:11 pm
Operator : pest12:jt
Sample : il54268,42e,,6641
Misc : wg756944,
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:49:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:48:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	2.236	2.335	236.2E6	581.3E6	250.000	250.000
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:11 pm
Operator : pest12:jt
Sample : il54268,42e,,6641
Misc : wg756944,
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:49:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:48:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.991	3.368	71979102	171.1E6	4070.578	4382.410
25) l6	1242-2	3.250	3.701	148.3E6	389.4E6	4424.355	4282.243
26) l6	1242-3	3.613	4.094	171.1E6	464.5E6	4559.368	4252.281
27) l6	1242-4	3.719	4.207	122.6E6	310.0E6	4465.217	4297.640
28) l6	1242-5	4.388	4.884	100.4E6	250.6E6	4494.740	4374.253
Sum	1242-1			614.4E6	1585.6E6	22014.258	21588.827
Average	1242-1					4402.852	4317.765
29) l9	1268-1	6.114	6.632	665.9E6	1215.1E6	4594.393	4567.079
30) l9	1268-2	6.142	6.665	647.9E6	1232.7E6	4611.771	4525.925
31) l9	1268-3	6.275	6.841	427.5E6	791.1E6	4626.240	4556.243
32) l9	1268-4	6.513	7.021	205.2E6	391.8E6	4587.451	4531.408
33) l9	1268-5	6.705	7.246	1224.9E6	2126.9E6	4619.893	4619.789
Sum	1268-1			3171.4E6	5757.5E6	NoCal	NoCal
Average	1268-1					4607.950	4560.089
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:11 pm
Operator : pest12:jt
Sample : il54268,42e,,6641
Misc : wg756944,
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:49:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:48:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

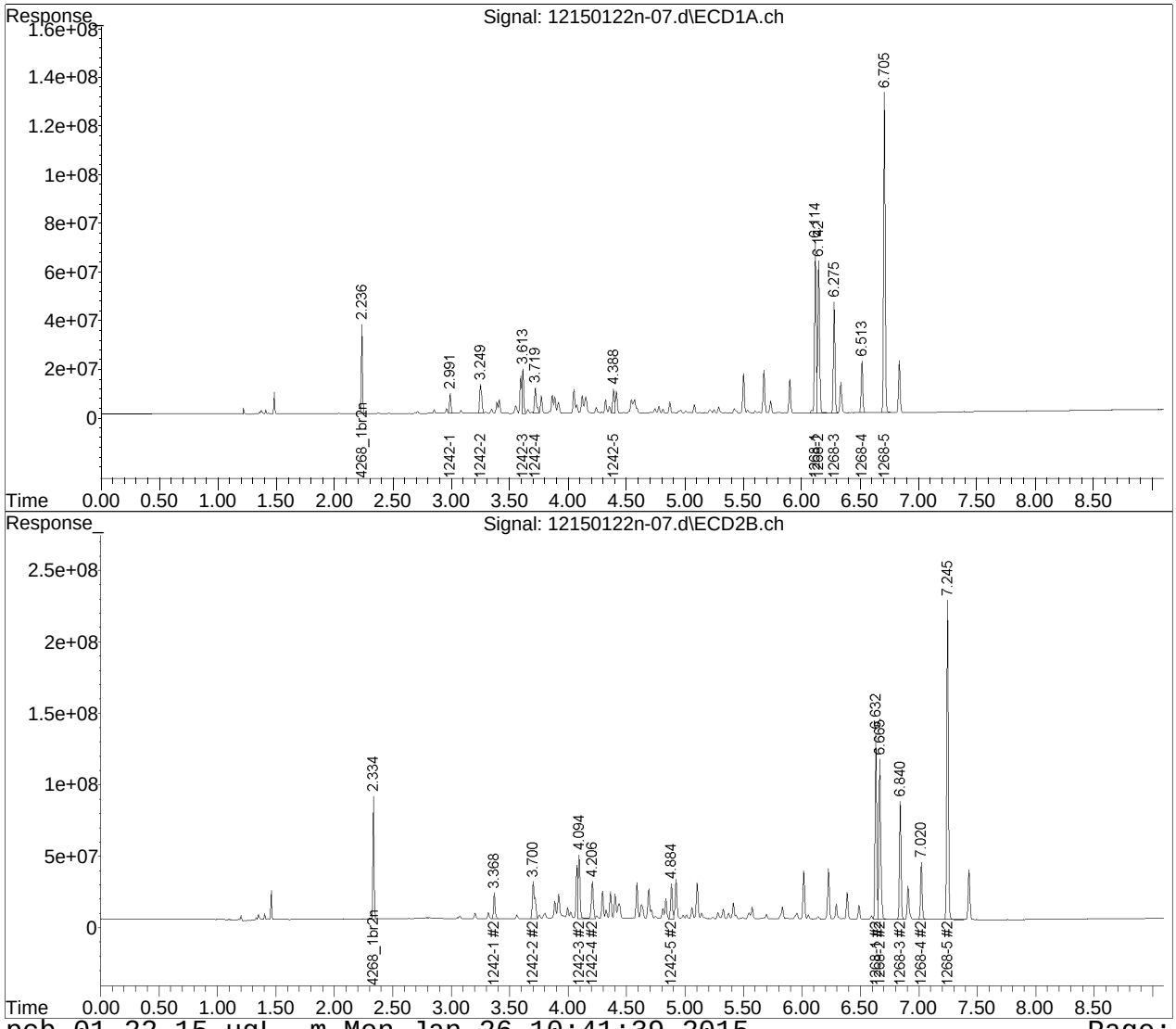
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:11 pm
Operator : pest12:jt
Sample : il54268,42e,,6641
Misc : wg756944,
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:49:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:48:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration/Negative Proof Report

Data Path	: I:\Pest12\150122nical\	QMethod	: P12_pcb 01-22-15_ugL_.
Data File	: 12150122n-07.d	Operator	: pest12:jt
Date Inj'd	: 1/22/2015 5:11 pm	Instrument	: Pest12
Sample	: il54268,42e,,6641	Quant Date	: 1/26/2015 9:48 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:23 pm
Operator : pest12:jt
Sample : il64268,42e,,6642
Misc : wg756944,
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:50:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:49:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	2.236	2.334	239.6E6	603.3E6	250.000	250.000
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:23 pm
Operator : pest12:jt
Sample : il64268,42e,,6642
Misc : wg756944,
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:50:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:49:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.991	3.367	130.1E6	323.8E6	7995.504	8515.294M4
25) l6	1242-2	3.249	3.700	279.6E6	712.6E6	8725.741	8133.789M4
26) l6	1242-3	3.612	4.093	332.4E6	843.7E6	9137.283M4	8043.488M4
27) l6	1242-4	3.719	4.206	234.2E6	557.5E6	8889.605	8009.622M4
28) l6	1242-5	4.388	4.884	194.9E6	479.1E6	9059.081	8594.654
Sum	1242-1			1171.2E6	2916.6E6	43807.213	41296.847
Average	1242-1					8761.443	8259.369
29) l9	1268-1	6.113	6.631	1276.1E6	2367.8E6	9048.811	8962.779
30) l9	1268-2	6.141	6.664	1264.4E6	2393.4E6	9232.226	8888.340
31) l9	1268-3	6.273	6.838	839.2E6	1545.1E6	9302.808	8972.628
32) l9	1268-4	6.511	7.019	399.5E6	768.1E6	9184.848	8979.658
33) l9	1268-5	6.703	7.243	2380.8E6	4161.9E6	9203.537	9054.386
Sum	1268-1			6160.0E6	11236.4E6	NoCal	NoCal
Average	1268-1					9194.446	8971.558
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:23 pm
Operator : pest12:jt
Sample : il64268,42e,,6642
Misc : wg756944,
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:50:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:49:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

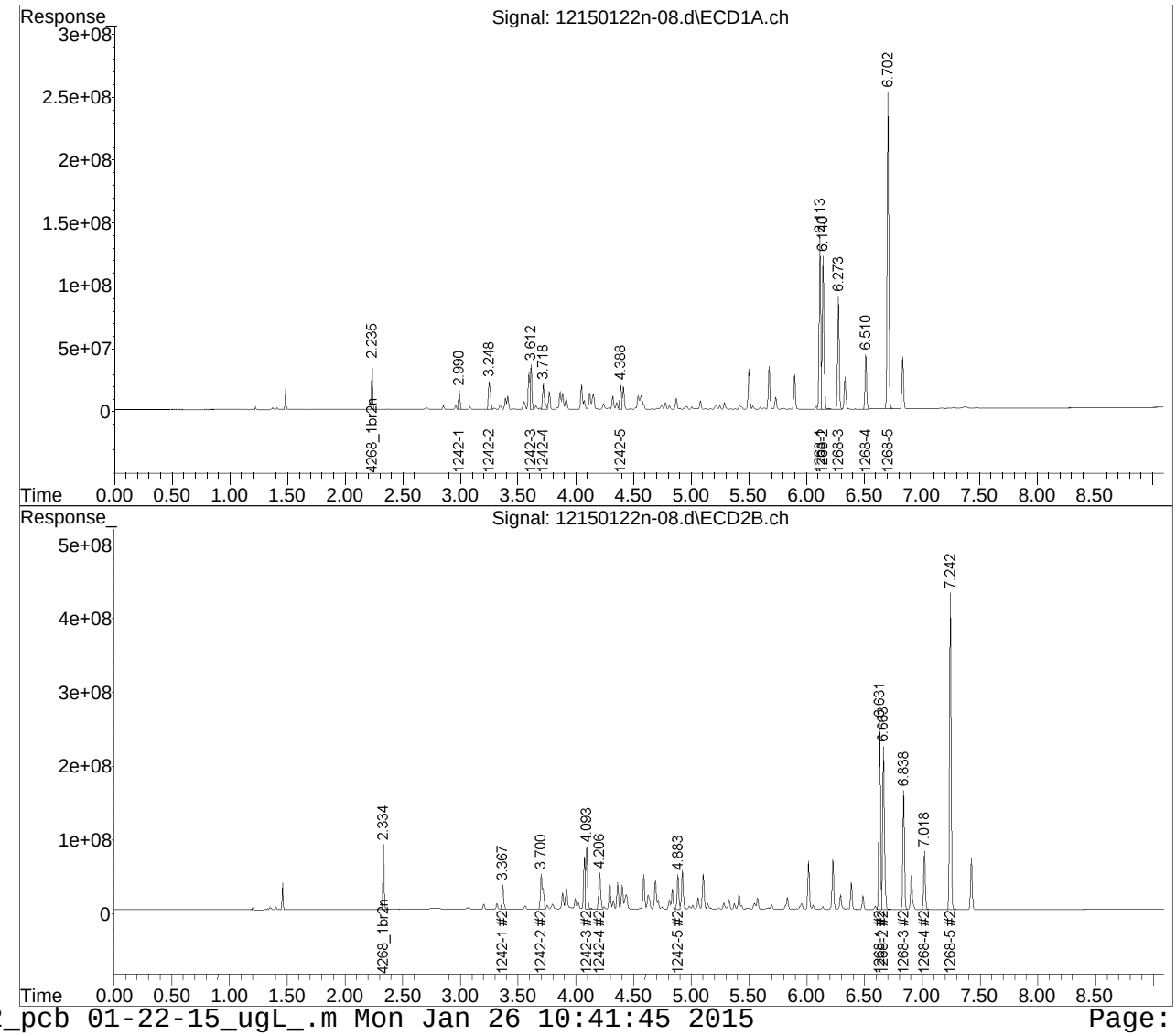
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:23 pm
Operator : pest12:jt
Sample : il64268,42e,,6642
Misc : wg756944,
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:50:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:49:21 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

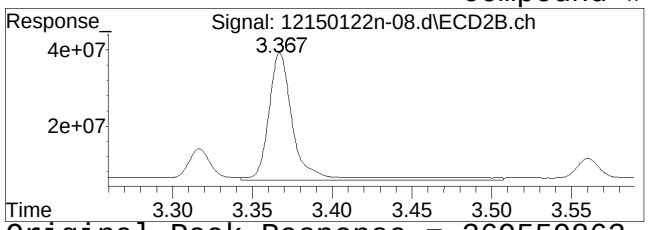


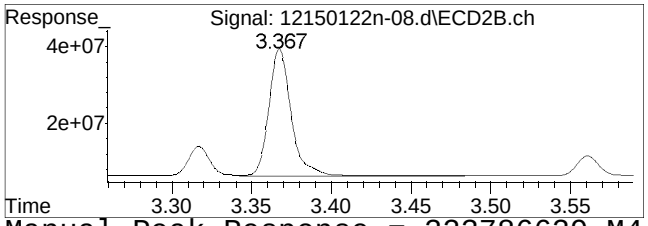
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-08.d
Date Inj'd : 1/22/2015 5:23 pm
Sample : il64268,42e,,6642

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:49 am

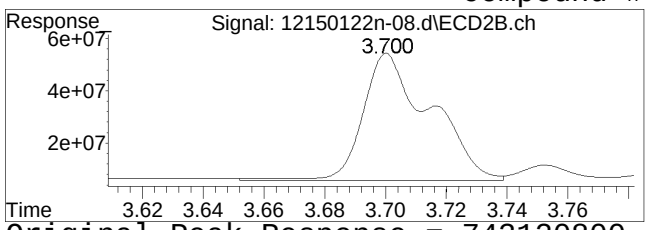
Compound #75: 1242-1 #2

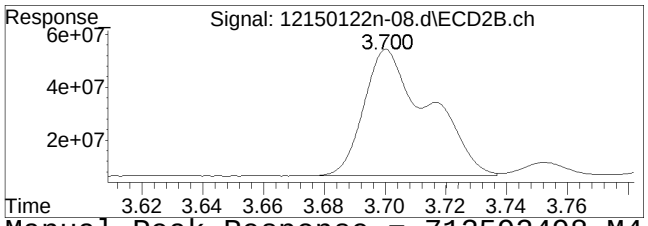




Original Peak Response = 369559863 Manual Peak Response = 323786629 M4
M4 = Poor automated baseline construction.

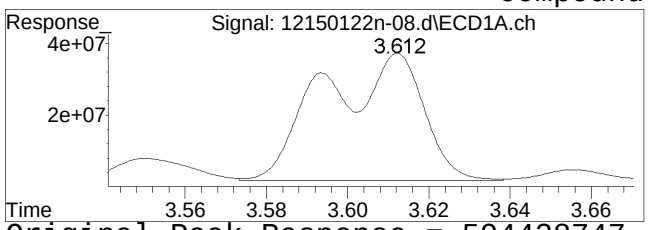
Compound #76: 1242-2 #2

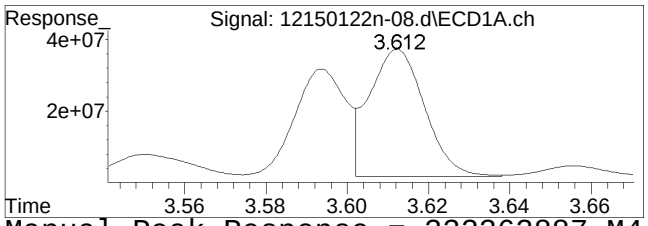




Original Peak Response = 743120800 Manual Peak Response = 712592498 M4
M4 = Poor automated baseline construction.

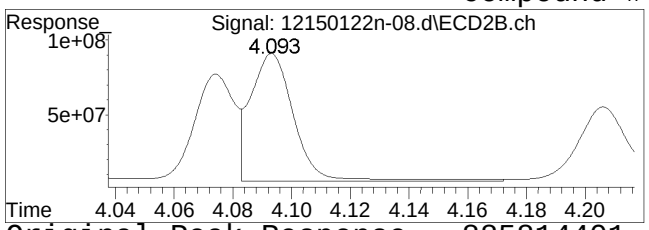
Compound #26: 1242-3

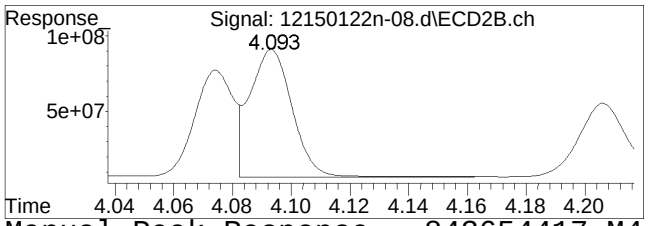




Original Peak Response = 594428747 Manual Peak Response = 332363887 M4
M4 = Poor automated baseline construction.

Compound #77: 1242-3 #2





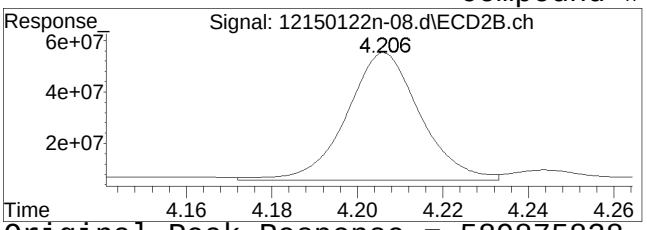
Original Peak Response = 885814401 Manual Peak Response = 843654417 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

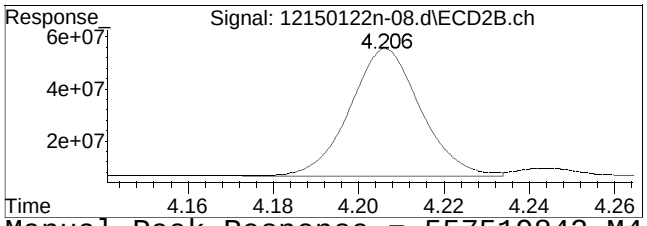
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-08.d
Date Inj'd : 1/22/2015 5:23 pm
Sample : il64268,42e,,6642

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:49 am

Compound #78: 1242-4 #2



Original Peak Response = 589875838



Manual Peak Response = 557519842 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:35 pm
Operator : pest12:jt
Sample : il13262,42e,,6643
Misc : wg756944,
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:04:53 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:03:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	2.236	2.334	187.5E6	469.1E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:35 pm
Operator : pest12:jt
Sample : il13262,42e,,6643
Misc : wg756944,
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:04:53 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:03:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:35 pm
Operator : pest12:jt
Sample : il13262,42e,,6643
Misc : wg756944,
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:04:53 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:03:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.990	3.368	2238064	6173604	131.450M4	142.997
42) l5	1232-2	3.250	3.700	2383903	6304473	147.235	139.946M4
43) l5	1232-3	3.612	4.093	2399139	6672757	131.253M4	133.602M4
44) l5	1232-4	4.049	4.589	1366468	3116181	98.758M4	127.125M4
#							
45) l5	1232-5	4.388	4.921	1094548	4196787	110.126M4	114.067M4
Sum	1232-1			9482122	26463802	618.823	657.738
Average	1232-1					123.765	131.548
46) l8	1262-1	5.212	5.695	6049871	11078104	128.248	125.327M4
47) l8	1262-2	5.500	6.015	7216806	14754196	128.669	128.011M4
48) l8	1262-3	5.895	6.225	12080973	14356205	119.157	145.214
49) l8	1262-4	6.114	6.386	5510425	26833643	149.516M4	135.147
50) l8	1262-5	6.512	6.634	3959705	18778965	126.863	144.337
Sum	1262-1			34817780	85801114	652.452	678.036
Average	1262-1					130.490	135.607

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			34817780	85801114	652.452	678.036
Average	1262-1					130.490	135.607

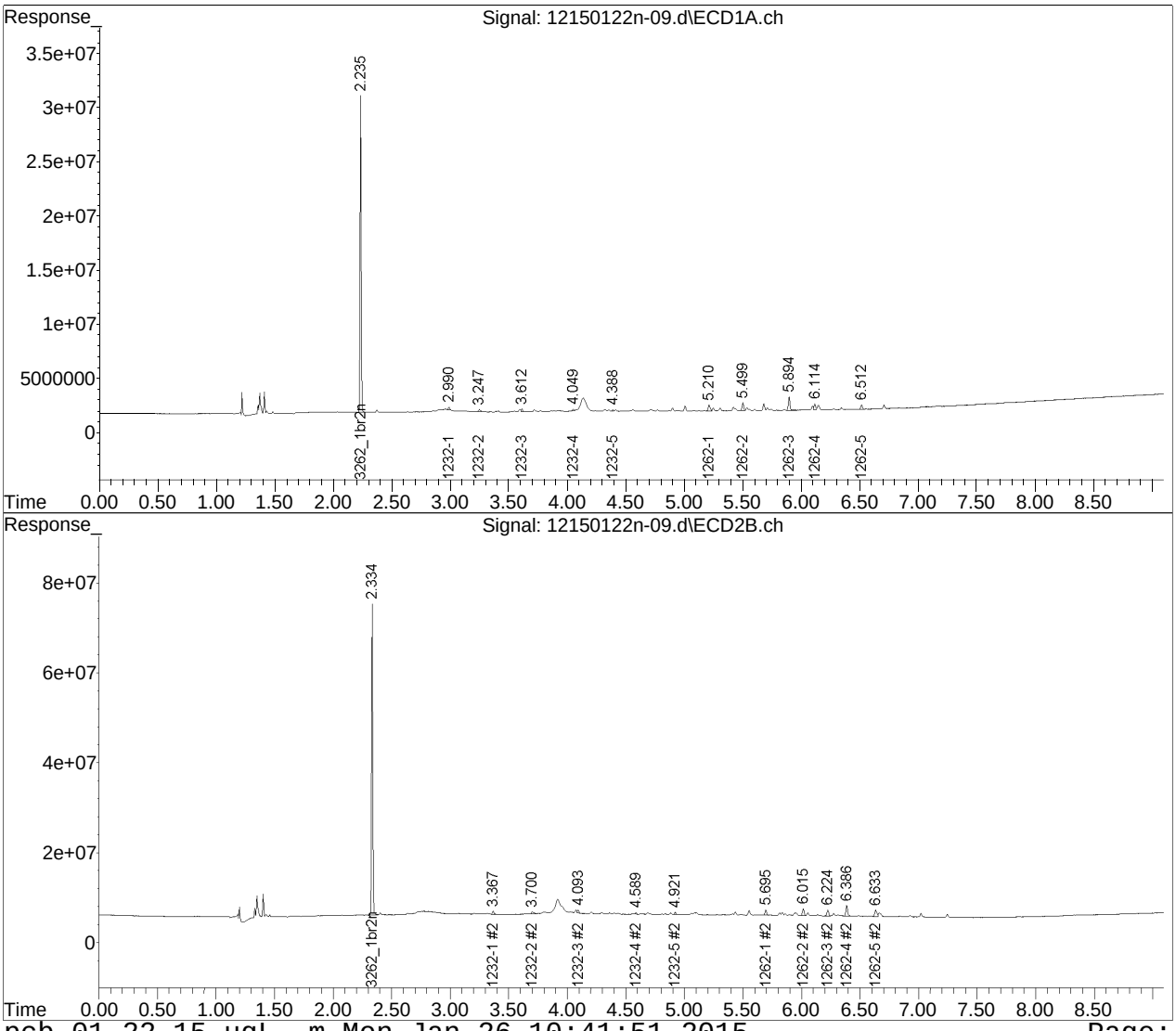
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:35 pm
Operator : pest12:jt
Sample : il13262,42e,,6643
Misc : wg756944,
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:04:53 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:03:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

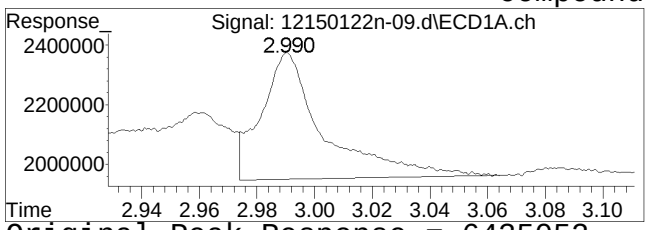


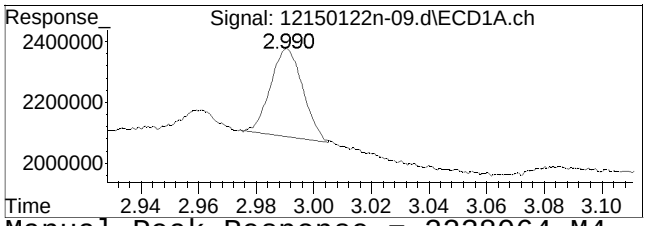
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-09.d
Date Inj'd : 1/22/2015 5:35 pm
Sample : il13262,42e,,6643

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:03 am

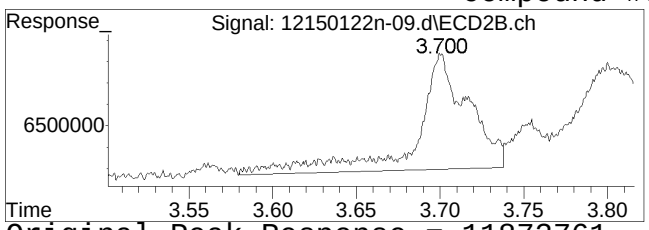
Compound #41: 1232-1

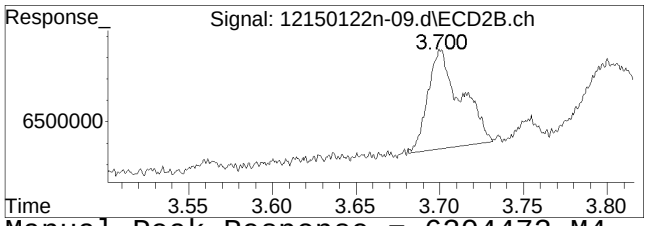




Original Peak Response = 6435052 Manual Peak Response = 2238064 M4
M4 = Poor automated baseline construction.

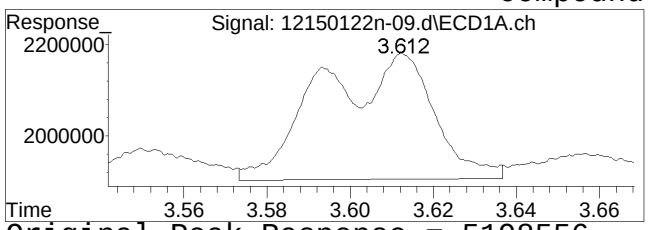
Compound #93: 1232-2 #2

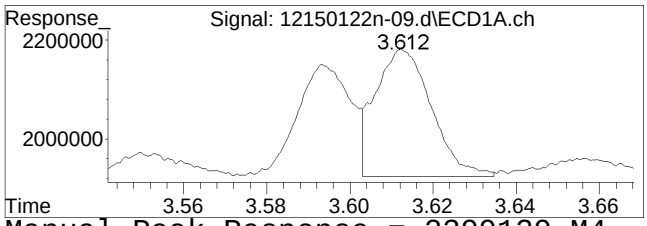




Original Peak Response = 11873761 Manual Peak Response = 6304473 M4
M4 = Poor automated baseline construction.

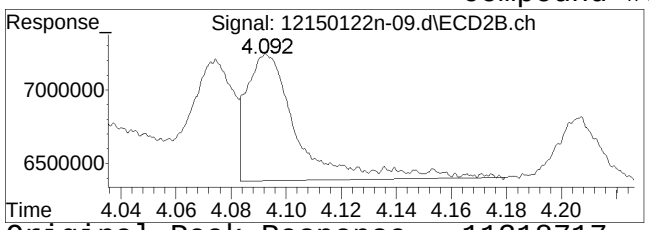
Compound #43: 1232-3

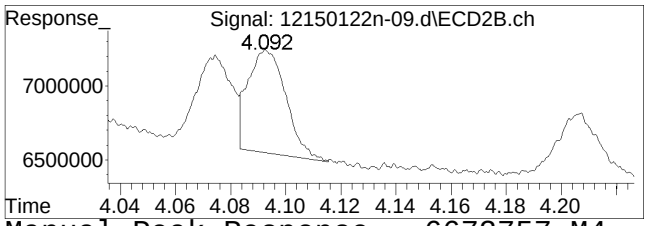




Original Peak Response = 5198556 Manual Peak Response = 2399139 M4
M4 = Poor automated baseline construction.

Compound #94: 1232-3 #2



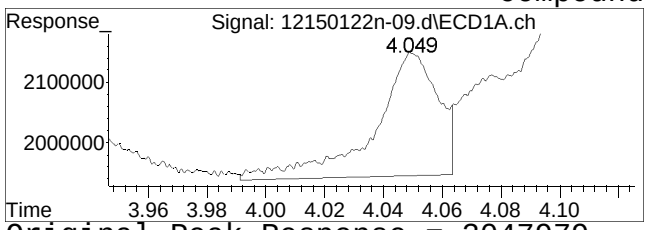


Original Peak Response = 11318717 Manual Peak Response = 6672757 M4
M4 = Poor automated baseline construction.

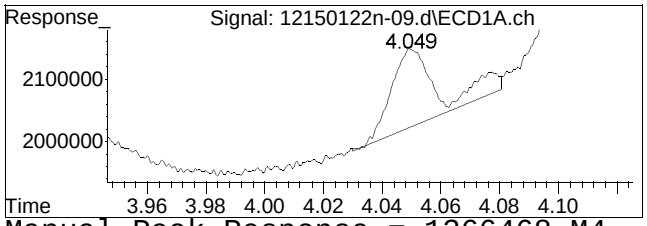
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-09.d Operator : pest12:jt
Date Inj'd : 1/22/2015 5:35 pm Instrument : Pest12
Sample : il13262,42e,,6643 Quant Date : 1/26/2015 10:03 am

Compound #44: 1232-4

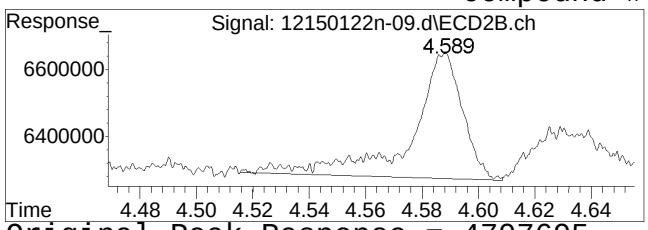


Original Peak Response = 3047979

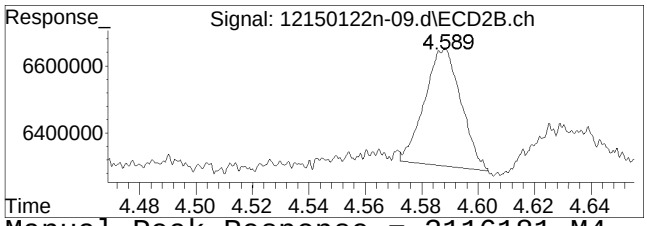


Manual Peak Response = 1366468 M4
M4 = Poor automated baseline construction.

Compound #95: 1232-4 #2

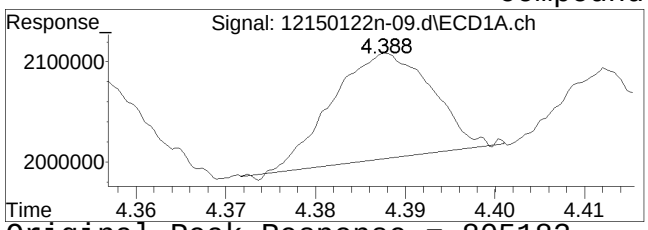


Original Peak Response = 4707695

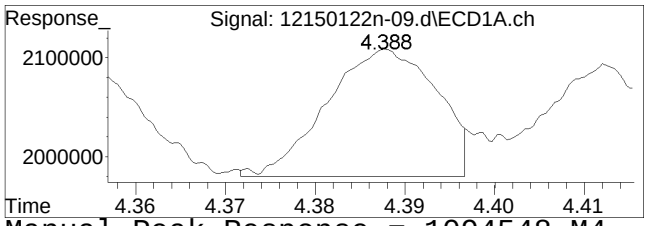


Manual Peak Response = 3116181 M4
M4 = Poor automated baseline construction.

Compound #45: 1232-5

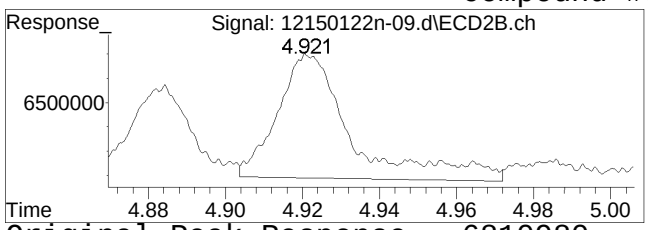


Original Peak Response = 805183

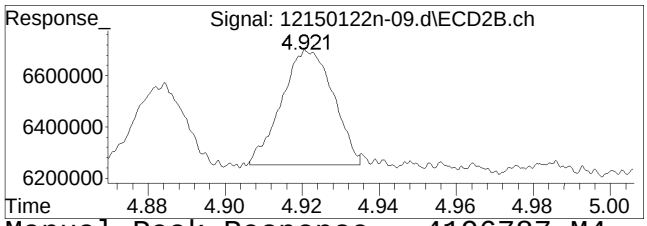


Manual Peak Response = 1094548 M4
M4 = Poor automated baseline construction.

Compound #96: 1232-5 #2



Original Peak Response = 6810980



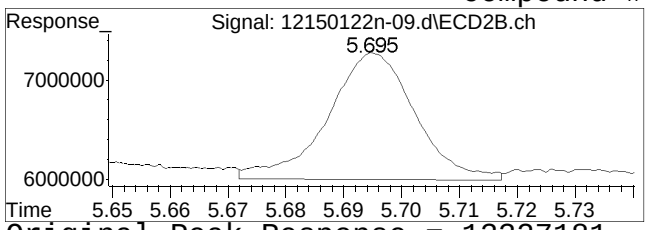
Manual Peak Response = 4196787 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

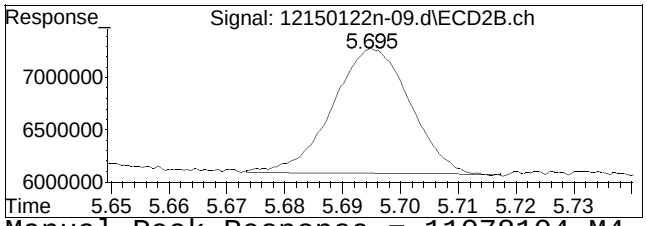
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-09.d
Date Inj'd : 1/22/2015 5:35 pm
Sample : il13262,42e,,6643

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:03 am

Compound #97: 1262-1 #2



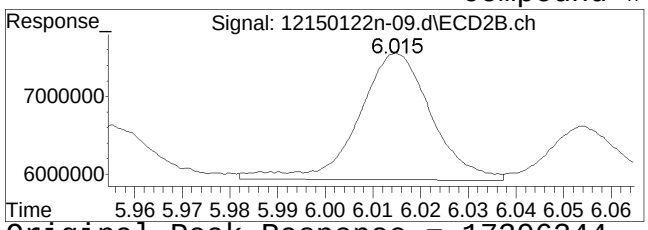
Original Peak Response = 13327181



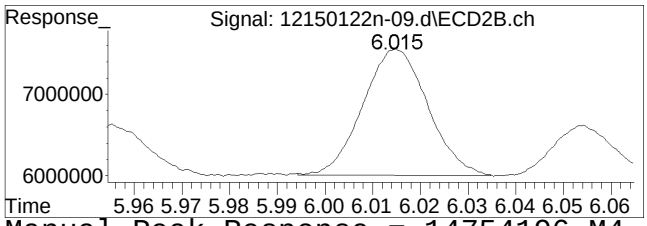
Manual Peak Response = 11078104 M4

M4 = Poor automated baseline construction.

Compound #98: 1262-2 #2



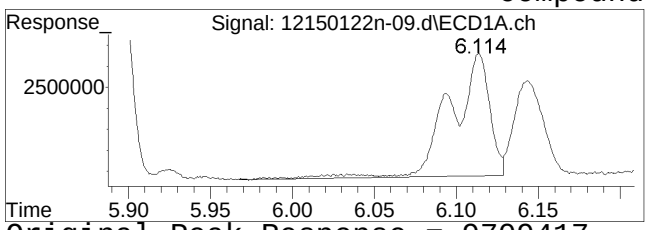
Original Peak Response = 17306344



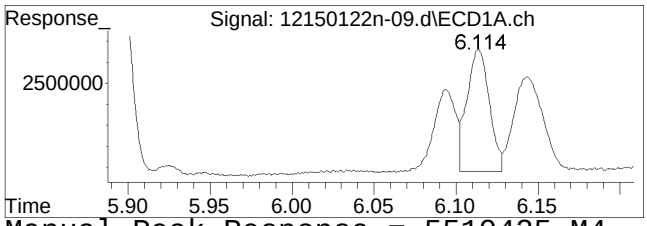
Manual Peak Response = 14754196 M4

M4 = Poor automated baseline construction.

Compound #49: 1262-4



Original Peak Response = 9709417



Manual Peak Response = 5510425 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:48 pm
Operator : pest12:jt
Sample : il23262,42e,,6644
Misc : wg756944,
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:06:41 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:05:03 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	2.236	2.334	201.5E6	501.0E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:48 pm
Operator : pest12:jt
Sample : il23262,42e,,6644
Misc : wg756944,
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:06:41 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:05:03 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:48 pm
Operator : pest12:jt
Sample : il23262,42e,,6644
Misc : wg756944,
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:06:41 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:05:03 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.990	3.368	10349572	28557497	524.273M4	559.238
42) l5	1232-2	3.250	3.700	10288118	28294929	528.690	534.699M4
43) l5	1232-3	3.612	4.093	10988601	28680594	518.730M4	496.013M4
44) l5	1232-4	4.049	4.588	6868588	15763986	463.242M4	563.906
45) l5	1232-5	4.388	4.921	6341231	21760222	578.881	534.963M4
Sum	1232-1			44836110	123.1E6	2613.817	2688.819
Average	1232-1					522.763	537.764
46) l8	1262-1	5.211	5.695	28642807	54559863	527.596	543.524M4
47) l8	1262-2	5.499	6.015	33602159	69175152	520.059	525.189M4
48) l8	1262-3	5.895	6.225	59732055	62905437	523.029	535.274
49) l8	1262-4	6.114	6.386	21257808	119.5E6	477.477	518.163
50) l8	1262-5	6.513	6.633	18186462	79535309	507.935	515.279
Sum	1262-1			161.4E6	385.7E6	2556.096	2637.428
Average	1262-1					511.219	527.486

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			161.4E6	385.7E6	2556.096	2637.428
Average	1262-1					511.219	527.486

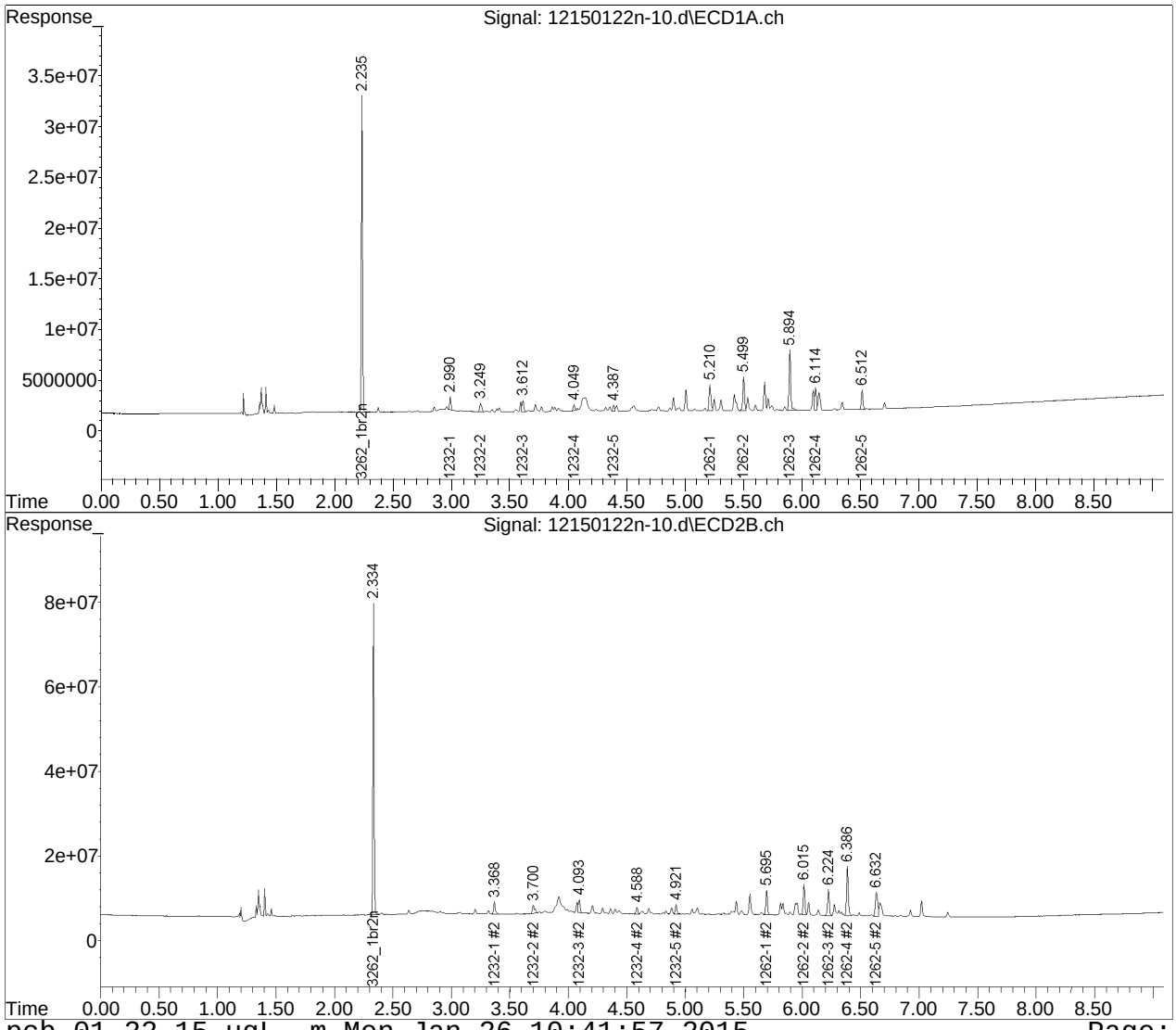
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 5:48 pm
Operator : pest12:jt
Sample : il23262,42e,,6644
Misc : wg756944,
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:06:41 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:05:03 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

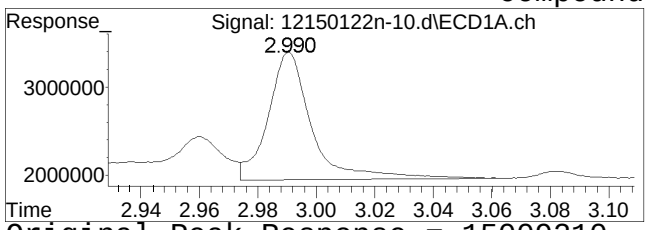


Manual Integration/Negative Proof Report

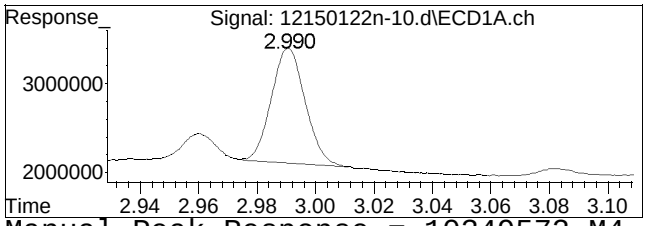
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-10.d
Date Inj'd : 1/22/2015 5:48 pm
Sample : il23262,42e,,6644

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:05 am

Compound #41: 1232-1



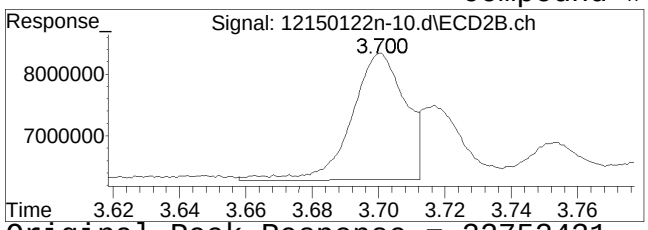
Original Peak Response = 15009210



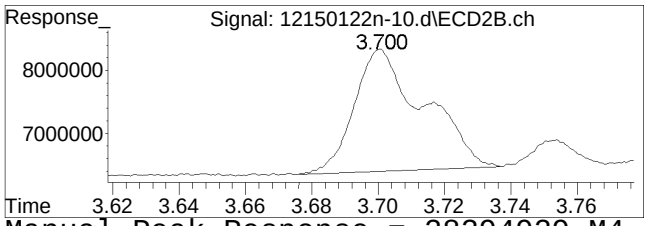
Manual Peak Response = 10349572 M4

M4 = Poor automated baseline construction.

Compound #93: 1232-2 #2



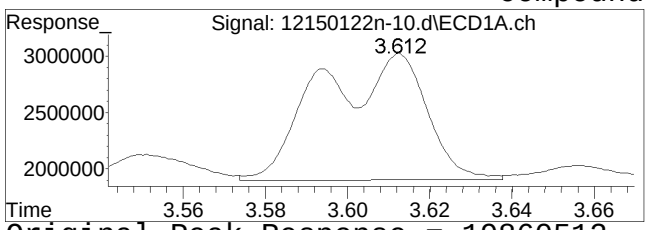
Original Peak Response = 22752431



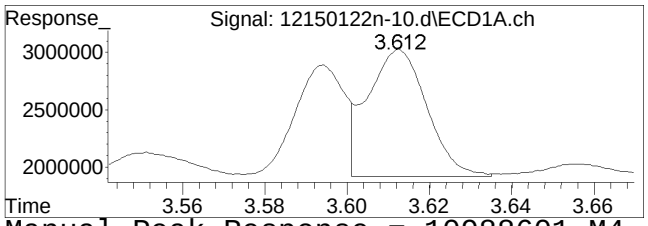
Manual Peak Response = 28294929 M4

M4 = Poor automated baseline construction.

Compound #43: 1232-3



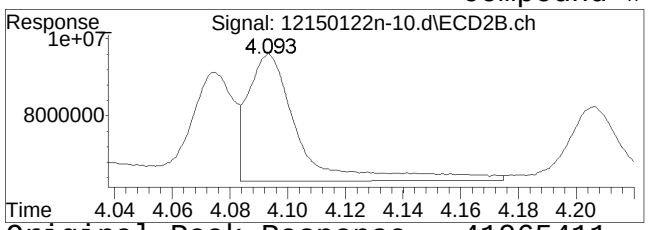
Original Peak Response = 19860512



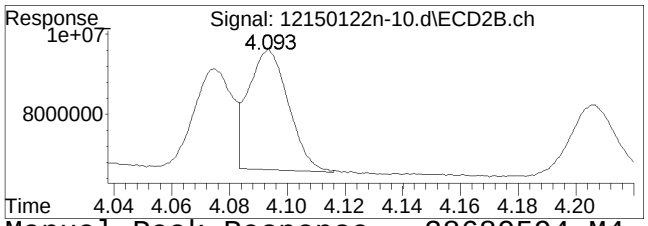
Manual Peak Response = 10988601 M4

M4 = Poor automated baseline construction.

Compound #94: 1232-3 #2



Original Peak Response = 41065411



Manual Peak Response = 28680594 M4

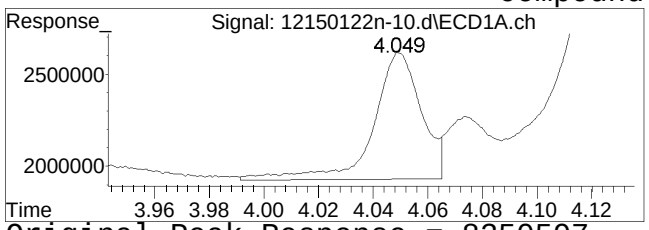
M4 = Poor automated baseline construction.

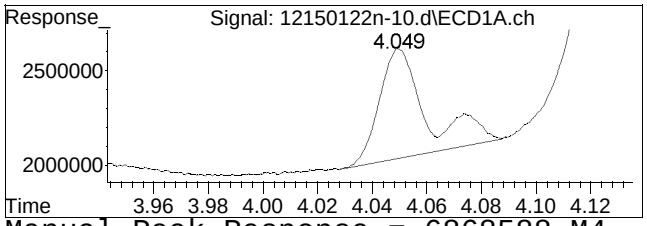
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-10.d
Date Inj'd : 1/22/2015 5:48 pm
Sample : il23262,42e,,6644

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:05 am

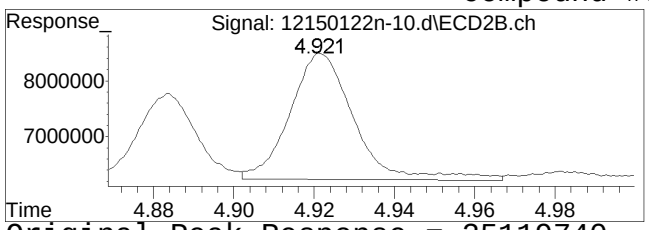
Compound #44: 1232-4

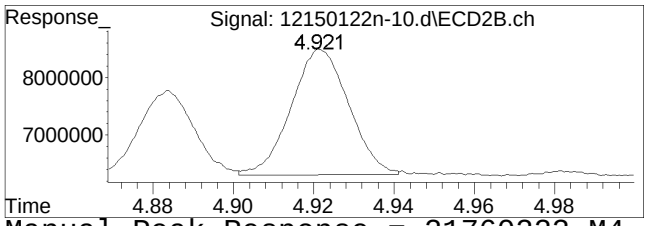




Original Peak Response = 8350597 Manual Peak Response = 6868588 M4
M4 = Poor automated baseline construction.

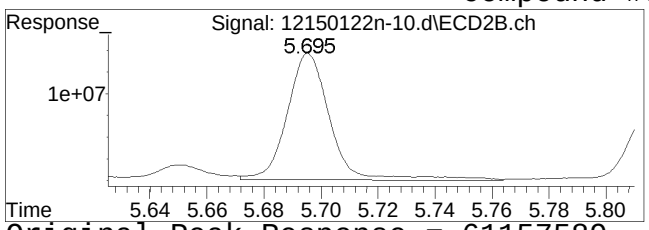
Compound #96: 1232-5 #2

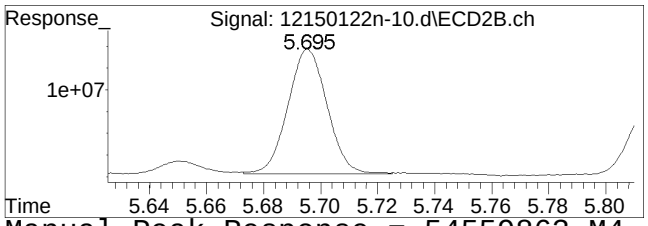




Original Peak Response = 25119740 Manual Peak Response = 21760222 M4
M4 = Poor automated baseline construction.

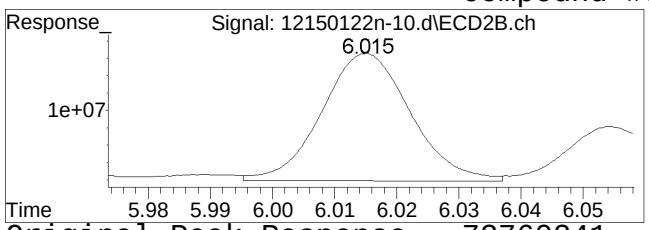
Compound #97: 1262-1 #2

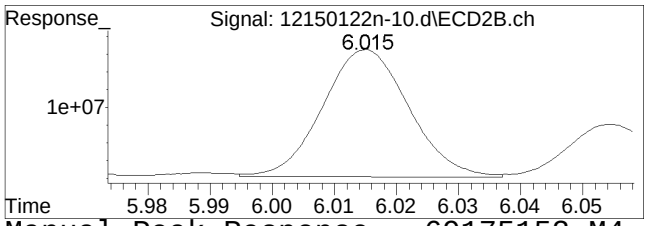




Original Peak Response = 61157589 Manual Peak Response = 54559863 M4
M4 = Poor automated baseline construction.

Compound #98: 1262-2 #2





Original Peak Response = 72760241 Manual Peak Response = 69175152 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:00 pm
Operator : pest12:jt
Sample : il33262,42e,,6645
Misc : wg756944,
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:08:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:06:48 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	2.236	2.334	199.1E6	498.3E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:00 pm
Operator : pest12:jt
Sample : il33262,42e,,6645
Misc : wg756944,
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:08:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:06:48 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:00 pm
Operator : pest12:jt
Sample : il33262,42e,,6645
Misc : wg756944,
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:08:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:06:48 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.990	3.367	20081071	53728223	1019.840M4	1033.318
42) l5	1232-2	3.250	3.700	19432162	55598627	999.394	1041.848M4
43) l5	1232-3	3.613	4.092	20572088	62338708	975.759M4	1085.629M4
44) l5	1232-4	4.050	4.587	13836845	29241592	958.775	1025.429M4
45) l5	1232-5	4.388	4.921	11770020	42796669	1054.407	1043.193M4
Sum	1232-1			85692185	243.7E6	5008.175	5229.416
Average	1232-1					1001.635	1045.883
46) l8	1262-1	5.211	5.694	54312267	113.7E6	1001.665	1119.701
47) l8	1262-2	5.499	6.013	64389710	141.3E6	1000.777	1067.893
48) l8	1262-3	5.893	6.223	117.3E6	117.5E6	1030.247	991.617
49) l8	1262-4	6.112	6.384	42252902	227.1E6	969.455M4	982.467
50) l8	1262-5	6.511	6.631	34938303	150.1E6	984.672	971.649
Sum	1262-1			313.2E6	749.8E6	4986.817	5133.327
Average	1262-1					997.363	1026.665

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			313.2E6	749.8E6	4986.817	5133.327
Average	1262-1					997.363	1026.665

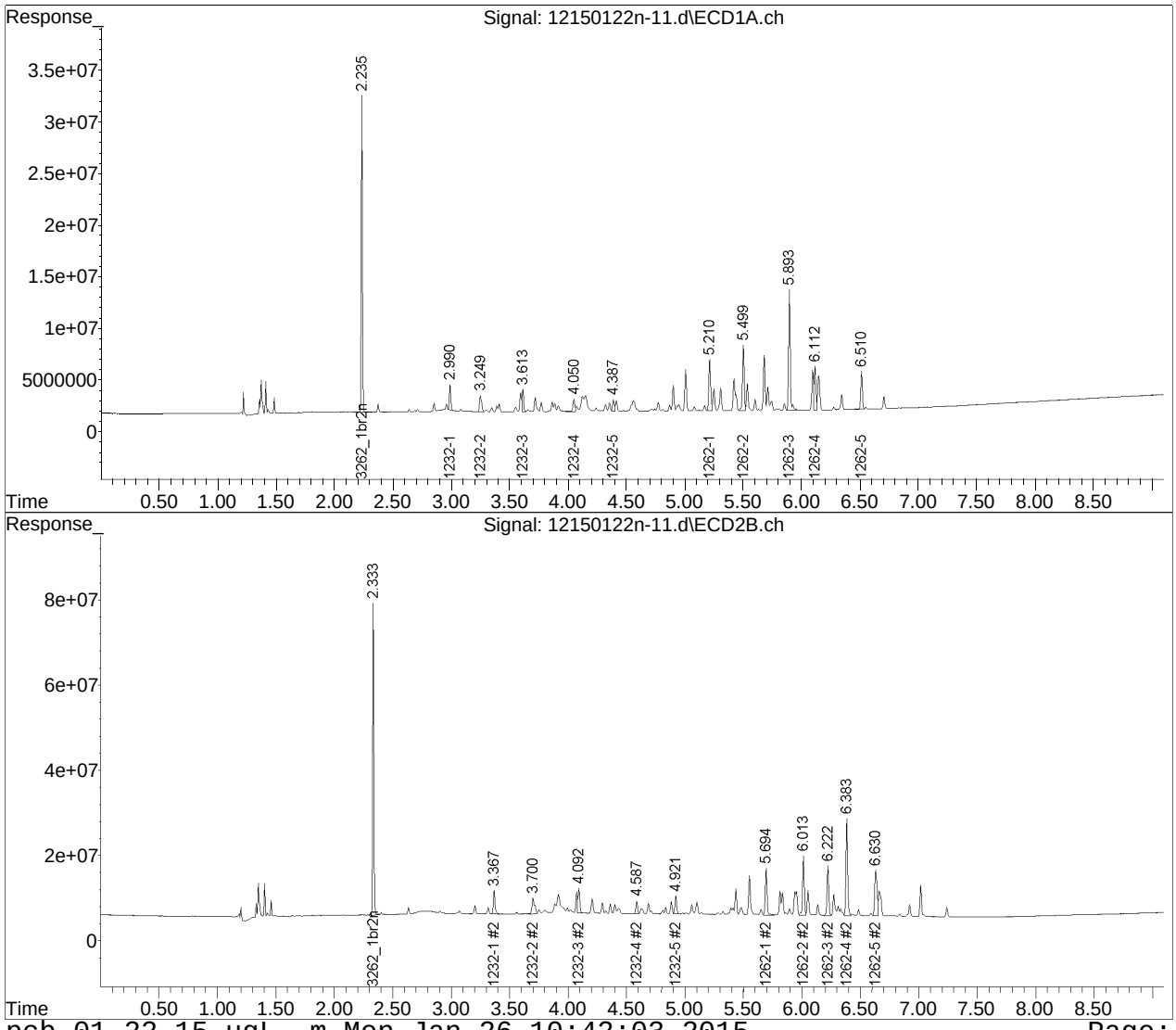
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:00 pm
Operator : pest12:jt
Sample : il33262,42e,,6645
Misc : wg756944,
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:08:08 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:06:48 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

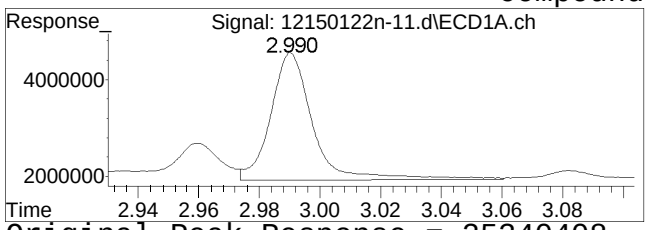


Manual Integration/Negative Proof Report

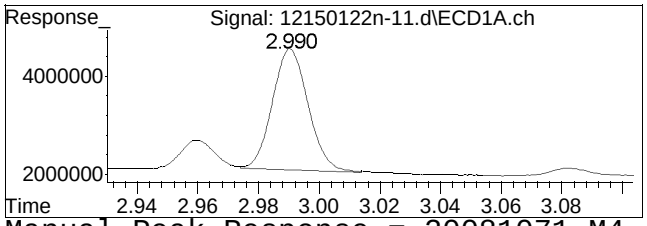
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-11.d
Date Inj'd : 1/22/2015 6:00 pm
Sample : il33262,42e,,6645

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:06 am

Compound #41: 1232-1



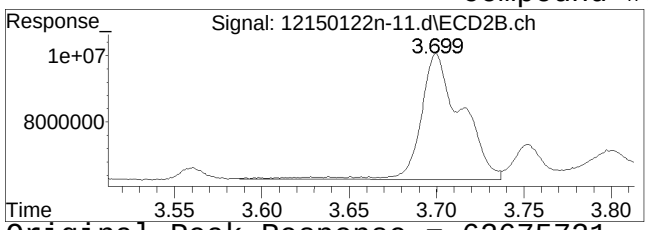
Original Peak Response = 25340408



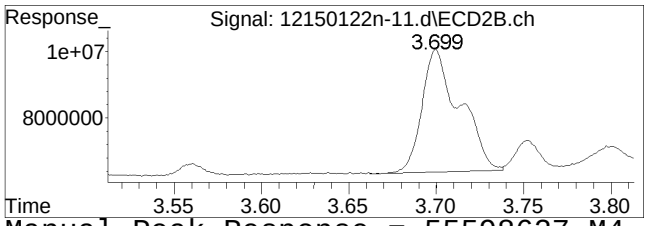
Manual Peak Response = 20081071 M4

M4 = Poor automated baseline construction.

Compound #93: 1232-2 #2



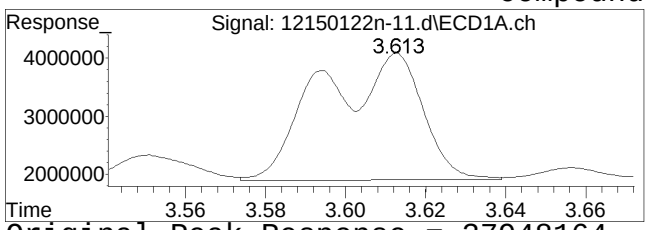
Original Peak Response = 62675721



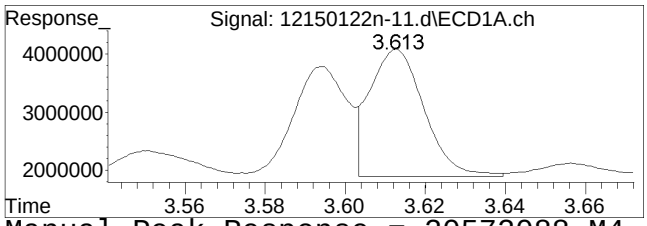
Manual Peak Response = 55598627 M4

M4 = Poor automated baseline construction.

Compound #43: 1232-3



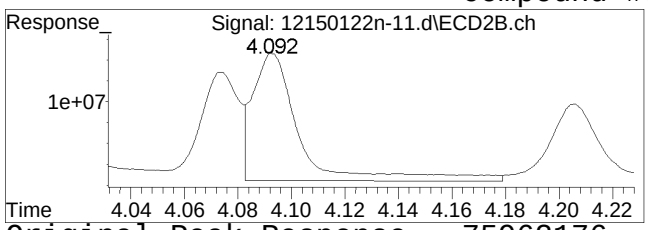
Original Peak Response = 37948164



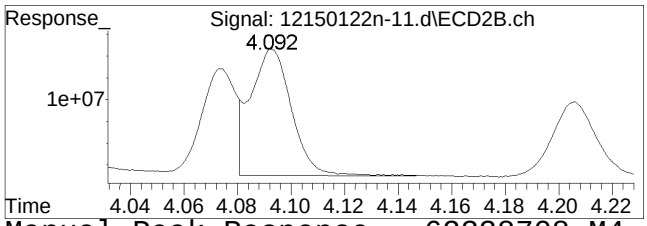
Manual Peak Response = 20572088 M4

M4 = Poor automated baseline construction.

Compound #94: 1232-3 #2



Original Peak Response = 75962176



Manual Peak Response = 62338708 M4

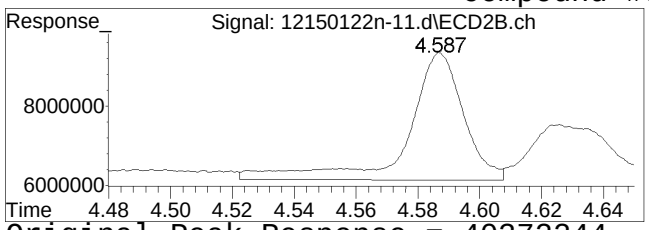
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

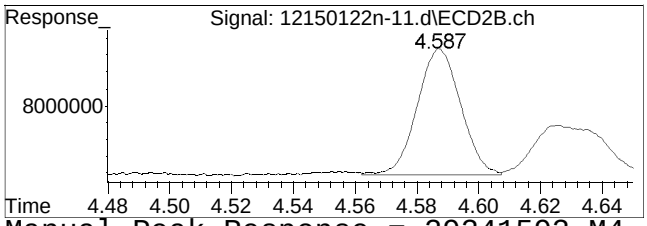
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-11.d
Date Inj'd : 1/22/2015 6:00 pm
Sample : il33262,42e,,6645

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:06 am

Compound #95: 1232-4 #2



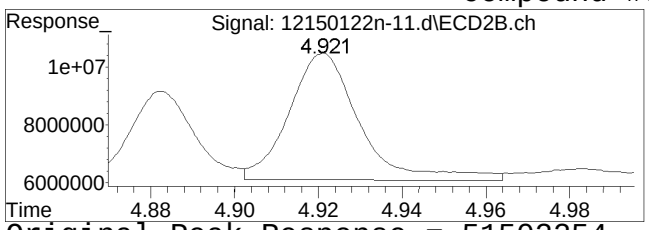
Original Peak Response = 40372244



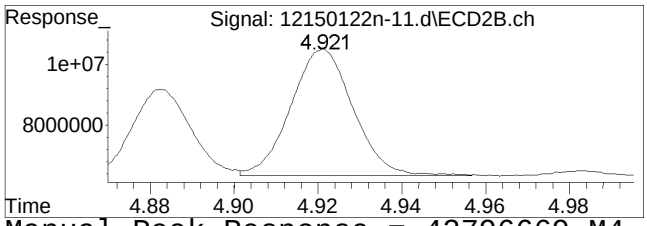
Manual Peak Response = 29241592 M4

M4 = Poor automated baseline construction.

Compound #96: 1232-5 #2



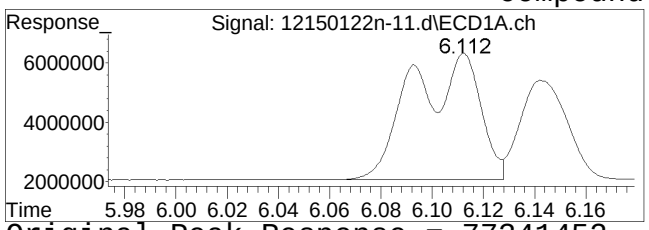
Original Peak Response = 51502254



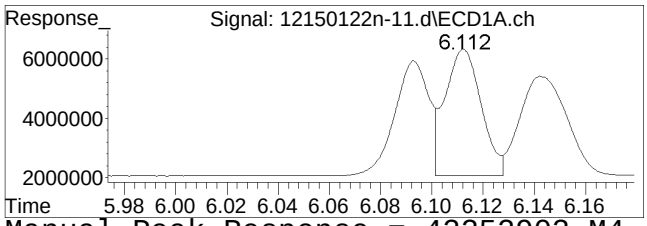
Manual Peak Response = 42796669 M4

M4 = Poor automated baseline construction.

Compound #49: 1262-4



Original Peak Response = 77341452



Manual Peak Response = 42252902 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:12 pm
Operator : pest12:jt
Sample : il43262,42e,,6646
Misc : wg756944,
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:59:20 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	2.235f	2.334f	210.2E6	526.7E6	250.000M2	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:12 pm
Operator : pest12:jt
Sample : il43262,42e,,6646
Misc : wg756944,
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:59:20 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:12 pm
Operator : pest12:jt
Sample : il43262,42e,,6646
Misc : wg756944,
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:59:20 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.990f	3.367	47711129	127.2E6	NoCal M2	NoCal M2
42) l5	1232-2	3.248f	3.699	47037320	134.7E6	NoCal M2	NoCal M2
43) l5	1232-3	3.612f	4.092f	50245114	150.7E6	NoCal M2	NoCal M2
44) l5	1232-4	4.049f	4.587f	40105937	71317364	NoCal M2	NoCal M2
45) l5	1232-5	4.387f	4.920	28292578	107.8E6	NoCal M2	NoCal M2
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	5.209f	5.693	136.5E6	245.0E6	NoCal M2	NoCal M4
47) l8	1262-2	5.498f	6.012	158.1E6	328.0E6	NoCal M2	NoCal M2
48) l8	1262-3	5.892f	6.221	285.6E6	282.6E6	NoCal M2	NoCal M2
49) l8	1262-4	6.111f	6.382	110.3E6	555.4E6	NoCal M2	NoCal M2
50) l8	1262-5	6.508f	6.628	88089476	369.3E6	NoCal M2	NoCal M2
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:12 pm
Operator : pest12:jt
Sample : il43262,42e,,6646
Misc : wg756944,
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:59:20 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

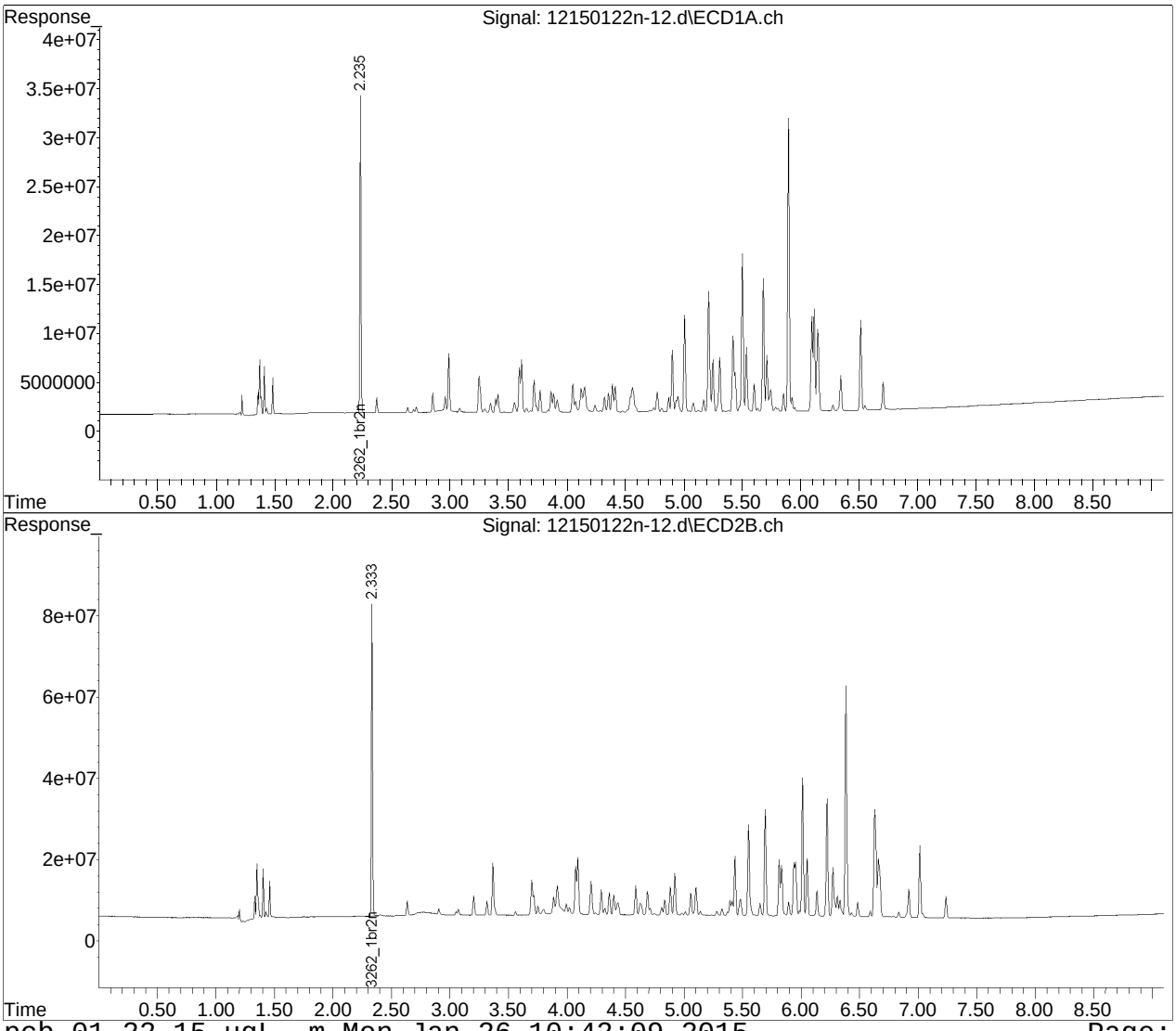
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:12 pm
Operator : pest12:jt
Sample : il43262,42e,,6646
Misc : wg756944,
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:59:20 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

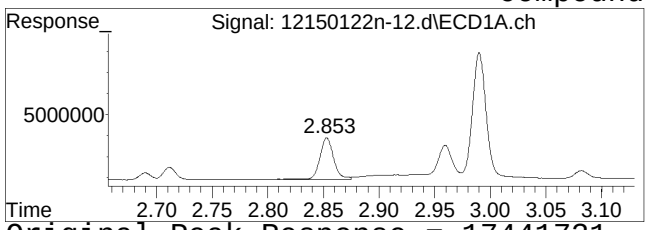


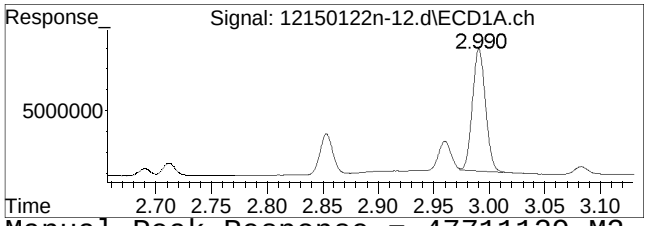
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Date Inj'd : 1/22/2015 6:12 pm
Sample : il43262,42e,,6646

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:56 am

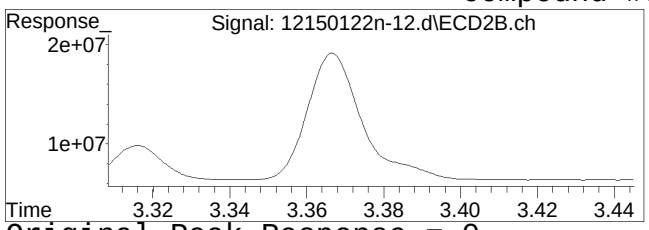
Compound #41: 1232-1

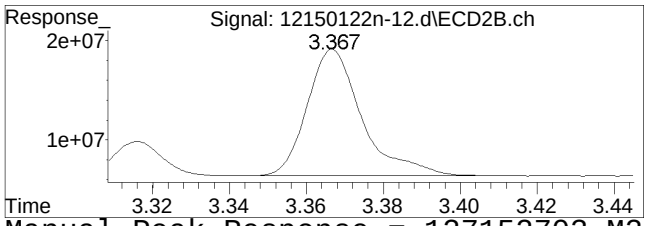




Original Peak Response = 17441731 Manual Peak Response = 47711129 M2
M2 = Peak not found by automatic integration algorithm.

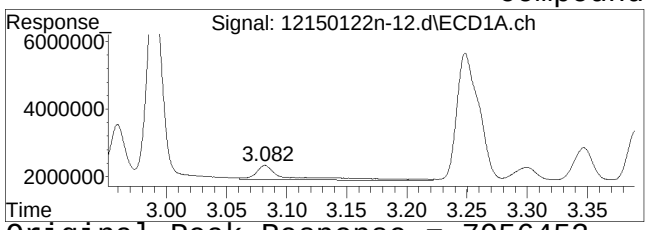
Compound #92: 1232-1 #2

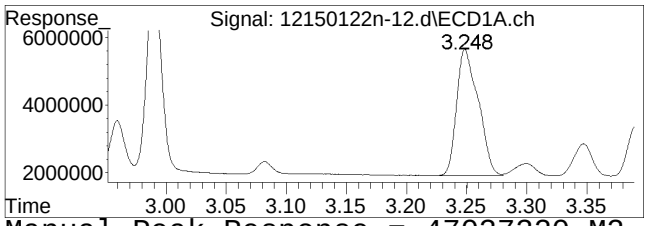




Original Peak Response = 0 Manual Peak Response = 127152703 M2
M2 = Peak not found by automatic integration algorithm.

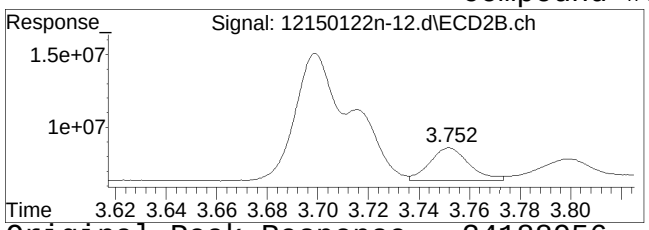
Compound #42: 1232-2

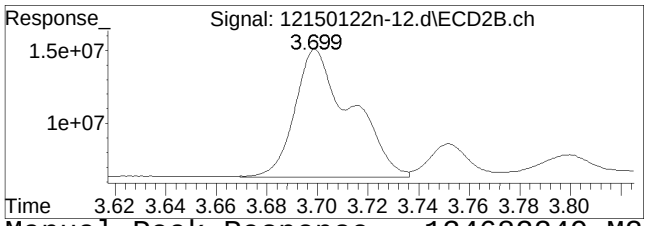




Original Peak Response = 7956453 Manual Peak Response = 47037320 M2
M2 = Peak not found by automatic integration algorithm.

Compound #93: 1232-2 #2



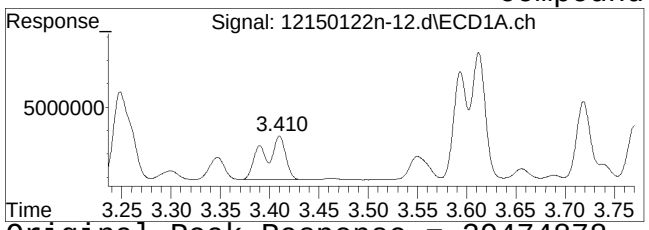


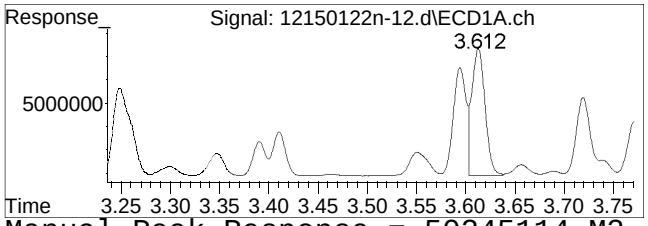
Original Peak Response = 24188956 Manual Peak Response = 134682249 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-12.d Operator : pest12:jt
Date Inj'd : 1/22/2015 6:12 pm Instrument : Pest12
Sample : il43262,42e,,6646 Quant Date : 1/26/2015 9:56 am

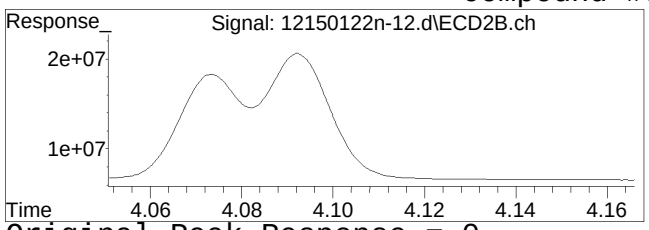
Compound #43: 1232-3

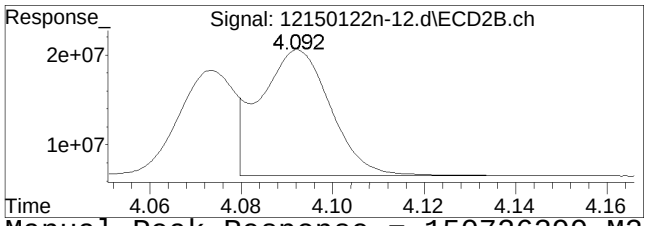




Original Peak Response = 29474878 Manual Peak Response = 50245114 M2
M2 = Peak not found by automatic integration algorithm.

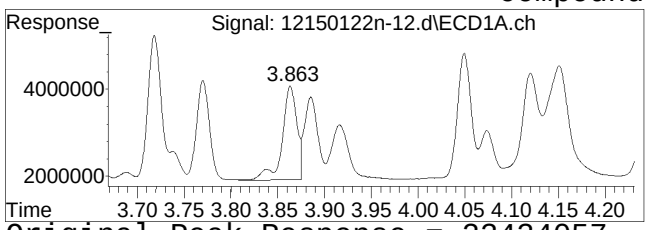
Compound #94: 1232-3 #2

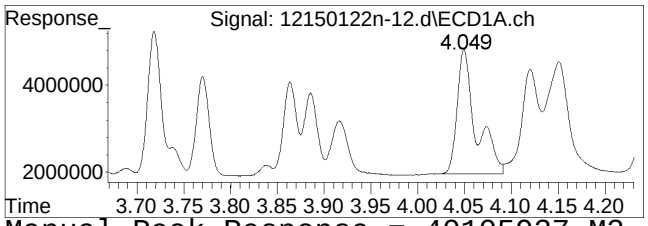




Original Peak Response = 0 Manual Peak Response = 150726399 M2
M2 = Peak not found by automatic integration algorithm.

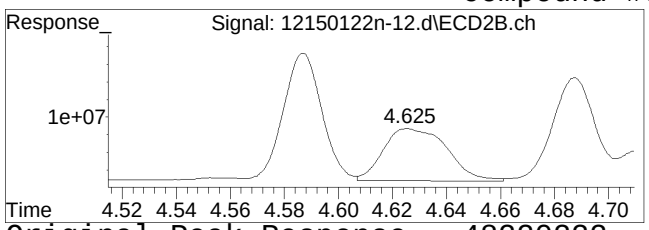
Compound #44: 1232-4

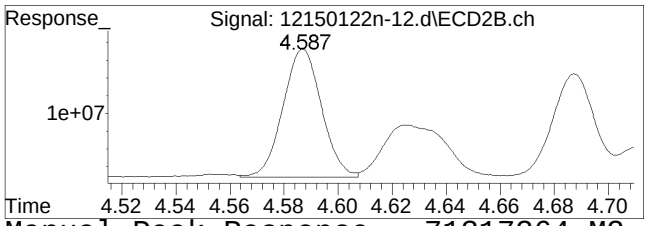




Original Peak Response = 23434057 Manual Peak Response = 40105937 M2
M2 = Peak not found by automatic integration algorithm.

Compound #95: 1232-4 #2





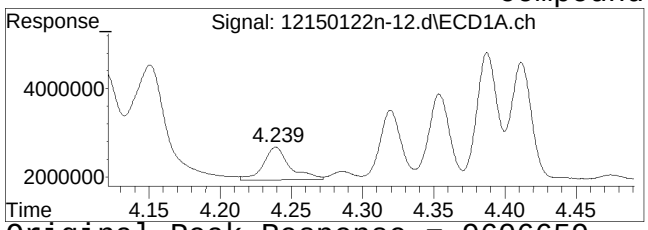
Original Peak Response = 48220222 Manual Peak Response = 71317364 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

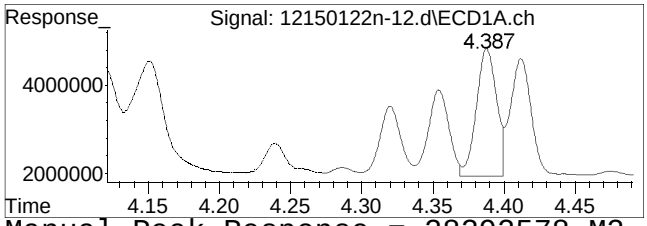
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-12.d
Date Inj'd : 1/22/2015 6:12 pm
Sample : il43262,42e,,6646

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:56 am

Compound #45: 1232-5



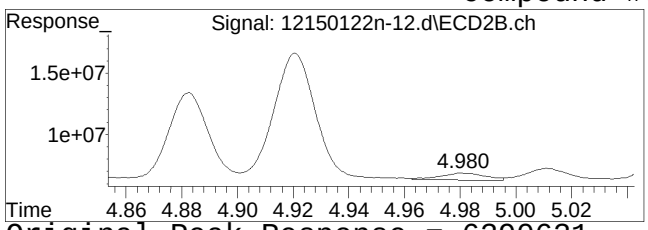
Original Peak Response = 9606659



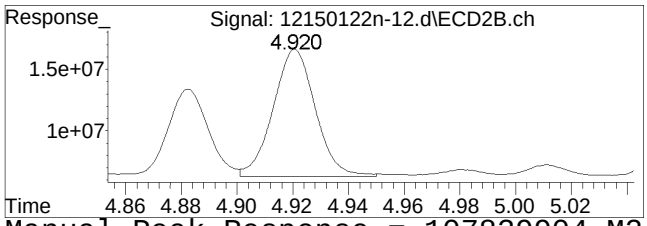
Manual Peak Response = 28292578 M2

M2 = Peak not found by automatic integration algorithm.

Compound #96: 1232-5 #2



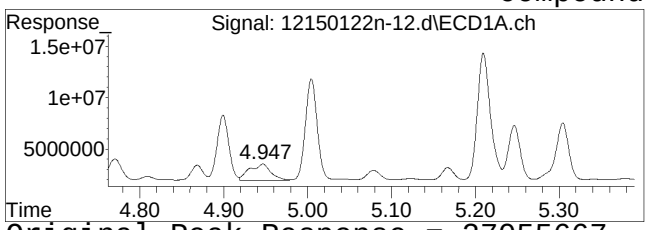
Original Peak Response = 6390631



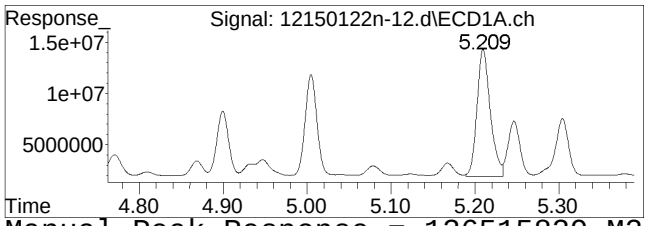
Manual Peak Response = 107839904 M2

M2 = Peak not found by automatic integration algorithm.

Compound #46: 1262-1



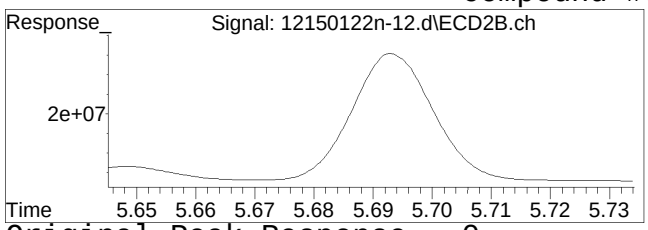
Original Peak Response = 27055667



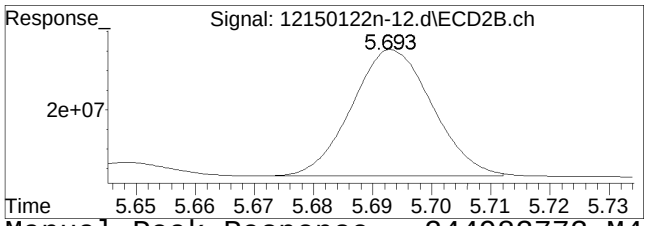
Manual Peak Response = 136515829 M2

M2 = Peak not found by automatic integration algorithm.

Compound #97: 1262-1 #2



Original Peak Response = 0



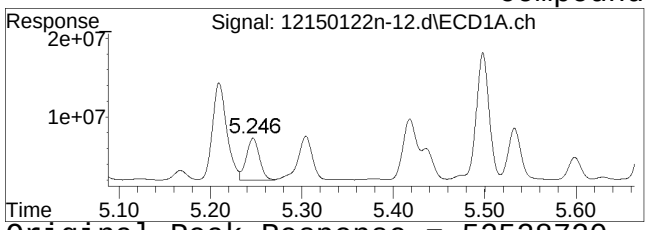
Manual Peak Response = 244983773 M4

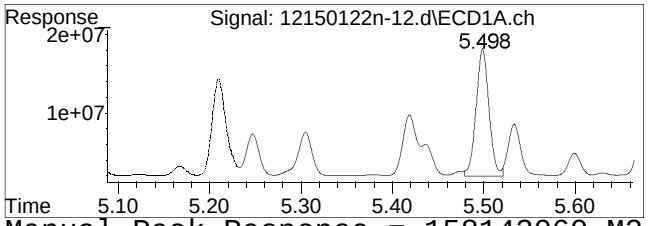
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-12.d Operator : pest12:jt
Date Inj'd : 1/22/2015 6:12 pm Instrument : Pest12
Sample : il43262,42e,,6646 Quant Date : 1/26/2015 9:56 am

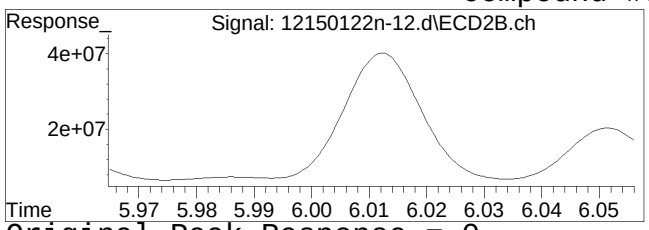
Compound #47: 1262-2

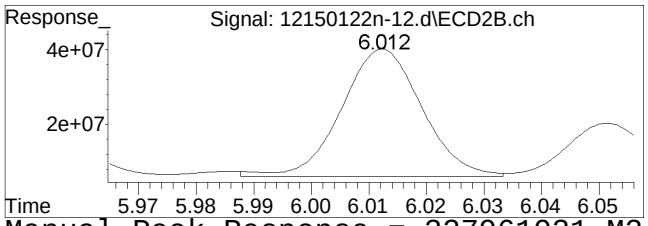




Original Peak Response = 52528720 Manual Peak Response = 158143060 M2
M2 = Peak not found by automatic integration algorithm.

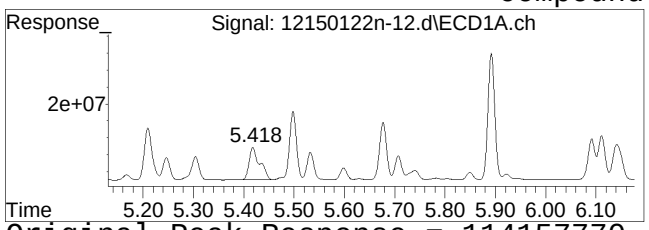
Compound #98: 1262-2 #2

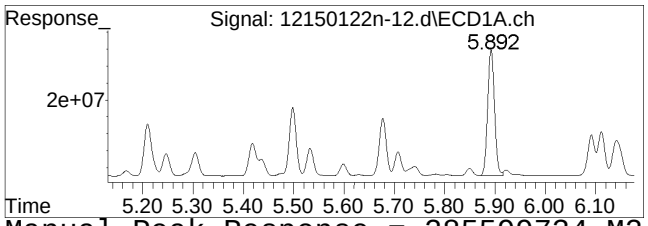




Original Peak Response = 0 Manual Peak Response = 327961921 M2
M2 = Peak not found by automatic integration algorithm.

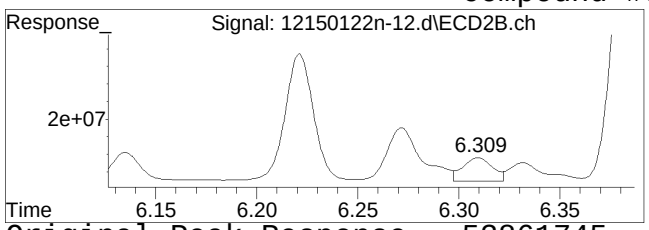
Compound #48: 1262-3

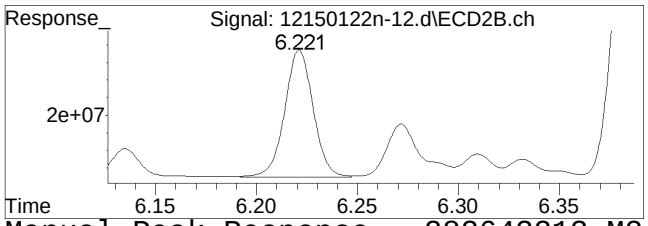




Original Peak Response = 114157770 Manual Peak Response = 285599734 M2
M2 = Peak not found by automatic integration algorithm.

Compound #99: 1262-3 #2



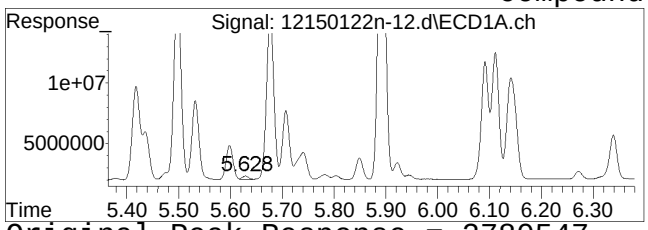


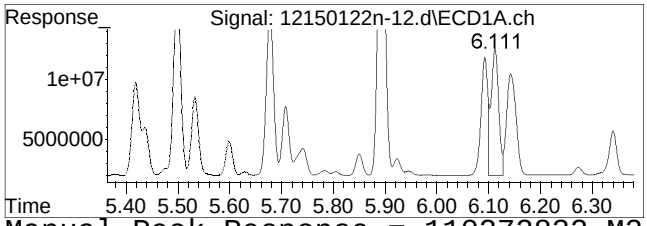
Original Peak Response = 53861745 Manual Peak Response = 282643213 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-12.d Operator : pest12:jt
Date Inj'd : 1/22/2015 6:12 pm Instrument : Pest12
Sample : il43262,42e,,6646 Quant Date : 1/26/2015 9:56 am

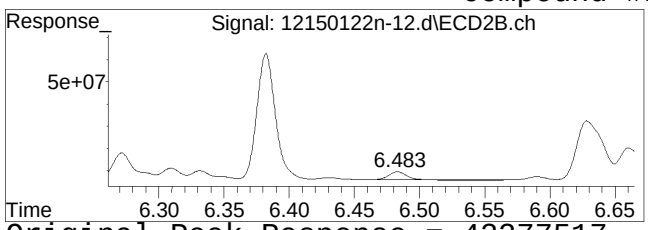
Compound #49: 1262-4

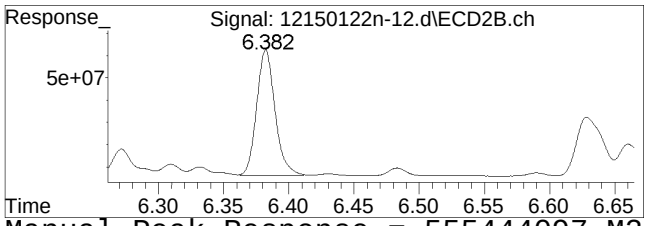




Original Peak Response = 2780547 Manual Peak Response = 110272832 M2
M2 = Peak not found by automatic integration algorithm.

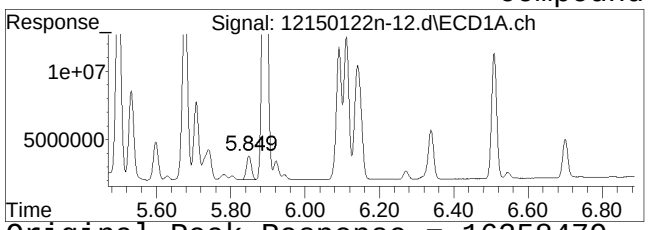
Compound #100: 1262-4 #2

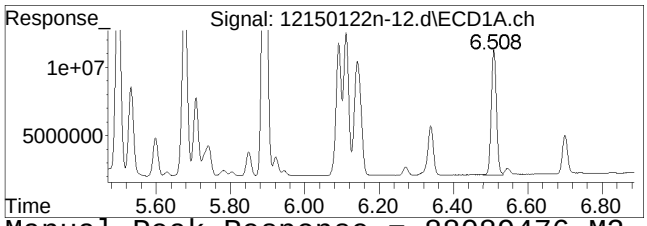




Original Peak Response = 42277517 Manual Peak Response = 555444097 M2
M2 = Peak not found by automatic integration algorithm.

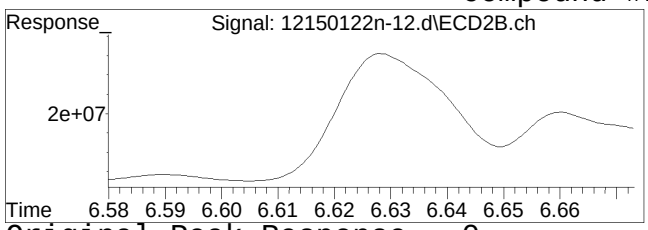
Compound #50: 1262-5

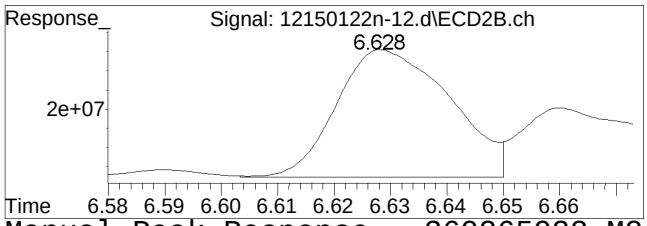




Original Peak Response = 16258479 Manual Peak Response = 88089476 M2
M2 = Peak not found by automatic integration algorithm.

Compound #101: 1262-5 #2





Original Peak Response = 0 Manual Peak Response = 369265922 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:25 pm
Operator : pest12:jt
Sample : il53262,42e,,6647
Misc : wg756944,
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:01:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:59:28 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	2.236	2.333	203.9E6	509.0E6	250.000	250.000M4
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:25 pm
Operator : pest12:jt
Sample : il53262,42e,,6647
Misc : wg756944,
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:01:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:59:28 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:25 pm
Operator : pest12:jt
Sample : il53262,42e,,6647
Misc : wg756944,
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:01:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:59:28 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.990	3.367	97714269	238.4E6	5279.520	4850.510M4
42) l5	1232-2	3.249	3.699	89065476	247.4E6	4881.159	4752.331M4
43) l5	1232-3	3.612	4.092	104.9E6	278.4E6	5383.080M4	4778.283M4
44) l5	1232-4	4.049	4.586	75824726	134.4E6	4873.695M4	4874.407M4
45) l5	1232-5	4.388	4.920	55045890	202.2E6	5015.434	4851.274M4
Sum	1232-1			422.6E6	1100.9E6	25432.888	24106.805
Average	1232-1					5086.578	4821.361
46) l8	1262-1	5.209	5.693	257.2E6	484.5E6	4856.628	5116.066M4
47) l8	1262-2	5.498	6.012	309.9E6	619.7E6	5051.468	4887.583M4
48) l8	1262-3	5.892	6.222	559.4E6	540.3E6	5049.180M3	4944.717M4
49) l8	1262-4	6.111	6.382	196.0E6	1096.8E6	4581.122	5108.008M4
50) l8	1262-5	6.509	6.629	171.1E6	718.2E6	5006.564	5031.362M4
Sum	1262-1			1493.5E6	3459.4E6	24544.961	25087.736
Average	1262-1					4908.992	5017.547

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			1493.5E6	3459.4E6	24544.961	25087.736
Average	1262-1					4908.992	5017.547

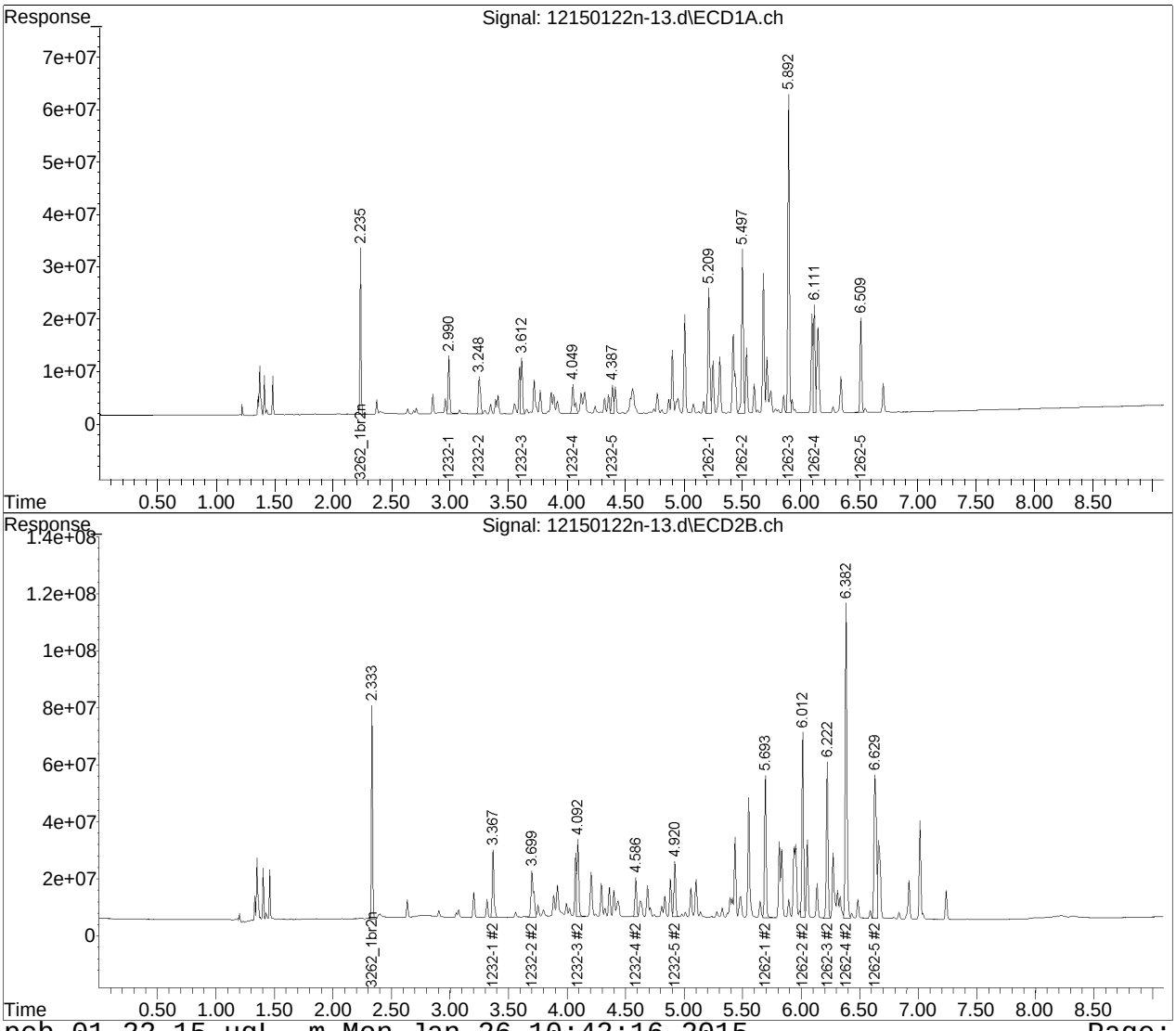
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:25 pm
Operator : pest12:jt
Sample : il53262,42e,,6647
Misc : wg756944,
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:01:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:59:28 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

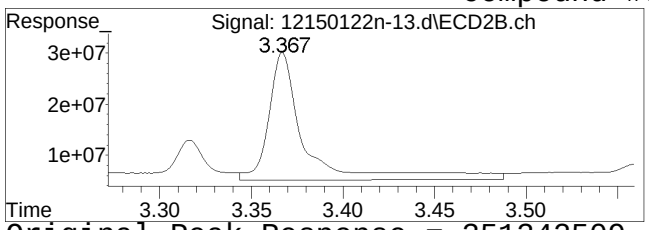


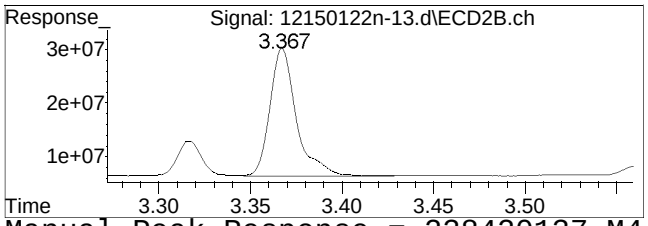
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Date Inj'd : 1/22/2015 6:25 pm
Sample : il53262,42e,,6647

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:59 am

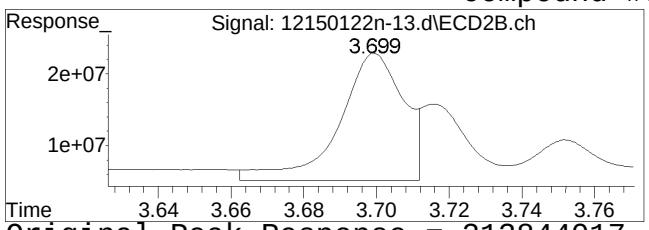
Compound #92: 1232-1 #2

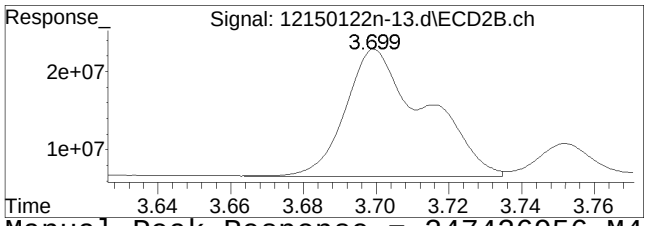




Original Peak Response = 351342509 Manual Peak Response = 238420137 M4
M4 = Poor automated baseline construction.

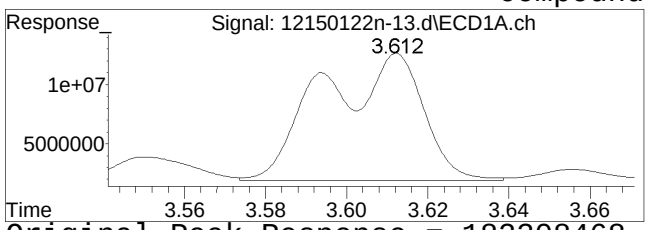
Compound #93: 1232-2 #2

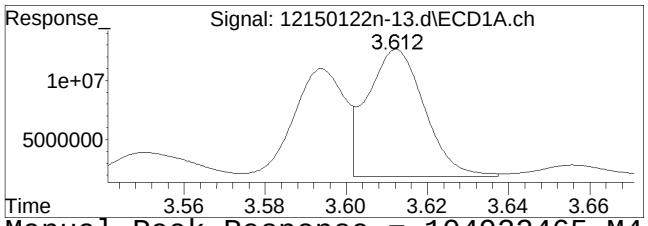




Original Peak Response = 213844017 Manual Peak Response = 247426956 M4
M4 = Poor automated baseline construction.

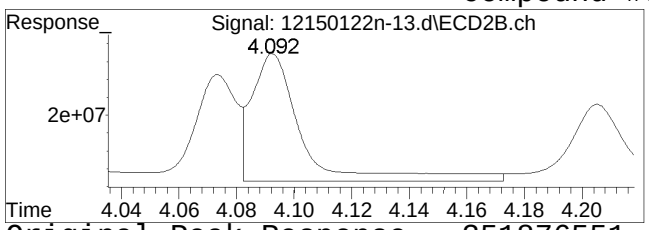
Compound #43: 1232-3

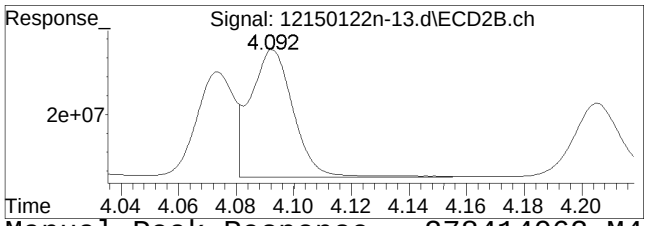




Original Peak Response = 182308468 Manual Peak Response = 104922465 M4
M4 = Poor automated baseline construction.

Compound #94: 1232-3 #2





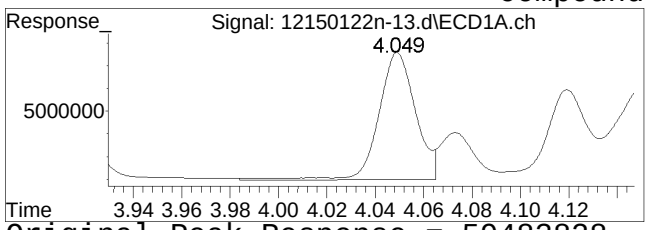
Original Peak Response = 351876551 Manual Peak Response = 278414062 M4
M4 = Poor automated baseline construction.

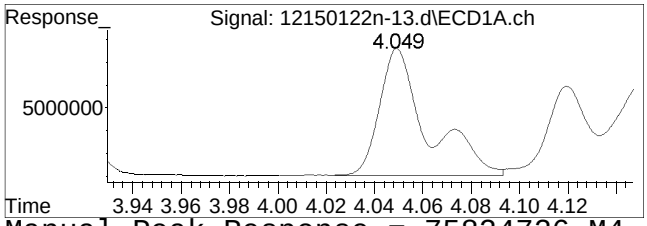
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Date Inj'd : 1/22/2015 6:25 pm
Sample : il53262,42e,,6647

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:59 am

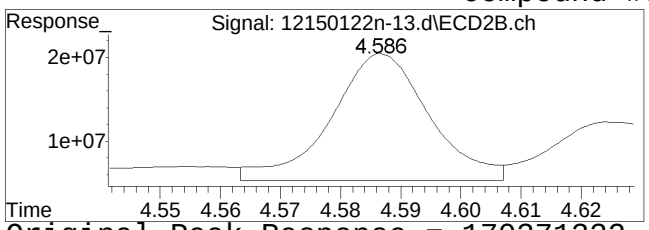
Compound #44: 1232-4

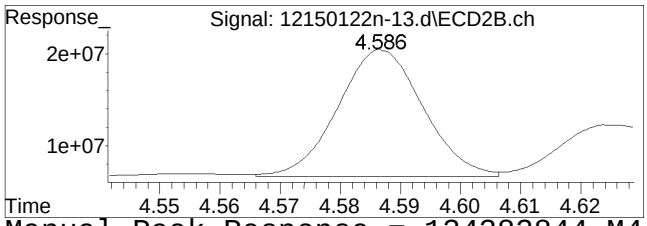




Original Peak Response = 59483828 Manual Peak Response = 75824726 M4
M4 = Poor automated baseline construction.

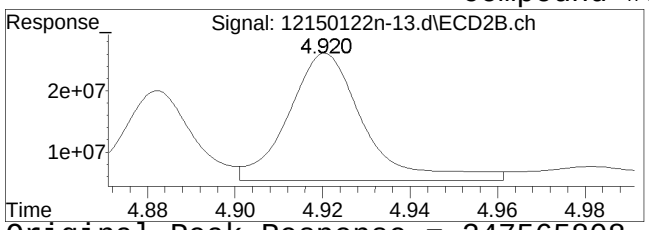
Compound #95: 1232-4 #2

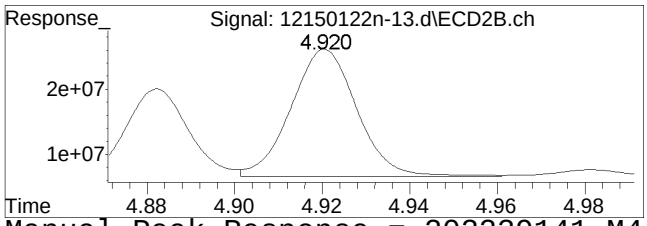




Original Peak Response = 170371332 Manual Peak Response = 134383844 M4
M4 = Poor automated baseline construction.

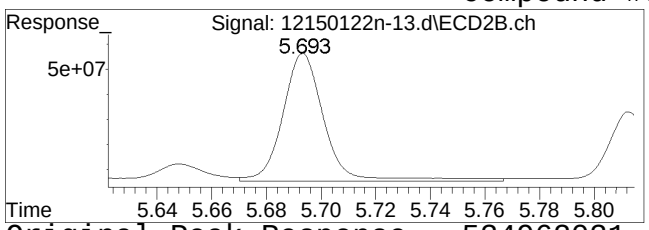
Compound #96: 1232-5 #2

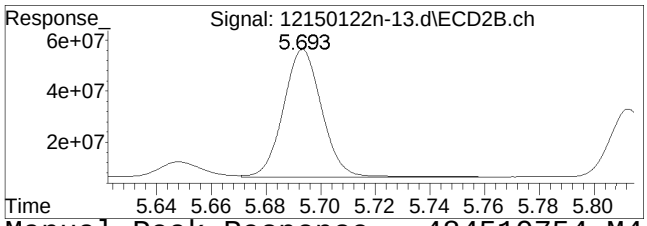




Original Peak Response = 247565808 Manual Peak Response = 202239141 M4
M4 = Poor automated baseline construction.

Compound #97: 1262-1 #2





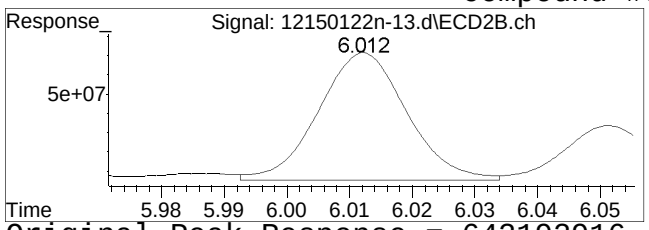
Original Peak Response = 534962031 Manual Peak Response = 484510754 M4
M4 = Poor automated baseline construction.

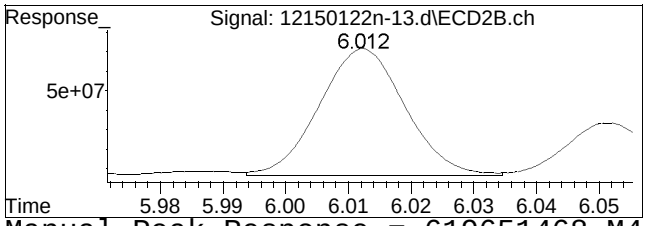
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Date Inj'd : 1/22/2015 6:25 pm
Sample : il53262,42e,,6647

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:59 am

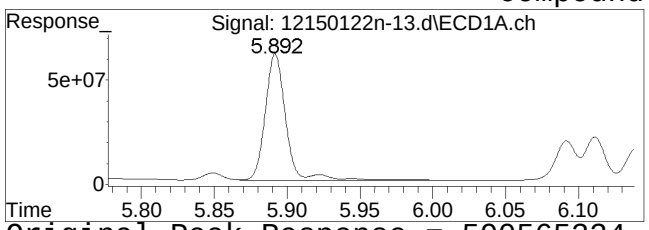
Compound #98: 1262-2 #2

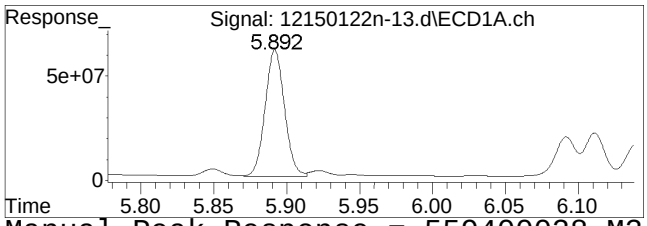




Original Peak Response = 642192916 Manual Peak Response = 619651468 M4
M4 = Poor automated baseline construction.

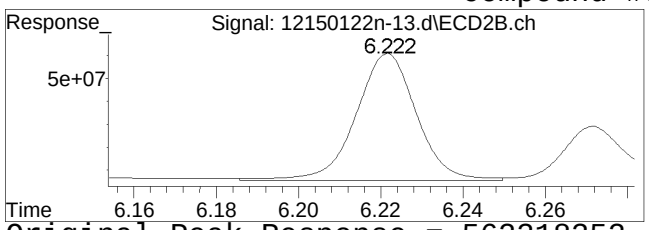
Compound #48: 1262-3

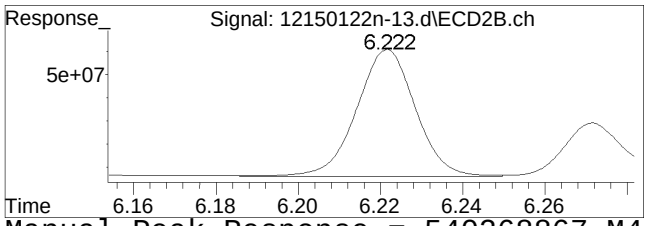




Original Peak Response = 590565334 Manual Peak Response = 559400028 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

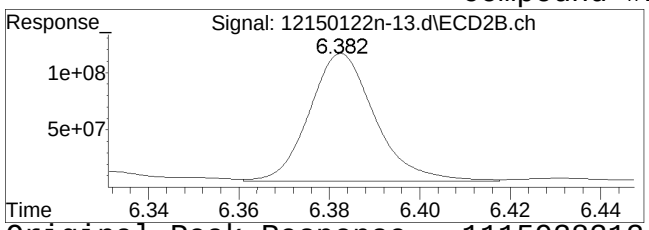
Compound #99: 1262-3 #2

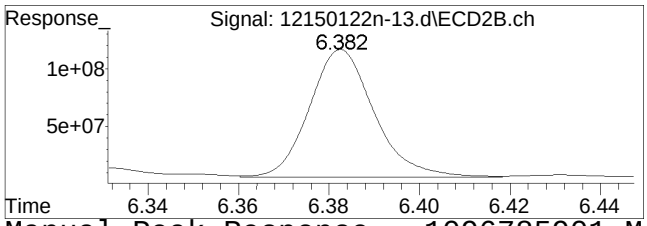




Original Peak Response = 562318352 Manual Peak Response = 540268867 M4
M4 = Poor automated baseline construction.

Compound #100: 1262-4 #2





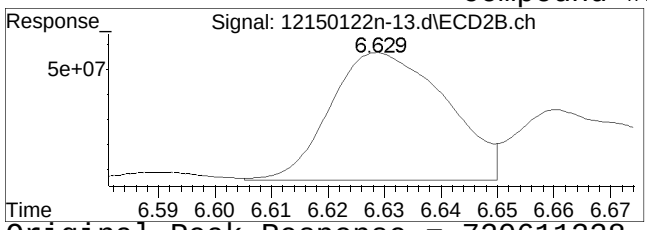
Original Peak Response = 1115938313 Manual Peak Response = 1096785901 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

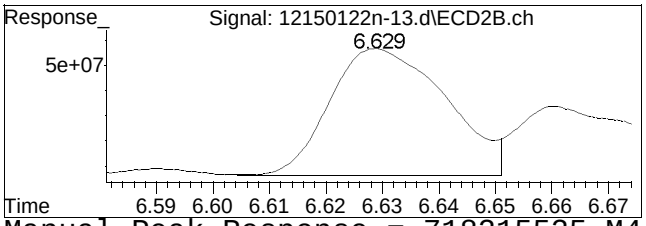
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-13.d
Date Inj'd : 1/22/2015 6:25 pm
Sample : il53262,42e,,6647

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:59 am

Compound #101: 1262-5 #2



Original Peak Response = 720611338



Manual Peak Response = 718215525 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:37 pm
Operator : pest12:jt
Sample : il63262,42e,,6648
Misc : wg756944,
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:02:51 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:01:31 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	2.235	2.333	211.6E6	532.5E6	250.000	250.000M4
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:37 pm
Operator : pest12:jt
Sample : il63262,42e,,6648
Misc : wg756944,
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:02:51 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:01:31 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:37 pm
Operator : pest12:jt
Sample : il63262,42e,,6648
Misc : wg756944,
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:02:51 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:01:31 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.990	3.366	181.6E6	457.2E6	9194.249	9024.711M4
42) l5	1232-2	3.249	3.698	174.0E6	471.8E6	9295.726	8880.862M4
43) l5	1232-3	3.612	4.092	198.8E6	508.8E6	9464.857M4	8535.238M4
44) l5	1232-4	4.050	4.586	149.6E6	265.2E6	9384.482	9310.791M4
45) l5	1232-5	4.388	4.920	108.4E6	393.7E6	9497.141	9162.614M4
Sum	1232-1			812.3E6	2096.6E6	46836.454	44914.217
Average	1232-1					9367.291	8982.843
46) l8	1262-1	5.210	5.694	513.7E6	1005.7E6	9482.432	10033.930
47) l8	1262-2	5.498	6.013	619.1E6	1302.2E6	9673.482	9929.184
48) l8	1262-3	5.893	6.223	1121.8E6	1093.3E6	9707.976M4	9617.080
49) l8	1262-4	6.113	6.384	397.1E6	2220.5E6	9335.384	9778.986
50) l8	1262-5	6.511	6.632	347.0E6	1434.6E6	9778.242	9575.734
Sum	1262-1			2998.8E6	7056.2E6	47977.516	48934.914
Average	1262-1					9595.503	9786.983

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			2998.8E6	7056.2E6	47977.516	48934.914
Average	1262-1					9595.503	9786.983

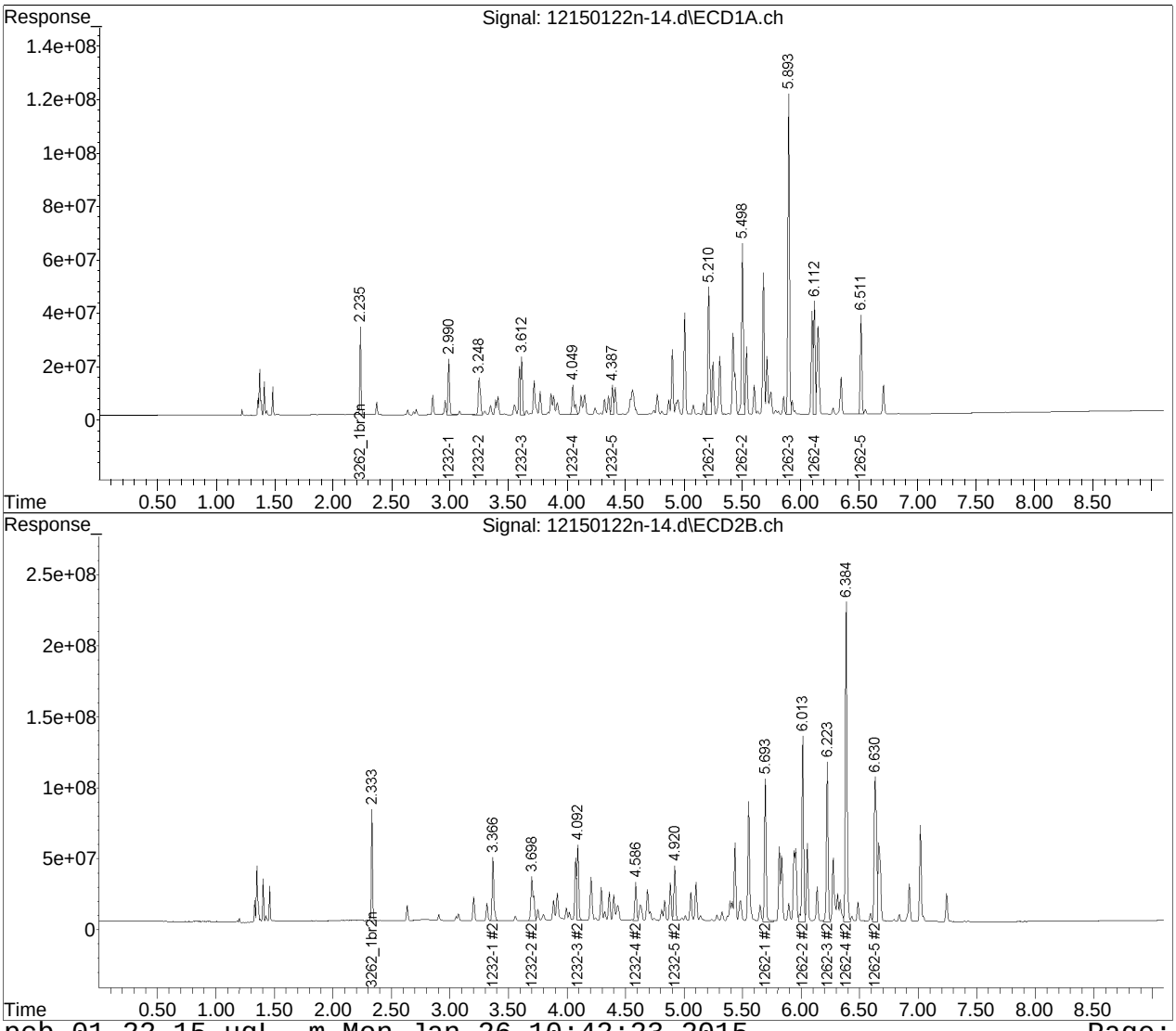
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:37 pm
Operator : pest12:jt
Sample : il63262,42e,,6648
Misc : wg756944,
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:02:51 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:01:31 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

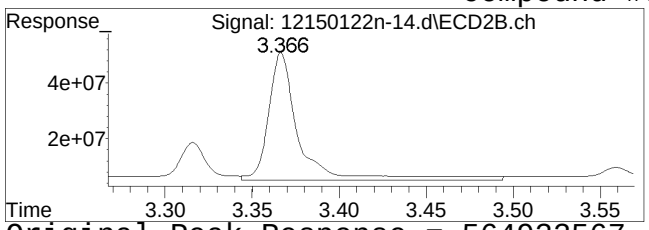


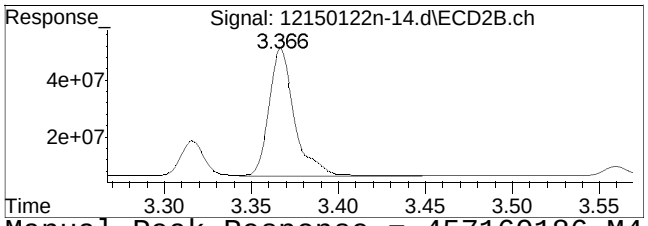
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-14.d
Date Inj'd : 1/22/2015 6:37 pm
Sample : il63262,42e,,6648

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:01 am

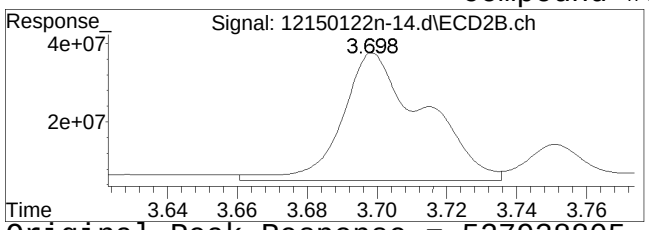
Compound #92: 1232-1 #2

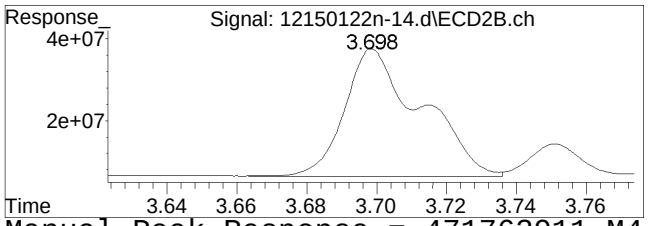




Original Peak Response = 564933567 Manual Peak Response = 457160186 M4
M4 = Poor automated baseline construction.

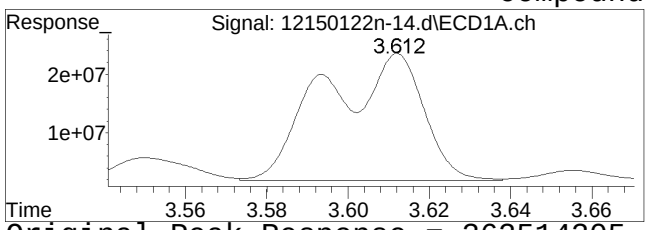
Compound #93: 1232-2 #2

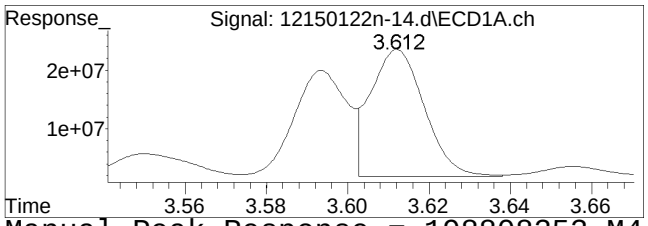




Original Peak Response = 527938805 Manual Peak Response = 471763911 M4
M4 = Poor automated baseline construction.

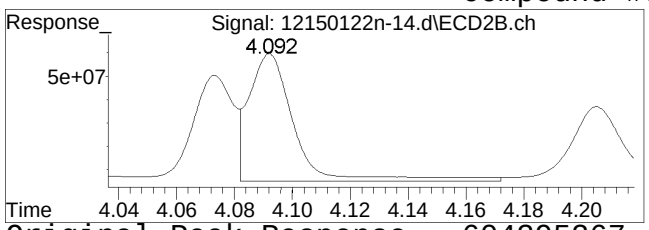
Compound #43: 1232-3

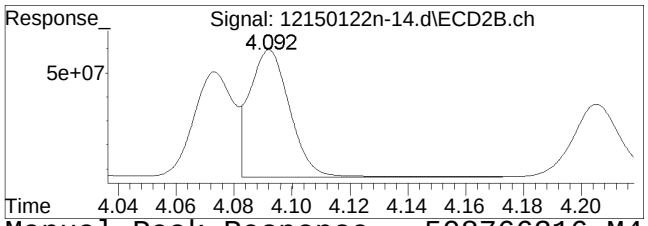




Original Peak Response = 362514305 Manual Peak Response = 198808353 M4
M4 = Poor automated baseline construction.

Compound #94: 1232-3 #2



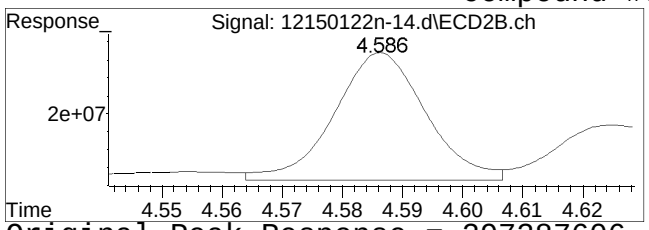


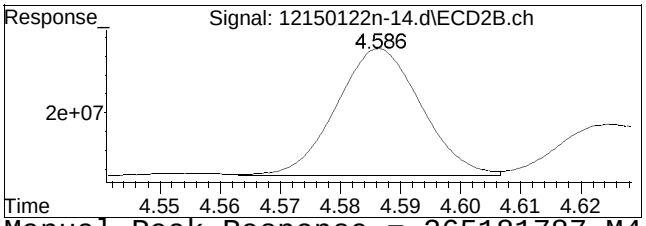
Original Peak Response = 604395267 Manual Peak Response = 508766316 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-14.d Operator : pest12:jt
Date Inj'd : 1/22/2015 6:37 pm Instrument : Pest12
Sample : il63262,42e,,6648 Quant Date : 1/26/2015 10:01 am

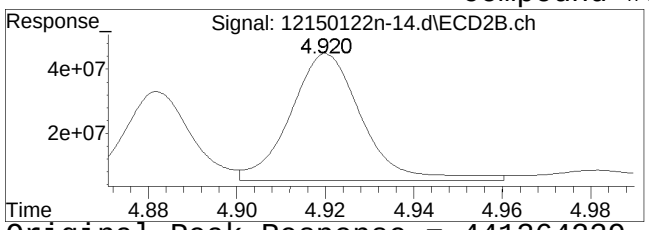
Compound #95: 1232-4 #2

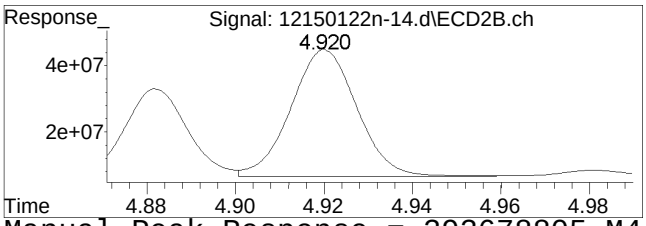




Original Peak Response = 297387606 Manual Peak Response = 265181787 M4
M4 = Poor automated baseline construction.

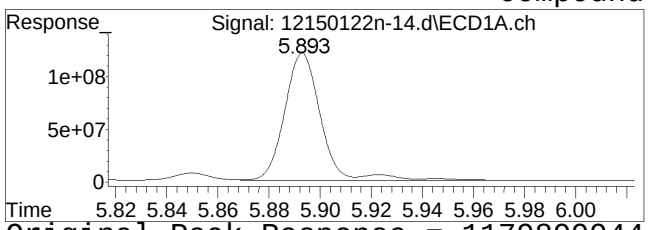
Compound #96: 1232-5 #2

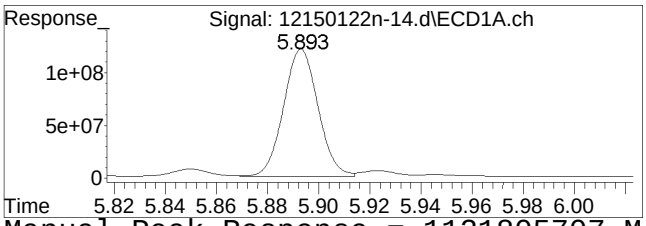




Original Peak Response = 441364239 Manual Peak Response = 393678805 M4
M4 = Poor automated baseline construction.

Compound #48: 1262-3





Original Peak Response = 1179899944 Manual Peak Response = 1121805707 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:49 pm
Operator : pest12:jt
Sample : il11248,42e,,6649
Misc : wg756944,
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:18:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:16:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	2.236	2.334	218.3E6	552.7E6	250.000	250.000
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:49 pm
Operator : pest12:jt
Sample : il11248,42e,,6649
Misc : wg756944,
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:18:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:16:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.864	4.361	3069266	8613453	121.426M1	135.665
36) l7	1248-2	4.050	4.587	5110853	9447919	123.303	123.386M2
37) l7	1248-3	4.388	4.883	4570137	9589615	126.627	109.461M2
38) l7	1248-4	4.412	4.922	3553787	10951717	118.339	112.341M2
39) l7	1248-5	4.567	5.102	7356904	10898433	127.386M2	121.936M2

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:49 pm
Operator : pest12:jt
Sample : il11248,42e,,6649
Misc : wg756944,
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:18:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:16:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			23660947	49501137	N.D.	N.D.
Average	1248-1					123.416	120.558
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

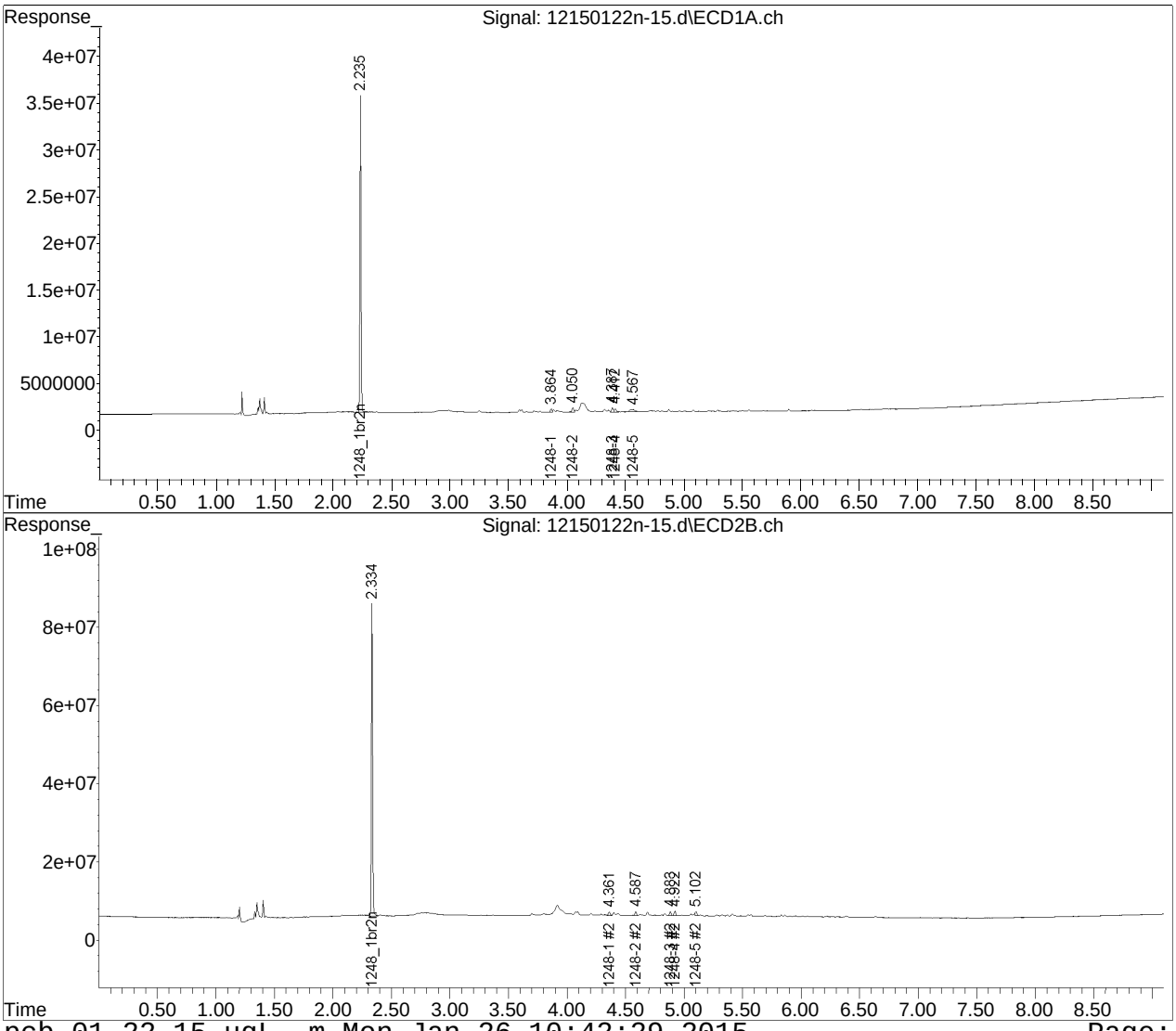
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 6:49 pm
Operator : pest12:jt
Sample : il11248,42e,,6649
Misc : wg756944,
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:18:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:16:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

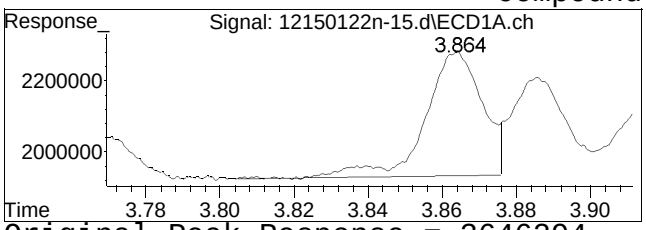


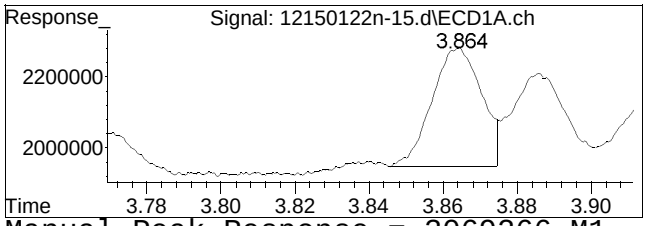
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-15.d
Date Inj'd : 1/22/2015 6:49 pm
Sample : il11248,42e,,6649

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:16 am

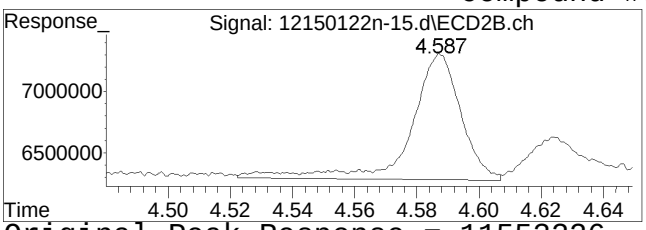
Compound #35: 1248-1

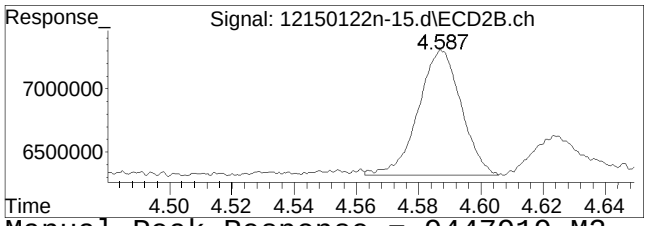




Original Peak Response = 3646294 Manual Peak Response = 3069266 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

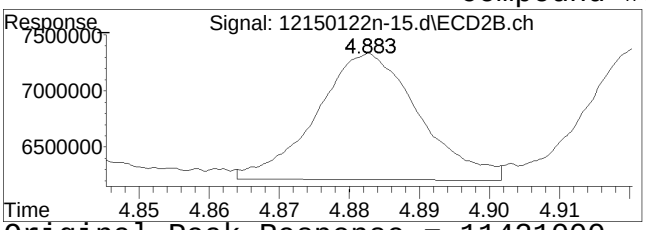
Compound #87: 1248-2 #2

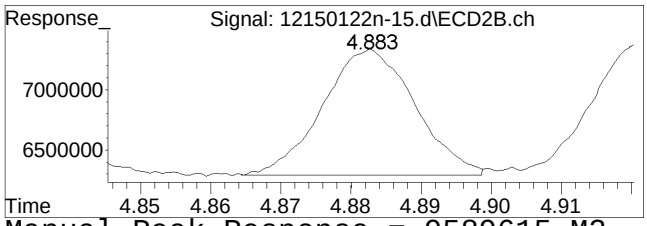




Original Peak Response = 11553226 Manual Peak Response = 9447919 M2
M2 = Peak not found by automatic integration algorithm.

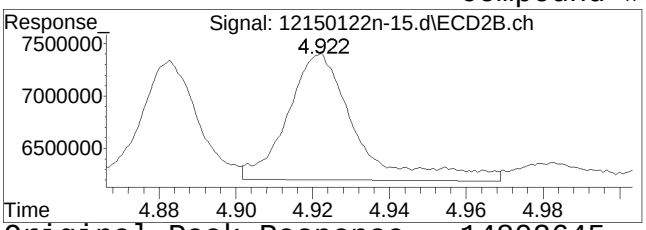
Compound #88: 1248-3 #2

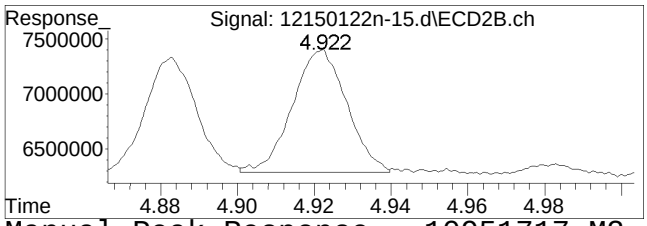




Original Peak Response = 11421000 Manual Peak Response = 9589615 M2
M2 = Peak not found by automatic integration algorithm.

Compound #89: 1248-4 #2





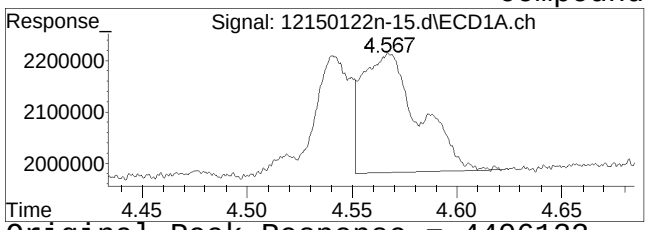
Original Peak Response = 14802645 Manual Peak Response = 10951717 M2
M2 = Peak not found by automatic integration algorithm.

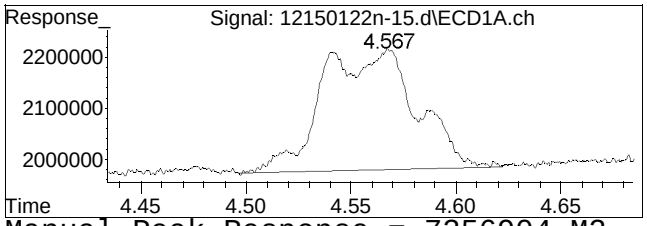
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-15.d
Date Inj'd : 1/22/2015 6:49 pm
Sample : il11248,42e,,6649

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:16 am

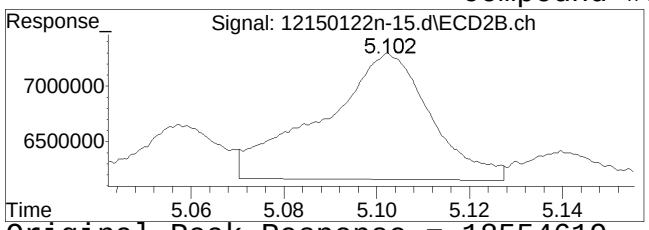
Compound #39: 1248-5

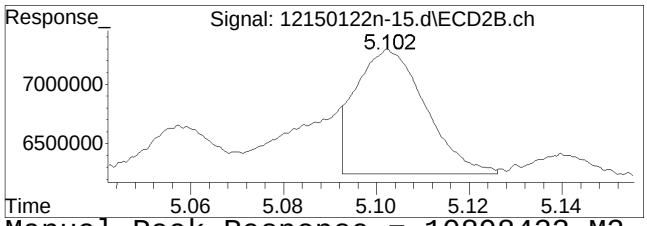




Original Peak Response = 4406133 Manual Peak Response = 7356904 M2
M2 = Peak not found by automatic integration algorithm.

Compound #90: 1248-5 #2





Original Peak Response = 18554619 Manual Peak Response = 10898433 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:02 pm
Operator : pest12:jt
Sample : il21248,42e,,6650
Misc : wg756944,
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:19:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:18:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	2.236	2.334	223.1E6	558.8E6	250.000	250.000
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:02 pm
Operator : pest12:jt
Sample : il21248,42e,,6650
Misc : wg756944,
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:19:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:18:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.864	4.361	14658379	36926727	538.492M4	528.100
36) l7	1248-2	4.050	4.587	23528302	43472101	524.754M4	530.445
37) l7	1248-3	4.389	4.883	19936097	48873740	506.670	538.961
38) l7	1248-4	4.412	4.921	16309585	56463935	508.027	555.660
39) l7	1248-5	4.569	5.102	31495260	50787649	499.331M4	532.742M4

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:02 pm
Operator : pest12:jt
Sample : il21248,42e,,6650
Misc : wg756944,
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:19:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:18:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			105.9E6	236.5E6	N.D.	N.D.
Average	1248-1					515.455	537.182
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

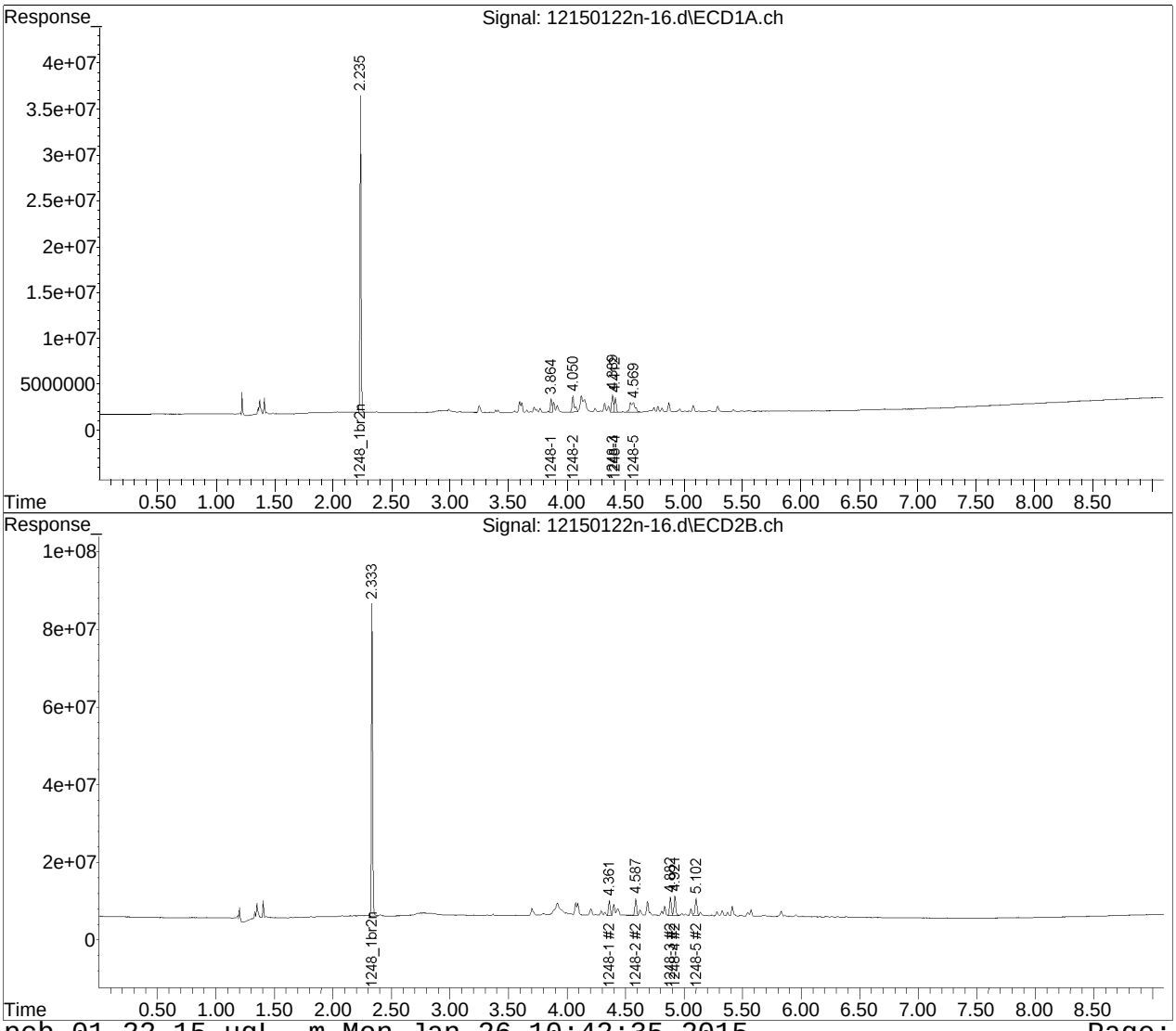
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:02 pm
Operator : pest12:jt
Sample : il21248,42e,,6650
Misc : wg756944,
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:19:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:18:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

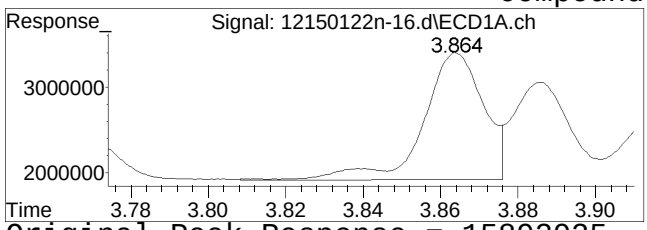


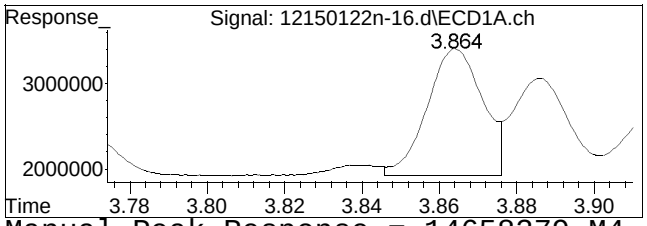
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-16.d
Date Inj'd : 1/22/2015 7:02 pm
Sample : il21248,42e,,6650

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:18 am

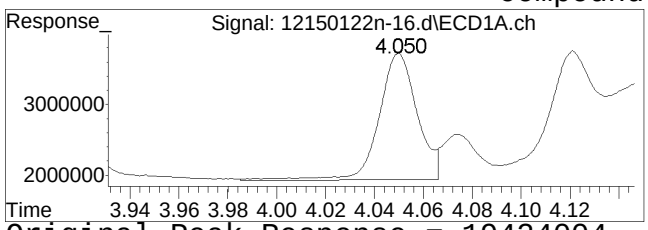
Compound #35: 1248-1

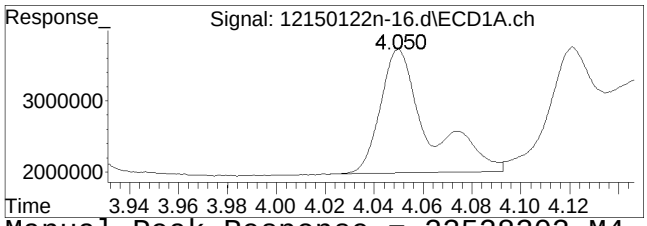




Original Peak Response = 15892925 Manual Peak Response = 14658379 M4
M4 = Poor automated baseline construction.

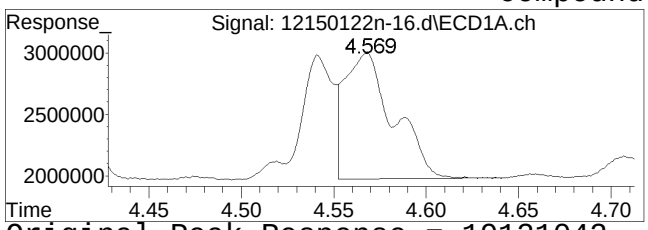
Compound #36: 1248-2

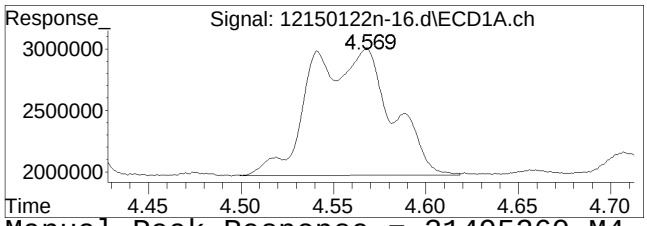




Original Peak Response = 19424004 Manual Peak Response = 23528302 M4
M4 = Poor automated baseline construction.

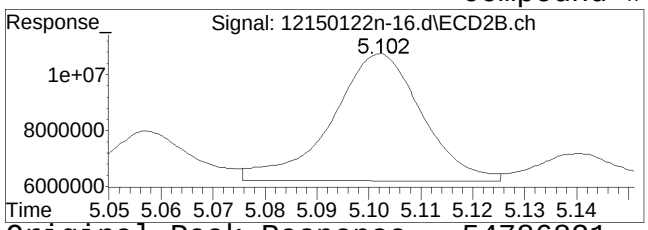
Compound #39: 1248-5

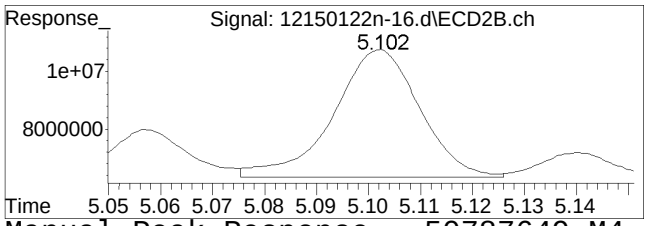




Original Peak Response = 19121042 Manual Peak Response = 31495260 M4
M4 = Poor automated baseline construction.

Compound #90: 1248-5 #2





Original Peak Response = 54786821 Manual Peak Response = 50787649 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:14 pm
Operator : pest12:jt
Sample : il31248,42e,,6651
Misc : wg756944,
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:21:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:19:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	2.236	2.334	221.7E6	557.6E6	250.000	250.000
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D.	N.D.
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D.	N.D.
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:14 pm
Operator : pest12:jt
Sample : il31248,42e,,6651
Misc : wg756944,
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:21:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:19:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.863	4.360	27409343	67452548	998.108M4	956.032M4
36) l7	1248-2	4.049	4.587	44841368	82323228	996.751M4	994.600M4
37) l7	1248-3	4.388	4.882	38391725	90067937	979.461	980.142M2
38) l7	1248-4	4.412	4.921	31528236	101.8E6	985.309	982.242M4

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:14 pm
Operator : pest12:jt
Sample : il31248,42e,,6651
Misc : wg756944,
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:21:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:19:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
39) l7	1248-5	4.568	5.102	62081055	94041999	990.923M4	975.849M4
Sum	1248-1			204.3E6	435.7E6	N.D.	N.D.
Average	1248-1					990.110	977.773
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

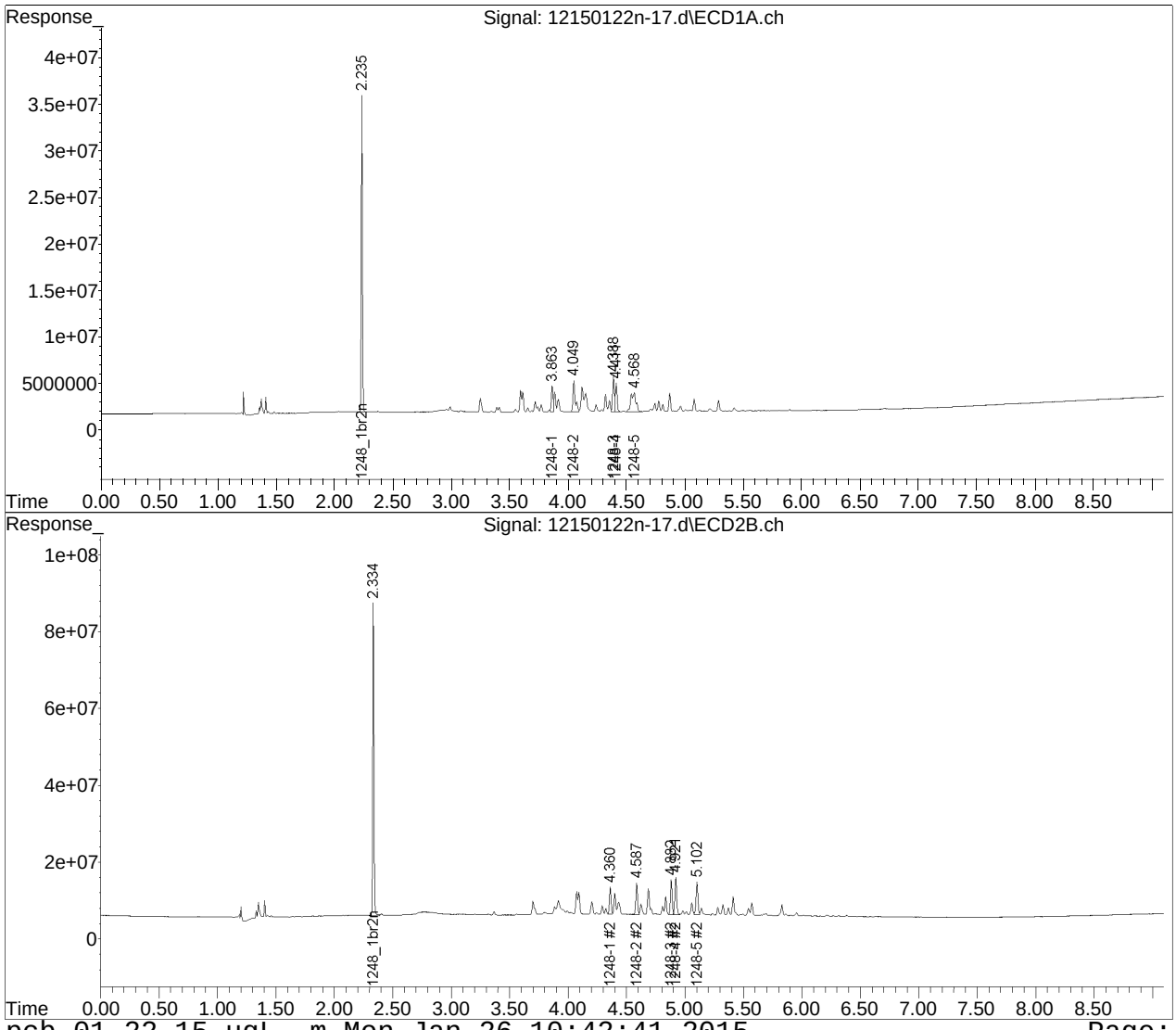
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:14 pm
Operator : pest12:jt
Sample : il31248,42e,,6651
Misc : wg756944,
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:21:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:19:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

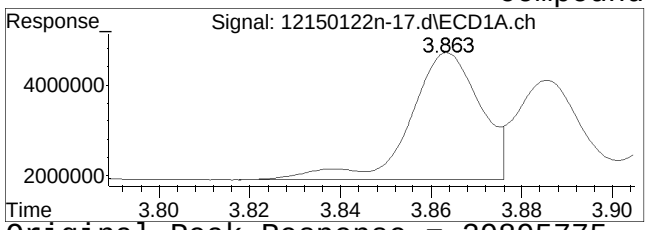


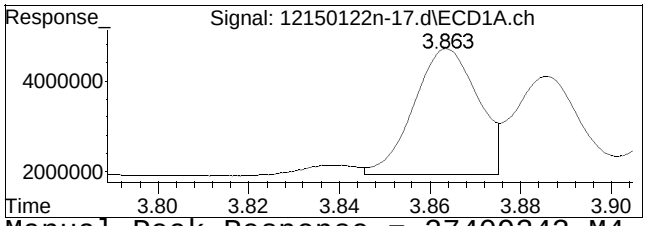
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-17.d
Date Inj'd : 1/22/2015 7:14 pm
Sample : il31248,42e,,6651

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:19 am

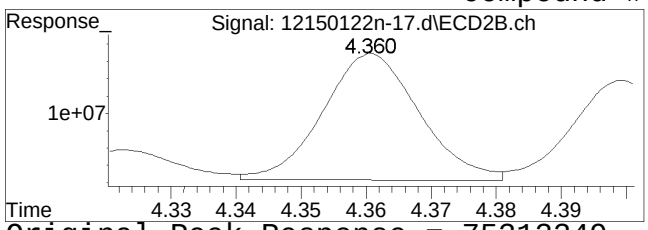
Compound #35: 1248-1

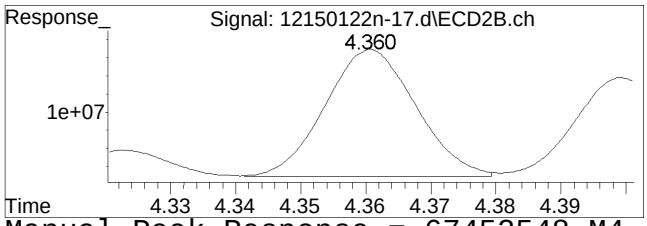




Original Peak Response = 29895775 Manual Peak Response = 27409343 M4
M4 = Poor automated baseline construction.

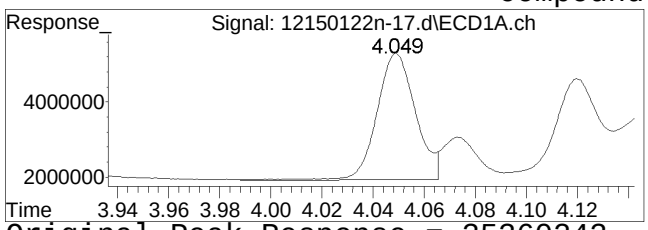
Compound #86: 1248-1 #2

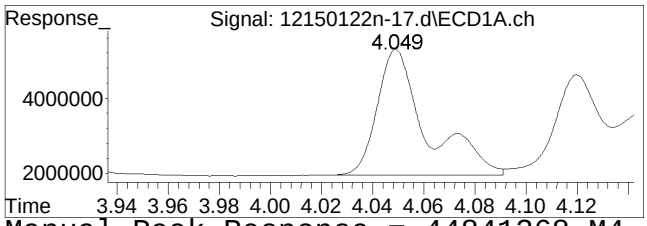




Original Peak Response = 75313349 Manual Peak Response = 67452548 M4
M4 = Poor automated baseline construction.

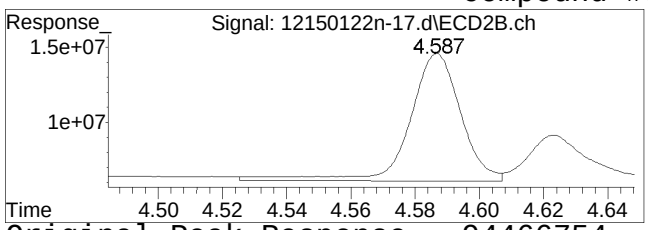
Compound #36: 1248-2

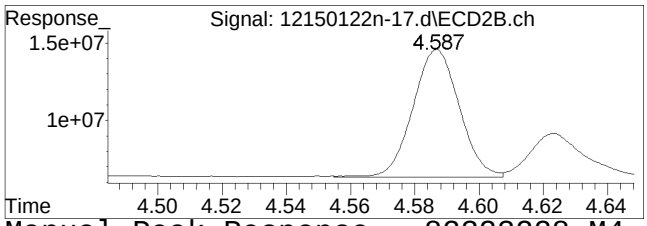




Original Peak Response = 35360243 Manual Peak Response = 44841368 M4
M4 = Poor automated baseline construction.

Compound #87: 1248-2 #2





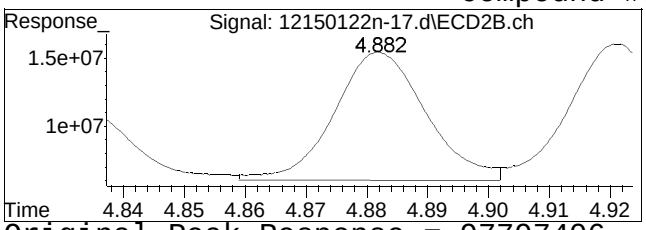
Original Peak Response = 94466754 Manual Peak Response = 82323228 M4
M4 = Poor automated baseline construction.

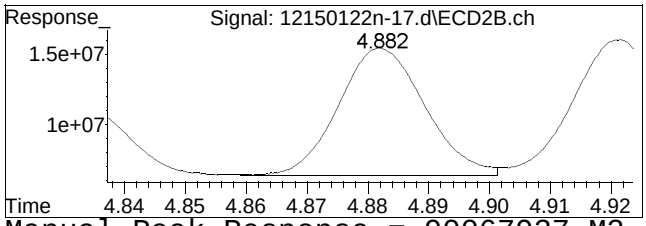
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-17.d
Date Inj'd : 1/22/2015 7:14 pm
Sample : il31248,42e,,6651

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:19 am

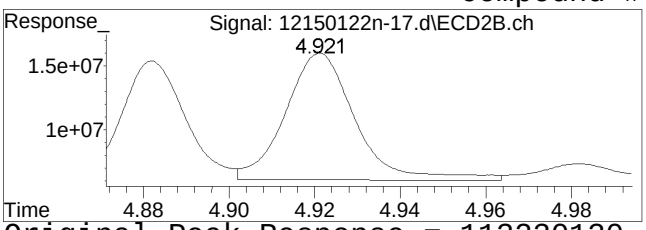
Compound #88: 1248-3 #2

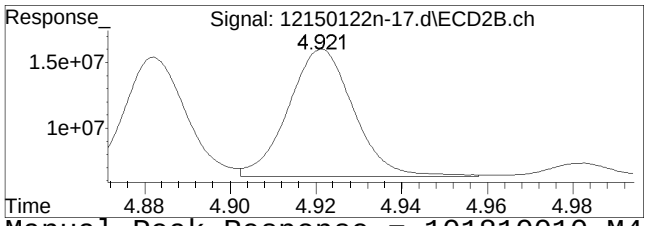




Original Peak Response = 97797406 Manual Peak Response = 90067937 M2
M2 = Peak not found by automatic integration algorithm.

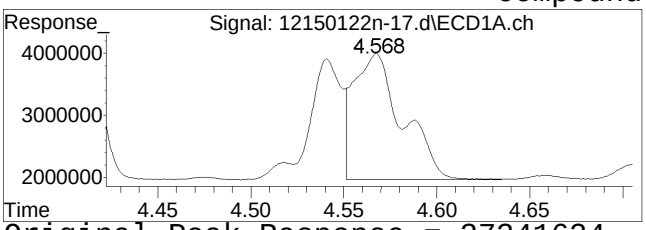
Compound #89: 1248-4 #2

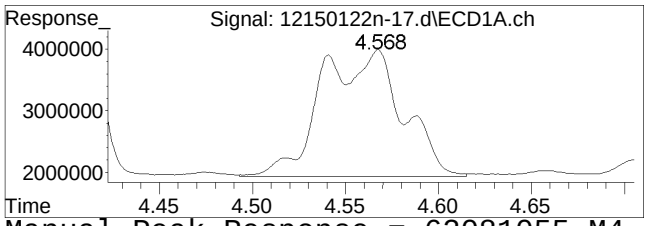




Original Peak Response = 113230130 Manual Peak Response = 101810010 M4
M4 = Poor automated baseline construction.

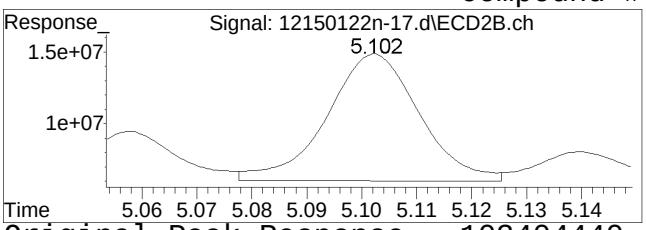
Compound #39: 1248-5

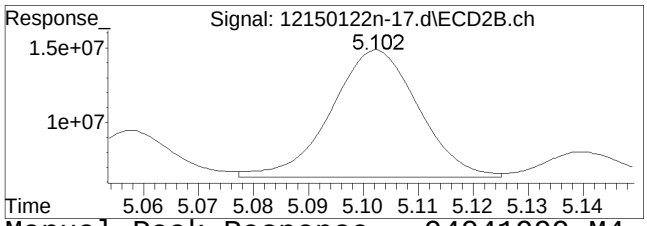




Original Peak Response = 37341624 Manual Peak Response = 62081055 M4
M4 = Poor automated baseline construction.

Compound #90: 1248-5 #2





Original Peak Response = 103404440 Manual Peak Response = 94041999 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:26 pm
Operator : pest12:jt
Sample : il41248,42e,,6652
Misc : wg756944,
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:13:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	2.235f	2.333f	223.1E6	551.8E6	250.000M2	250.000M4
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:26 pm
Operator : pest12:jt
Sample : il41248,42e,,6652
Misc : wg756944,
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:13:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.863f	4.361f	64791477	162.1E6	NoCal M2	NoCal M2
36) l7	1248-2	4.049f	4.586f	109.5E6	195.8E6	NoCal M2	NoCal M2
37) l7	1248-3	4.387f	4.883	91630763	224.0E6	NoCal M2	NoCal M2

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:26 pm
Operator : pest12:jt
Sample : il41248,42e,,6652
Misc : wg756944,
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:13:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
38) l7	1248-4	4.412f	4.921	76551796	245.9E6	NoCal M2	NoCal M2
39) l7	1248-5	4.568f	5.102	152.0E6	226.0E6	NoCal M2	NoCal M2
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

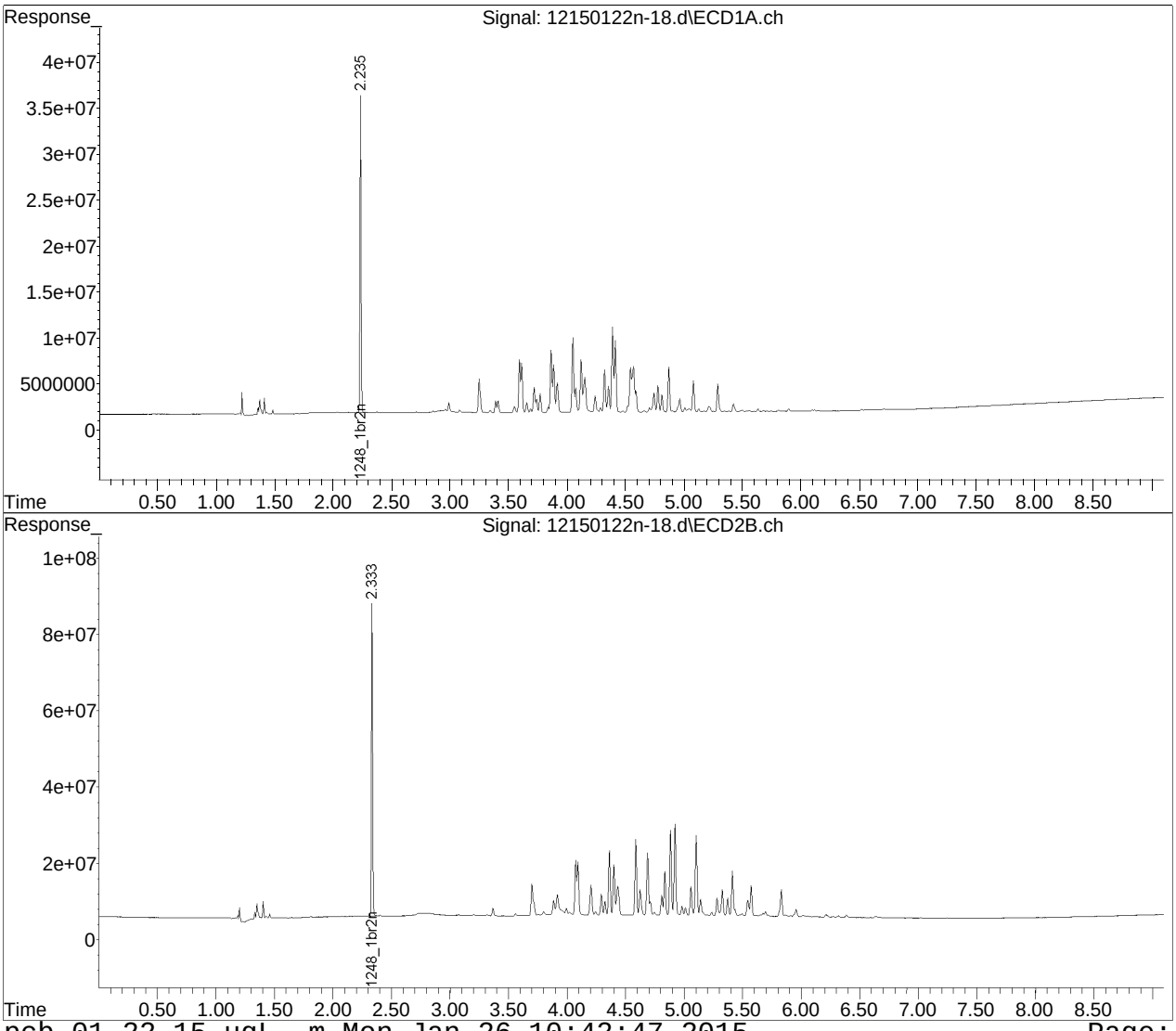
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:26 pm
Operator : pest12:jt
Sample : il41248,42e,,6652
Misc : wg756944,
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:13:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

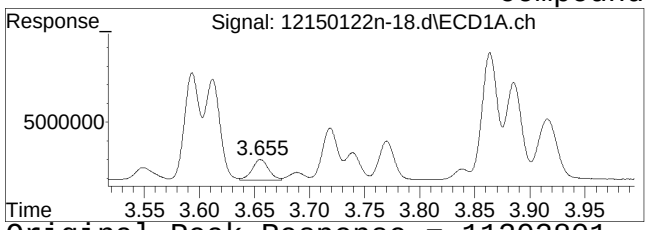


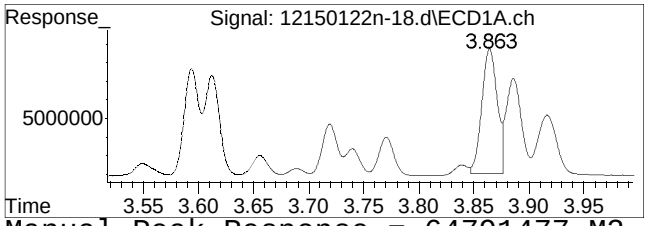
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Date Inj'd : 1/22/2015 7:26 pm
Sample : il41248,42e,,6652

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:09 am

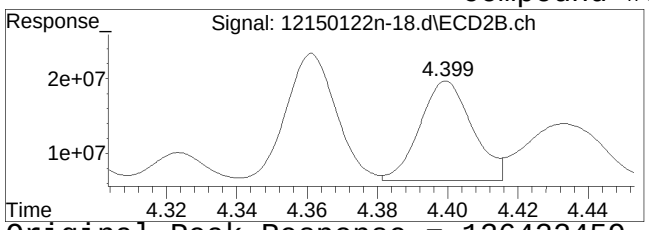
Compound #35: 1248-1

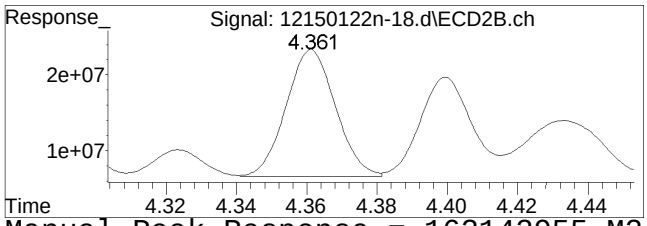




Original Peak Response = 11202801 Manual Peak Response = 64791477 M2
M2 = Peak not found by automatic integration algorithm.

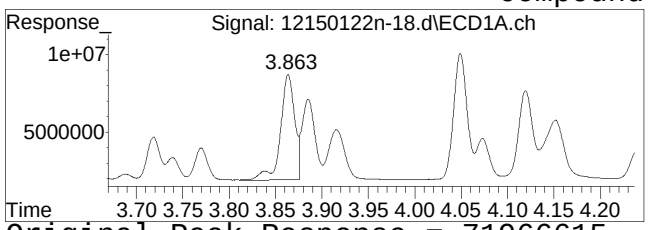
Compound #86: 1248-1 #2

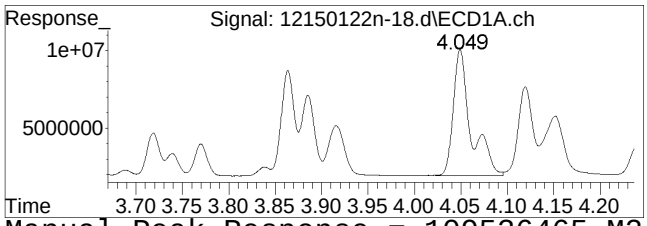




Original Peak Response = 136422459 Manual Peak Response = 162142955 M2
M2 = Peak not found by automatic integration algorithm.

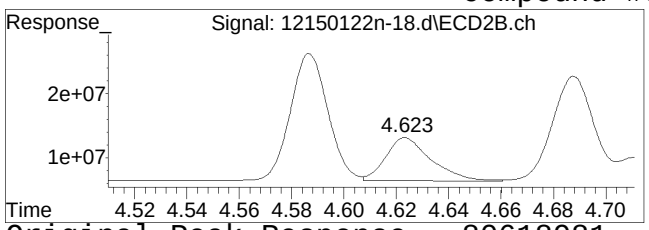
Compound #36: 1248-2

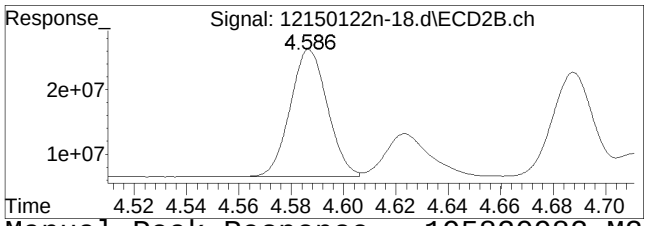




Original Peak Response = 71966615 Manual Peak Response = 109536465 M2
M2 = Peak not found by automatic integration algorithm.

Compound #87: 1248-2 #2





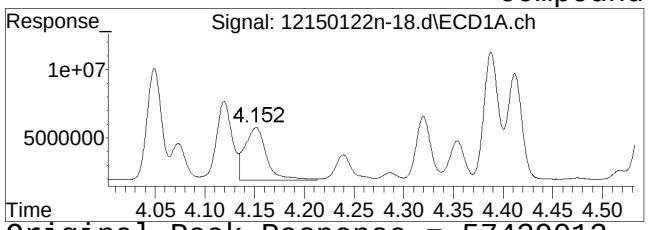
Original Peak Response = 80618981 Manual Peak Response = 195820982 M2
M2 = Peak not found by automatic integration algorithm.

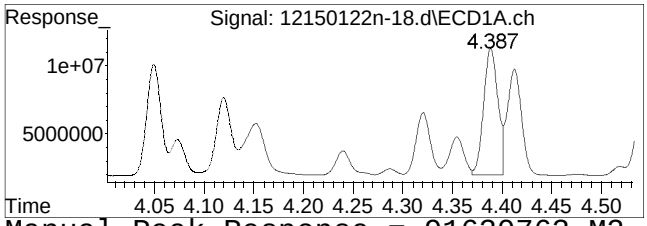
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Date Inj'd : 1/22/2015 7:26 pm
Sample : il41248,42e,,6652

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:09 am

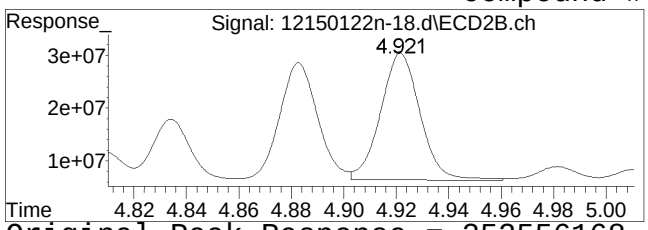
Compound #37: 1248-3

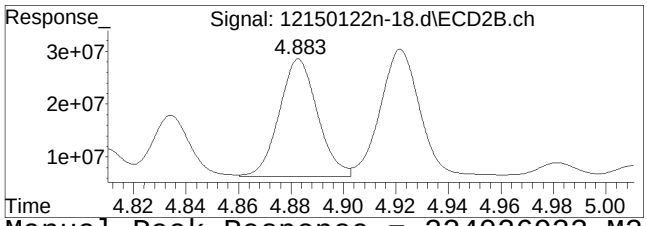




Original Peak Response = 57439012 Manual Peak Response = 91630763 M2
M2 = Peak not found by automatic integration algorithm.

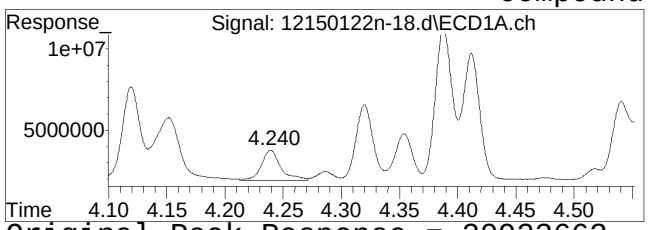
Compound #88: 1248-3 #2

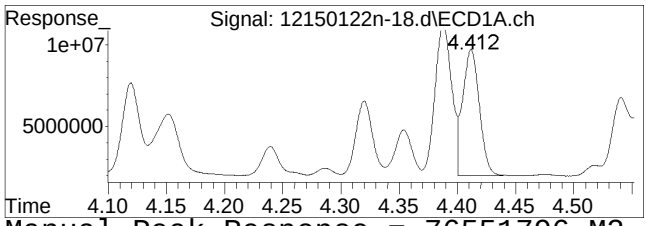




Original Peak Response = 252556168 Manual Peak Response = 224026933 M2
M2 = Peak not found by automatic integration algorithm.

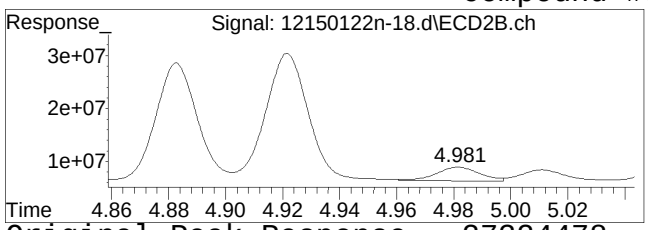
Compound #38: 1248-4

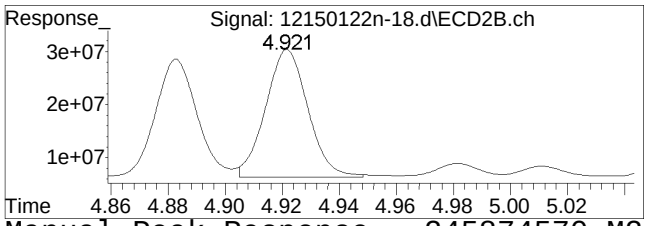




Original Peak Response = 20923663 Manual Peak Response = 76551796 M2
M2 = Peak not found by automatic integration algorithm.

Compound #89: 1248-4 #2





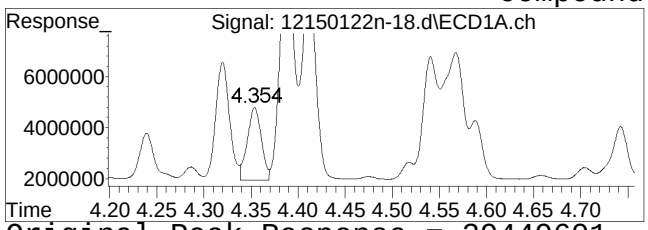
Original Peak Response = 27324478 Manual Peak Response = 245874570 M2
M2 = Peak not found by automatic integration algorithm.

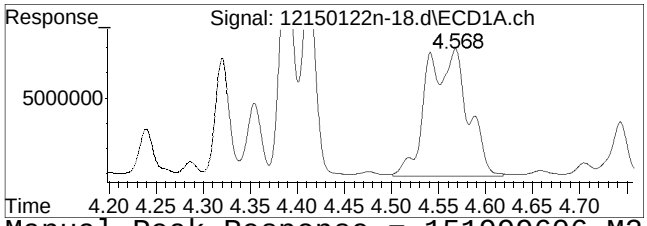
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-18.d
Date Inj'd : 1/22/2015 7:26 pm
Sample : il41248,42e,,6652

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:09 am

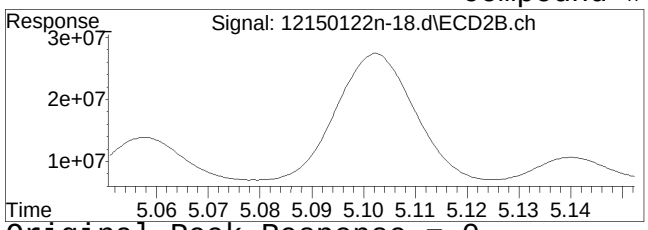
Compound #39: 1248-5

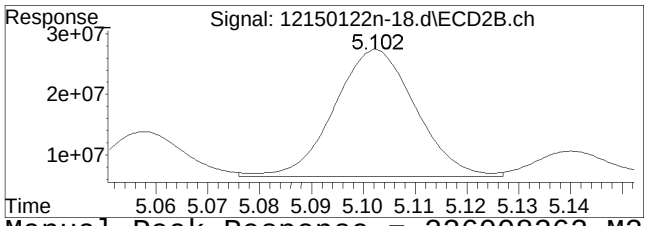




Original Peak Response = 29449601 Manual Peak Response = 151999606 M2
M2 = Peak not found by automatic integration algorithm.

Compound #90: 1248-5 #2





Original Peak Response = 0 Manual Peak Response = 226008262 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:39 pm
Operator : pest12:jt
Sample : il51248,42e,,6653
Misc : wg756944,
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:15:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:14:17 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	2.235	2.334	223.8E6	555.7E6	250.000	250.000
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:39 pm
Operator : pest12:jt
Sample : il51248,42e,,6653
Misc : wg756944,
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:15:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:14:17 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.863	4.361	135.1E6	324.1E6	5195.822M4	4962.260M4
36) l7	1248-2	4.049	4.586	214.3E6	386.0E6	4877.787	4893.701M4
37) l7	1248-3	4.388	4.882	188.8E6	448.4E6	5136.286	4969.128
38) l7	1248-4	4.411	4.921	156.7E6	503.5E6	5101.910	5084.024
39) l7	1248-5	4.567	5.102	299.2E6	460.4E6	4906.565M4	5057.100

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:39 pm
Operator : pest12:jt
Sample : il51248,42e,,6653
Misc : wg756944,
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:15:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:14:17 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			994.1E6	2122.3E6	N.D.	N.D.
Average	1248-1					5043.674	4993.243
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

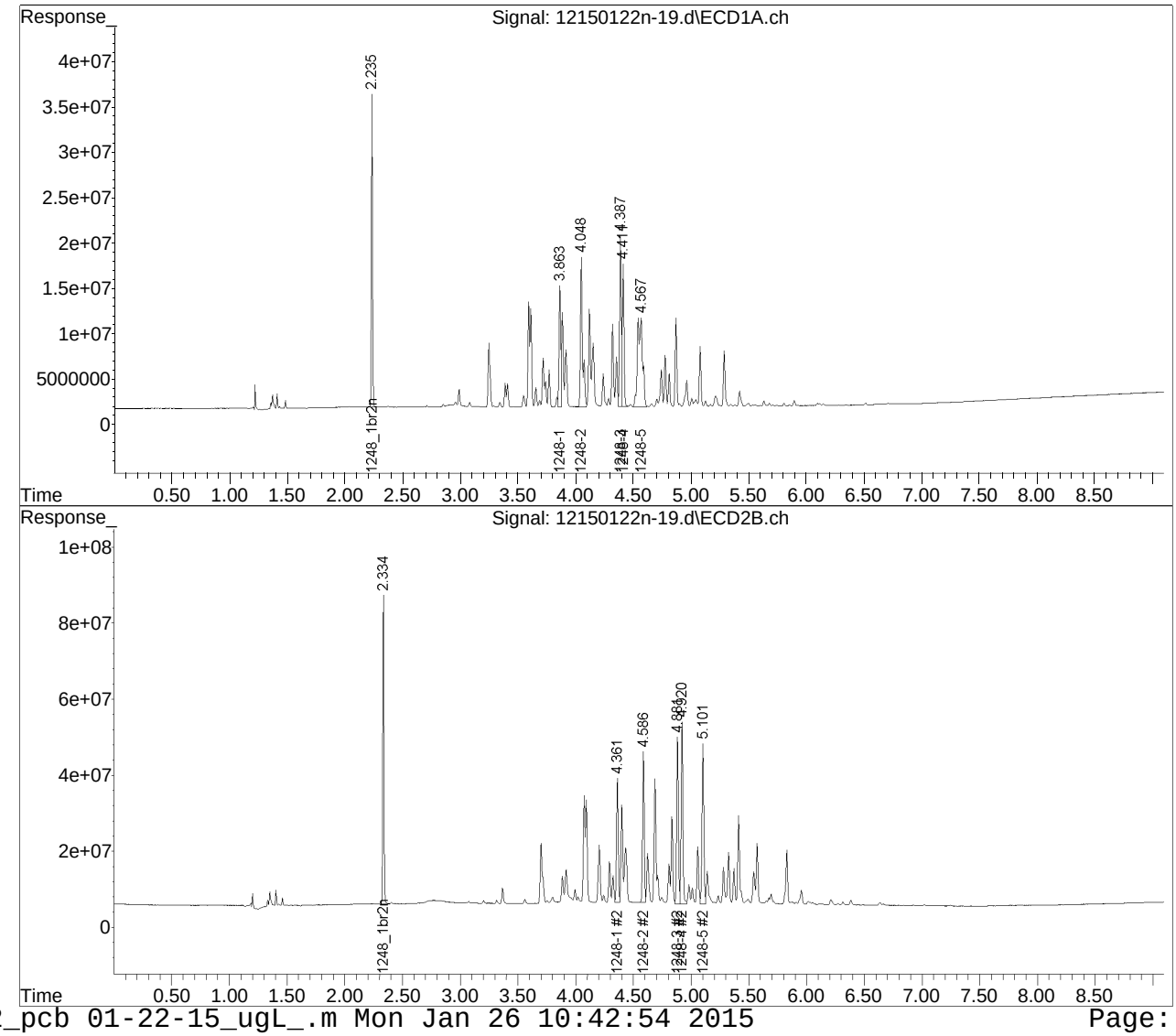
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:39 pm
Operator : pest12:jt
Sample : il51248,42e,,6653
Misc : wg756944,
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:15:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:14:17 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

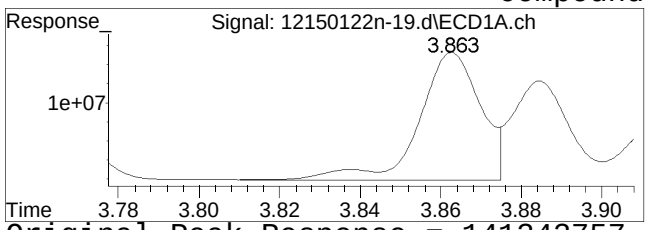


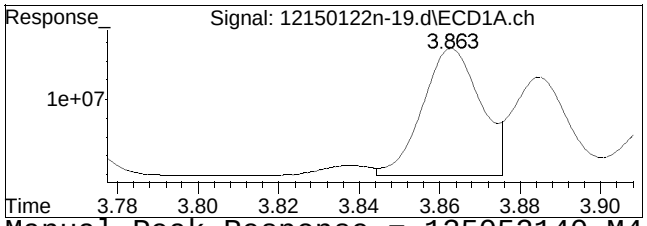
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-19.d
Date Inj'd : 1/22/2015 7:39 pm
Sample : il51248,42e,,6653

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:14 am

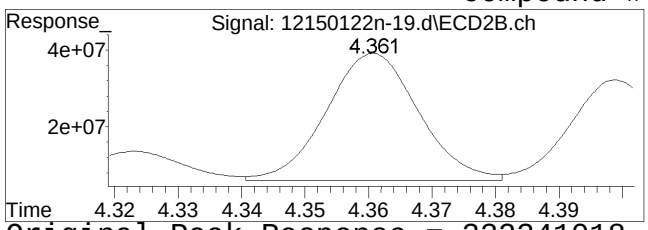
Compound #35: 1248-1

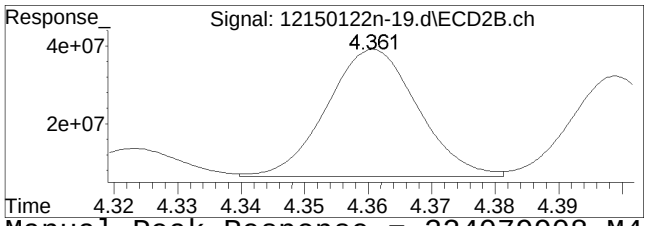




Original Peak Response = 141343757 Manual Peak Response = 135052140 M4
M4 = Poor automated baseline construction.

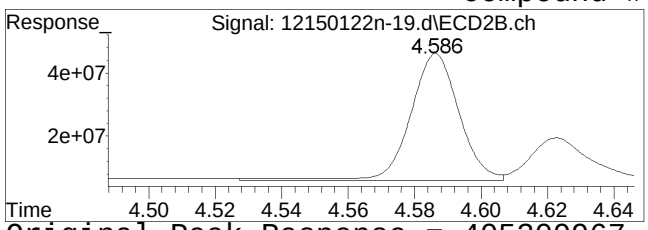
Compound #86: 1248-1 #2

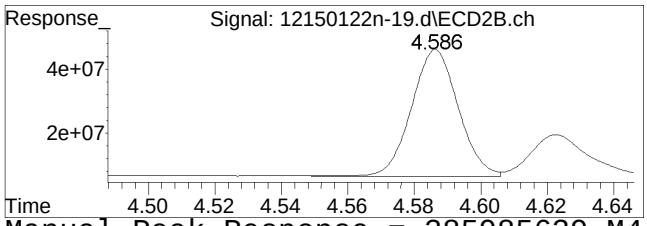




Original Peak Response = 332341018 Manual Peak Response = 324079908 M4
M4 = Poor automated baseline construction.

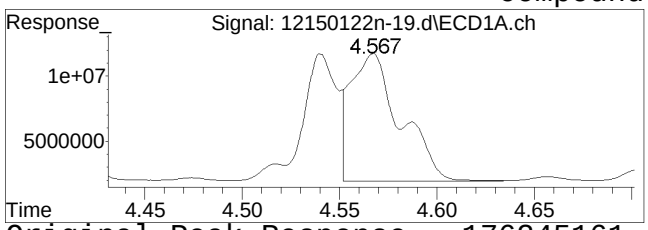
Compound #87: 1248-2 #2

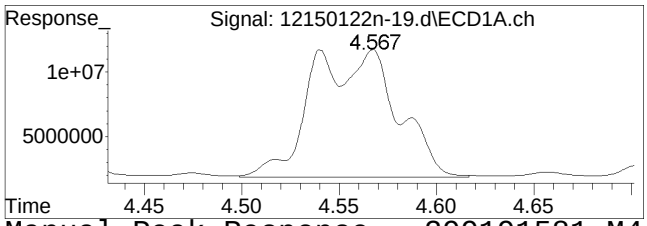




Original Peak Response = 405309967 Manual Peak Response = 385985639 M4
M4 = Poor automated baseline construction.

Compound #39: 1248-5





Original Peak Response = 176245161 Manual Peak Response = 299191581 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:51 pm
Operator : pest12:jt
Sample : il61248,42e,,6654
Misc : wg756944,
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:16:40 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:15:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	2.235	2.334	231.3E6	574.1E6	250.000	250.000
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	500.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:51 pm
Operator : pest12:jt
Sample : il61248,42e,,6654
Misc : wg756944,
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:16:40 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:15:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.862	4.361	255.7E6	634.1E6	9332.689M4	9433.028
36) l7	1248-2	4.049	4.587	420.4E6	773.7E6	9367.826	9596.098
37) l7	1248-3	4.387	4.882	377.1E6	871.3E6	9788.816	9374.273
38) l7	1248-4	4.411	4.921	313.3E6	974.4E6	9769.849	9442.588
39) l7	1248-5	4.567	5.102	587.2E6	893.5E6	9402.034M2	9445.307
Sum	1248-1			1953.6E6	4147.1E6	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:51 pm
Operator : pest12:jt
Sample : il61248,42e,,6654
Misc : wg756944,
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:16:40 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:15:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average 1248-1					9532.243	9458.259
41) l5 1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5 1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5 1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5 1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5 1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1232-1			0	0	N.D.	N.D.
Average 1232-1					0.000	0.000
46) l8 1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8 1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8 1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8 1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8 1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

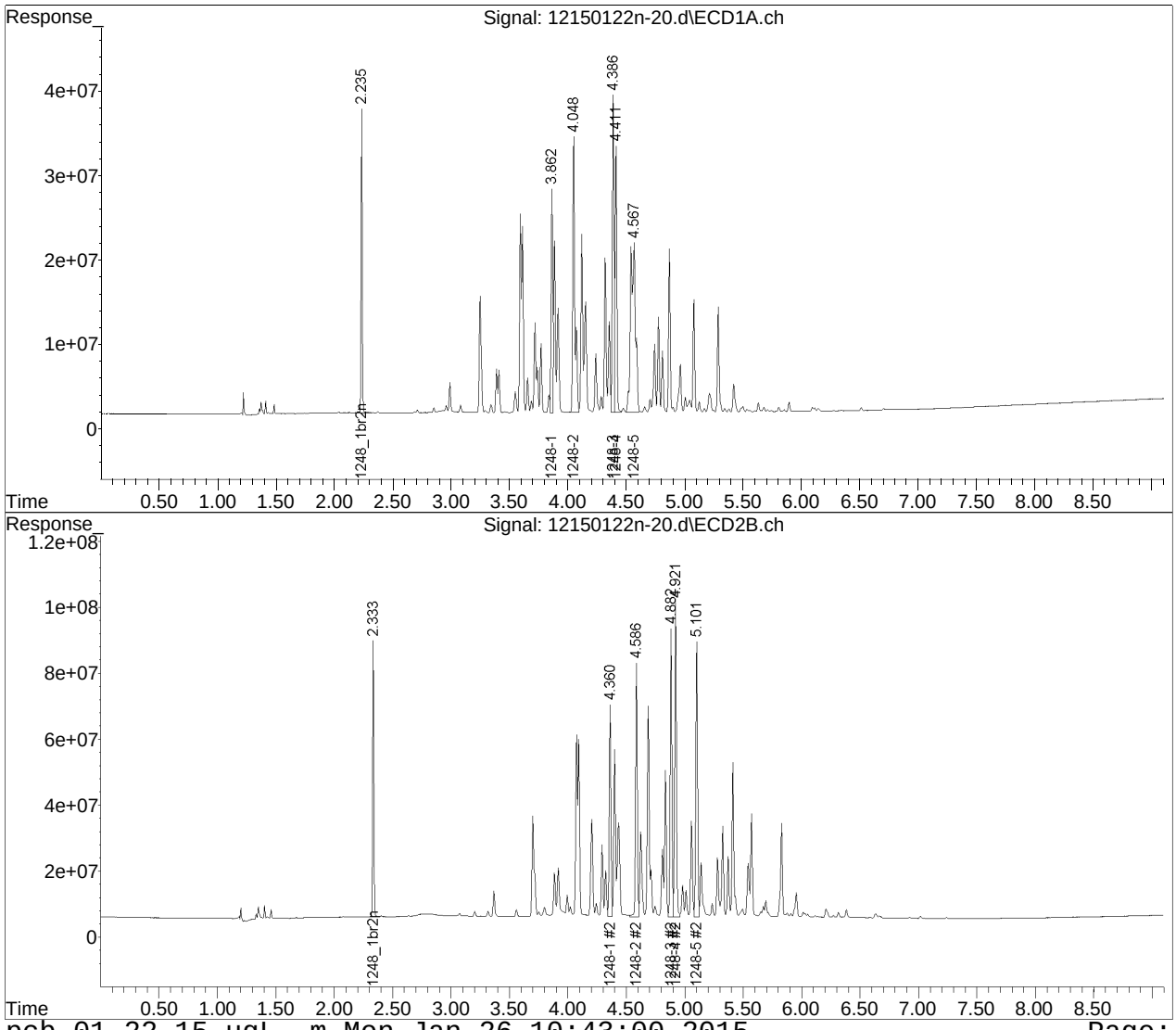
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 7:51 pm
Operator : pest12:jt
Sample : il61248,42e,,6654
Misc : wg756944,
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:16:40 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:15:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

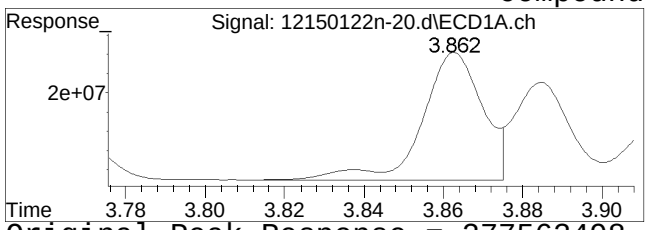


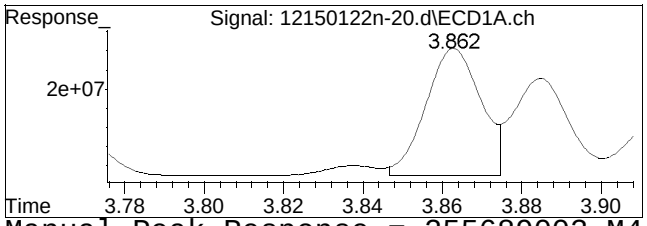
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-20.d
Date Inj'd : 1/22/2015 7:51 pm
Sample : il61248,42e,,6654

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:15 am

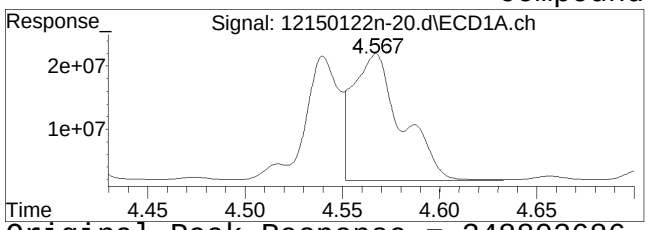
Compound #35: 1248-1

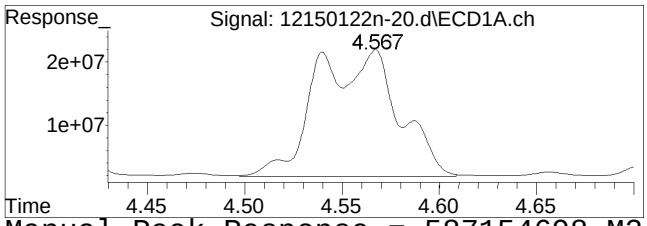




Original Peak Response = 277563498 Manual Peak Response = 255689003 M4
M4 = Poor automated baseline construction.

Compound #39: 1248-5





Original Peak Response = 348803686 Manual Peak Response = 587154698 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:03 pm
Operator : pest12:jt
Sample : il12154,42e,,6631
Misc : wg756944,
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:36:11 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:34:29 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	2.236	2.334	229.9E6	569.1E6	250.000	250.000
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	2.854	3.203	1150150	4194250	110.552M4	150.868M4
#							
16) l3	1221-2	2.960	3.314	755145	2525891	115.316M4	145.134M4

#
Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:03 pm
Operator : pest12:jt
Sample : il12154,42e,,6631
Misc : wg756944,
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:36:11 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:34:29 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
17) l3	1221-3	2.990	3.367	2850518	6608870	120.761M4	106.824M4
Sum	1221-1			4755814	13329011	346.628	402.826
Average	1221-1					115.543	134.275
18) l4	1254-1	4.354	4.918	4808205	11328975	133.112	124.674M4
19) l4	1254-2	4.556	5.057	7761810	13867576	124.689	132.361M4
20) l4	1254-3	4.869	5.410	6961043	18073066	112.120	121.924M4
21) l4	1254-4	5.079	5.571	5462161	11905399	113.414	111.472M4
22) l4	1254-5	5.420	5.953	7268043	16374214	111.073	116.302M4
Sum	1254-1			32261261	71549230	N.D.	N.D.
Average	1254-1					118.882	121.347
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:03 pm
Operator : pest12:jt
Sample : il12154,42e,,6631
Misc : wg756944,
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:36:11 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:34:29 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
38) l7 1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7 1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1248-1			0	0	N.D.	N.D.
Average 1248-1					0.000	0.000
41) l5 1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5 1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5 1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5 1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5 1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1232-1			0	0	N.D.	N.D.
Average 1232-1					0.000	0.000
46) l8 1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8 1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8 1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8 1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8 1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

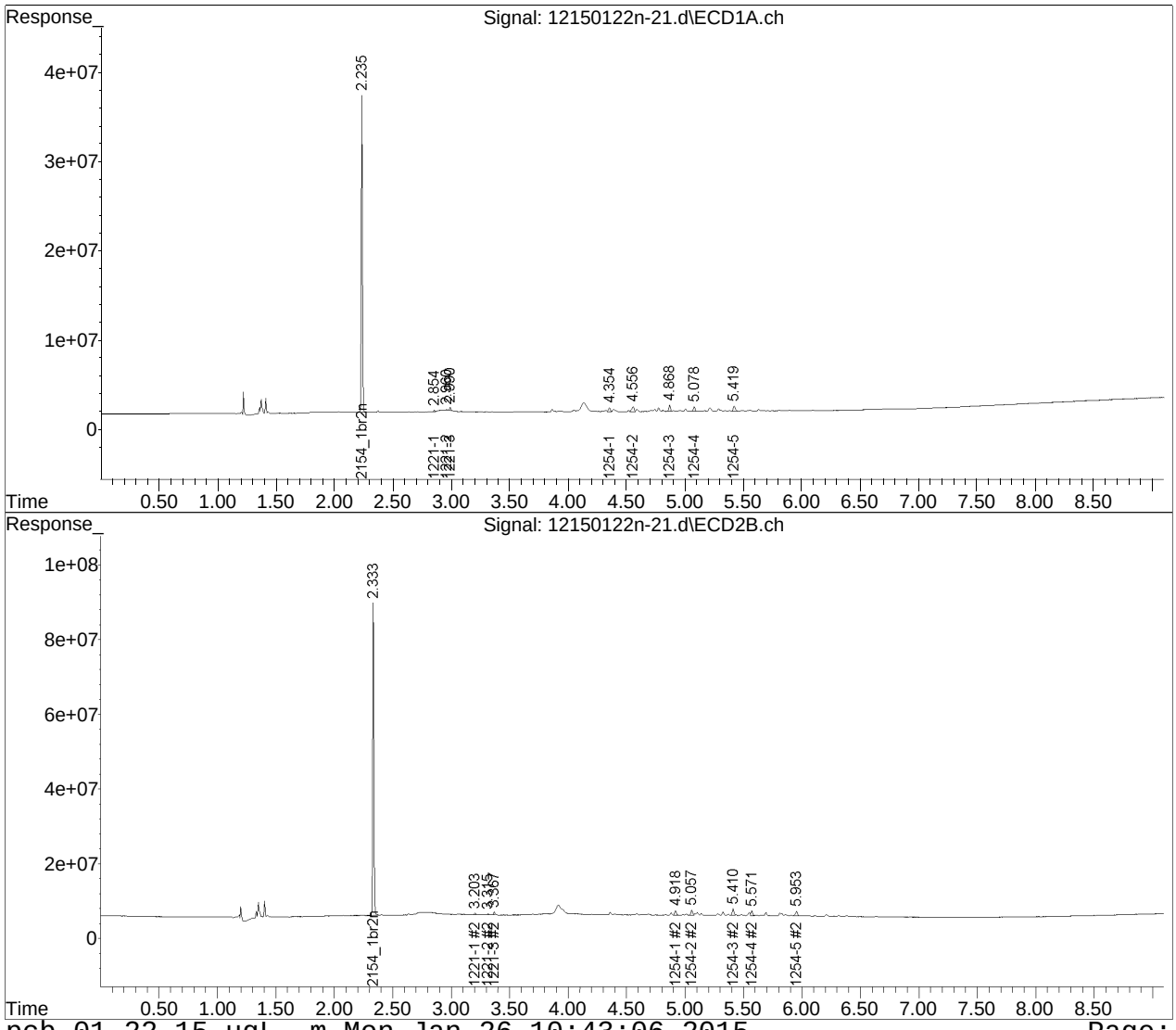
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:03 pm
Operator : pest12:jt
Sample : il12154,42e,,6631
Misc : wg756944,
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:36:11 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:34:29 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

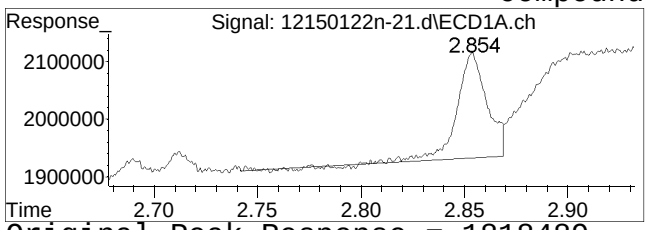


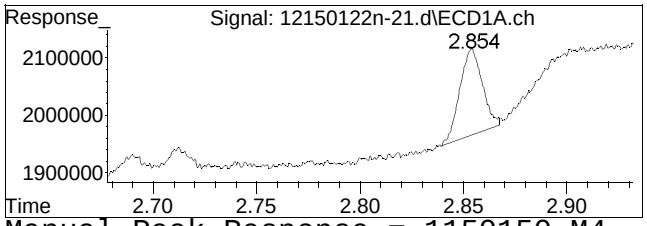
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Date Inj'd : 1/22/2015 8:03 pm
Sample : il12154,42e,,6631

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:34 am

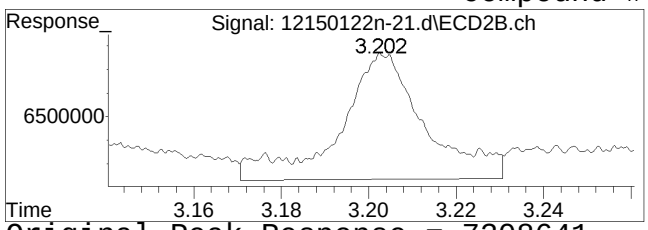
Compound #15: 1221-1

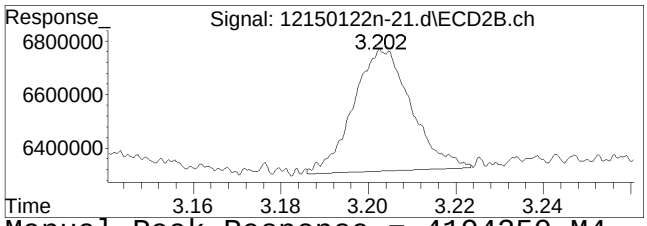




Original Peak Response = 1818489 Manual Peak Response = 1150150 M4
M4 = Poor automated baseline construction.

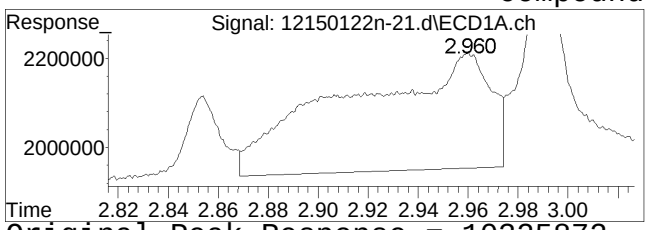
Compound #66: 1221-1 #2

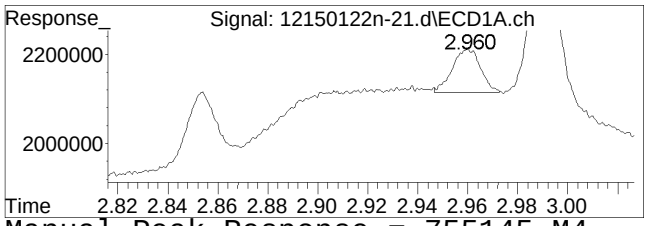




Original Peak Response = 7308641 Manual Peak Response = 4194250 M4
M4 = Poor automated baseline construction.

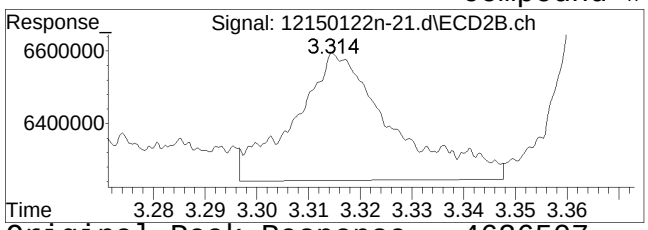
Compound #16: 1221-2

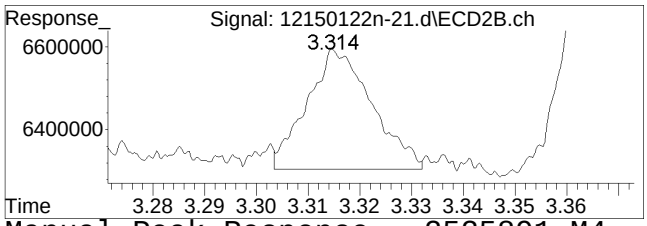




Original Peak Response = 10325872 Manual Peak Response = 755145 M4
M4 = Poor automated baseline construction.

Compound #67: 1221-2 #2





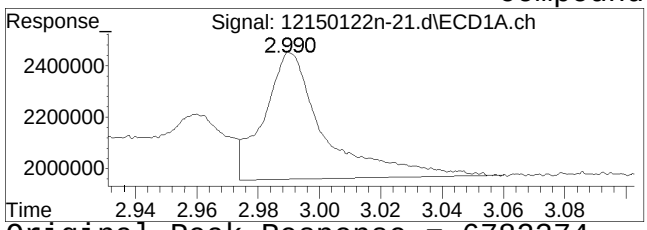
Original Peak Response = 4626507 Manual Peak Response = 2525891 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

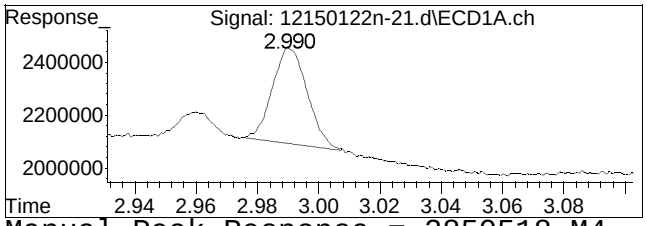
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Date Inj'd : 1/22/2015 8:03 pm
Sample : il12154,42e,,6631

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:34 am

Compound #17: 1221-3



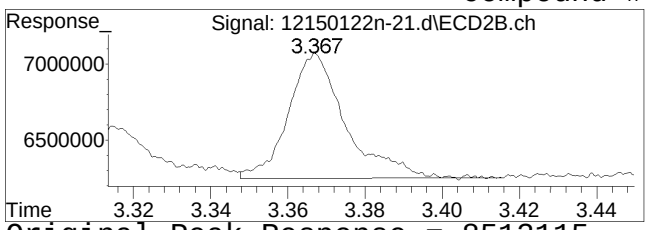
Original Peak Response = 6782374



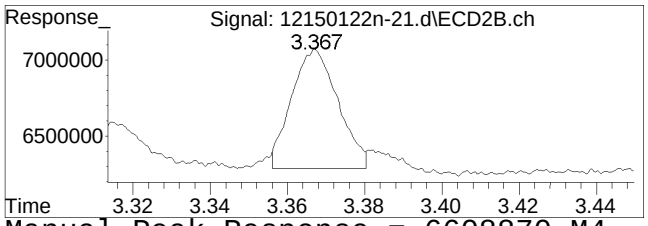
Manual Peak Response = 2850518 M4

M4 = Poor automated baseline construction.

Compound #68: 1221-3 #2



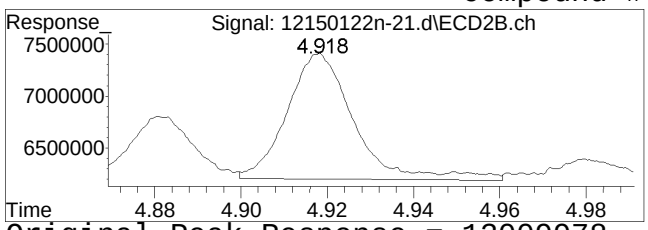
Original Peak Response = 8513115



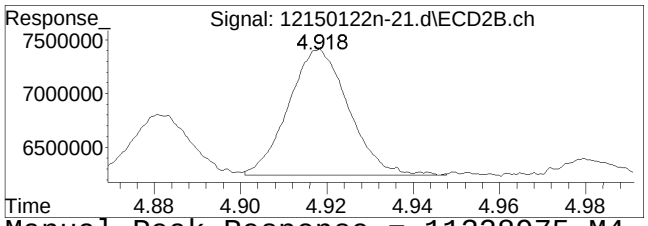
Manual Peak Response = 6608870 M4

M4 = Poor automated baseline construction.

Compound #69: 1254-1 #2



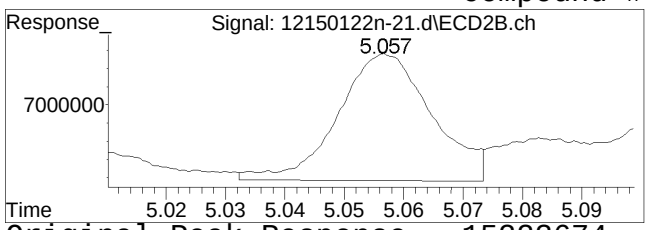
Original Peak Response = 13009978



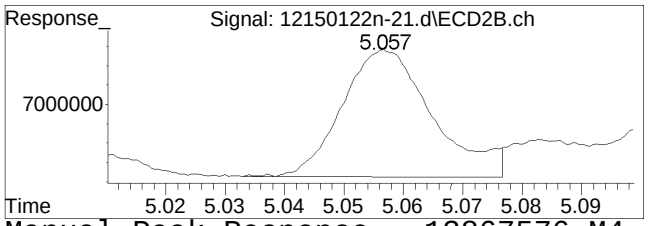
Manual Peak Response = 11328975 M4

M4 = Poor automated baseline construction.

Compound #70: 1254-2 #2



Original Peak Response = 15223674



Manual Peak Response = 13867576 M4

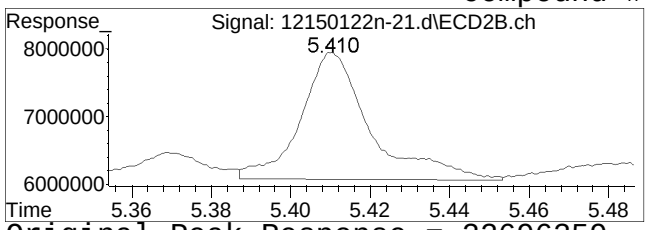
M4 = Poor automated baseline construction.

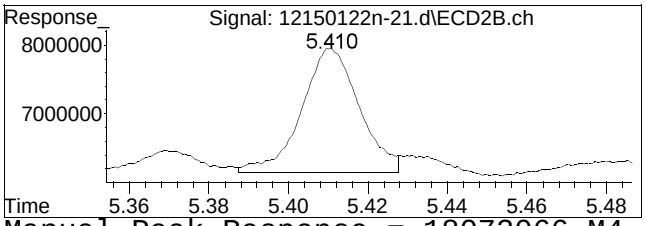
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-21.d
Date Inj'd : 1/22/2015 8:03 pm
Sample : il12154,42e,,6631

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:34 am

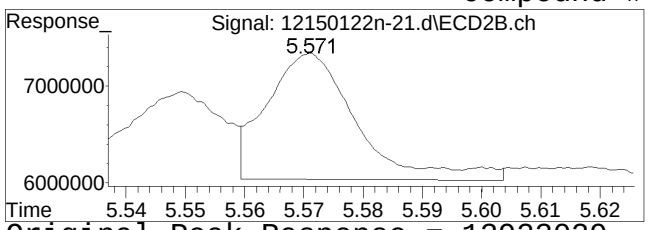
Compound #71: 1254-3 #2

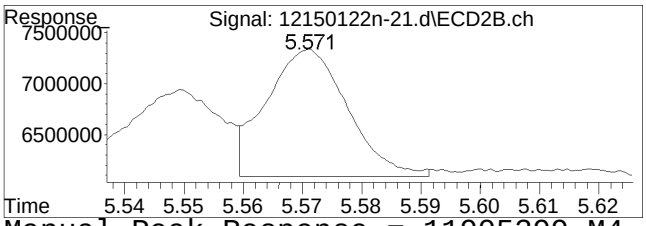




Original Peak Response = 22696359 Manual Peak Response = 18073066 M4
M4 = Poor automated baseline construction.

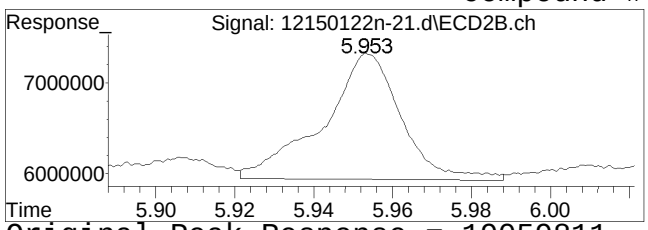
Compound #72: 1254-4 #2

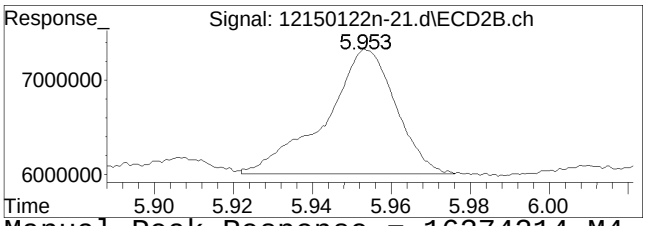




Original Peak Response = 13923029 Manual Peak Response = 11905399 M4
M4 = Poor automated baseline construction.

Compound #73: 1254-5 #2





Original Peak Response = 19059811 Manual Peak Response = 16374214 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:16 pm
Operator : pest12:jt
Sample : il22154,42e,,6632
Misc : wg756944,
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:37:50 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:36:18 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	2.235	2.334	231.2E6	572.1E6	250.000	250.000
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	2.852	3.202	5528264	17047243	514.685M4	541.130M5
16) l3	1221-2	2.958	3.315	3450264	10143195	504.477M4	520.944M4

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:16 pm
Operator : pest12:jt
Sample : il22154,42e,,6632
Misc : wg756944,
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:37:50 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:36:18 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
17) l3	1221-3	2.989	3.366	13379540	35855095	535.695M4	566.813M4
Sum	1221-1			22358068	63045533	1554.857	1628.887
Average	1221-1					518.286	542.962
18) l4	1254-1	4.354	4.918	19668792	49955853	499.944	515.074M4
19) l4	1254-2	4.555	5.056	32335737	58983045	486.392	518.076M4
20) l4	1254-3	4.868	5.410	30843611	79782670	479.360	507.557M4
21) l4	1254-4	5.078	5.571	24124844	54513782	481.826	493.562M4
22) l4	1254-5	5.420	5.954	32562928	72360709	481.399	491.219M4
Sum	1254-1			139.5E6	315.6E6	N.D.	N.D.
Average	1254-1					485.784	505.098
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:16 pm
Operator : pest12:jt
Sample : il22154,42e,,6632
Misc : wg756944,
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:37:50 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:36:18 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
38) l7 1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7 1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1248-1			0	0	N.D.	N.D.
Average 1248-1					0.000	0.000
41) l5 1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5 1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5 1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5 1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5 1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1232-1			0	0	N.D.	N.D.
Average 1232-1					0.000	0.000
46) l8 1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8 1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8 1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8 1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8 1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

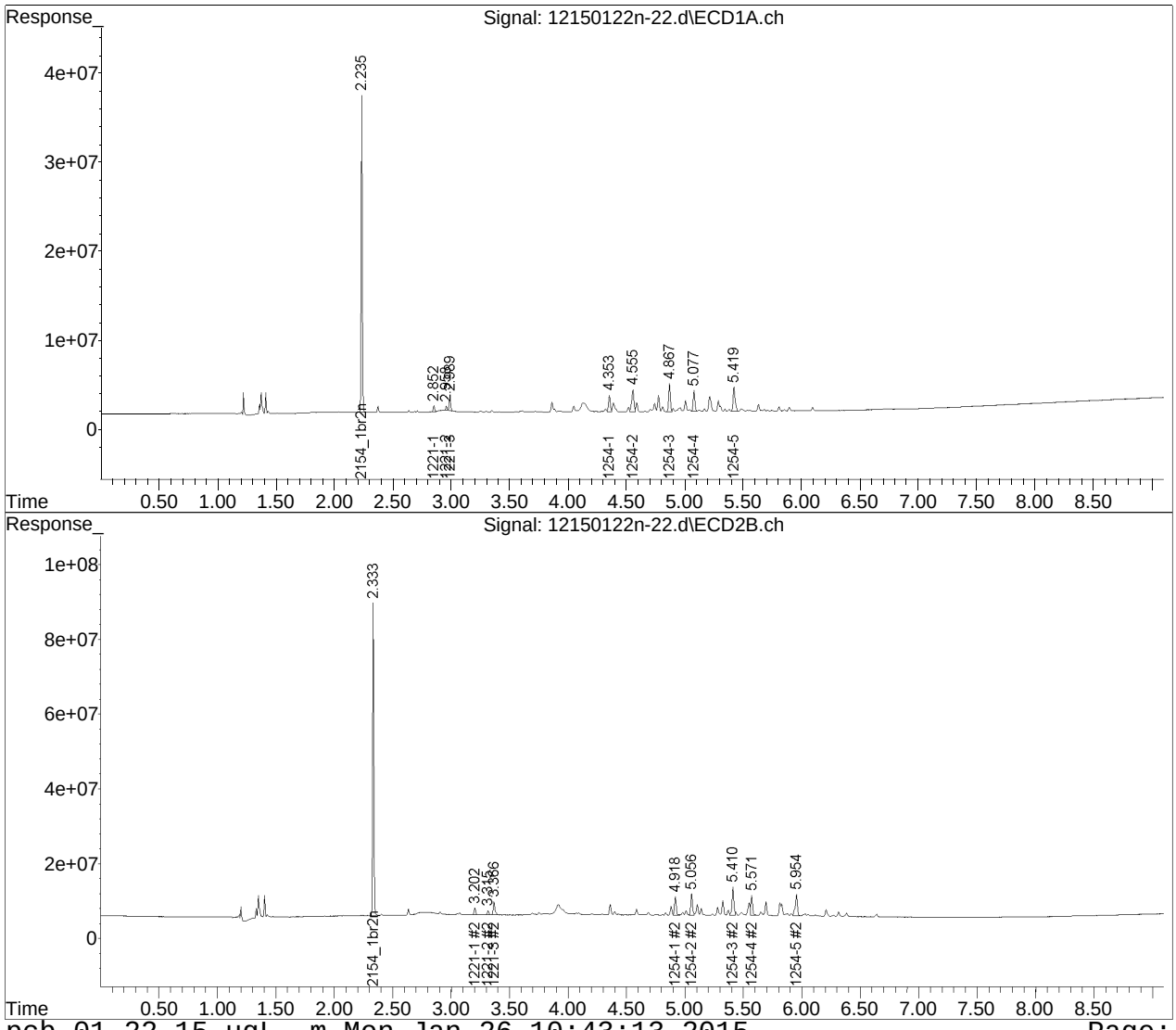
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:16 pm
Operator : pest12:jt
Sample : il22154,42e,,6632
Misc : wg756944,
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:37:50 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:36:18 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

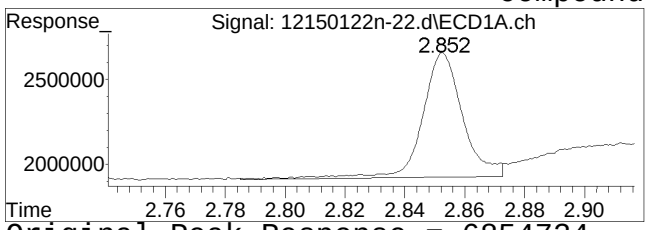


Manual Integration/Negative Proof Report

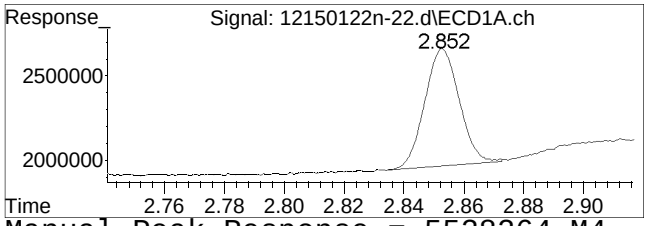
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Date Inj'd : 1/22/2015 8:16 pm
Sample : il22154,42e,,6632

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:36 am

Compound #15: 1221-1



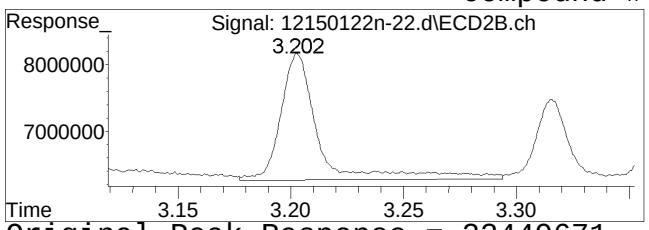
Original Peak Response = 6854734



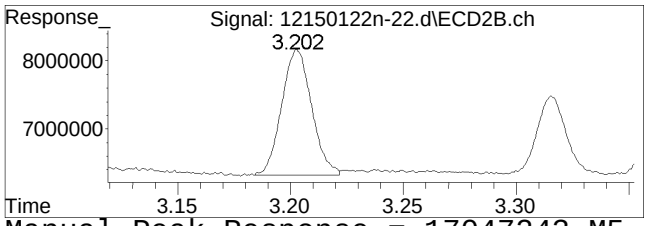
Manual Peak Response = 5528264 M4

M4 = Poor automated baseline construction.

Compound #66: 1221-1 #2



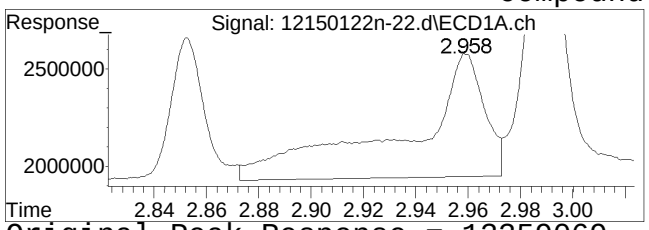
Original Peak Response = 22449671



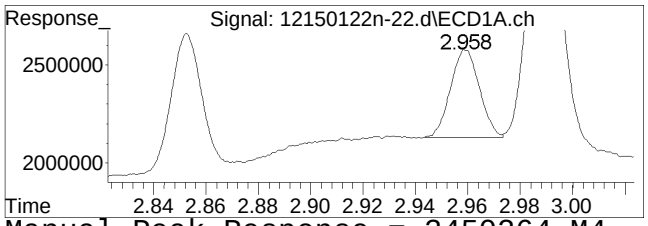
Manual Peak Response = 17047243 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Compound #16: 1221-2



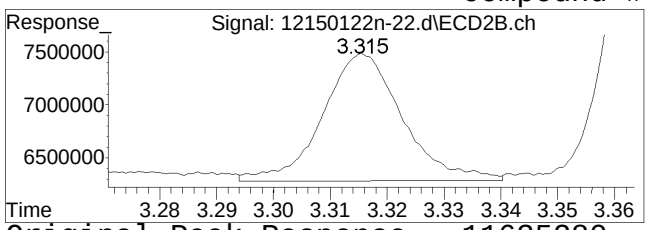
Original Peak Response = 13359069



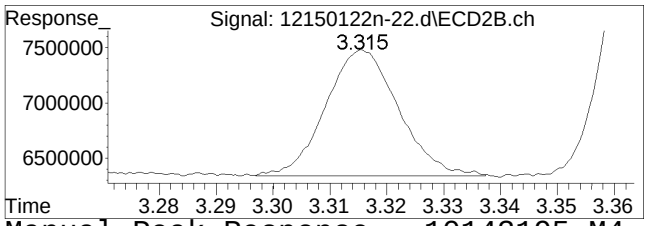
Manual Peak Response = 3450264 M4

M4 = Poor automated baseline construction.

Compound #67: 1221-2 #2



Original Peak Response = 11635280



Manual Peak Response = 10143195 M4

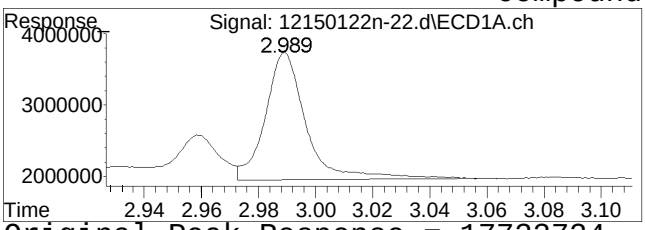
M4 = Poor automated baseline construction.

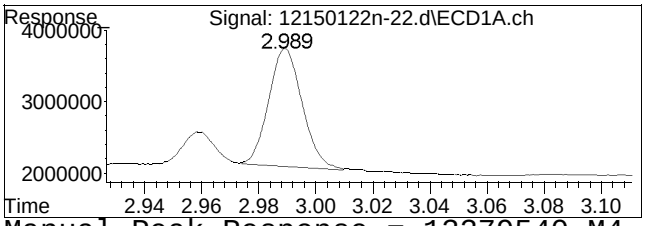
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Date Inj'd : 1/22/2015 8:16 pm
Sample : il22154,42e,,6632

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:36 am

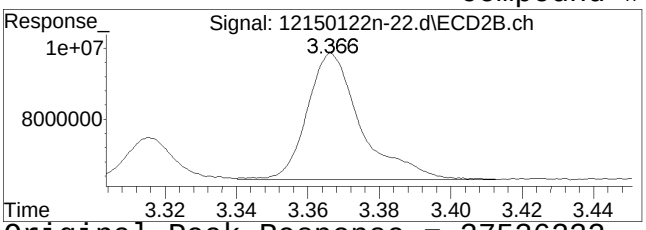
Compound #17: 1221-3

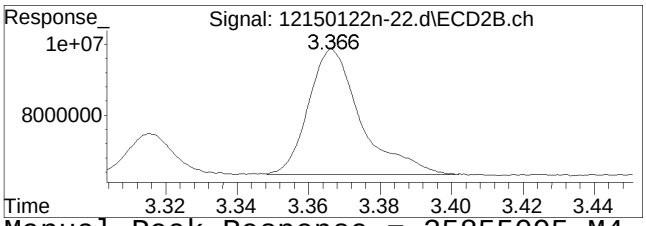




Original Peak Response = 17733724 Manual Peak Response = 13379540 M4
M4 = Poor automated baseline construction.

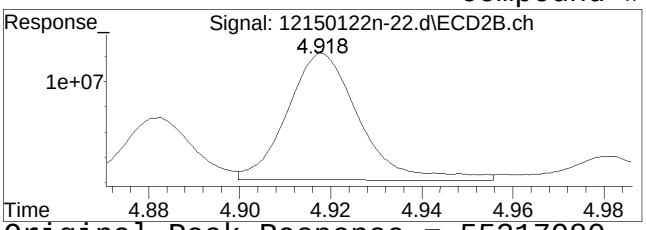
Compound #68: 1221-3 #2

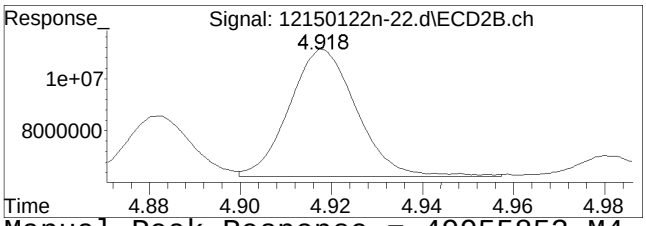




Original Peak Response = 37536232 Manual Peak Response = 35855095 M4
M4 = Poor automated baseline construction.

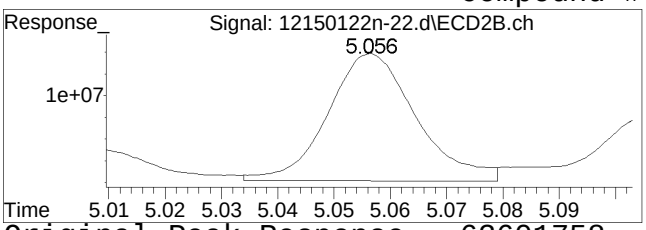
Compound #69: 1254-1 #2

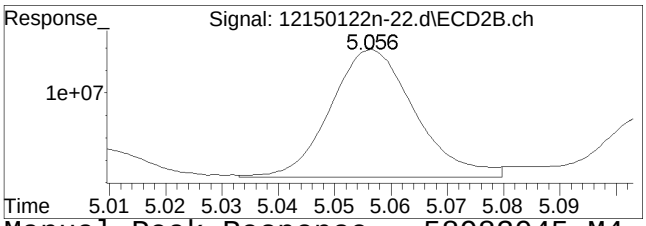




Original Peak Response = 55317980 Manual Peak Response = 49955853 M4
M4 = Poor automated baseline construction.

Compound #70: 1254-2 #2





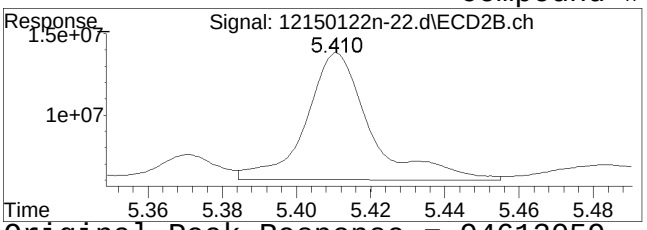
Original Peak Response = 63601758 Manual Peak Response = 58983045 M4
M4 = Poor automated baseline construction.

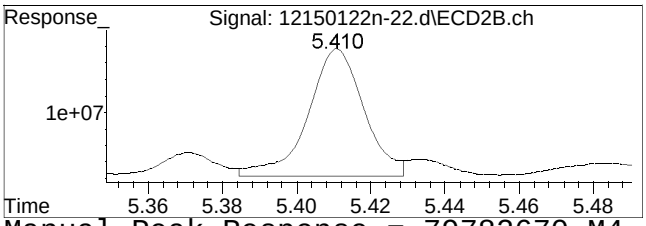
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-22.d
Date Inj'd : 1/22/2015 8:16 pm
Sample : il22154,42e,,6632

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:36 am

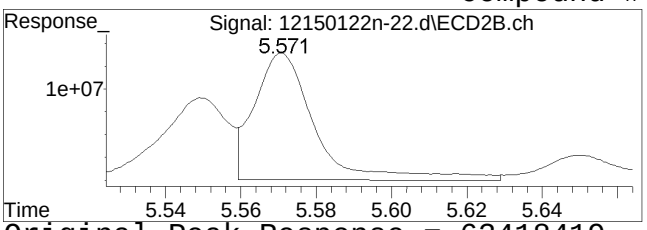
Compound #71: 1254-3 #2

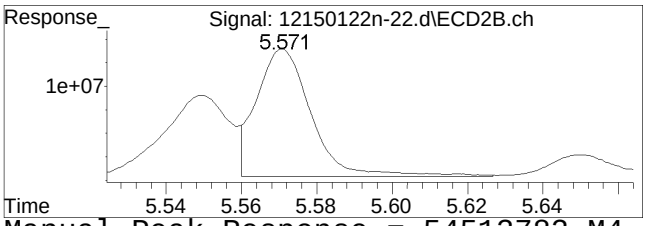




Original Peak Response = 94613059 Manual Peak Response = 79782670 M4
M4 = Poor automated baseline construction.

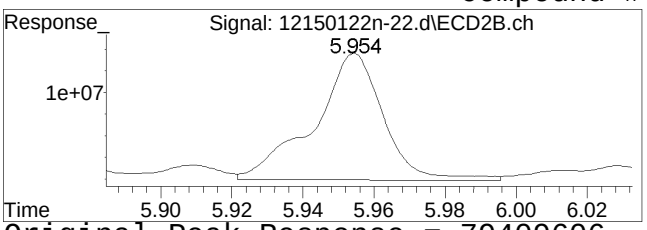
Compound #72: 1254-4 #2

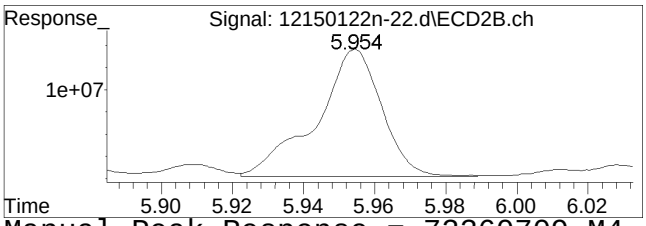




Original Peak Response = 63418419 Manual Peak Response = 54513782 M4
M4 = Poor automated baseline construction.

Compound #73: 1254-5 #2





Original Peak Response = 79409606 Manual Peak Response = 72360709 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:28 pm
Operator : pest12:jt
Sample : il32154,42e,,6633
Misc : wg756944,
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:38:58 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:37:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	2.235	2.333	231.8E6	578.0E6	250.000	250.000
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	2.852	3.203	11361720	34314002	1049.086M4	1060.618
16) l3	1221-2	2.959	3.316	7231315	20631684	1052.902M4	1040.052
17) l3	1221-3	2.989	3.366	26546809	71371702	1045.418M4	1087.648

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:28 pm
Operator : pest12:jt
Sample : il32154,42e,,6633
Misc : wg756944,
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:38:58 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:37:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			45139843	126.3E6	3147.406	3188.317
Average	1221-1					1049.135	1062.772
18) l4	1254-1	4.354	4.918	38539610	105.4E6	977.280	1069.542
19) l4	1254-2	4.556	5.057	64769465	121.2E6	977.243	1045.939
20) l4	1254-3	4.868	5.411	62674294	164.2E6	979.816	1030.716
21) l4	1254-4	5.077	5.572	48826266	120.7E6	979.956	1084.113
22) l4	1254-5	5.420	5.955	66271235	154.6E6	984.710	1042.083
Sum	1254-1			281.1E6	666.0E6	N.D.	N.D.
Average	1254-1					979.801	1054.478
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:28 pm
Operator : pest12:jt
Sample : il32154,42e,,6633
Misc : wg756944,
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:38:58 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:37:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

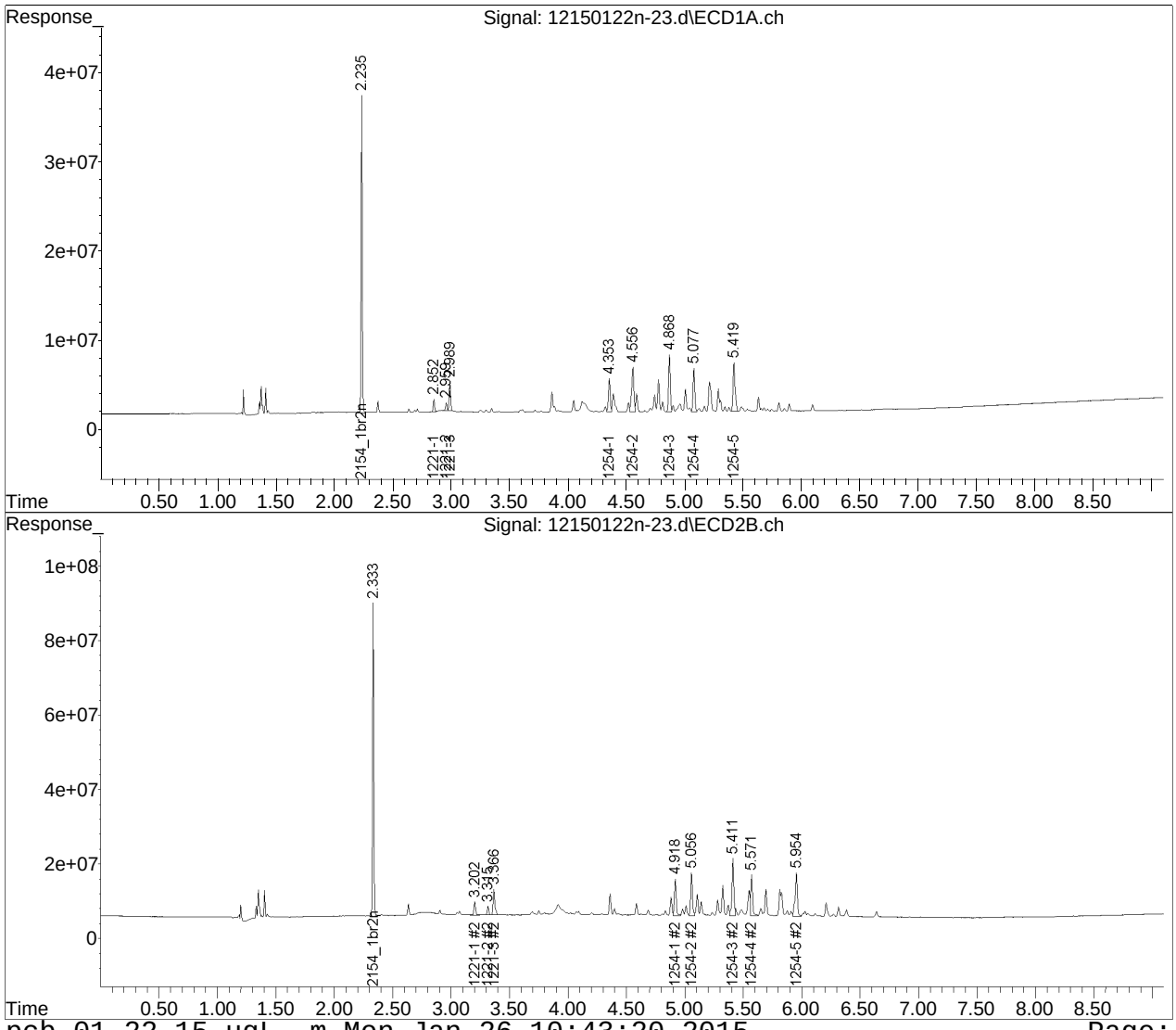
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:28 pm
Operator : pest12:jt
Sample : il32154,42e,,6633
Misc : wg756944,
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:38:58 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:37:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

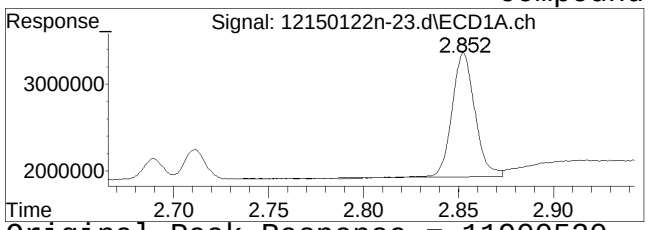


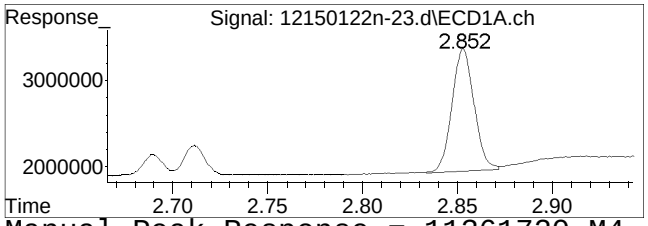
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-23.d
Date Inj'd : 1/22/2015 8:28 pm
Sample : il32154,42e,,6633

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:38 am

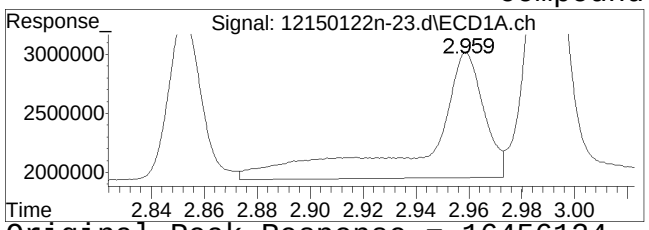
Compound #15: 1221-1

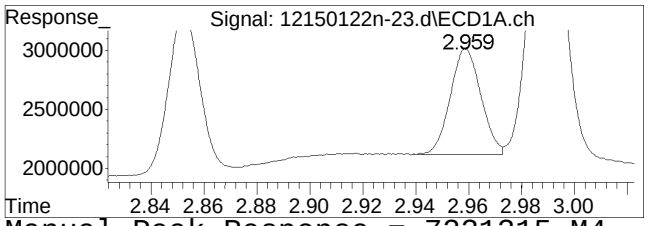




Original Peak Response = 11900520 Manual Peak Response = 11361720 M4
M4 = Poor automated baseline construction.

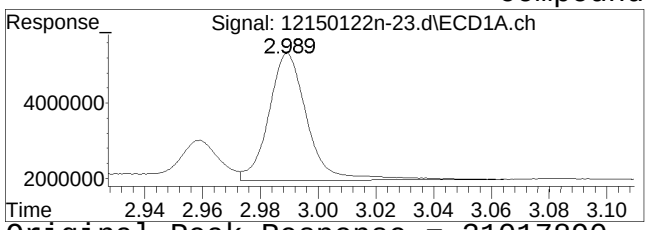
Compound #16: 1221-2

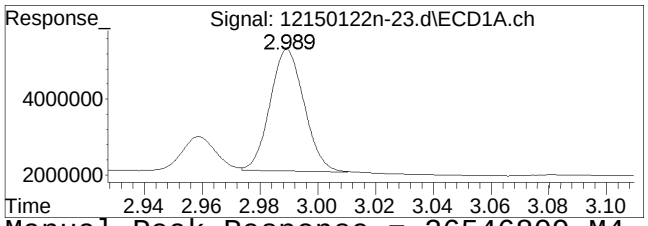




Original Peak Response = 16456124 Manual Peak Response = 7231315 M4
M4 = Poor automated baseline construction.

Compound #17: 1221-3





Original Peak Response = 31017890 Manual Peak Response = 26546809 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:41 pm
Operator : pest12:jt
Sample : il42154,42e,,6634
Misc : wg756944,
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:24:16 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	2.235	2.333	232.8E6	584.2E6	250.000	250.000
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	2.852	3.202	27295373	76123935	NoCal M3	NoCal
16) l3	1221-2	2.959	3.315	17560239	48165306	NoCal M4	NoCal
17) l3	1221-3	2.989	3.366	63558563	173.1E6	NoCal M4	NoCal

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:41 pm
Operator : pest12:jt
Sample : il42154,42e,,6634
Misc : wg756944,
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:24:16 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	4.354	4.917	92819536	240.4E6	NoCal	NoCal M4
19) l4	1254-2	4.555	5.056	159.1E6	279.2E6	NoCal	NoCal M4
20) l4	1254-3	4.868	5.410	156.8E6	386.8E6	NoCal	NoCal M4
21) l4	1254-4	5.077	5.570	121.9E6	277.5E6	NoCal	NoCal M4
22) l4	1254-5	5.418	5.954	165.1E6	364.3E6	NoCal	NoCal M4
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:41 pm
Operator : pest12:jt
Sample : il42154,42e,,6634
Misc : wg756944,
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:24:16 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

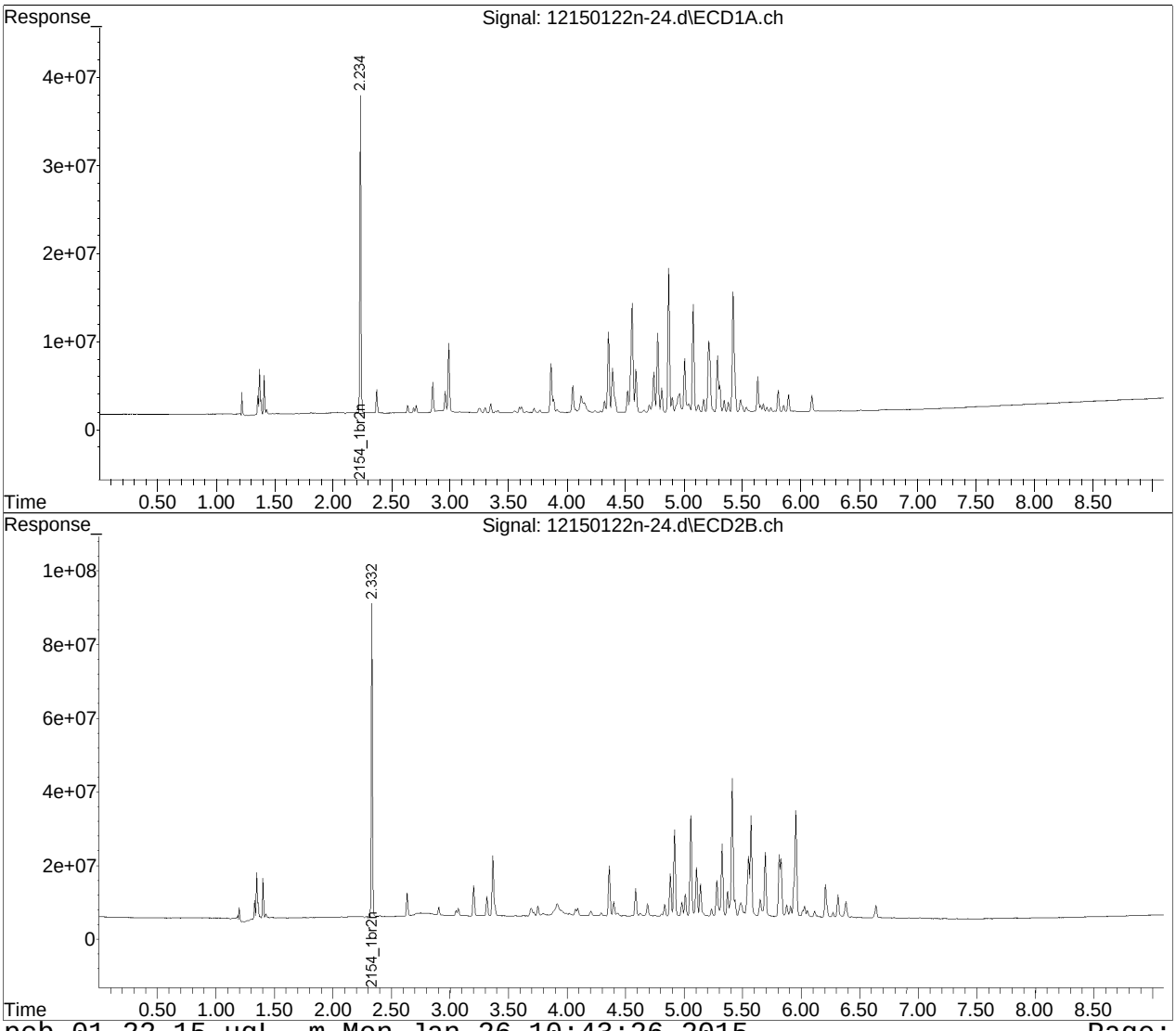
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:41 pm
Operator : pest12:jt
Sample : il42154,42e,,6634
Misc : wg756944,
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:24:16 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

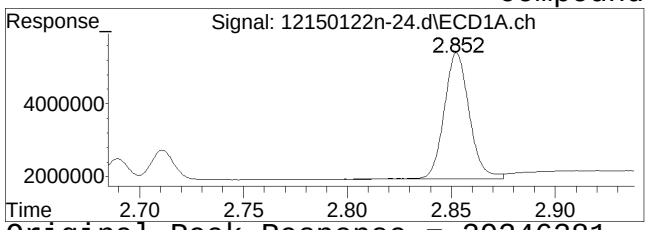
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

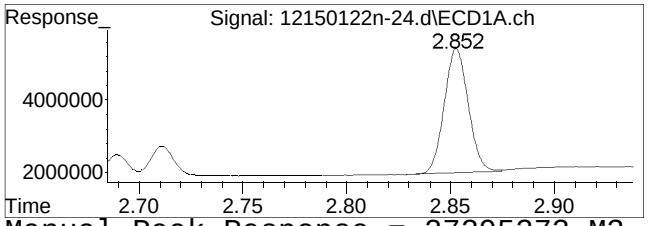


Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-24.d Operator : pest12:jt
Date Inj'd : 1/22/2015 8:41 pm Instrument : Pest12
Sample : il42154,42e,,6634 Quant Date : 1/26/2015 10:22 am

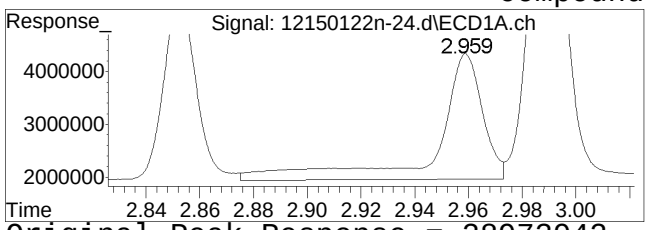
Compound #15: 1221-1

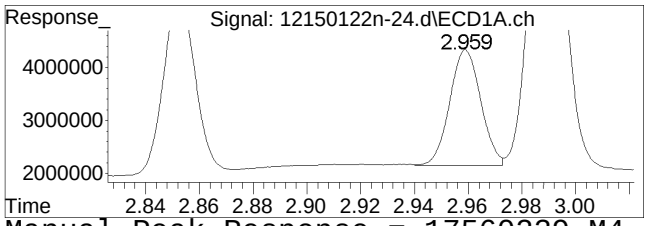




Original Peak Response = 29246381 Manual Peak Response = 27295373 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

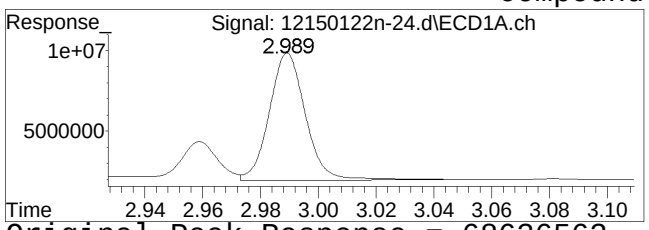
Compound #16: 1221-2

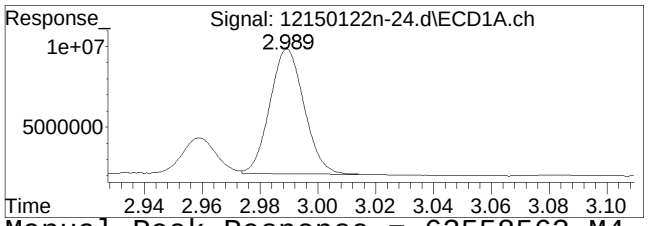




Original Peak Response = 28973942 Manual Peak Response = 17560239 M4
M4 = Poor automated baseline construction.

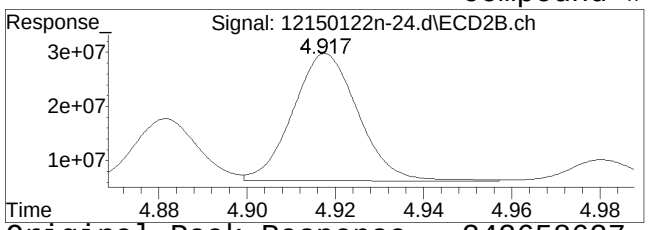
Compound #17: 1221-3

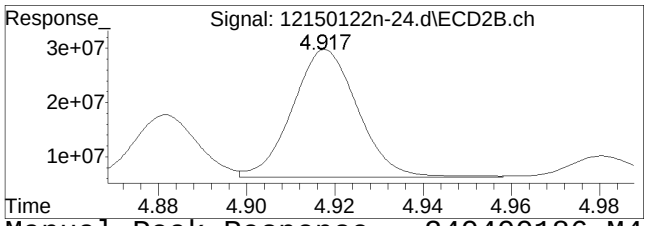




Original Peak Response = 68636563 Manual Peak Response = 63558563 M4
M4 = Poor automated baseline construction.

Compound #69: 1254-1 #2





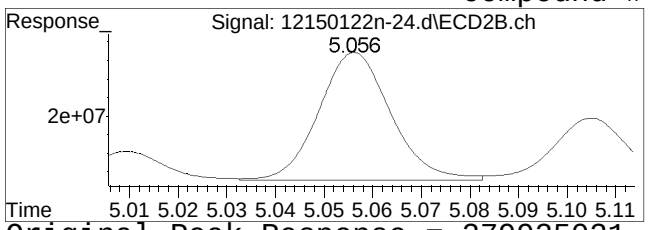
Original Peak Response = 242658627 Manual Peak Response = 240400186 M4
M4 = Poor automated baseline construction.

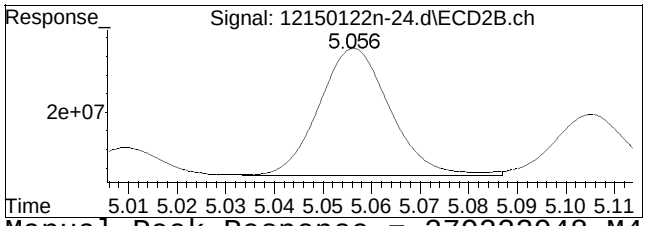
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-24.d
Date Inj'd : 1/22/2015 8:41 pm
Sample : il42154,42e,,6634

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:22 am

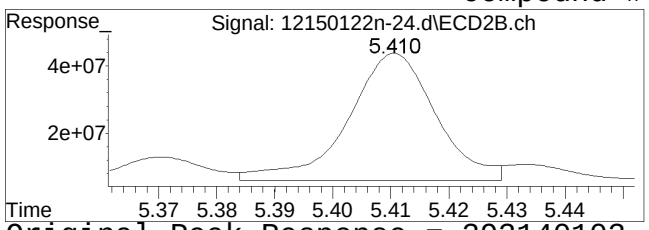
Compound #70: 1254-2 #2

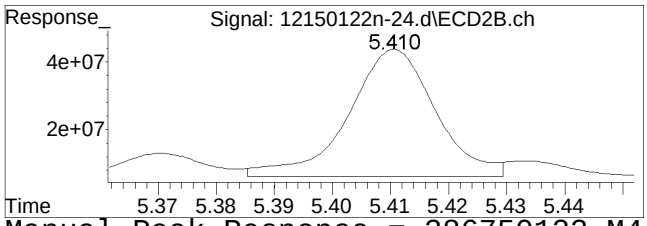




Original Peak Response = 279925021 Manual Peak Response = 279223948 M4
M4 = Poor automated baseline construction.

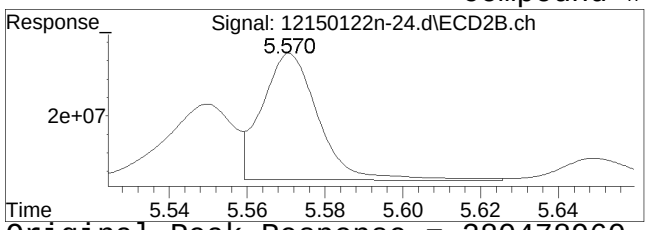
Compound #71: 1254-3 #2

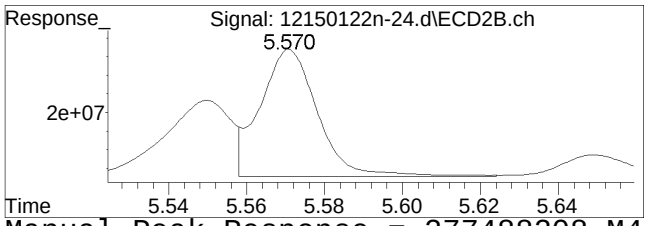




Original Peak Response = 393140103 Manual Peak Response = 386750123 M4
M4 = Poor automated baseline construction.

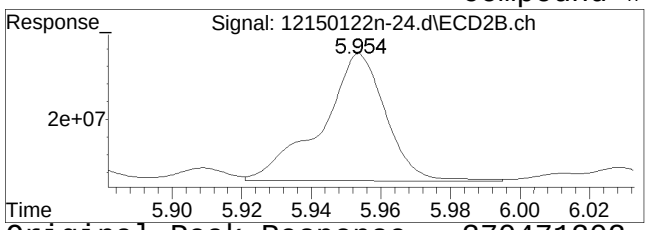
Compound #72: 1254-4 #2

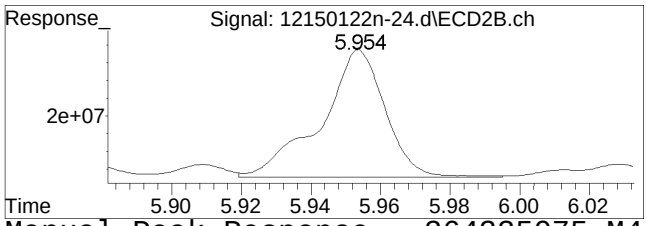




Original Peak Response = 280478960 Manual Peak Response = 277488208 M4
M4 = Poor automated baseline construction.

Compound #73: 1254-5 #2





Original Peak Response = 370471202 Manual Peak Response = 364335075 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:53 pm
Operator : pest12:jt
Sample : il52154,42e,,6635
Misc : wg756944,
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:31:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:29:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	2.235	2.334	225.8E6	585.1E6	250.000	250.000
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	2.852	3.202	51063336	139.4E6	4822.509M4	4572.039M4
16) l3	1221-2	2.959	3.315	32201177	87489962	4727.094M4	4534.105M3

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:53 pm
Operator : pest12:jt
Sample : il52154,42e,,6635
Misc : wg756944,
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:31:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:29:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
17) l3	1221-3	2.989	3.366	116.4E6	308.9E6	4720.188M4	4454.684M4
Sum	1221-1			199.6E6	535.8E6	14269.790	13560.827
Average	1221-1					4756.597	4520.276
18) l4	1254-1	4.354	4.918	183.3E6	472.6E6	5091.390	4907.313
19) l4	1254-2	4.555	5.056	316.5E6	542.6E6	5129.969	4850.633
20) l4	1254-3	4.869	5.410	316.9E6	768.6E6	5208.903	4960.397M4
21) l4	1254-4	5.077	5.571	245.3E6	558.9E6	5188.236	5027.597
22) l4	1254-5	5.419	5.954	333.5E6	736.9E6	5208.280	5048.575
Sum	1254-1			1395.6E6	3079.6E6	N.D.	N.D.
Average	1254-1					5165.356	4958.903
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:53 pm
Operator : pest12:jt
Sample : il52154,42e,,6635
Misc : wg756944,
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:31:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:29:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

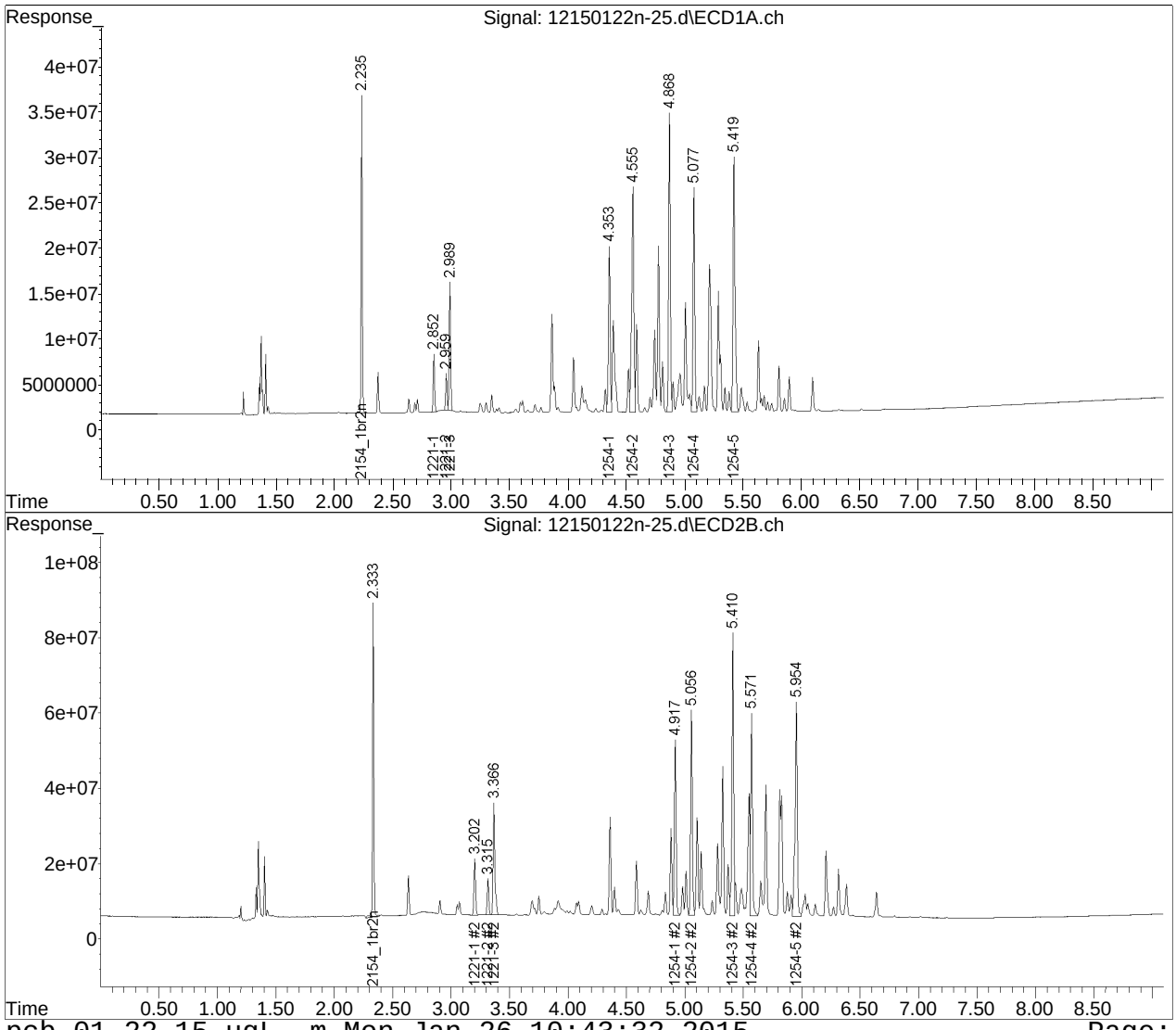
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 8:53 pm
Operator : pest12:jt
Sample : il52154,42e,,6635
Misc : wg756944,
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:31:49 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:29:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

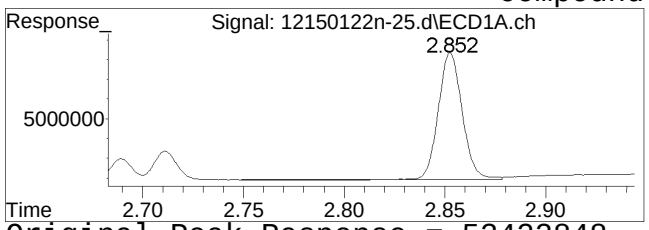


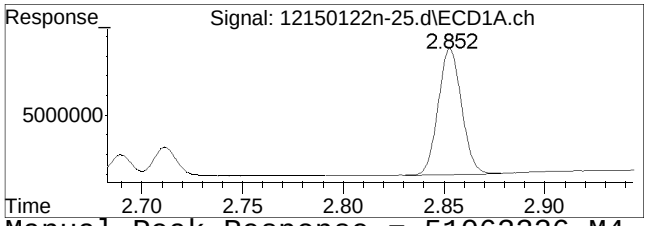
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-25.d
Date Inj'd : 1/22/2015 8:53 pm
Sample : il52154,42e,,6635

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:30 am

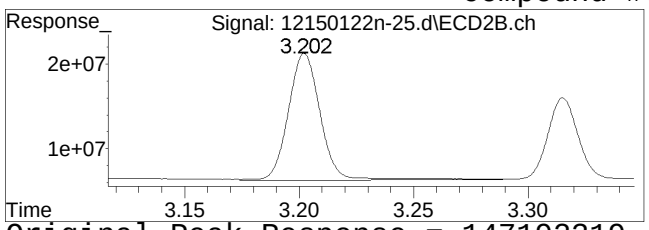
Compound #15: 1221-1

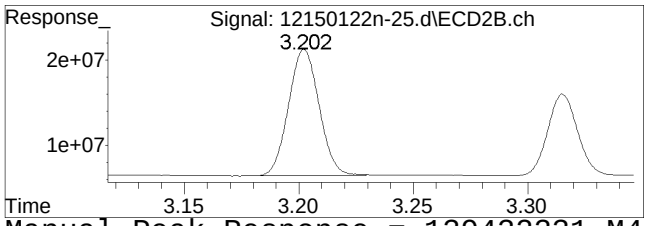




Original Peak Response = 53422848 Manual Peak Response = 51063336 M4
M4 = Poor automated baseline construction.

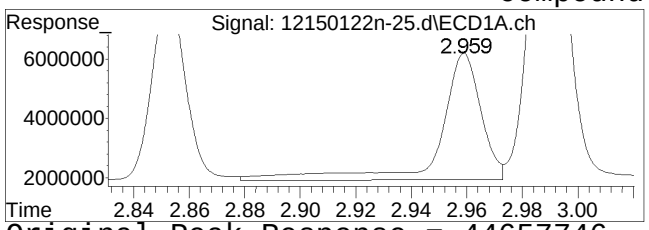
Compound #66: 1221-1 #2

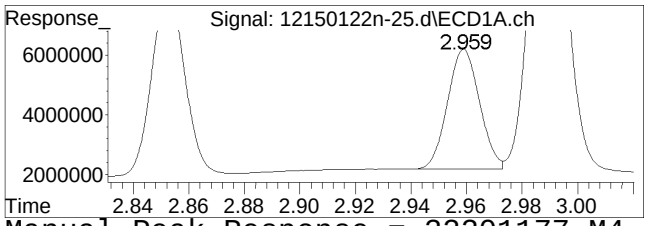




Original Peak Response = 147192319 Manual Peak Response = 139432331 M4
M4 = Poor automated baseline construction.

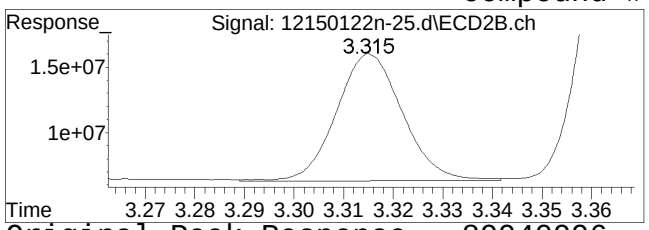
Compound #16: 1221-2

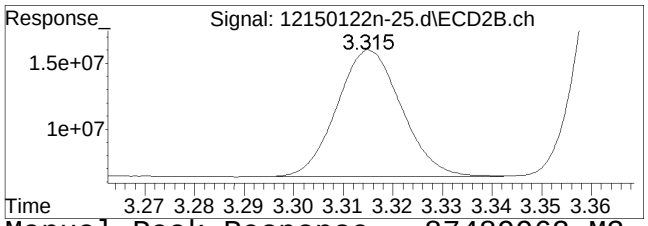




Original Peak Response = 44657746 Manual Peak Response = 32201177 M4
M4 = Poor automated baseline construction.

Compound #67: 1221-2 #2





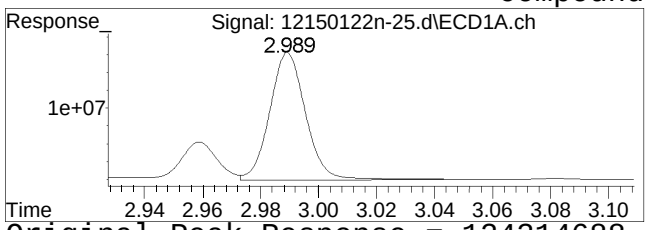
Original Peak Response = 89940996 Manual Peak Response = 87489962 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

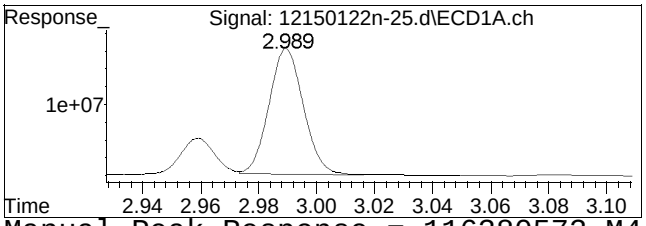
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-25.d
Date Inj'd : 1/22/2015 8:53 pm
Sample : il52154,42e,,6635

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:30 am

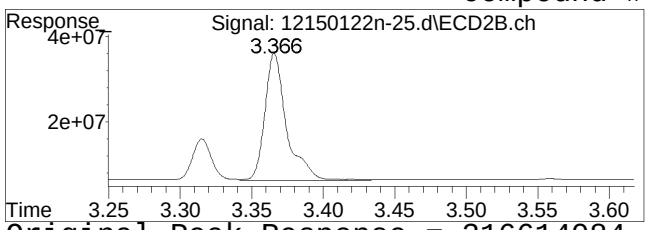
Compound #17: 1221-3

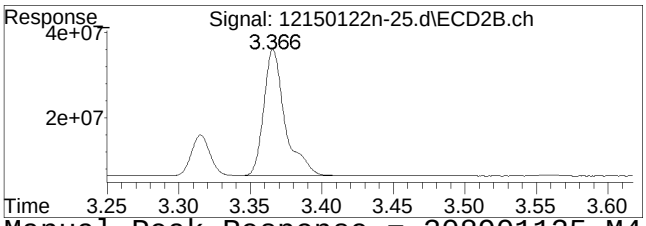




Original Peak Response = 124314688 Manual Peak Response = 116380573 M4
M4 = Poor automated baseline construction.

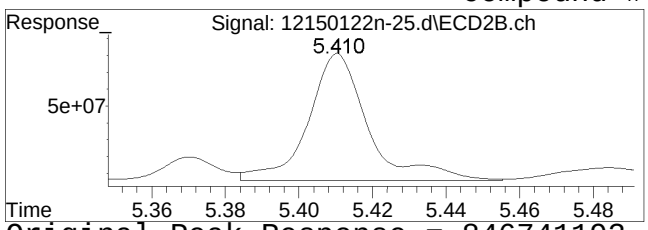
Compound #68: 1221-3 #2

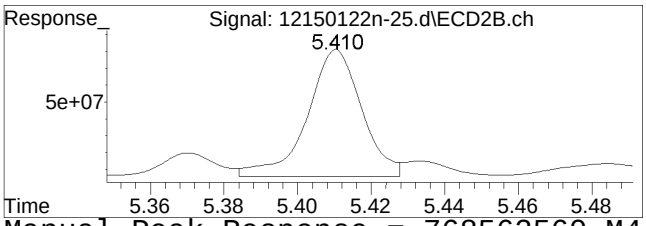




Original Peak Response = 316614084 Manual Peak Response = 308901125 M4
M4 = Poor automated baseline construction.

Compound #71: 1254-3 #2





Original Peak Response = 846741193 Manual Peak Response = 768562560 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:05 pm
Operator : pest12:jt
Sample : il62154,42e,,6636
Misc : wg756944,
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:34:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:31:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
14) i	2154_1br2nb	2.235	2.333	232.4E6	575.7E6	250.000M4	250.000M4
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	2.853	3.202	101.5E6	269.2E6	9479.803M4	9374.239M4

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:05 pm
Operator : pest12:jt
Sample : il62154,42e,,6636
Misc : wg756944,
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:34:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:31:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
16) l3	1221-2	2.959	3.315	62233720	166.1E6	9125.589M4	9178.856M4
17) l3	1221-3	2.990	3.366	222.7E6	587.3E6	9026.601M4	9105.539M4
Sum	1221-1			386.4E6	1022.7E6	27631.993	27658.634
Average	1221-1					9210.664	9219.545
18) l4	1254-1	4.354	4.918	347.7E6	880.0E6	9296.905	9373.723
19) l4	1254-2	4.555	5.057	601.6E6	1011.1E6	9351.131	9326.432
20) l4	1254-3	4.868	5.411	604.7E6	1461.6E6	9460.327	9625.863M4
21) l4	1254-4	5.078	5.571	469.3E6	1047.5E6	9467.081	9550.990
22) l4	1254-5	5.419	5.954	639.1E6	1386.4E6	9498.091	9607.558
Sum	1254-1			2662.4E6	5786.6E6	N.D.	N.D.
Average	1254-1					9414.707	9496.913
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:05 pm
Operator : pest12:jt
Sample : il62154,42e,,6636
Misc : wg756944,
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:34:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:31:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

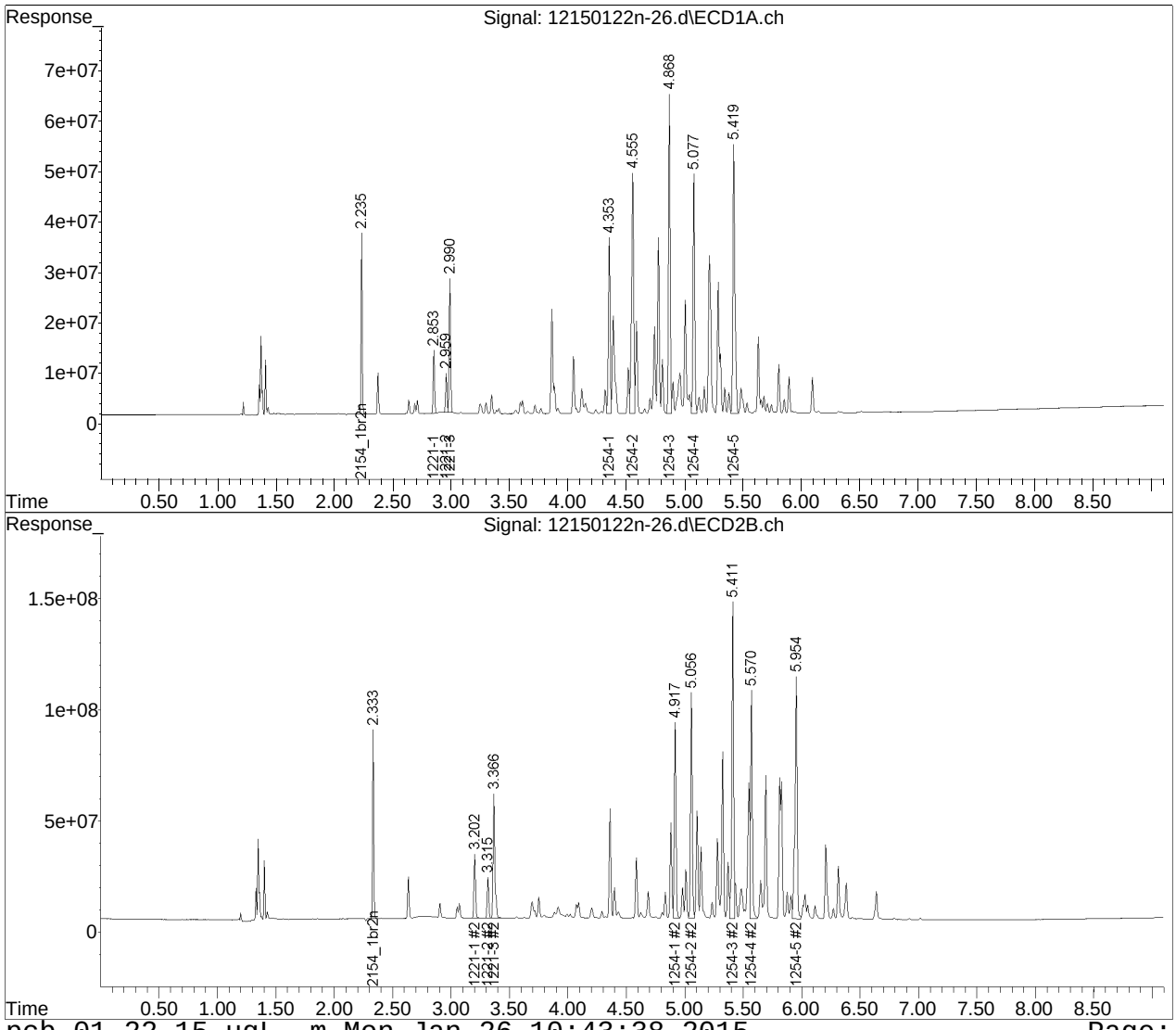
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:05 pm
Operator : pest12:jt
Sample : il62154,42e,,6636
Misc : wg756944,
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:34:23 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:31:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

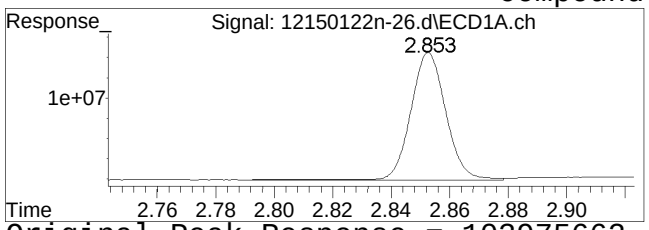


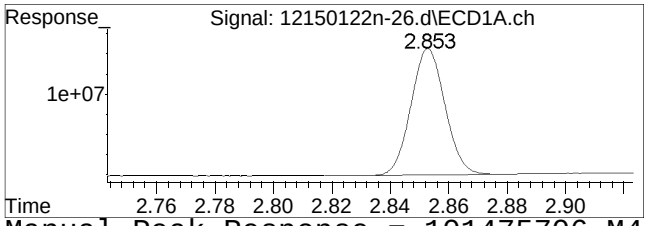
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-26.d
Date Inj'd : 1/22/2015 9:05 pm
Sample : il62154,42e,,6636

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:32 am

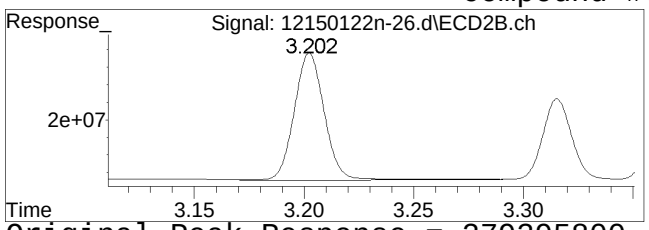
Compound #15: 1221-1

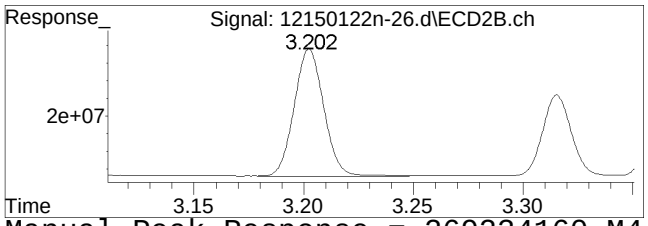




Original Peak Response = 103975662 Manual Peak Response = 101475706 M4
M4 = Poor automated baseline construction.

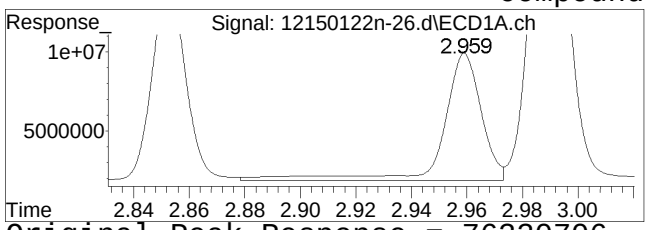
Compound #66: 1221-1 #2

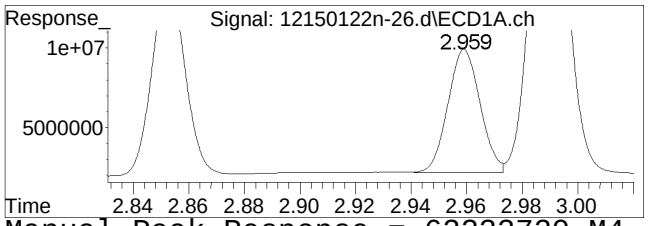




Original Peak Response = 279395800 Manual Peak Response = 269234160 M4
M4 = Poor automated baseline construction.

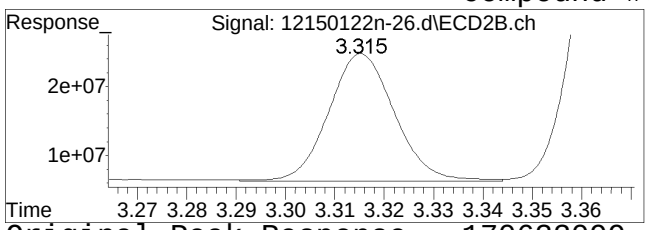
Compound #16: 1221-2

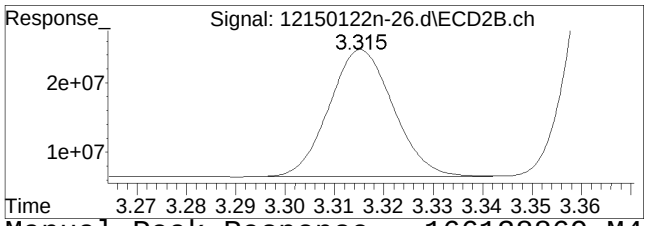




Original Peak Response = 76330706 Manual Peak Response = 62233720 M4
M4 = Poor automated baseline construction.

Compound #67: 1221-2 #2





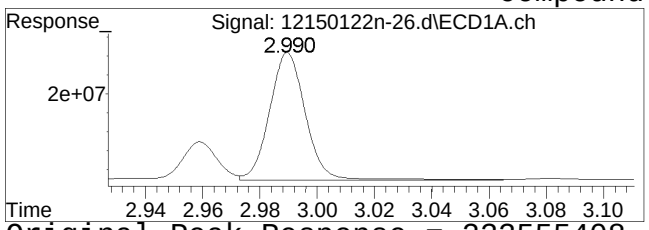
Original Peak Response = 170633099 Manual Peak Response = 166138869 M4
M4 = Poor automated baseline construction.

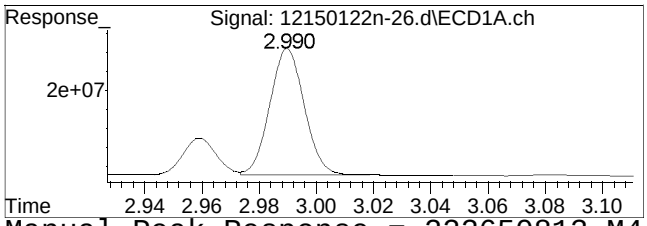
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-26.d
Date Inj'd : 1/22/2015 9:05 pm
Sample : il62154,42e,,6636

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:32 am

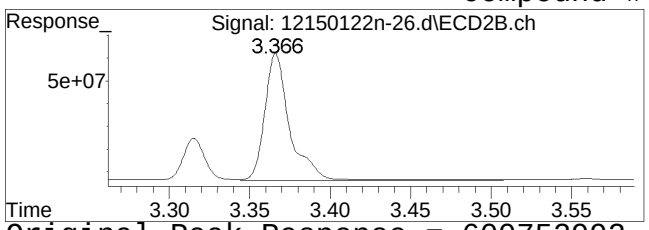
Compound #17: 1221-3

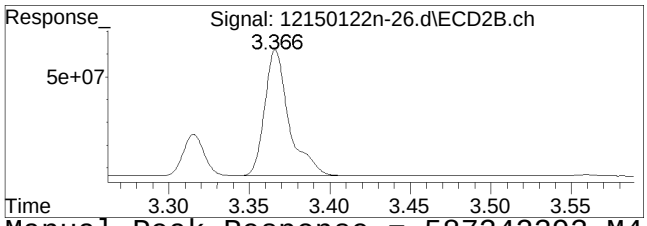




Original Peak Response = 233555408 Manual Peak Response = 222650813 M4
M4 = Poor automated baseline construction.

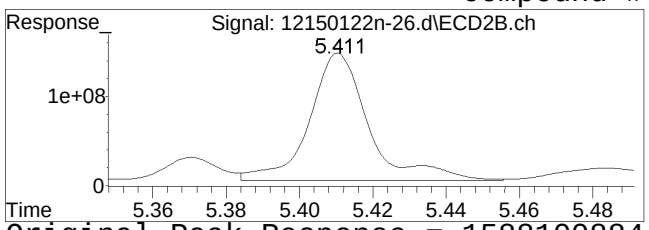
Compound #68: 1221-3 #2

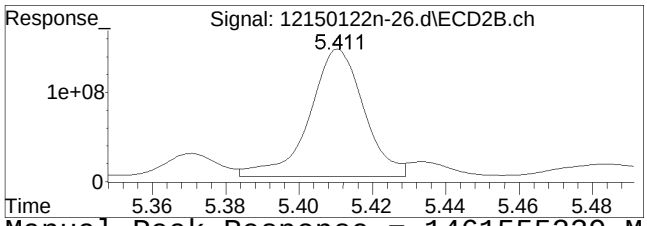




Original Peak Response = 600752992 Manual Peak Response = 587342393 M4
M4 = Poor automated baseline construction.

Compound #71: 1254-3 #2





Original Peak Response = 1588100884 Manual Peak Response = 1461555239 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:18 pm
Operator : pest12:jt
Sample : il11660,42e,,6624
Misc : wg756944,
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:40:43 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:38:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	227.3E6	591.5E6	250.000	250.000
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.741	2.988	696.0E6	1691.1E6	641.078	581.368
	Spiked Amount 500.000	Range 30 - 150		Recovery =		128.22%	116.27%
3) s	Decachlor...	6.828	7.421	796.1E6	1336.6E6	1270.508	1141.280
	Spiked Amount 500.000	Range 30 - 150		Recovery =		254.10%#	228.26%#
	Target Compounds						
4) l1	1016-1	2.988	3.365	1970899	5042097	109.297M2	108.657M2
5) l1	1016-2	3.247	3.698	4556555	11886146	120.164M4	127.989M4
6) l1	1016-3	3.611	4.091	4909375	13212453	109.979	107.301M2
7) l1	1016-4	3.717	4.204	3522248	8620637	112.236M4	105.379M4
8) l1	1016-5	4.047	4.586	3511638	6645503	102.858M4	103.528M4
Sum	1016-1			18470715	45406837	554.536	552.855
Average	1016-1					110.907	110.571
9) l2	1260-1	5.004	5.550	5909241	15142189	121.644	130.462M4
10) l2	1260-2	5.210	5.692	9119096	15384089	122.126	114.588M4
11) l2	1260-3	5.677	6.221	4931743	13974464	109.044	132.424
12) l2	1260-4	5.892	6.382	10304216	24964347	102.298M4	115.275
13) l2	1260-5	6.092	6.638	7527877	16156645	108.786	113.604M4
Sum	1260-1			37792172	85621734	NoCal	NoCal
Average	1260-1					112.780	121.271

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:18 pm
Operator : pest12:jt
Sample : il11660,42e,,6624
Misc : wg756944,
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:40:43 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:38:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
15)	l3 1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16)	l3 1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17)	l3 1221-3	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1221-1			0	0	N.D.	N.D.
	Average 1221-1					0.000	0.000
18)	l4 1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19)	l4 1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20)	l4 1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21)	l4 1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22)	l4 1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
	Average 1254-1					0.000	0.000
24)	l6 1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25)	l6 1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26)	l6 1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27)	l6 1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28)	l6 1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
	Average 1242-1					0.000	0.000
29)	l9 1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30)	l9 1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31)	l9 1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32)	l9 1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33)	l9 1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
	Average 1268-1					0.000	0.000
35)	l7 1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36)	l7 1248-2	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:18 pm
Operator : pest12:jt
Sample : il11660,42e,,6624
Misc : wg756944,
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:40:43 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:38:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

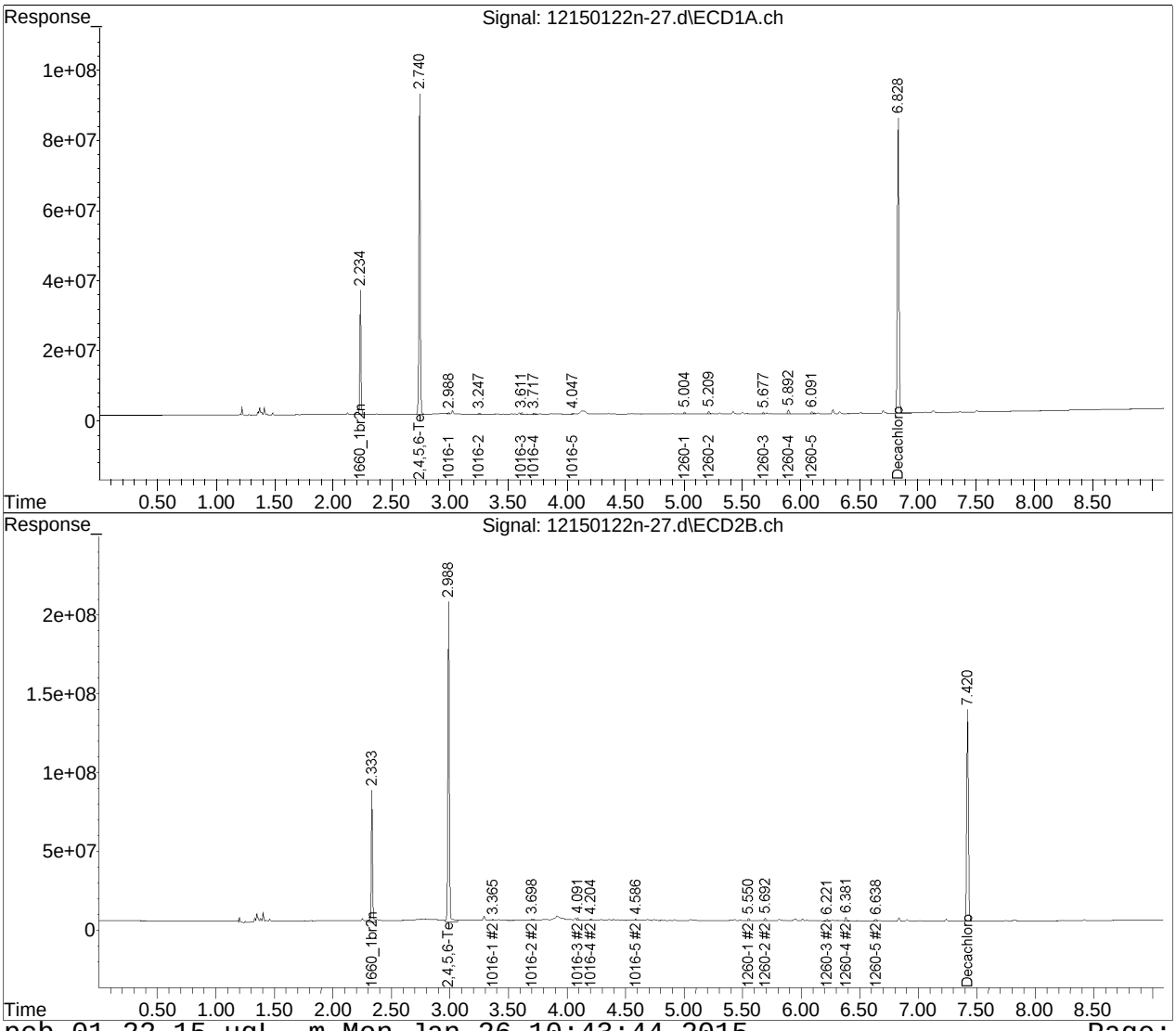
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:18 pm
Operator : pest12:jt
Sample : il11660,42e,,6624
Misc : wg756944,
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:40:43 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:38:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

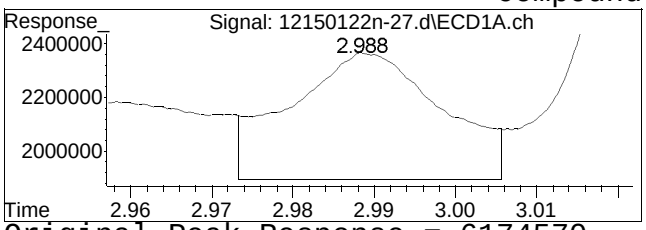


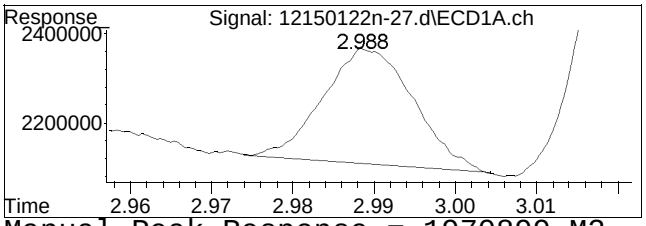
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Date Inj'd : 1/22/2015 9:18 pm
Sample : il11660,42e,,6624

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:38 am

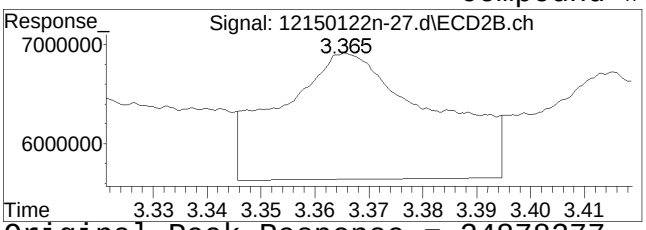
Compound #4: 1016-1

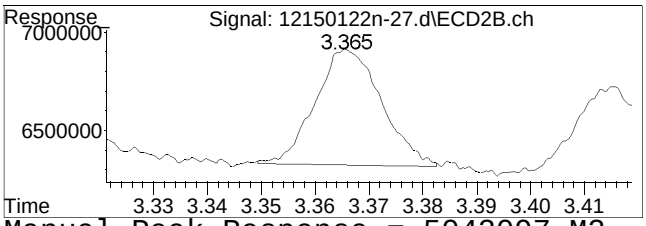




Original Peak Response = 6174570 Manual Peak Response = 1970899 M2
M2 = Peak not found by automatic integration algorithm.

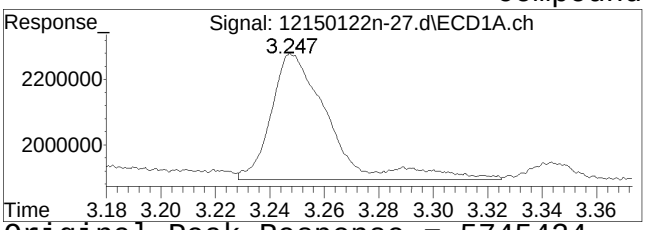
Compound #55: 1016-1 #2

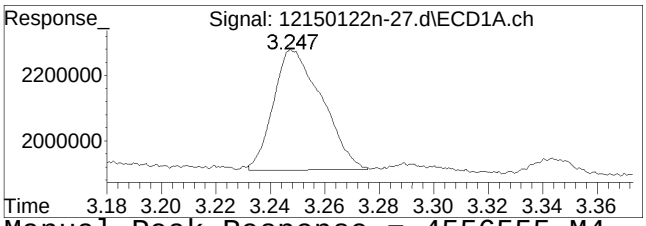




Original Peak Response = 24878277 Manual Peak Response = 5042097 M2
M2 = Peak not found by automatic integration algorithm.

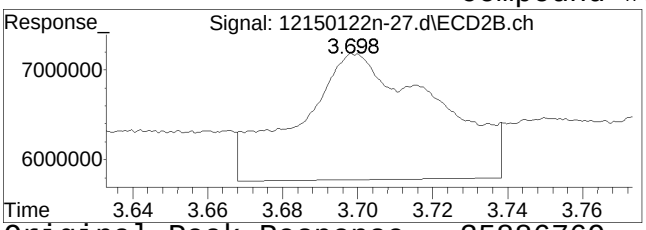
Compound #5: 1016-2

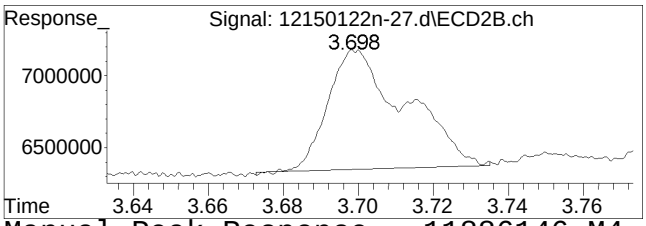




Original Peak Response = 5745424 Manual Peak Response = 4556555 M4
M4 = Poor automated baseline construction.

Compound #56: 1016-2 #2





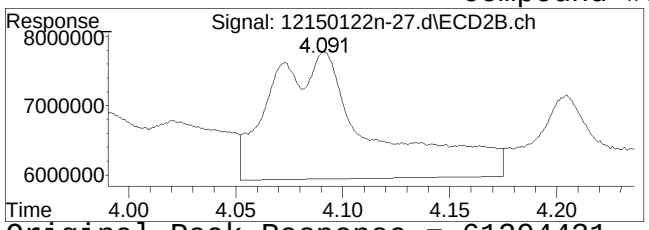
Original Peak Response = 35886769 Manual Peak Response = 11886146 M4
M4 = Poor automated baseline construction.

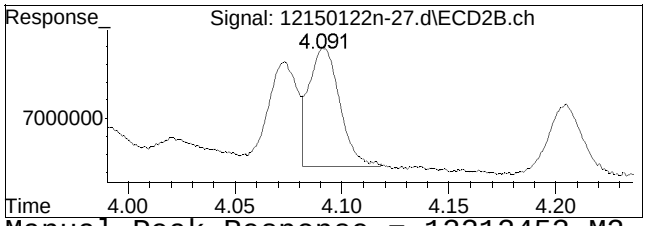
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Date Inj'd : 1/22/2015 9:18 pm
Sample : il11660,42e,,6624

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:38 am

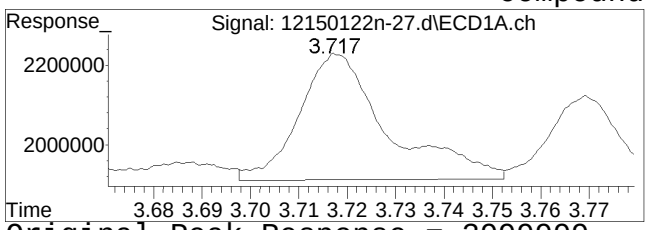
Compound #57: 1016-3 #2

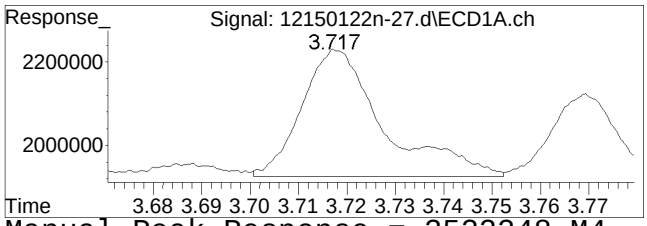




Original Peak Response = 61204431 Manual Peak Response = 13212453 M2
M2 = Peak not found by automatic integration algorithm.

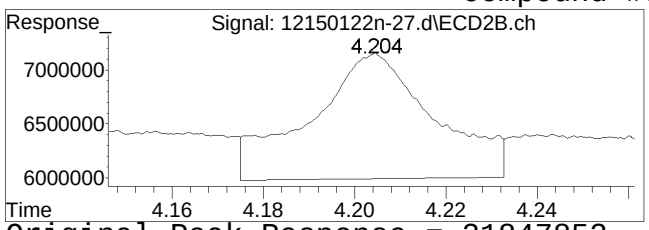
Compound #7: 1016-4

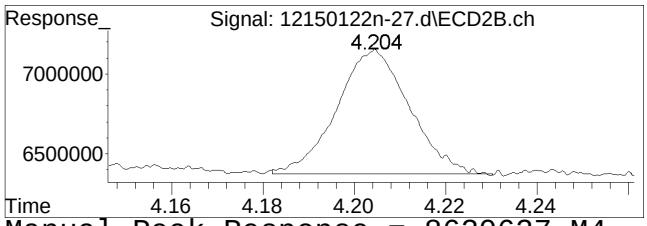




Original Peak Response = 3999999 Manual Peak Response = 3522248 M4
M4 = Poor automated baseline construction.

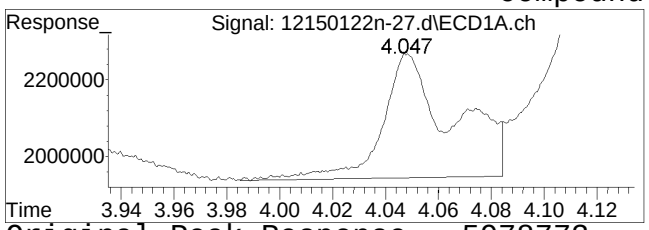
Compound #58: 1016-4 #2

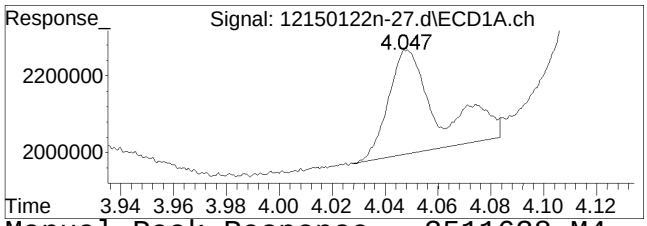




Original Peak Response = 21847852 Manual Peak Response = 8620637 M4
M4 = Poor automated baseline construction.

Compound #8: 1016-5





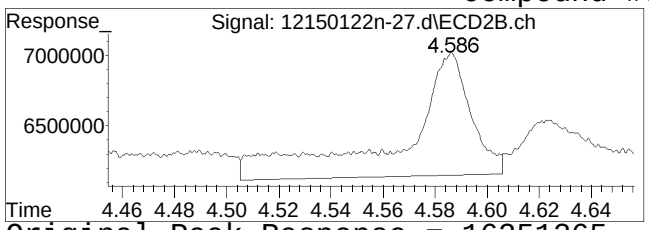
Original Peak Response = 5978773 Manual Peak Response = 3511638 M4
M4 = Poor automated baseline construction.

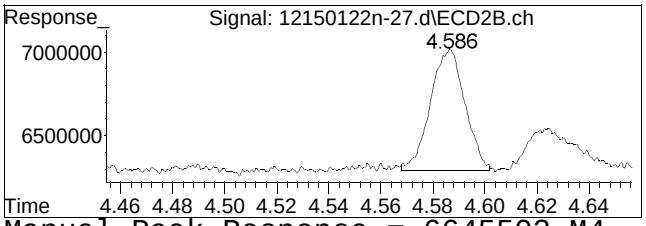
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Date Inj'd : 1/22/2015 9:18 pm
Sample : il11660,42e,,6624

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:38 am

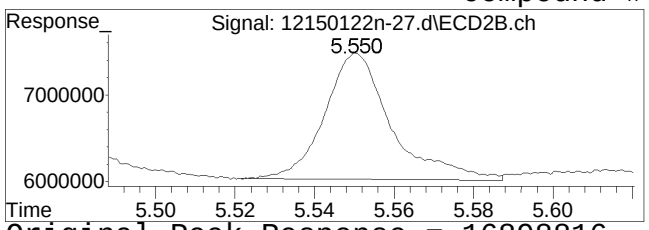
Compound #59: 1016-5 #2

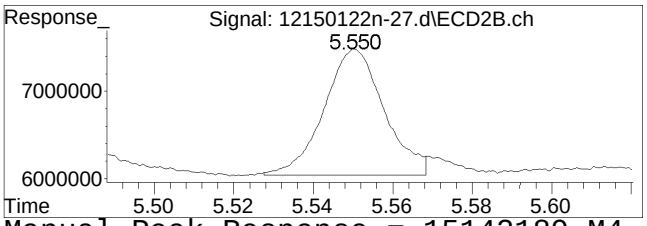




Original Peak Response = 16251265 Manual Peak Response = 6645503 M4
M4 = Poor automated baseline construction.

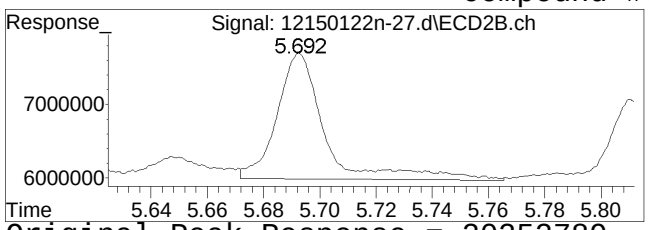
Compound #60: 1260-1 #2

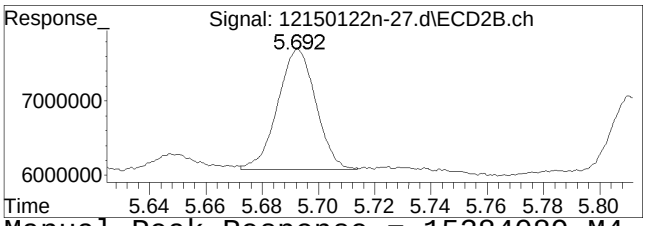




Original Peak Response = 16898816 Manual Peak Response = 15142189 M4
M4 = Poor automated baseline construction.

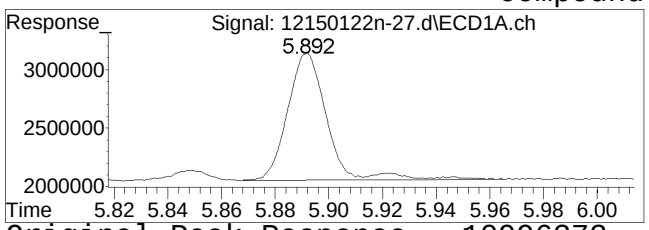
Compound #61: 1260-2 #2

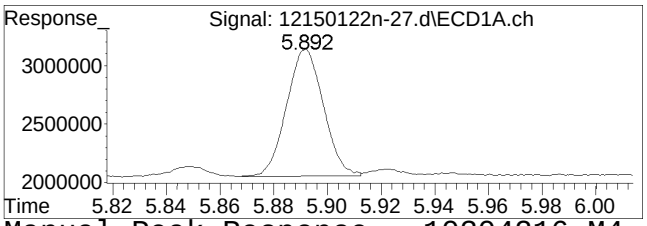




Original Peak Response = 20252789 Manual Peak Response = 15384089 M4
M4 = Poor automated baseline construction.

Compound #12: 1260-4





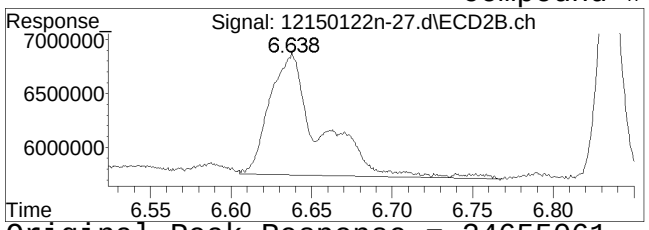
Original Peak Response = 10996373 Manual Peak Response = 10304216 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

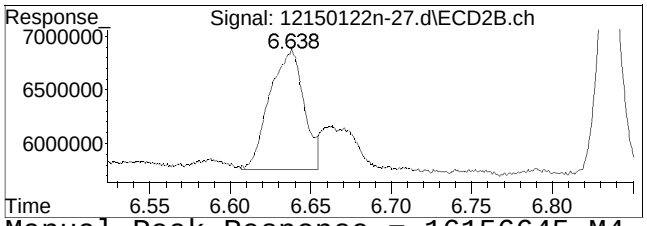
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-27.d
Date Inj'd : 1/22/2015 9:18 pm
Sample : il11660,42e,,6624

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:38 am

Compound #64: 1260-5 #2



Original Peak Response = 24655061



Manual Peak Response = 16156645 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-28.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:30 pm
Operator : pest12:jt
Sample : il21660,42e,,6625
Misc : wg756944,
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:44:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:42:56 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	231.2E6	578.7E6	250.000	250.000
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.741	2.988	21480696	67252789	19.445	24.186
Spiked Amount	500.000	Range 30 - 150		Recovery =		3.89%#	4.84%#
3) s	Decachlor...	6.826	7.418	27293437	51168929	42.909	45.900
Spiked Amount	500.000	Range 30 - 150		Recovery =		8.58%#	9.18%#
	Target Compounds						
4) l1	1016-1	2.990	3.366	10065100	26730224	536.348M4	576.305
5) l1	1016-2	3.249	3.699	21916679	61021196	541.023	581.800M4
6) l1	1016-3	3.611	4.091	23635551	62405955	507.937M4	508.736M4
7) l1	1016-4	3.718	4.204	17977710	44545206	546.542	549.183M4
8) l1	1016-5	4.049	4.585	20890118	34293214	597.366	541.284M4
Sum	1016-1			94485157	229.0E6	2729.216	2757.308
Average	1016-1					545.843	551.462
9) l2	1260-1	5.004	5.550	27404219	66170176	526.201	541.481
10) l2	1260-2	5.209	5.692	41755925	77860786	521.021	571.915
11) l2	1260-3	5.676	6.220	24834488	57061187	527.968	511.238
12) l2	1260-4	5.891	6.381	51791652	112.4E6	502.672	511.126
13) l2	1260-5	6.091	6.636	36897879	75737679	513.014	526.419
Sum	1260-1			182.7E6	389.3E6	NoCal	NoCal
Average	1260-1					518.175	532.436
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-28.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:30 pm
Operator : pest12:jt
Sample : il21660,42e,,6625
Misc : wg756944,
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:44:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:42:56 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-28.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:30 pm
Operator : pest12:jt
Sample : il21660,42e,,6625
Misc : wg756944,
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:44:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:42:56 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

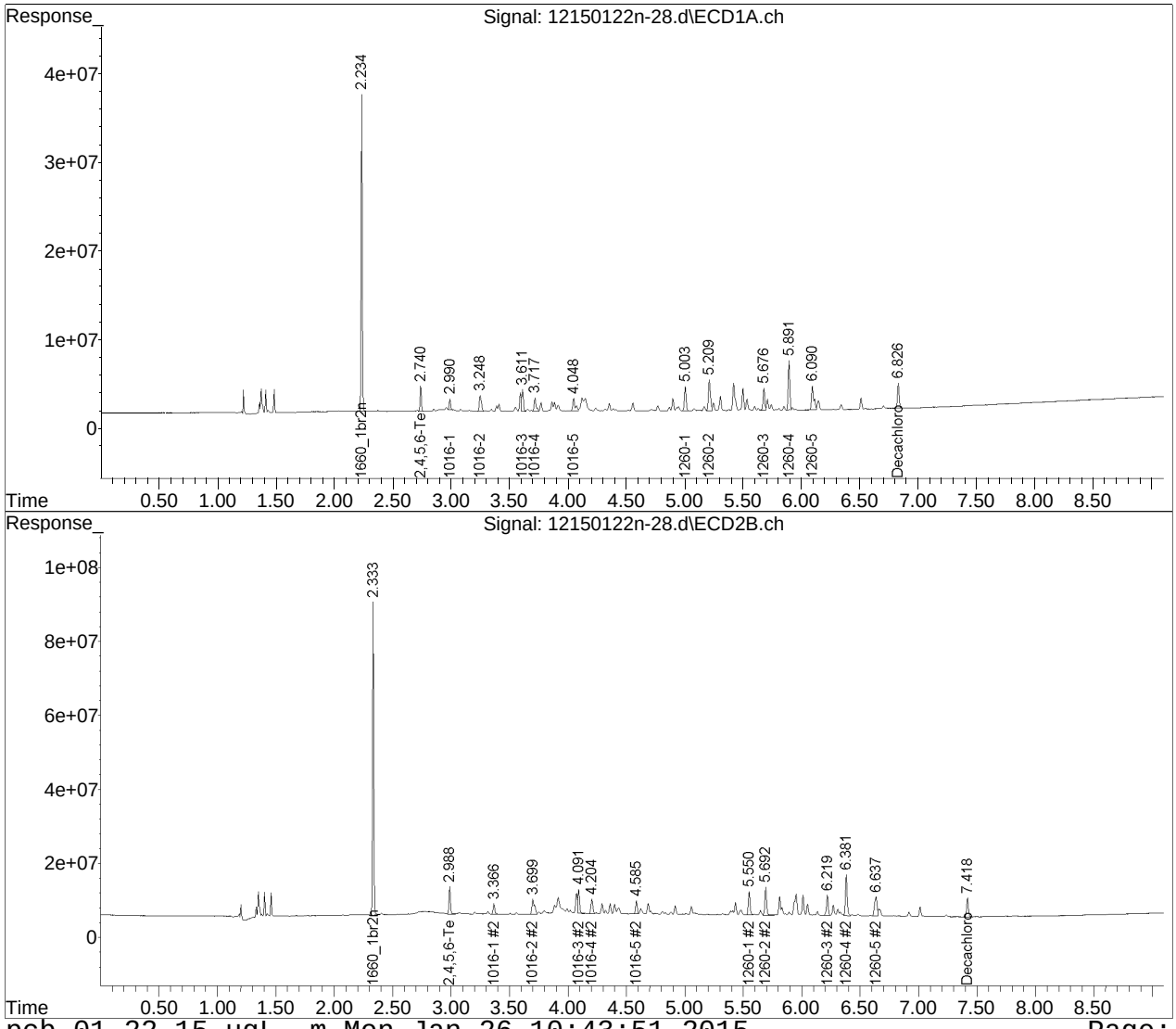
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-28.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:30 pm
Operator : pest12:jt
Sample : il21660,42e,,6625
Misc : wg756944,
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:44:28 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:42:56 2015
Response via : Initial Calibration
Integrator: ChemStation

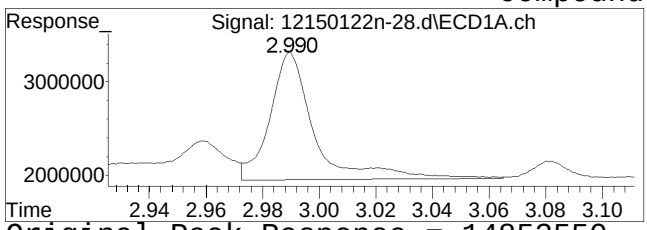
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

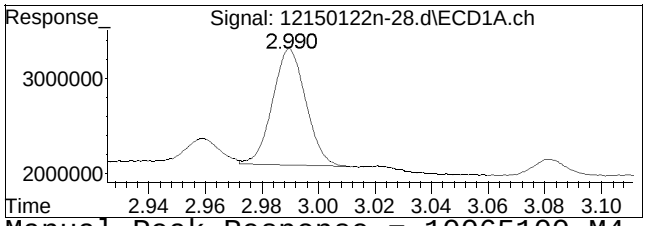


Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-28.d Operator : pest12:jt
Date Inj'd : 1/22/2015 9:30 pm Instrument : Pest12
Sample : il21660,42e,,6625 Quant Date : 1/26/2015 9:43 am

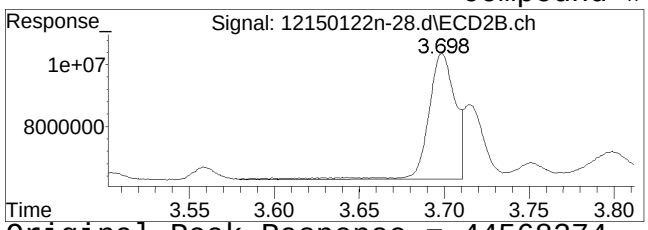
Compound #4: 1016-1

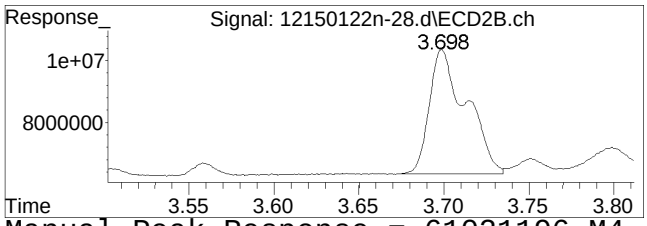




Original Peak Response = 14853550 Manual Peak Response = 10065100 M4
M4 = Poor automated baseline construction.

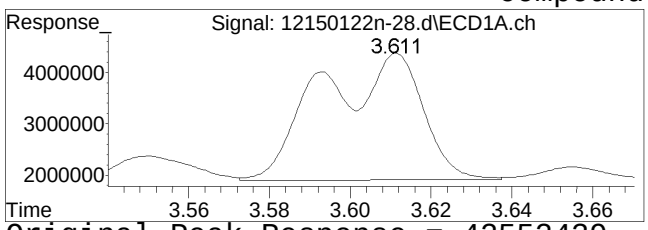
Compound #56: 1016-2 #2

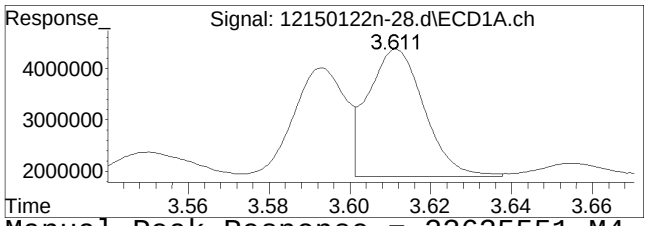




Original Peak Response = 44568374 Manual Peak Response = 61021196 M4
M4 = Poor automated baseline construction.

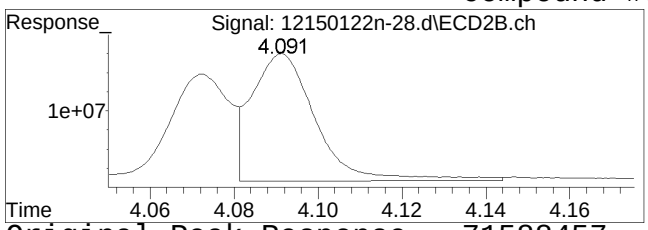
Compound #6: 1016-3

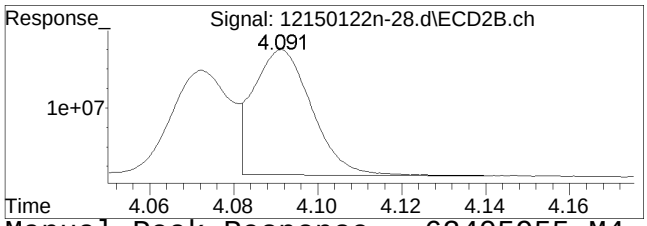




Original Peak Response = 42552439 Manual Peak Response = 23635551 M4
M4 = Poor automated baseline construction.

Compound #57: 1016-3 #2





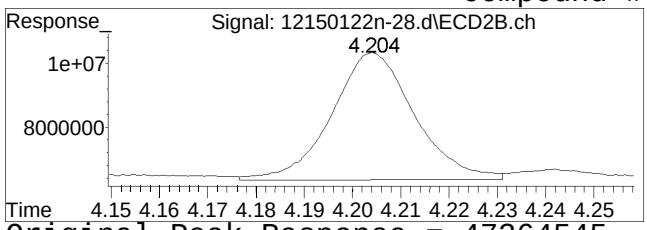
Original Peak Response = 71588457 Manual Peak Response = 62405955 M4
M4 = Poor automated baseline construction.

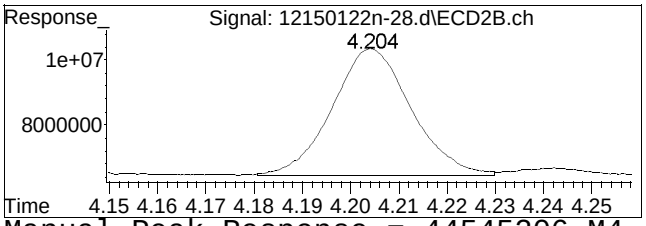
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-28.d
Date Inj'd : 1/22/2015 9:30 pm
Sample : il21660,42e,,6625

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:43 am

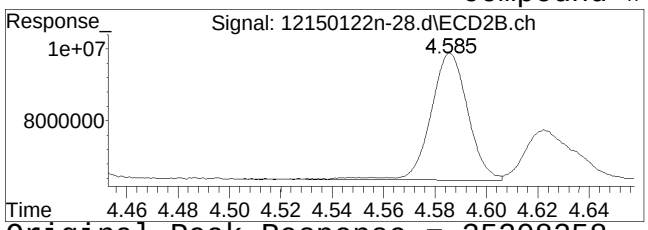
Compound #58: 1016-4 #2

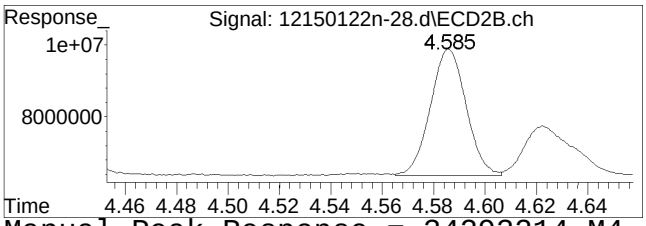




Original Peak Response = 47364545 Manual Peak Response = 44545206 M4
M4 = Poor automated baseline construction.

Compound #59: 1016-5 #2





Original Peak Response = 35208258 Manual Peak Response = 34293214 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-29.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:42 pm
Operator : pest12:jt
Sample : il31660,42e,,6626
Misc : wg756944,
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:45:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:44:41 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	213.0E6	533.4E6	250.000	250.000
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.740	2.988	41855209	119.1E6	41.364	44.599
	Spiked Amount 500.000	Range 30 - 150		Recovery =		8.27%#	8.92%#
3) s	Decachlor...	6.826	7.418	52073916	94224440	87.604	89.065
	Spiked Amount 500.000	Range 30 - 150		Recovery =		17.52%#	17.81%#
	Target Compounds						
4) l1	1016-1	2.989	3.365	20366069	51041152	1161.315M4	1158.437
5) l1	1016-2	3.249	3.698	42639227	114.7E6	1124.255	1148.999M4
6) l1	1016-3	3.611	4.091	46516217	136.5E6	1081.821M4	1202.610
7) l1	1016-4	3.718	4.204	34820216	89609392	1128.218	1175.353
8) l1	1016-5	4.049	4.585	40039954	67421342	1196.418	1135.693
	Sum 1016-1			184.4E6	459.3E6	5692.027	5821.093
	Average 1016-1					1138.405	1164.219
9) l2	1260-1	5.004	5.549	52205632	125.5E6	1076.979	1095.864
10) l2	1260-2	5.209	5.691	79844186	147.0E6	1072.574	1138.682
11) l2	1260-3	5.676	6.220	47888978	112.0E6	1093.050	1083.965
12) l2	1260-4	5.891	6.381	103.5E6	220.4E6	1089.903	1082.216
13) l2	1260-5	6.091	6.636	72642709	146.9E6	1090.807	1095.969
	Sum 1260-1			356.1E6	751.8E6	NoCal	NoCal
	Average 1260-1					1084.662	1099.339
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-29.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:42 pm
Operator : pest12:jt
Sample : il31660,42e,,6626
Misc : wg756944,
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:45:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:44:41 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-29.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:42 pm
Operator : pest12:jt
Sample : il31660,42e,,6626
Misc : wg756944,
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:45:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:44:41 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

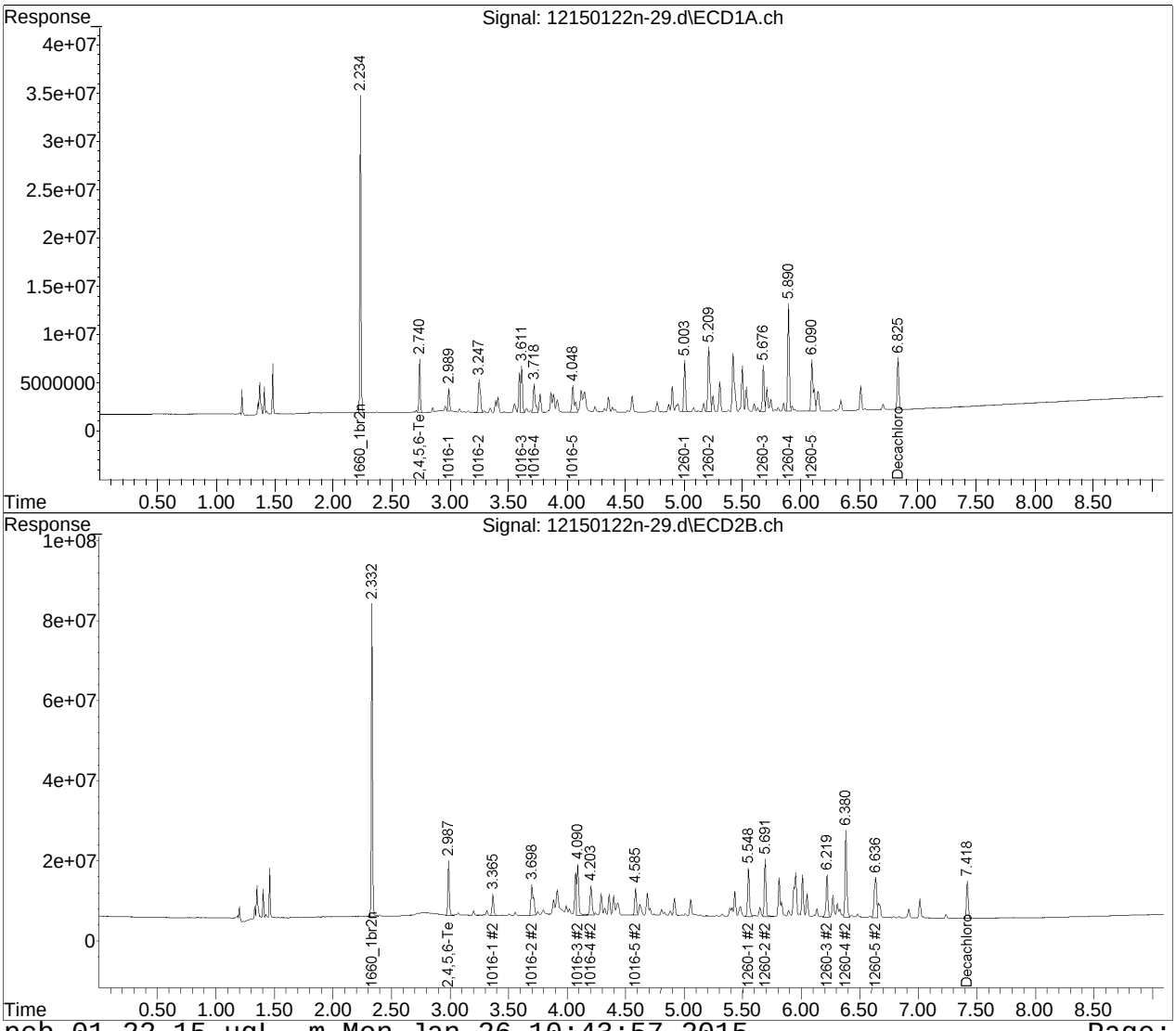
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-29.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:42 pm
Operator : pest12:jt
Sample : il31660,42e,,6626
Misc : wg756944,
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:45:44 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:44:41 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

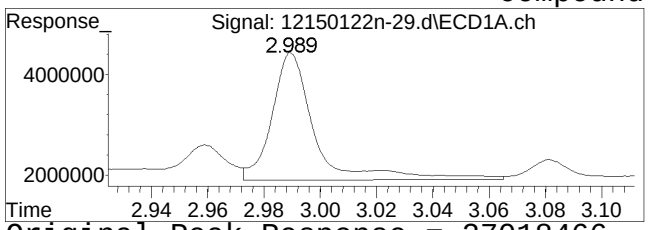


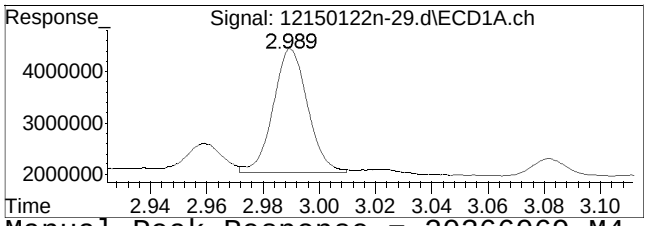
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-29.d
Date Inj'd : 1/22/2015 9:42 pm
Sample : il31660,42e,,6626

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:44 am

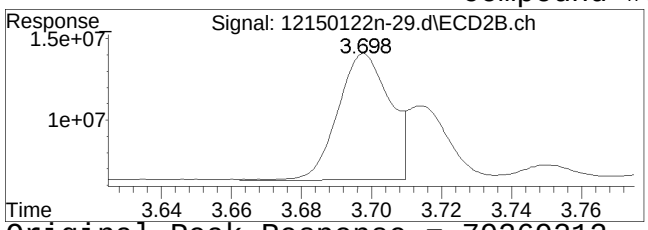
Compound #4: 1016-1

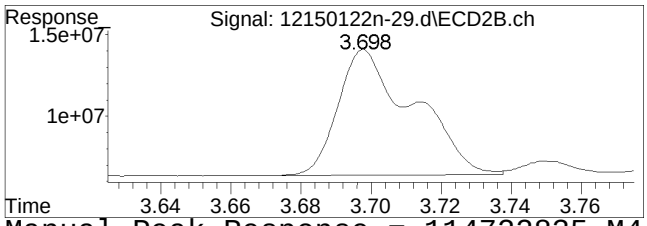




Original Peak Response = 27018466 Manual Peak Response = 20366069 M4
M4 = Poor automated baseline construction.

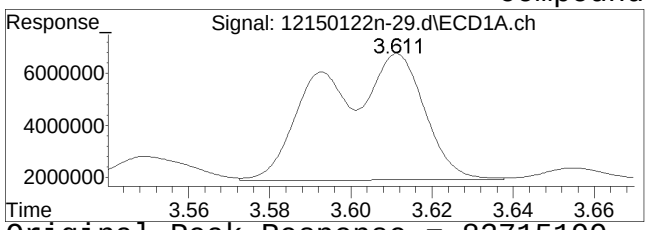
Compound #56: 1016-2 #2

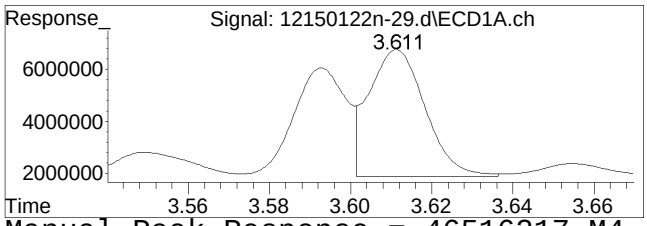




Original Peak Response = 79269212 Manual Peak Response = 114722835 M4
M4 = Poor automated baseline construction.

Compound #6: 1016-3





Original Peak Response = 83715199 Manual Peak Response = 46516217 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-30.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:55 pm
Operator : pest12:jt
Sample : il41660,42e,,6627
Misc : wg756944,
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:28:26 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Thu Jan 22 12:38:09 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	226.0E6	561.1E6	250.000	250.000
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.741	2.988	86278093	229.4E6	NoCal	NoCal
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
3) s	Decachlor...	6.829	7.423	101.8E6	184.2E6	NoCal	NoCal
Spiked Amount	500.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
4) l1	1016-1	2.990	3.366	50461934	119.0E6	NoCal	NoCal
5) l1	1016-2	3.249	3.698	101.5E6	267.6E6	NoCal	NoCal
6) l1	1016-3	3.611	4.092	114.8E6	318.7E6	NoCal	NoCal
7) l1	1016-4	3.718	4.204	82766656	213.2E6	NoCal	NoCal
8) l1	1016-5	4.049	4.585	91183127	167.3E6	NoCal	NoCal
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	5.004	5.550	128.1E6	295.0E6	NoCal	NoCal M4
10) l2	1260-2	5.209	5.692	196.3E6	336.7E6	NoCal	NoCal M4
11) l2	1260-3	5.677	6.221	118.4E6	270.6E6	NoCal	NoCal
12) l2	1260-4	5.892	6.383	260.9E6	543.6E6	NoCal M4	NoCal
13) l2	1260-5	6.092	6.638	180.1E6	358.8E6	NoCal	NoCal
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-30.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:55 pm
Operator : pest12:jt
Sample : il41660,42e,,6627
Misc : wg756944,
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:28:26 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Thu Jan 22 12:38:09 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-30.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:55 pm
Operator : pest12:jt
Sample : il41660,42e,,6627
Misc : wg756944,
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:28:26 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Thu Jan 22 12:38:09 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

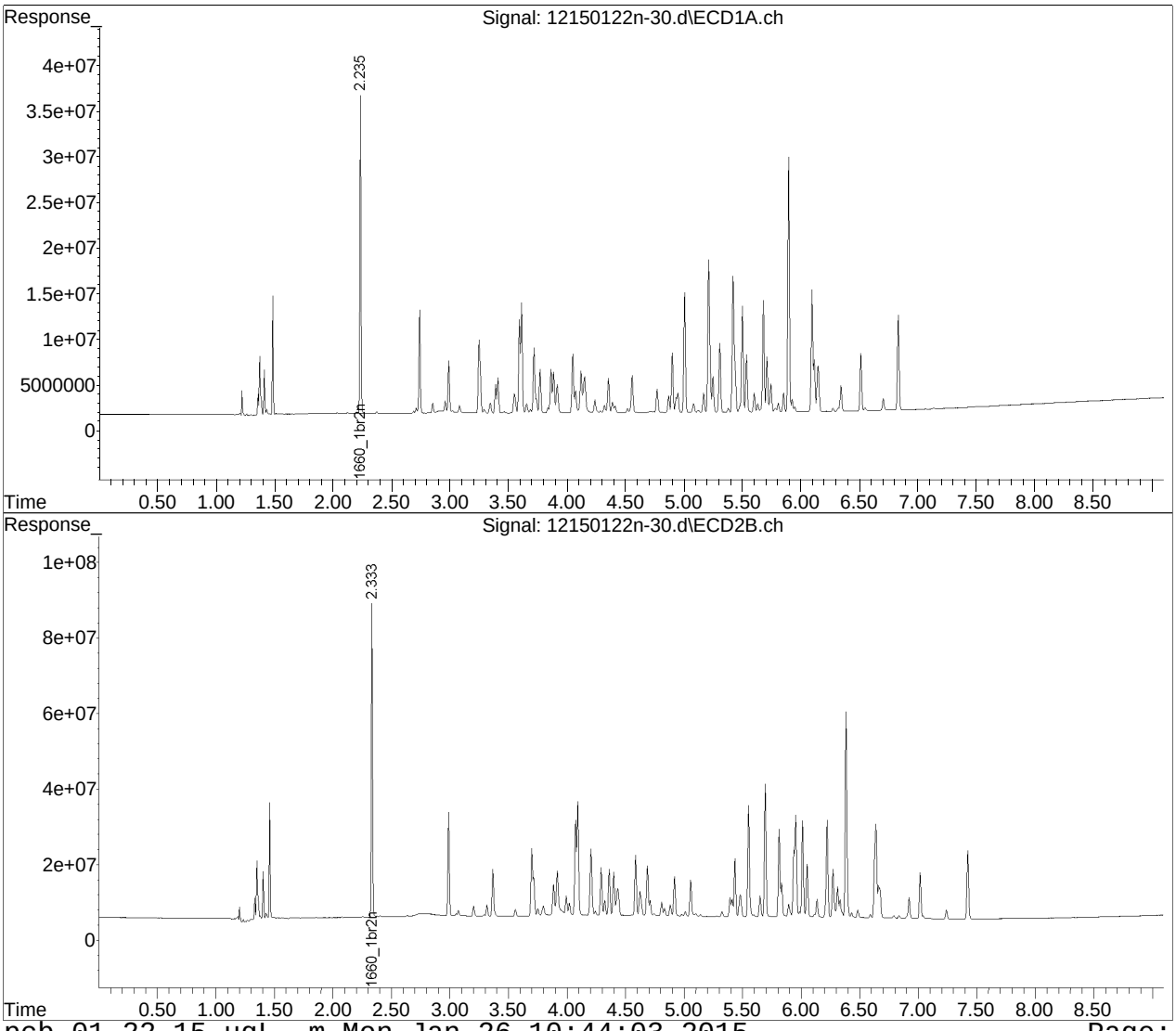
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-30.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 9:55 pm
Operator : pest12:jt
Sample : il41660,42e,,6627
Misc : wg756944,
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:28:26 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Thu Jan 22 12:38:09 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

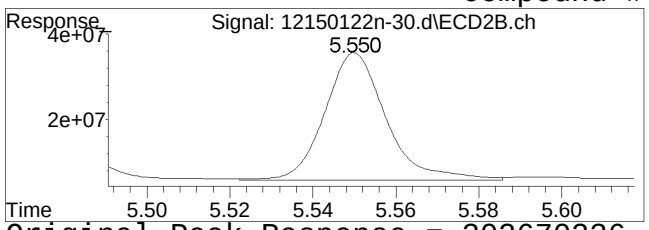


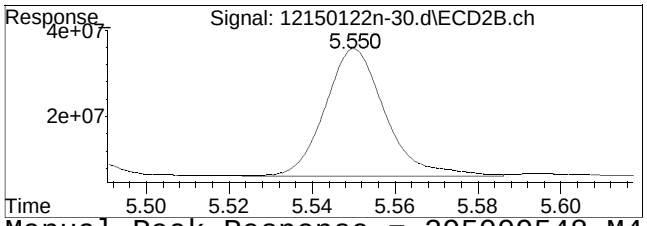
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-30.d
Date Inj'd : 1/22/2015 9:55 pm
Sample : il41660,42e,,6627

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:27 am

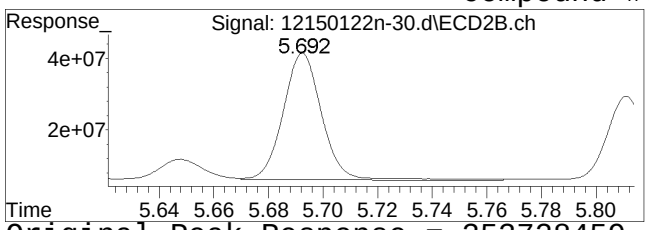
Compound #60: 1260-1 #2

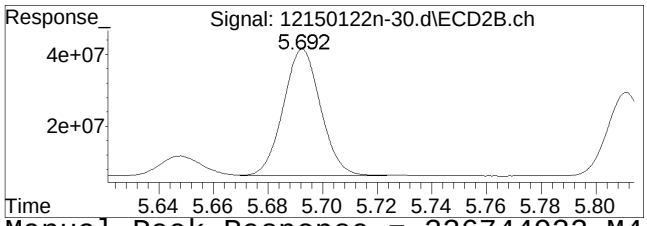




Original Peak Response = 302670236 Manual Peak Response = 295009548 M4
M4 = Poor automated baseline construction.

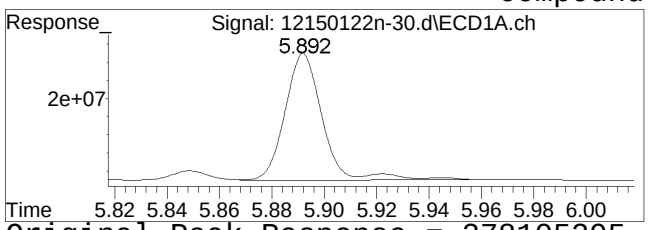
Compound #61: 1260-2 #2

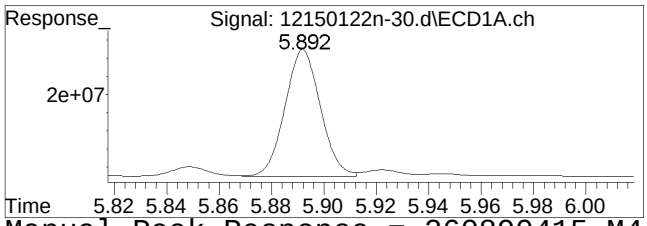




Original Peak Response = 353728459 Manual Peak Response = 336744932 M4
M4 = Poor automated baseline construction.

Compound #12: 1260-4





Original Peak Response = 278105295 Manual Peak Response = 260890415 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:07 pm
Operator : pest12:jt
Sample : il51660,42e,,6628
Misc : wg756944,
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:34:04 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:28:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	227.1E6	560.4E6	250.000	250.000
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.741	2.988	171.3E6	437.9E6	158.066	152.886
Spiked Amount	500.000	Range 30 - 150		Recovery =		31.61%	30.58%
3) s	Decachlor...	6.829	7.421	197.6E6	353.5E6	309.082	307.493
Spiked Amount	500.000	Range 30 - 150		Recovery =		61.82%	61.50%
	Target Compounds						
4) l1	1016-1	2.990	3.366	86553689	216.3E6	4267.821	4551.116
5) l1	1016-2	3.249	3.698	183.0E6	477.5E6	4485.666	4466.115
6) l1	1016-3	3.612	4.091	217.8E6	564.1E6	4720.082M4	4430.638M4
7) l1	1016-4	3.718	4.204	151.8E6	373.1E6	4562.274	4380.813M4
8) l1	1016-5	4.049	4.585	164.9E6	289.7E6	4500.564	4333.551M4
Sum	1016-1			804.0E6	1920.7E6	22536.407	22162.233
Average	1016-1					4507.281	4432.447
9) l2	1260-1	5.005	5.550	237.4E6	542.4E6	4611.286	4602.543
10) l2	1260-2	5.210	5.692	365.4E6	630.7E6	4632.073	4688.294
11) l2	1260-3	5.678	6.221	220.2E6	487.0E6	4627.156	4504.759
12) l2	1260-4	5.892	6.382	494.0E6	1005.1E6	4711.906M4	4628.069
13) l2	1260-5	6.092	6.638	338.1E6	658.8E6	4671.240	4596.434
Sum	1260-1			1655.3E6	3324.0E6	NoCal	NoCal
Average	1260-1					4650.732	4604.020
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:07 pm
Operator : pest12:jt
Sample : il51660,42e,,6628
Misc : wg756944,
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:34:04 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:28:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:07 pm
Operator : pest12:jt
Sample : il51660,42e,,6628
Misc : wg756944,
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:34:04 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:28:36 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

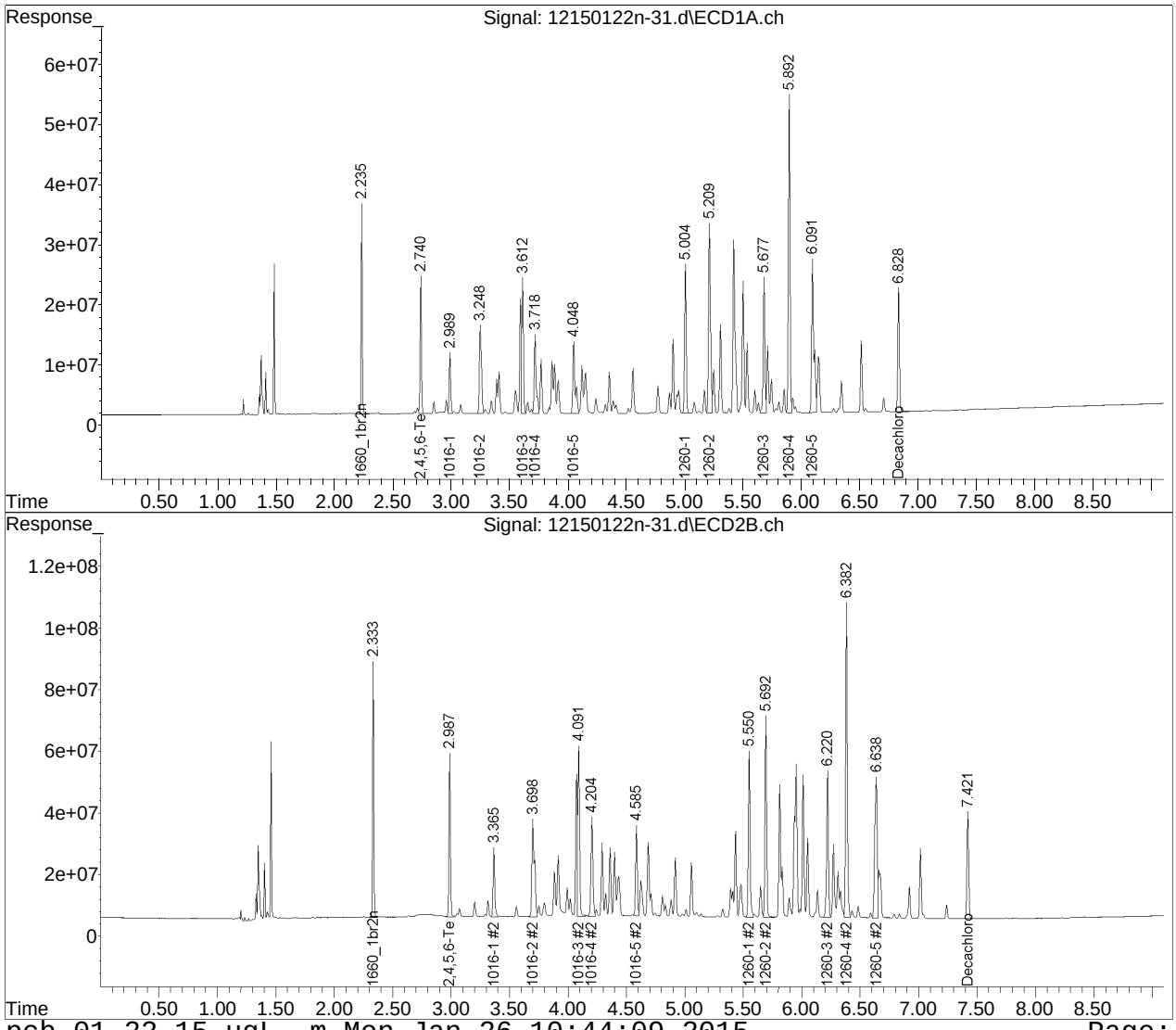
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:07 pm
Operator : pest12:jt
Sample : il51660,42e,,6628
Misc : wg756944,
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:34:04 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:28:36 2015
Response via : Initial Calibration
Integrator: ChemStation

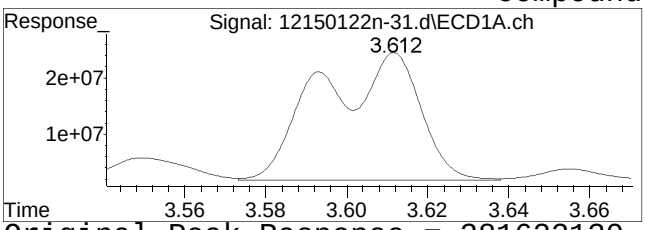
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

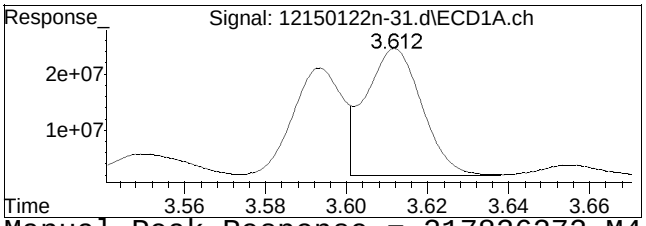


Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\ QMethod : P12_pcb 01-22-15_ugL_.
Data File : 12150122n-31.d Operator : pest12:jt
Date Inj'd : 1/22/2015 10:07 pm Instrument : Pest12
Sample : il51660,42e,,6628 Quant Date : 1/26/2015 9:28 am

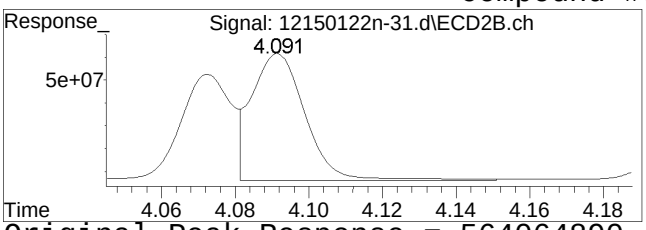
Compound #6: 1016-3

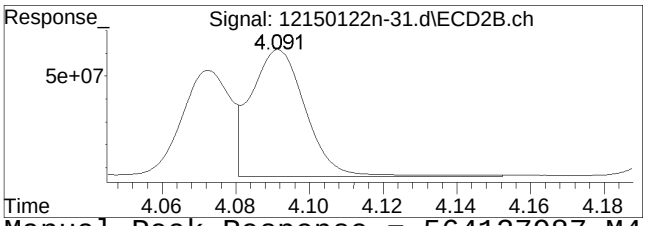




Original Peak Response = 381622130 Manual Peak Response = 217836272 M4
M4 = Poor automated baseline construction.

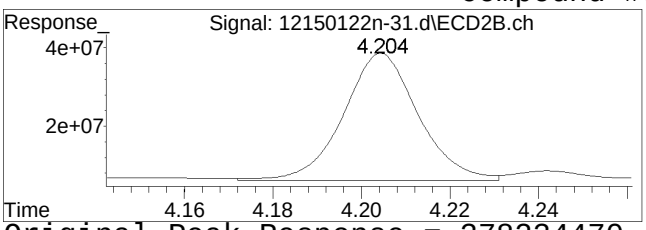
Compound #57: 1016-3 #2

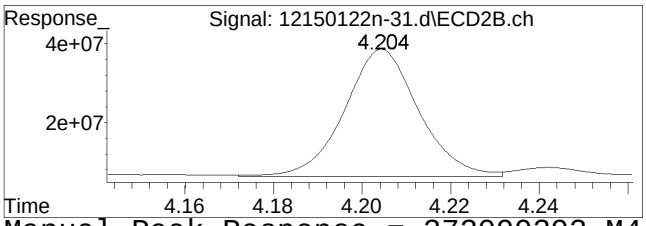




Original Peak Response = 564064890 Manual Peak Response = 564127987 M4
M4 = Poor automated baseline construction.

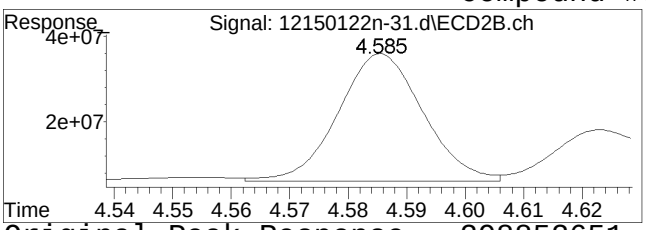
Compound #58: 1016-4 #2

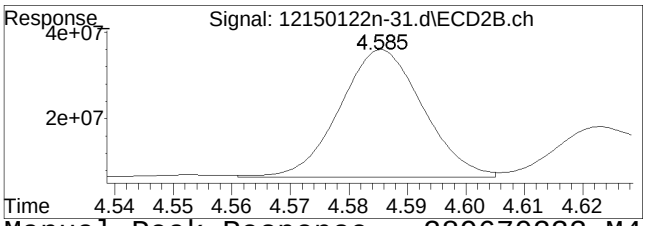




Original Peak Response = 378234470 Manual Peak Response = 373099393 M4
M4 = Poor automated baseline construction.

Compound #59: 1016-5 #2





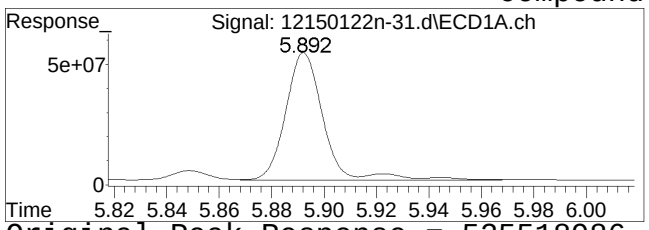
Original Peak Response = 298852651 Manual Peak Response = 289670233 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

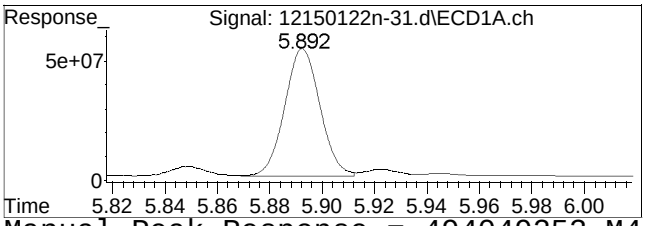
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-31.d
Date Inj'd : 1/22/2015 10:07 pm
Sample : il51660,42e,,6628

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:28 am

Compound #12: 1260-4



Original Peak Response = 525518986



Manual Peak Response = 494049253 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:19 pm
Operator : pest12:jt
Sample : il61660,42e,,6629
Misc : wg756944,
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:42:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:35:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	224.7E6	559.0E6	250.000	250.000
14) i	2154_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
23) i	4268_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
34) i	1248_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
40) i	3262_1br2nb	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.740	2.988	348.2E6	851.2E6	326.746	304.690
Spiked Amount	500.000	Range 30 - 150		Recovery =		65.35%	60.94%
3) s	Decachlor...	6.826	7.418	393.4E6	686.0E6	632.826	610.135
Spiked Amount	500.000	Range 30 - 150		Recovery =		126.57%	122.03%
	Target Compounds						
4) l1	1016-1	2.990	3.365	162.8E6	410.0E6	8753.022	9054.551
5) l1	1016-2	3.249	3.697	358.8E6	910.4E6	9371.682	9018.936M4
6) l1	1016-3	3.611	4.091	436.0E6	1095.8E6	9822.987	9149.603
7) l1	1016-4	3.718	4.204	301.1E6	725.6E6	9569.249	9105.806
8) l1	1016-5	4.048	4.585	323.4E6	575.4E6	9388.465	9246.271
Sum	1016-1			1582.0E6	3717.3E6	46905.406	45575.168
Average	1016-1					9381.081	9115.034
9) l2	1260-1	5.004	5.550	461.1E6	1033.2E6	9417.590	9152.634
10) l2	1260-2	5.209	5.692	710.4E6	1206.5E6	9448.168	9280.442
11) l2	1260-3	5.677	6.220	434.4E6	942.3E6	9582.539	9194.332
12) l2	1260-4	5.891	6.381	971.8E6	1968.9E6	9645.431M4	9440.081
13) l2	1260-5	6.091	6.636	666.6E6	1288.4E6	9624.207	9391.091
Sum	1260-1			3244.2E6	6439.2E6	NoCal	NoCal
Average	1260-1					9543.587	9291.716
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:19 pm
Operator : pest12:jt
Sample : il61660,42e,,6629
Misc : wg756944,
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:42:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:35:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:19 pm
Operator : pest12:jt
Sample : il61660,42e,,6629
Misc : wg756944,
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:42:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:35:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

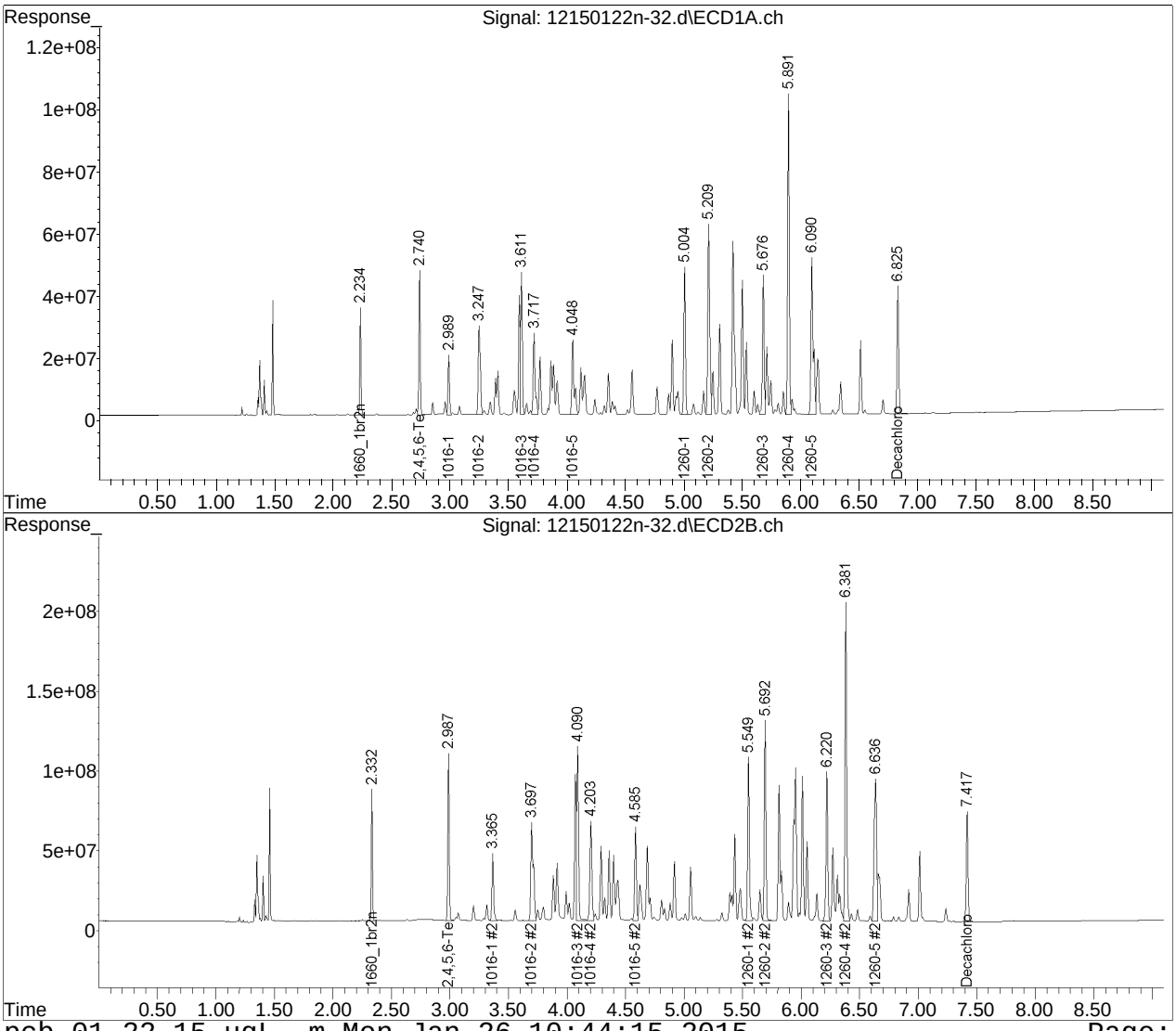
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:19 pm
Operator : pest12:jt
Sample : il61660,42e,,6629
Misc : wg756944,
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:42:33 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:35:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

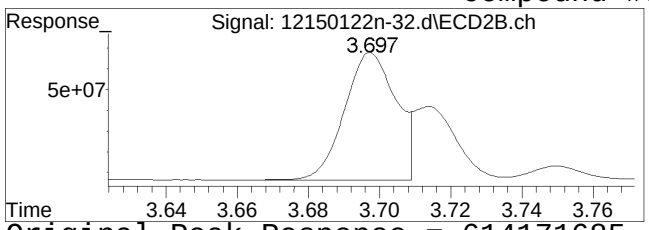


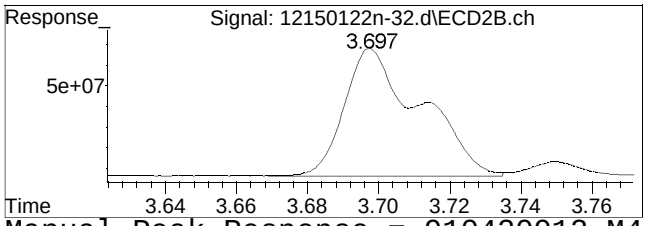
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-32.d
Date Inj'd : 1/22/2015 10:19 pm
Sample : il61660,42e,,6629

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:35 am

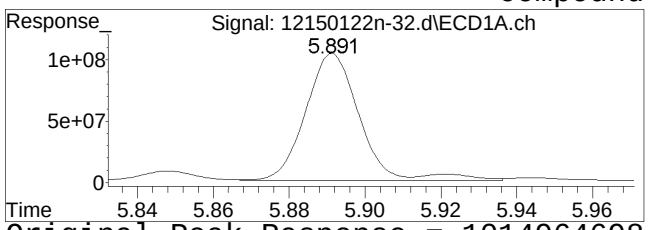
Compound #56: 1016-2 #2

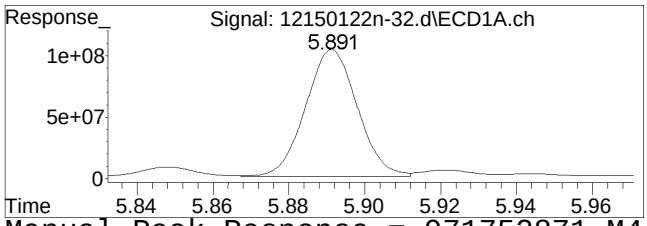




Original Peak Response = 614171685 Manual Peak Response = 910420912 M4
M4 = Poor automated baseline construction.

Compound #12: 1260-4





Original Peak Response = 1014964698 Manual Peak Response = 971752871 M4
M4 = Poor automated baseline construction.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample   : cicv2154,42e,,6558
Misc   : wg756944,
ALS Vial : 33   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1660_1br2nb	250.000	250.000	0.0	94	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen	80.000	78.953	1.3	93	0.00
3	s	Decachlorobiphenyl	160.000	184.058	-15.0#	109	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	91	0.00
15	l3	1221-1	2500.000	2795.785	-11.8	103	0.00
16	l3	1221-2	2500.000	2532.908	-1.3	92	0.00
17	l3	1221-3	2500.000	2566.259	-2.7	95	0.00
18	l4	1254-1	2500.000	2445.274	2.2	95	0.00
19	l4	1254-2	2500.000	2506.129	-0.2	95	0.00
20	l4	1254-3	2500.000	2599.027	-4.0	97	0.00
21	l4	1254-4	2500.000	2539.272	-1.6	95	0.00
22	l4	1254-5	2500.000	2422.143	3.1	90	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	97	0.00
34	i	1248_1br2nb	250.000	250.000	0.0	95	0.00
40	i	3262_1br2nb	250.000	250.000	0.0	101	0.00

Signal #2

1	i	1660_1br2nb	250.000	250.000	0.0	96	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	80.000	80.028	-0.0	96	0.00
3	s	Decachlorobiphenyl	160.000	183.837	-14.9	109	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	92	0.00
15	l3	1221-1	2500.000	2488.198	0.5	100	0.00
16	l3	1221-2	2500.000	2497.228	0.1	97	0.00
17	l3	1221-3	2500.000	2625.485	-5.0	94	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample   : cicv2154,42e,,6558
Misc   : wg756944,
ALS Vial : 33   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
18	l4	1254-1	2500.000	2533.452	-1.3	98	0.00
19	l4	1254-2	2500.000	2442.949	2.3	95	0.00
20	l4	1254-3	2500.000	2552.933	-2.1	99	0.00
21	l4	1254-4	2500.000	2590.514	-3.6	98	0.00
22	l4	1254-5	2500.000	2441.795	2.3	93	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	99	0.00
34	i	1248_1br2nb	250.000	250.000	0.0	98	0.00
40	i	3262_1br2nb	250.000	250.000	0.0	102	0.00

Evaluate Continuing Calibration Report - Not Founds

4	l1	1016-1	2500.000	0.000	100.0#	0	-2.99#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.25#
6	l1	1016-3	2500.000	0.000	100.0#	0	-3.61#
7	l1	1016-4	2500.000	0.000	100.0#	0	-3.72#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.05#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.00#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.21#
11	l2	1260-3	2500.000	0.000	100.0#	0	-5.68#
12	l2	1260-4	2500.000	0.000	100.0#	0	-5.89#
13	l2	1260-5	2500.000	0.000	100.0#	0	-6.09#
24	l6	1242-1	2500.000	0.000	100.0#	0	-2.99#
25	l6	1242-2	2500.000	0.000	100.0#	0	-3.25#
26	l6	1242-3	2500.000	0.000	100.0#	0	-3.62#
27	l6	1242-4	2500.000	0.000	100.0#	0	-3.72#
28	l6	1242-5	2500.000	0.000	100.0#	0	-4.39#
29	l9	1268-1	2500.000	0.000	100.0#	0	-6.12#
30	l9	1268-2	2500.000	0.000	100.0#	0	-6.15#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample   : cicv2154,42e,,6558
Misc   : wg756944,
ALS Vial : 33   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
31	l9	1268-3	2500.000	0.000	100.0#	0	-6.28#
32	l9	1268-4	2500.000	0.000	100.0#	0	-6.52#
33	l9	1268-5	2500.000	0.000	100.0#	0	-6.71#
35	l7	1248-1	2500.000	0.000	100.0#	0	-3.86#
36	l7	1248-2	2500.000	0.000	100.0#	0	-4.05#
37	l7	1248-3	2500.000	0.000	100.0#	0	-4.39#
38	l7	1248-4	2500.000	0.000	100.0#	0	-4.41#
39	l7	1248-5	2500.000	0.000	100.0#	0	-4.57#
41	l5	1232-1	2500.000	0.000	100.0#	0	-2.99#
42	l5	1232-2	2500.000	0.000	100.0#	0	-3.25#
43	l5	1232-3	2500.000	0.000	100.0#	0	-3.61#
44	l5	1232-4	2500.000	0.000	100.0#	0	-4.05#
45	l5	1232-5	2500.000	0.000	100.0#	0	-4.39#
46	l8	1262-1	2500.000	0.000	100.0#	0	-5.21#
47	l8	1262-2	2500.000	0.000	100.0#	0	-5.50#
48	l8	1262-3	2500.000	0.000	100.0#	0	-5.89#
49	l8	1262-4	2500.000	0.000	100.0#	0	-6.11#
50	l8	1262-5	2500.000	0.000	100.0#	0	-6.51#

Signal #2

4	l1	1016-1	2500.000	0.000	100.0#	0	-3.37#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.70#
6	l1	1016-3	2500.000	0.000	100.0#	0	-4.09#
7	l1	1016-4	2500.000	0.000	100.0#	0	-4.20#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.59#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.55#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.69#
11	l2	1260-3	2500.000	0.000	100.0#	0	-6.22#
12	l2	1260-4	2500.000	0.000	100.0#	0	-6.38#
13	l2	1260-5	2500.000	0.000	100.0#	0	-6.64#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample   : cicv2154,42e,,6558
Misc   : wg756944,
ALS Vial : 33   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
24 l6	1242-1	2500.000	0.000	100.0#	0	-3.37#
25 l6	1242-2	2500.000	0.000	100.0#	0	-3.70#
26 l6	1242-3	2500.000	0.000	100.0#	0	-4.10#
27 l6	1242-4	2500.000	0.000	100.0#	0	-4.21#
28 l6	1242-5	2500.000	0.000	100.0#	0	-4.89#
29 l9	1268-1	2500.000	0.000	100.0#	0	-6.64#
30 l9	1268-2	2500.000	0.000	100.0#	0	-6.67#
31 l9	1268-3	2500.000	0.000	100.0#	0	-6.85#
32 l9	1268-4	2500.000	0.000	100.0#	0	-7.03#
33 l9	1268-5	2500.000	0.000	100.0#	0	-7.26#
35 l7	1248-1	2500.000	0.000	100.0#	0	-4.36#
36 l7	1248-2	2500.000	0.000	100.0#	0	-4.59#
37 l7	1248-3	2500.000	0.000	100.0#	0	-4.88#
38 l7	1248-4	2500.000	0.000	100.0#	0	-4.92#
39 l7	1248-5	2500.000	0.000	100.0#	0	-5.10#
41 l5	1232-1	2500.000	0.000	100.0#	0	-3.37#
42 l5	1232-2	2500.000	0.000	100.0#	0	-3.70#
43 l5	1232-3	2500.000	0.000	100.0#	0	-4.09#
44 l5	1232-4	2500.000	0.000	100.0#	0	-4.59#
45 l5	1232-5	2500.000	0.000	100.0#	0	-4.92#
46 l8	1262-1	2500.000	0.000	100.0#	0	-5.69#
47 l8	1262-2	2500.000	0.000	100.0#	0	-6.01#
48 l8	1262-3	2500.000	0.000	100.0#	0	-6.22#
49 l8	1262-4	2500.000	0.000	100.0#	0	-6.38#
50 l8	1262-5	2500.000	0.000	100.0#	0	-6.63#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample : cicv2154,42e,,6558
Misc : wg756944,
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.332	212.6E6	539.1E6	250.000	250.000
14) i	2154_1br2nb	2.235	2.332	212.6E6	539.1E6	250.000	250.000
23) i	4268_1br2nb	2.235	2.332	212.6E6	539.1E6	250.000	250.000
34) i	1248_1br2nb	2.235	2.332	212.6E6	539.1E6	250.000	250.000
40) i	3262_1br2nb	2.235	2.332	212.6E6	539.1E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.740	2.987	80223120	220.1E6	78.953	80.028
	Spiked Amount 500.000	Range 30 - 150		Recovery =		15.79%#	16.01%#
3) s	Decachlor...	6.828	7.420	111.0E6	200.3E6	184.058	183.837
	Spiked Amount 500.000	Range 30 - 150		Recovery =		36.81%	36.77%
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	2.853	3.202	28006775	75829095	2795.785	2488.198
16) l3	1221-2	2.959	3.315	16100867	46505047	2532.908M4	2497.228
17) l3	1221-3	2.989	3.365	60240171	163.0E6	2566.259M4	2625.485

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample : cicv2154,42e,,6558
Misc : wg756944,
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			104.3E6	285.3E6	7894.952	7610.910
Average	1221-1					2631.651	2536.970
18) l4	1254-1	4.353	4.917	88136574	235.6E6	2445.274	2533.452
19) l4	1254-2	4.555	5.055	151.8E6	266.0E6	2506.129	2442.949
20) l4	1254-3	4.868	5.409	152.0E6	381.2E6	2599.027	2552.933
21) l4	1254-4	5.077	5.570	115.7E6	272.7E6	2539.272	2590.514
22) l4	1254-5	5.419	5.953	149.2E6	340.1E6	2422.143	2441.795
Sum	1254-1			656.8E6	1495.5E6	12511.845	12561.643
Average	1254-1					2502.369	2512.329
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample : cicv2154,42e,,6558
Misc : wg756944,
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average 1248-1					0.000	0.000
41) l5 1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5 1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5 1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5 1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5 1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1232-1			0	0	N.D.	N.D.
Average 1232-1					0.000	0.000
46) l8 1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8 1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8 1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8 1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8 1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

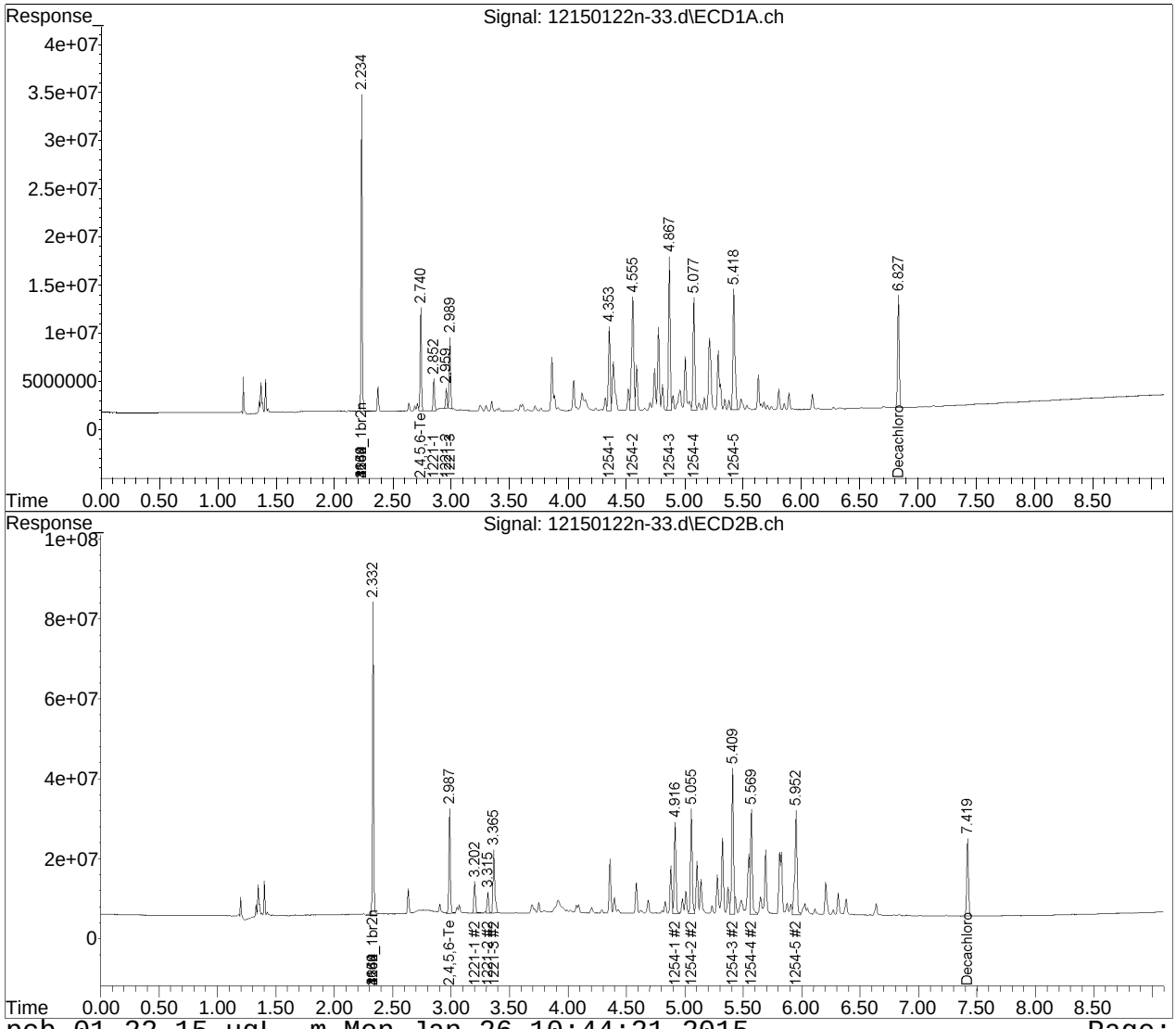
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:32 pm
Operator : pest12:jt
Sample : cicv2154,42e,,6558
Misc : wg756944,
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:40:17 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:39:10 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

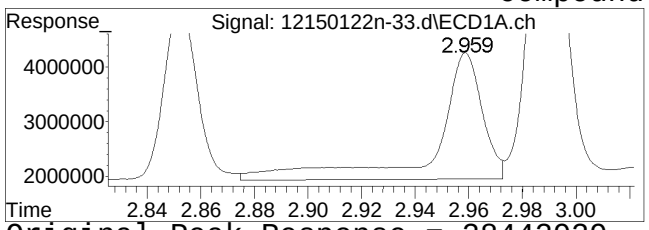


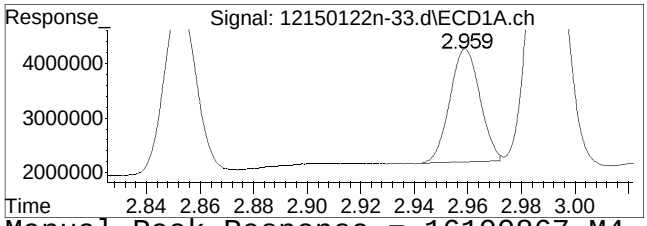
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-33.d
Date Inj'd : 1/22/2015 10:32 pm
Sample : cicv2154,42e,,6558

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:39 am

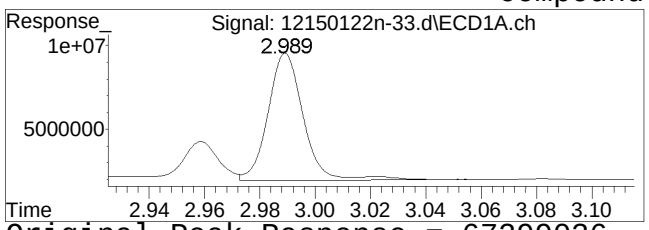
Compound #16: 1221-2

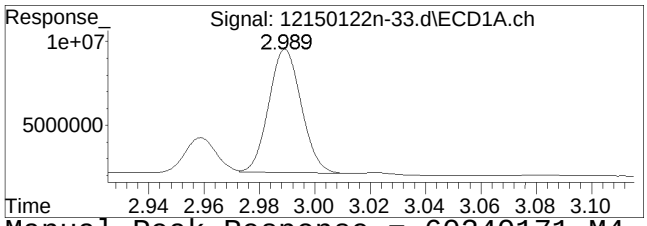




Original Peak Response = 28442929 Manual Peak Response = 16100867 M4
M4 = Poor automated baseline construction.

Compound #17: 1221-3





Original Peak Response = 67299036 Manual Peak Response = 60240171 M4
M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample   : cicv4268,42e,,6559
Misc   : wg756944,
ALS Vial : 34   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1660_1br2nb	250.000	250.000	0.0	91	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen	80.000	81.603	-2.0	93	0.00
3	s	Decachlorobiphenyl	160.000	414.250	-158.9#	237	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	88	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	93	0.00
24	l6	1242-1	2500.000	2610.148	-4.4	87	0.00
25	l6	1242-2	2500.000	2761.760	-10.5	103	0.00
26	l6	1242-3	2500.000	2767.071	-10.7	102	0.00
27	l6	1242-4	2500.000	2754.831	-10.2	102	0.00
28	l6	1242-5	2500.000	2751.994	-10.1	102	0.00
29	l9	1268-1	2500.000	2649.180	-6.0	96	0.00
30	l9	1268-2	2500.000	2392.144	4.3	86	0.00
31	l9	1268-3	2500.000	3028.908	-21.2#	109	0.00
32	l9	1268-4	2500.000	2691.545	-7.7	96	0.00
33	l9	1268-5	2500.000	3156.394	-26.3#	113	-0.01

Signal #2

1	i	1660_1br2nb	250.000	250.000	0.0	91	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	80.000	81.613	-2.0	92	0.00
3	s	Decachlorobiphenyl	160.000	415.110	-159.4#	231	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	87	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	93	0.00
24	l6	1242-1	2500.000	2730.181	-9.2	103	0.00
25	l6	1242-2	2500.000	2801.879	-12.1	102	0.00
26	l6	1242-3	2500.000	2865.947	-14.6	101	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample   : cicv4268,42e,,6559
Misc   : wg756944,
ALS Vial : 34   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
27	l6	1242-4	2500.000	2902.354	-16.1#	101	0.00
28	l6	1242-5	2500.000	2947.462	-17.9#	104	0.00
29	l9	1268-1	2500.000	2624.849	-5.0	96	0.00
30	l9	1268-2	2500.000	2353.560	5.9	86	-0.01
31	l9	1268-3	2500.000	2967.343	-18.7#	108	-0.01
32	l9	1268-4	2500.000	2608.279	-4.3	94	-0.01
33	l9	1268-5	2500.000	3102.405	-24.1#	113	-0.01
34	i	1248_1br2nb	250.000	250.000	0.0	92	0.00
40	i	3262_1br2nb	250.000	250.000	0.0	96	0.00

Evaluate Continuing Calibration Report - Not Founds

4	l1	1016-1	2500.000	0.000	100.0#	0	-2.99#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.25#
6	l1	1016-3	2500.000	0.000	100.0#	0	-3.61#
7	l1	1016-4	2500.000	0.000	100.0#	0	-3.72#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.05#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.00#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.21#
11	l2	1260-3	2500.000	0.000	100.0#	0	-5.68#
12	l2	1260-4	2500.000	0.000	100.0#	0	-5.89#
13	l2	1260-5	2500.000	0.000	100.0#	0	-6.09#
15	l3	1221-1	2500.000	0.000	100.0#	0	-2.85#
16	l3	1221-2	2500.000	0.000	100.0#	0	-2.96#
17	l3	1221-3	2500.000	0.000	100.0#	0	-2.99#
18	l4	1254-1	2500.000	0.000	100.0#	0	-4.36#
19	l4	1254-2	2500.000	0.000	100.0#	0	-4.56#
20	l4	1254-3	2500.000	0.000	100.0#	0	-4.87#
21	l4	1254-4	2500.000	0.000	100.0#	0	-5.08#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample   : cicv4268,42e,,6559
Misc   : wg756944,
ALS Vial : 34   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
22	l4	1254-5	2500.000	0.000	100.0#	0	-5.42#
34	i	1248_1br2nb	250.000	0.000	100.0#	0	-2.24#
35	l7	1248-1	2500.000	0.000	100.0#	0	-3.86#
36	l7	1248-2	2500.000	0.000	100.0#	0	-4.05#
37	l7	1248-3	2500.000	0.000	100.0#	0	-4.39#
38	l7	1248-4	2500.000	0.000	100.0#	0	-4.41#
39	l7	1248-5	2500.000	0.000	100.0#	0	-4.57#
40	i	3262_1br2nb	250.000	0.000	100.0#	0	-2.24#
41	l5	1232-1	2500.000	0.000	100.0#	0	-2.99#
42	l5	1232-2	2500.000	0.000	100.0#	0	-3.25#
43	l5	1232-3	2500.000	0.000	100.0#	0	-3.61#
44	l5	1232-4	2500.000	0.000	100.0#	0	-4.05#
45	l5	1232-5	2500.000	0.000	100.0#	0	-4.39#
46	l8	1262-1	2500.000	0.000	100.0#	0	-5.21#
47	l8	1262-2	2500.000	0.000	100.0#	0	-5.50#
48	l8	1262-3	2500.000	0.000	100.0#	0	-5.89#
49	l8	1262-4	2500.000	0.000	100.0#	0	-6.11#
50	l8	1262-5	2500.000	0.000	100.0#	0	-6.51#

Signal #2

4	l1	1016-1	2500.000	0.000	100.0#	0	-3.37#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.70#
6	l1	1016-3	2500.000	0.000	100.0#	0	-4.09#
7	l1	1016-4	2500.000	0.000	100.0#	0	-4.20#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.59#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.55#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.69#
11	l2	1260-3	2500.000	0.000	100.0#	0	-6.22#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample   : cicv4268,42e,,6559
Misc   : wg756944,
ALS Vial : 34   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
12 l2	1260-4	2500.000	0.000	100.0#	0	-6.38#
13 l2	1260-5	2500.000	0.000	100.0#	0	-6.64#
15 l3	1221-1	2500.000	0.000	100.0#	0	-3.20#
16 l3	1221-2	2500.000	0.000	100.0#	0	-3.32#
17 l3	1221-3	2500.000	0.000	100.0#	0	-3.37#
18 l4	1254-1	2500.000	0.000	100.0#	0	-4.92#
19 l4	1254-2	2500.000	0.000	100.0#	0	-5.06#
20 l4	1254-3	2500.000	0.000	100.0#	0	-5.41#
21 l4	1254-4	2500.000	0.000	100.0#	0	-5.57#
22 l4	1254-5	2500.000	0.000	100.0#	0	-5.96#
35 l7	1248-1	2500.000	0.000	100.0#	0	-4.36#
36 l7	1248-2	2500.000	0.000	100.0#	0	-4.59#
37 l7	1248-3	2500.000	0.000	100.0#	0	-4.88#
38 l7	1248-4	2500.000	0.000	100.0#	0	-4.92#
39 l7	1248-5	2500.000	0.000	100.0#	0	-5.10#
41 l5	1232-1	2500.000	0.000	100.0#	0	-3.37#
42 l5	1232-2	2500.000	0.000	100.0#	0	-3.70#
43 l5	1232-3	2500.000	0.000	100.0#	0	-4.09#
44 l5	1232-4	2500.000	0.000	100.0#	0	-4.59#
45 l5	1232-5	2500.000	0.000	100.0#	0	-4.92#
46 l8	1262-1	2500.000	0.000	100.0#	0	-5.69#
47 l8	1262-2	2500.000	0.000	100.0#	0	-6.01#
48 l8	1262-3	2500.000	0.000	100.0#	0	-6.22#
49 l8	1262-4	2500.000	0.000	100.0#	0	-6.38#
50 l8	1262-5	2500.000	0.000	100.0#	0	-6.63#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample : cicv4268,42e,,6559
Misc : wg756944,
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	205.5E6	508.1E6	250.000	250.000
14) i	2154_1br2nb	2.235	2.333	205.5E6	508.1E6	250.000	250.000
23) i	4268_1br2nb	2.235	2.333	205.5E6	508.1E6	250.000	250.000
34) i	1248_1br2nb	0.000	2.333f	0	508.1E6	N.D.	250.000 #
40) i	3262_1br2nb	0.000	2.333f	0	508.1E6	N.D.	250.000 #
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.740	2.987	80140226	211.6E6	81.603M3	81.613M4
	Spiked Amount 500.000	Range 30 - 150		Recovery =		16.32%#	16.32%#
3) s	Decachlor...	6.830	7.426	241.4E6	426.2E6	414.250M4	415.110M4
	Spiked Amount 500.000	Range 30 - 150		Recovery =		82.85%	83.02%
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample : cicv4268,42e,,6559
Misc : wg756944,
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
16)	l3 1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17)	l3 1221-3	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18)	l4 1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19)	l4 1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20)	l4 1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21)	l4 1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22)	l4 1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24)	l6 1242-1	2.989	3.365	35809916	94638635	2610.148M4	2730.181
25)	l6 1242-2	3.248	3.698	80724624	218.5E6	2761.760	2801.879
26)	l6 1242-3	3.611	4.091	88919053	259.1E6	2767.071M4	2865.947
27)	l6 1242-4	3.717	4.204	65307220	171.8E6	2754.831	2902.354
28)	l6 1242-5	4.387	4.881	53198560	139.2E6	2751.994	2947.462
Sum	1242-1			324.0E6	883.2E6	13645.803	14247.822
Average	1242-1					2729.161	2849.564
29)	l9 1268-1	6.112	6.629	323.9E6	599.7E6	2649.180	2624.849
30)	l9 1268-2	6.140	6.662	280.0E6	547.3E6	2392.144	2353.560
31)	l9 1268-3	6.273	6.837	235.5E6	441.4E6	3028.908	2967.343
32)	l9 1268-4	6.511	7.018	99855538	191.1E6	2691.545	2608.279
33)	l9 1268-5	6.702	7.243	696.1E6	1216.1E6	3156.394M4	3102.405
Sum	1268-1			1635.2E6	2995.7E6	13918.170	13656.436
Average	1268-1					2783.634	2731.287
35)	l7 1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36)	l7 1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37)	l7 1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38)	l7 1248-4	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample : cicv4268,42e,,6559
Misc : wg756944,
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1248-1			0	0	N.D.	N.D.
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

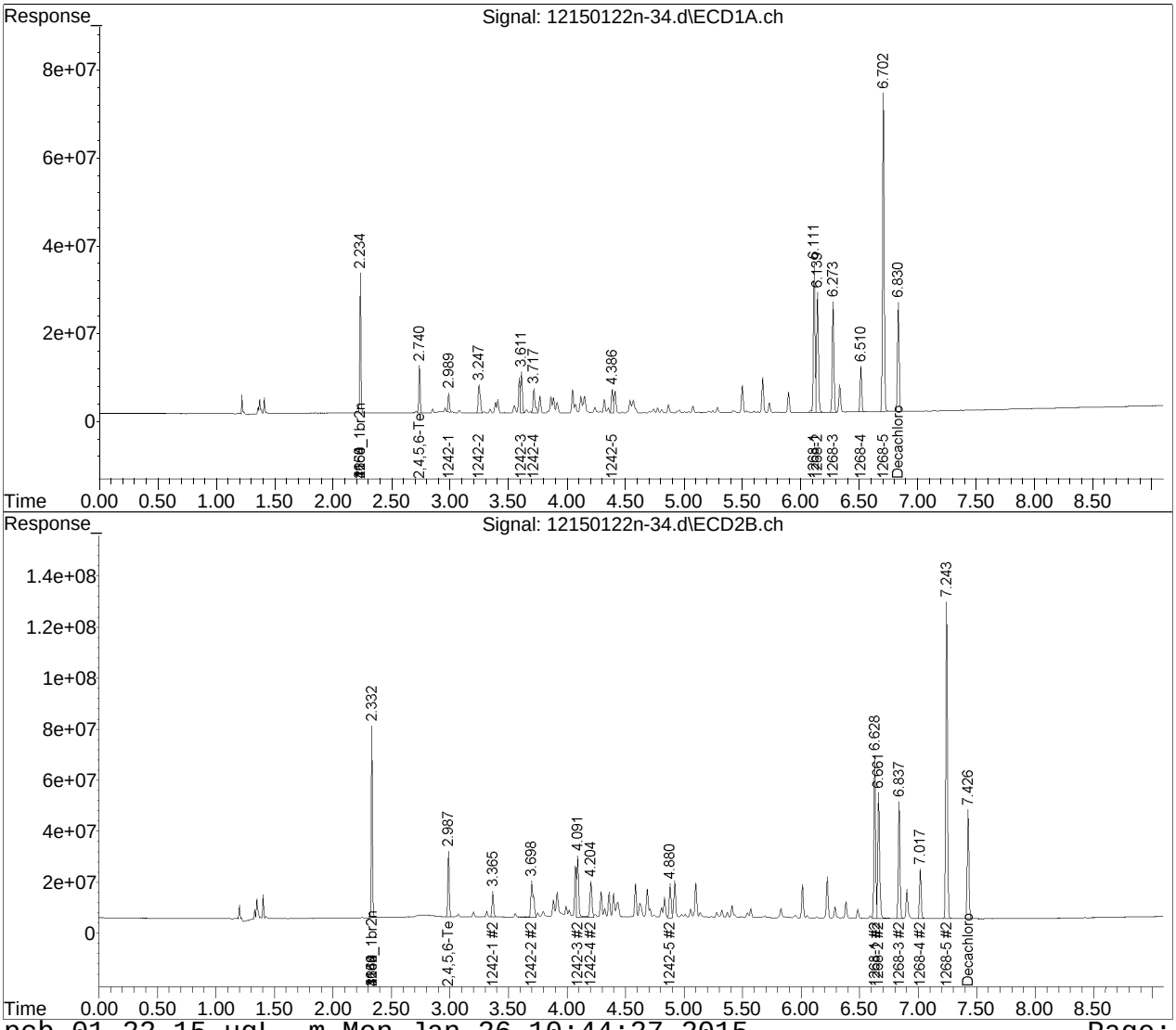
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:44 pm
Operator : pest12:jt
Sample : cicv4268,42e,,6559
Misc : wg756944,
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:55:56 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:54:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

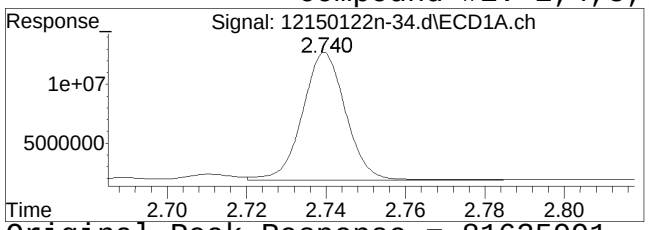


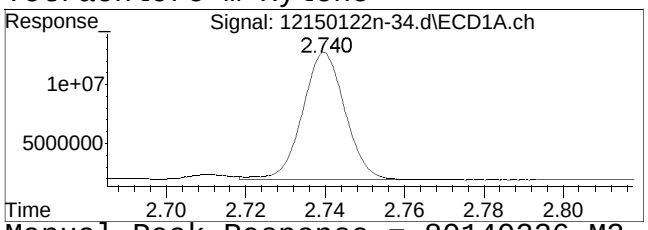
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Date Inj'd : 1/22/2015 10:44 pm
Sample : cicv4268,42e,,6559

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:54 am

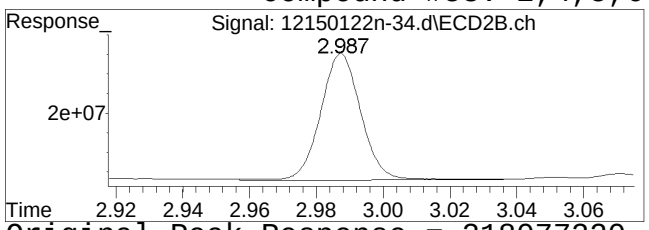
Compound #2: 2,4,5,6-Tetrachloro-m-xylene

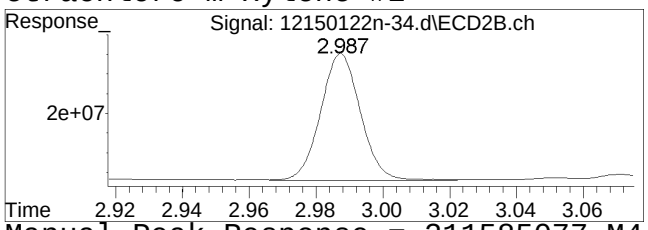




Original Peak Response = 81635991 Manual Peak Response = 80140226 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

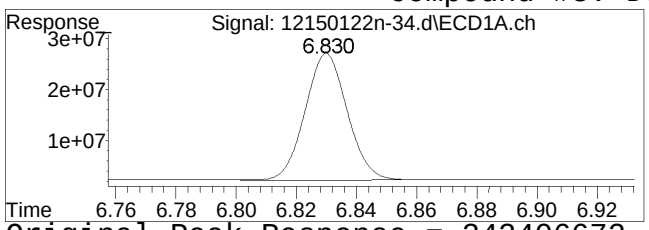
Compound #53: 2,4,5,6-Tetrachloro-m-xylene #2

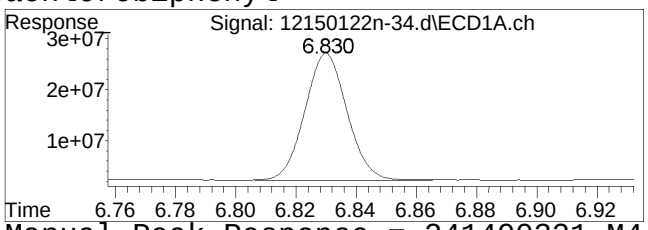




Original Peak Response = 218077220 Manual Peak Response = 211585077 M4
M4 = Poor automated baseline construction.

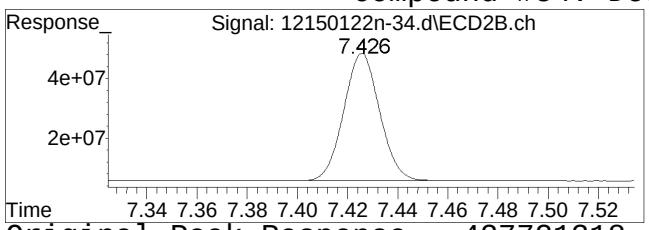
Compound #3: Decachlorobiphenyl

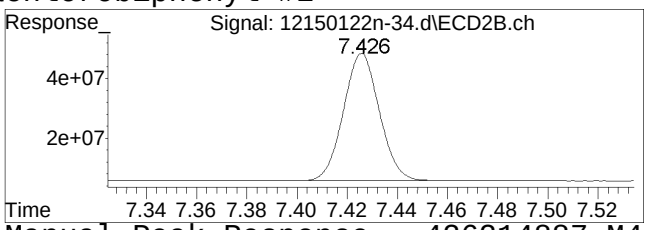




Original Peak Response = 242406672 Manual Peak Response = 241400321 M4
M4 = Poor automated baseline construction.

Compound #54: Decachlorobiphenyl #2





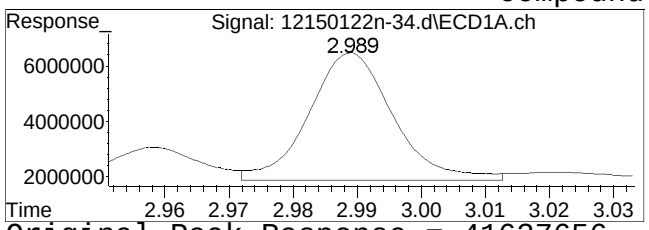
Original Peak Response = 427721318 Manual Peak Response = 426214887 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

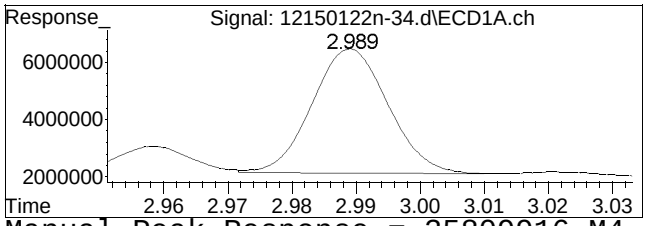
Data Path : I:\Pest12\150122nical\
Data File : 12150122n-34.d
Date Inj'd : 1/22/2015 10:44 pm
Sample : cicv4268,42e,,6559

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:54 am

Compound #24: 1242-1



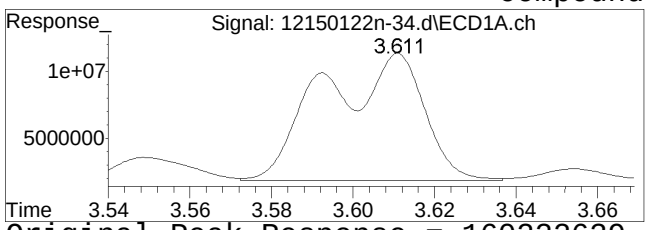
Original Peak Response = 41637656



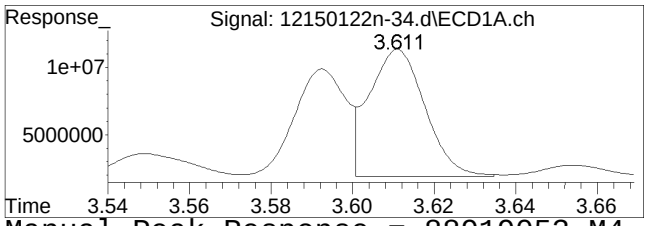
Manual Peak Response = 35809916 M4

M4 = Poor automated baseline construction.

Compound #26: 1242-3



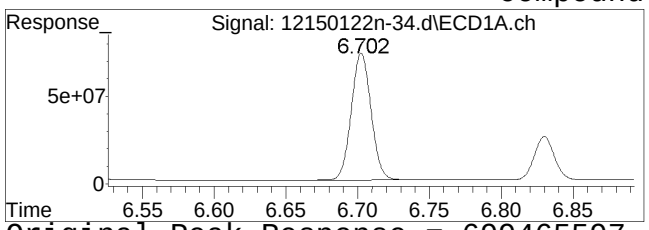
Original Peak Response = 160222639



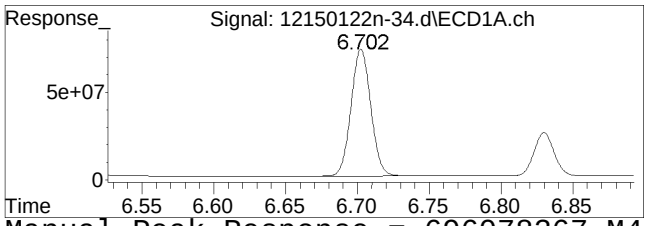
Manual Peak Response = 88919053 M4

M4 = Poor automated baseline construction.

Compound #33: 1268-5



Original Peak Response = 699465597



Manual Peak Response = 696078367 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample   : cicv1660,42e,,6555
Misc   : wg756944,
ALS Vial : 35   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

			Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1660_1br2nb		250.000	250.000	0.0	94	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen		80.000	77.976	2.5	91	0.00
3	s	Decachlorobiphenyl		160.000	180.317	-12.7	106	0.00
4	l1	1016-1		2500.000	2966.990	-18.7#	105	0.00
5	l1	1016-2		2500.000	2615.086	-4.6	99	0.00
6	l1	1016-3		2500.000	2582.120	-3.3	97	0.00
7	l1	1016-4		2500.000	2638.284	-5.5	100	0.00
8	l1	1016-5		2500.000	2604.647	-4.2	98	0.00
9	l2	1260-1		2500.000	2510.833	-0.4	96	0.00
10	l2	1260-2		2500.000	2589.096	-3.6	99	0.00
11	l2	1260-3		2500.000	2257.626	9.7	84	0.00
12	l2	1260-4		2500.000	2391.807	4.3	88	0.00
13	l2	1260-5		2500.000	2329.099	6.8	87	0.00
14	i	2154_1br2nb		250.000	250.000	0.0	91	0.00
15	l3	1221-1		2500.000	0.000	100.0#	39	0.00
16	l3	1221-2		2500.000	0.000	100.0#	130	0.00
17	l3	1221-3		2500.000	0.000	100.0#	84	0.00
18	l4	1254-1		2500.000	0.000	100.0#	47	0.00
19	l4	1254-2		2500.000	0.000	100.0#	35	0.00
20	l4	1254-3		2500.000	0.000	100.0#	17	0.00
21	l4	1254-4		2500.000	0.000	100.0#	13	0.00
22	l4	1254-5		2500.000	0.000	100.0#	125	0.00
23	i	4268_1br2nb		250.000	250.000	0.0	96	0.00
24	l6	1242-1		2500.000	0.000	100.0#	129	0.00
25	l6	1242-2		2500.000	0.000	100.0#	129	0.00
26	l6	1242-3		2500.000	0.000	100.0#	233	0.00
27	l6	1242-4		2500.000	0.000	100.0#	129	0.00
28	l6	1242-5		2500.000	0.000	100.0#	21	0.00
29	l9	1268-1		2500.000	0.000	100.0#	46	-0.03

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample   : cicv1660,42e,,6555
Misc   : wg756944,
ALS Vial : 35   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
30	l9	1268-2	2500.000	0.000	100.0#	16	0.00
31	l9	1268-3	2500.000	0.000	100.0#	2	0.00
32	l9	1268-4	2500.000	0.000	100.0#	45	-0.01
33	l9	1268-5	2500.000	0.000	100.0#	2	-0.01
35	l7	1248-1	2500.000	0.000	100.0#	18	-0.21
36	l7	1248-2	2500.000	0.000	100.0#	49	-0.19
37	l7	1248-3	2500.000	0.000	100.0#	58	-0.24
38	l7	1248-4	2500.000	0.000	100.0#	17	-0.17
39	l7	1248-5	2500.000	0.000	100.0#	28	-0.21
41	l5	1232-1	2500.000	0.000	100.0#	22	-0.14
42	l5	1232-2	2500.000	0.000	100.0#	26	-0.17
43	l5	1232-3	2500.000	0.000	100.0#	71	-0.20
44	l5	1232-4	2500.000	0.000	100.0#	133	-0.19
45	l5	1232-5	2500.000	0.000	100.0#	46	-0.15
46	l8	1262-1	2500.000	0.000	100.0#	25	-0.26
47	l8	1262-2	2500.000	0.000	100.0#	19	-0.25
48	l8	1262-3	2500.000	0.000	100.0#	72	-0.47
49	l8	1262-4	2500.000	0.000	100.0#	12	-0.48
50	l8	1262-5	2500.000	0.000	100.0#	19	-0.66#

Signal #2

1	i	1660_1br2nb	250.000	250.000	0.0	94	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	80.000	79.233	1.0	93	0.00
3	s	Decachlorobiphenyl	160.000	181.549	-13.5	105	0.00
4	l1	1016-1	2500.000	2535.411	-1.4	95	0.00
5	l1	1016-2	2500.000	2733.503	-9.3	103	0.00
6	l1	1016-3	2500.000	2836.881	-13.5	103	0.00
7	l1	1016-4	2500.000	2785.259	-11.4	101	0.00
8	l1	1016-5	2500.000	2756.059	-10.2	99	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample   : cicv1660,42e,,6555
Misc   : wg756944,
ALS Vial : 35   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
9	l2	1260-1	2500.000	2618.674	-4.7	102	0.00
10	l2	1260-2	2500.000	2591.364	-3.7	100	0.00
11	l2	1260-3	2500.000	2279.532	8.8	87	0.00
12	l2	1260-4	2500.000	2213.769	11.4	83	0.00
13	l2	1260-5	2500.000	2323.582	7.1	87	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	90	0.00
15	l3	1221-1	2500.000	0.000	100.0#	32	0.00
16	l3	1221-2	2500.000	0.000	100.0#	50	0.00
17	l3	1221-3	2500.000	0.000	100.0#	65	0.00
18	l4	1254-1	2500.000	0.000	100.0#	53	0.00
19	l4	1254-2	2500.000	0.000	100.0#	45	0.00
20	l4	1254-3	2500.000	0.000	100.0#	17	0.00
21	l4	1254-4	2500.000	0.000	100.0#	108	-0.02
22	l4	1254-5	2500.000	0.000	100.0#	124	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	97	0.00
24	l6	1242-1	2500.000	0.000	100.0#	124	0.00
25	l6	1242-2	2500.000	0.000	100.0#	86	0.00
26	l6	1242-3	2500.000	0.000	100.0#	128	0.00
27	l6	1242-4	2500.000	0.000	100.0#	127	0.00
28	l6	1242-5	2500.000	0.000	100.0#	25	0.00
29	l9	1268-1	2500.000	0.000	100.0#	50	0.00
30	l9	1268-2	2500.000	0.000	100.0#	17	-0.01
31	l9	1268-3	2500.000	0.000	100.0#	3	-0.01
32	l9	1268-4	2500.000	0.000	100.0#	50	-0.01
33	l9	1268-5	2500.000	0.000	100.0#	3	-0.02
34	i	1248_1br2nb	250.000	250.000	0.0	0	-0.05
35	l7	1248-1	2500.000	0.000	100.0#	83	-0.07
37	l7	1248-3	2500.000	0.000	100.0#	10	-0.05

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample   : cicv1660,42e,,6555
Misc   : wg756944,
ALS Vial : 35   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
38	l7	1248-4	2500.000	0.000	100.0#	14	-0.04
39	l7	1248-5	2500.000	0.000	100.0#	55	-0.05
40	i	3262_1br2nb	250.000	250.000	0.0	0	-0.05
41	l5	1232-1	2500.000	0.000	100.0#	19	-0.05
43	l5	1232-3	2500.000	0.000	100.0#	27	-0.07
45	l5	1232-5	2500.000	0.000	100.0#	31	-0.04
46	l8	1262-1	2500.000	0.000	100.0#	29	-0.05
47	l8	1262-2	2500.000	0.000	100.0#	138	-0.06
48	l8	1262-3	2500.000	0.000	100.0#	16	-0.09
49	l8	1262-4	2500.000	0.000	100.0#	9	-0.05
50	l8	1262-5	2500.000	0.000	100.0#	3	-0.04

Evaluate Continuing Calibration Report - Not Founds

34	i	1248_1br2nb	250.000	0.000	100.0#	0	-2.24#
40	i	3262_1br2nb	250.000	0.000	100.0#	0	-2.24#

Signal #2

36	l7	1248-2	2500.000	0.000	100.0#	0	-4.59#
42	l5	1232-2	2500.000	0.000	100.0#	0	-3.70#
44	l5	1232-4	2500.000	0.000	100.0#	0	-4.59#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample : cicv1660,42e,,6555
Misc : wg756944,
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	211.8E6	526.8E6	250.000	250.000
14) i	2154_1br2nb	2.235	2.333	211.8E6	526.8E6	250.000	250.000
23) i	4268_1br2nb	2.235	2.333	211.8E6	526.8E6	250.000	250.000
34) i	1248_1br2nb	0.000	2.280	0	1533234	N.D.	250.000 #
40) i	3262_1br2nb	0.000	2.280	0	1533234	N.D.	250.000 #
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.740	2.988	78922798	213.0E6	77.976	79.233
	Spiked Amount 500.000	Range 30 - 150		Recovery =		15.60%#	15.85%#
3) s	Decachlor...	6.829	7.423	108.3E6	193.3E6	180.317	181.549
	Spiked Amount 500.000	Range 30 - 150		Recovery =		36.06%	36.31%
	Target Compounds						
4) l1	1016-1	2.990	3.365	53142726	113.2E6	2966.990	2535.411
5) l1	1016-2	3.249	3.697	100.7E6	276.3E6	2615.086	2733.503M4
6) l1	1016-3	3.611	4.091	111.9E6	328.7E6	2582.120M4	2836.881
7) l1	1016-4	3.718	4.204	82716335	215.9E6	2638.284	2785.259
8) l1	1016-5	4.049	4.585	89535931	165.3E6	2604.647	2756.059
	Sum 1016-1			438.0E6	1099.3E6	13407.127	13647.112
Average	1016-1					2681.425	2729.422
9) l2	1260-1	5.004	5.550	122.6E6	300.9E6	2510.833	2618.674
10) l2	1260-2	5.209	5.692	194.0E6	338.1E6	2589.096	2591.364
11) l2	1260-3	5.677	6.221	99903244	235.9E6	2257.626	2279.532
12) l2	1260-4	5.892	6.383	229.4E6	451.4E6	2391.807	2213.769
13) l2	1260-5	6.091	6.638	156.6E6	312.5E6	2329.099	2323.582
	Sum 1260-1			802.5E6	1638.9E6	12078.462	12026.921
Average	1260-1					2415.692	2405.384
15) l3	1221-1	2.853	3.201	10552547	24625366	NoCal	NoCal
16) l3	1221-2	2.959	3.315	22823670	23848274	NoCal	NoCal
17) l3	1221-3	2.990	3.365	53142726	113.2E6	NoCal	NoCal

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample : cicv1660,42e,,6555
Misc : wg756944,
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	4.353	4.917	43190778	128.6E6	NoCal	NoCal
19) l4	1254-2	4.555	5.056	55318620	124.5E6	NoCal	NoCal
20) l4	1254-3	4.867	5.410	26897708	66892784	NoCal	NoCal
21) l4	1254-4	5.079	5.550f	16442744	300.9E6	NoCal	NoCal
22) l4	1254-5	5.418	5.952	205.9E6	451.1E6	NoCal	NoCal
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	2.990	3.365	53142726	113.2E6	NoCal	NoCal
25) l6	1242-2	3.249	3.698	100.7E6	183.8E6	NoCal	NoCal
26) l6	1242-3	3.611	4.091	203.5E6	328.7E6	NoCal	NoCal
27) l6	1242-4	3.718	4.204	82716335	215.9E6	NoCal	NoCal
28) l6	1242-5	4.387	4.881	11137313	33342496	NoCal	NoCal
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	6.091f	6.638	156.6E6	312.5E6	NoCal	NoCal
30) l9	1268-2	6.143	6.661	51057034	109.7E6	NoCal	NoCal
31) l9	1268-3	6.272	6.836	4812843	11742103	NoCal	NoCal
32) l9	1268-4	6.510	7.016	46916896	101.2E6	NoCal	NoCal
33) l9	1268-5	6.701	7.240f	14437227	29097676	NoCal	NoCal
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.655	4.291f	11416972	135.3E6	NoCal	NoCal
36) l7	1248-2	3.863	0.000	53353046	0	NoCal	N.D.
37) l7	1248-3	4.150	4.833f	53572110	22750213	NoCal	NoCal
38) l7	1248-4	4.238f	4.881f	13026645	33342496	NoCal	NoCal
39) l7	1248-5	4.353	5.056f	43190778	124.5E6	NoCal	NoCal
Sum	1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample : cicv1660,42e,,6555
Misc : wg756944,
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.853	3.315f	10552547	23848274	NoCal	NoCal
42) l5	1232-2	3.082	0.000	12413792	0	NoCal	N.D.
43) l5	1232-3	3.409	4.019f	35760235	41152425	NoCal	NoCal
44) l5	1232-4	3.863	0.000	53353046	0	NoCal	N.D.
45) l5	1232-5	4.238f	4.881f	13026645	33342496	NoCal	NoCal
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	4.946	5.648f	34401543	69862173	NoCal	NoCal
47) l8	1262-2	5.245	5.952f	30370720	451.1E6	NoCal	NoCal
48) l8	1262-3	5.418	6.134f	205.9E6	45709691	NoCal	NoCal
49) l8	1262-4	5.629	6.331f	12886257	51611607	NoCal	NoCal
50) l8	1262-5	5.849	6.590f	16911397	9325478	NoCal	NoCal
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000
SemiQuant Compounds - Not Calibrated on this Instrument							
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

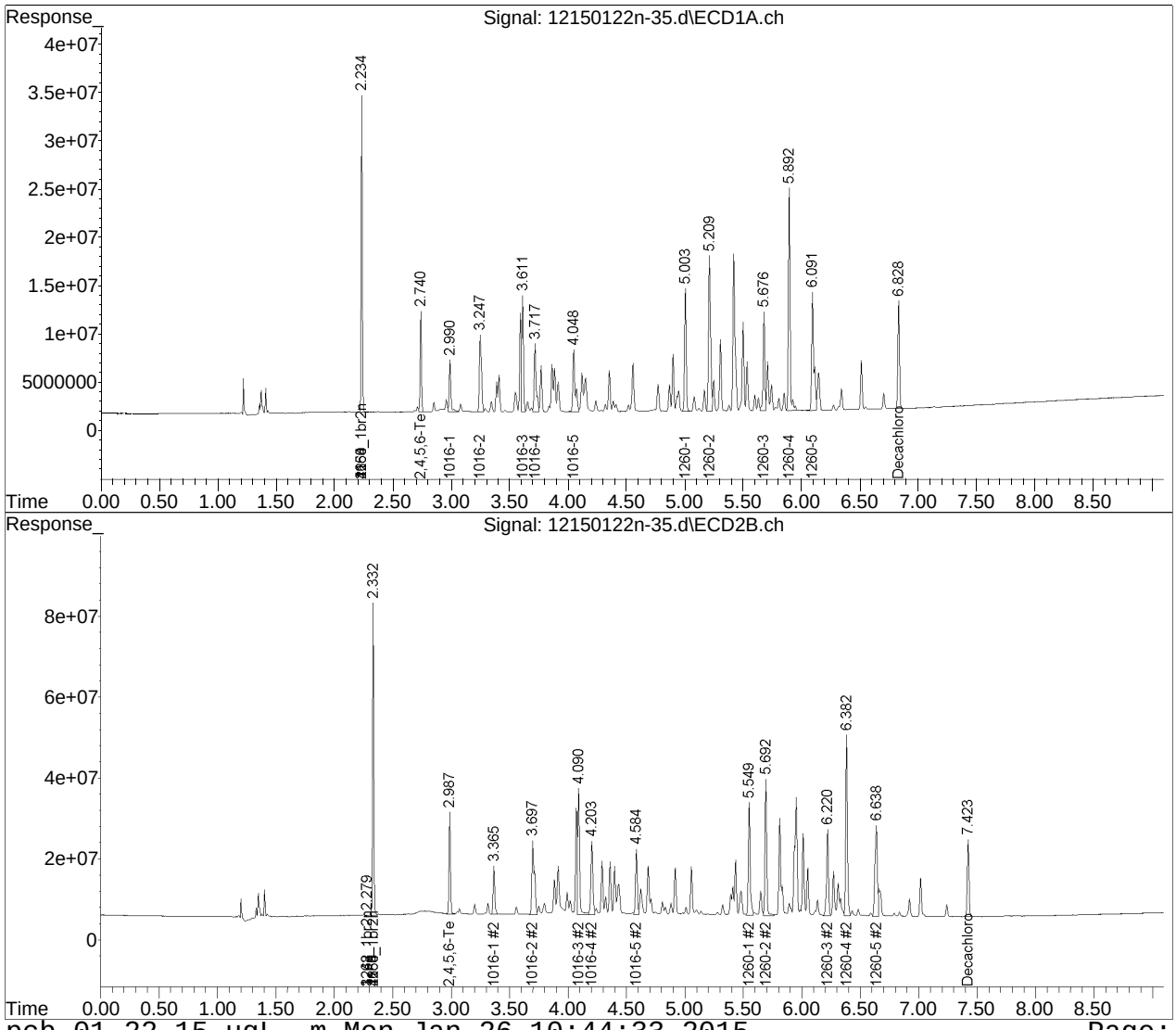
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 10:57 pm
Operator : pest12:jt
Sample : cicv1660,42e,,6555
Misc : wg756944,
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 09:46:45 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 09:45:53 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

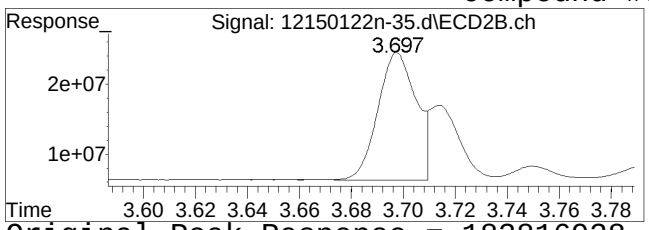


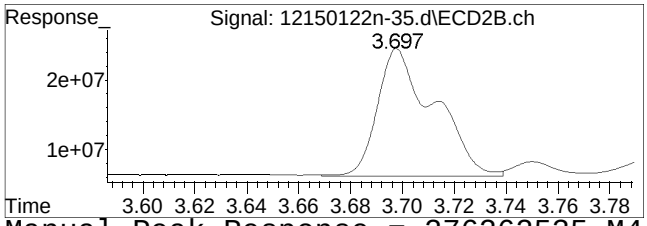
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-35.d
Date Inj'd : 1/22/2015 10:57 pm
Sample : cicv1660,42e,,6555

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 9:46 am

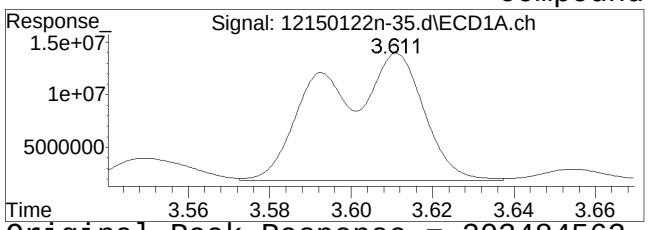
Compound #56: 1016-2 #2

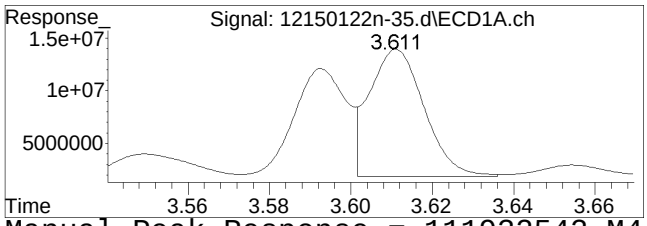




Original Peak Response = 183816938 Manual Peak Response = 276262535 M4
M4 = Poor automated baseline construction.

Compound #6: 1016-3





Original Peak Response = 203484563 Manual Peak Response = 111932542 M4
M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample : cicv1248,42e,,6560
Misc : wg756944,
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1660_1br2nb	250.000	250.000	0.0	96	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen	80.000	76.813	4.0	93	0.00
3	s	Decachlorobiphenyl	160.000	175.598	-9.7	106	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	93	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	99	0.00
34	i	1248_1br2nb	250.000	250.000	0.0	98	0.00
35	l7	1248-1	2500.000	2520.840	-0.8	105	0.00
36	l7	1248-2	2500.000	2503.940	-0.2	101	0.00
37	l7	1248-3	2500.000	2561.125	-2.4	107	0.00
38	l7	1248-4	2500.000	2654.864	-6.2	109	0.00
39	l7	1248-5	2500.000	2523.658	-0.9	102	0.00
40	i	3262_1br2nb	250.000	250.000	0.0	104	0.00

Signal #2

1	i	1660_1br2nb	250.000	250.000	0.0	99	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	80.000	73.769	7.8	91	0.00
3	s	Decachlorobiphenyl	160.000	170.463	-6.5	104	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	95	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	102	0.00
34	i	1248_1br2nb	250.000	250.000	0.0	101	0.00
35	l7	1248-1	2500.000	2475.587	1.0	106	0.00
36	l7	1248-2	2500.000	2538.872	-1.6	107	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample   : cicv1248,42e,,6560
Misc   : wg756944,
ALS Vial : 36   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
37	l7	1248-3	2500.000	2616.274	-4.7	107	0.00
38	l7	1248-4	2500.000	2630.589	-5.2	110	0.00
39	l7	1248-5	2500.000	2605.160	-4.2	110	0.00
40	i	3262_1br2nb	250.000	250.000	0.0	105	0.00

Evaluate Continuing Calibration Report - Not Founds

4	l1	1016-1	2500.000	0.000	100.0#	0	-2.99#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.25#
6	l1	1016-3	2500.000	0.000	100.0#	0	-3.61#
7	l1	1016-4	2500.000	0.000	100.0#	0	-3.72#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.05#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.00#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.21#
11	l2	1260-3	2500.000	0.000	100.0#	0	-5.68#
12	l2	1260-4	2500.000	0.000	100.0#	0	-5.89#
13	l2	1260-5	2500.000	0.000	100.0#	0	-6.09#
15	l3	1221-1	2500.000	0.000	100.0#	0	-2.85#
16	l3	1221-2	2500.000	0.000	100.0#	0	-2.96#
17	l3	1221-3	2500.000	0.000	100.0#	0	-2.99#
18	l4	1254-1	2500.000	0.000	100.0#	0	-4.36#
19	l4	1254-2	2500.000	0.000	100.0#	0	-4.56#
20	l4	1254-3	2500.000	0.000	100.0#	0	-4.87#
21	l4	1254-4	2500.000	0.000	100.0#	0	-5.08#
22	l4	1254-5	2500.000	0.000	100.0#	0	-5.42#
24	l6	1242-1	2500.000	0.000	100.0#	0	-2.99#
25	l6	1242-2	2500.000	0.000	100.0#	0	-3.25#
26	l6	1242-3	2500.000	0.000	100.0#	0	-3.62#
27	l6	1242-4	2500.000	0.000	100.0#	0	-3.72#
28	l6	1242-5	2500.000	0.000	100.0#	0	-4.39#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample   : cicv1248,42e,,6560
Misc   : wg756944,
ALS Vial : 36   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
29	l9	1268-1	2500.000	0.000	100.0#	0	-6.12#
30	l9	1268-2	2500.000	0.000	100.0#	0	-6.15#
31	l9	1268-3	2500.000	0.000	100.0#	0	-6.28#
32	l9	1268-4	2500.000	0.000	100.0#	0	-6.52#
33	l9	1268-5	2500.000	0.000	100.0#	0	-6.71#
41	l5	1232-1	2500.000	0.000	100.0#	0	-2.99#
42	l5	1232-2	2500.000	0.000	100.0#	0	-3.25#
43	l5	1232-3	2500.000	0.000	100.0#	0	-3.61#
44	l5	1232-4	2500.000	0.000	100.0#	0	-4.05#
45	l5	1232-5	2500.000	0.000	100.0#	0	-4.39#
46	l8	1262-1	2500.000	0.000	100.0#	0	-5.21#
47	l8	1262-2	2500.000	0.000	100.0#	0	-5.50#
48	l8	1262-3	2500.000	0.000	100.0#	0	-5.89#
49	l8	1262-4	2500.000	0.000	100.0#	0	-6.11#
50	l8	1262-5	2500.000	0.000	100.0#	0	-6.51#

Signal #2

4	l1	1016-1	2500.000	0.000	100.0#	0	-3.37#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.70#
6	l1	1016-3	2500.000	0.000	100.0#	0	-4.09#
7	l1	1016-4	2500.000	0.000	100.0#	0	-4.20#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.59#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.55#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.69#
11	l2	1260-3	2500.000	0.000	100.0#	0	-6.22#
12	l2	1260-4	2500.000	0.000	100.0#	0	-6.38#
13	l2	1260-5	2500.000	0.000	100.0#	0	-6.64#
15	l3	1221-1	2500.000	0.000	100.0#	0	-3.20#
16	l3	1221-2	2500.000	0.000	100.0#	0	-3.32#
17	l3	1221-3	2500.000	0.000	100.0#	0	-3.37#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample   : cicv1248,42e,,6560
Misc   : wg756944,
ALS Vial : 36   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
18 l4	1254-1	2500.000	0.000	100.0#	0	-4.92#
19 l4	1254-2	2500.000	0.000	100.0#	0	-5.06#
20 l4	1254-3	2500.000	0.000	100.0#	0	-5.41#
21 l4	1254-4	2500.000	0.000	100.0#	0	-5.57#
22 l4	1254-5	2500.000	0.000	100.0#	0	-5.96#
24 l6	1242-1	2500.000	0.000	100.0#	0	-3.37#
25 l6	1242-2	2500.000	0.000	100.0#	0	-3.70#
26 l6	1242-3	2500.000	0.000	100.0#	0	-4.10#
27 l6	1242-4	2500.000	0.000	100.0#	0	-4.21#
28 l6	1242-5	2500.000	0.000	100.0#	0	-4.89#
29 l9	1268-1	2500.000	0.000	100.0#	0	-6.64#
30 l9	1268-2	2500.000	0.000	100.0#	0	-6.67#
31 l9	1268-3	2500.000	0.000	100.0#	0	-6.85#
32 l9	1268-4	2500.000	0.000	100.0#	0	-7.03#
33 l9	1268-5	2500.000	0.000	100.0#	0	-7.26#
41 l5	1232-1	2500.000	0.000	100.0#	0	-3.37#
42 l5	1232-2	2500.000	0.000	100.0#	0	-3.70#
43 l5	1232-3	2500.000	0.000	100.0#	0	-4.09#
44 l5	1232-4	2500.000	0.000	100.0#	0	-4.59#
45 l5	1232-5	2500.000	0.000	100.0#	0	-4.92#
46 l8	1262-1	2500.000	0.000	100.0#	0	-5.69#
47 l8	1262-2	2500.000	0.000	100.0#	0	-6.01#
48 l8	1262-3	2500.000	0.000	100.0#	0	-6.22#
49 l8	1262-4	2500.000	0.000	100.0#	0	-6.38#
50 l8	1262-5	2500.000	0.000	100.0#	0	-6.63#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample : cicv1248,42e,,6560
Misc : wg756944,
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	217.6E6	555.3E6	250.000	250.000
14) i	2154_1br2nb	2.235	2.333	217.6E6	555.3E6	250.000	250.000
23) i	4268_1br2nb	2.235	2.333	217.6E6	555.3E6	250.000	250.000
34) i	1248_1br2nb	2.235	2.333	217.6E6	555.3E6	250.000	250.000
40) i	3262_1br2nb	2.235	2.333	217.6E6	555.3E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.741	2.988	79875786	209.0E6	76.813	73.769
	Spiked Amount 500.000	Range 30 - 150		Recovery =		15.36%#	14.75%#
3) s	Decachlor...	6.829	7.424	108.4E6	191.3E6	175.598	170.463
	Spiked Amount 500.000	Range 30 - 150		Recovery =		35.12%	34.09%
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample : cicv1248,42e,,6560
Misc : wg756944,
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum	1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	3.863	4.360	67933076	172.7E6	2520.840M4	2475.587
36) l7	1248-2	4.049	4.586	110.5E6	209.1E6	2503.940	2538.872
37) l7	1248-3	4.387	4.881	98207324	238.6E6	2561.125	2616.274
38) l7	1248-4	4.411	4.920	83187204	270.7E6	2654.864	2630.589
39) l7	1248-5	4.566	5.101	155.0E6	249.0E6	2523.658M4	2605.160
Sum	1248-1			514.8E6	1140.1E6	12764.427	12866.482

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample : cicv1248,42e,,6560
Misc : wg756944,
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average 1248-1					2552.885	2573.296
41) l5 1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5 1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5 1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5 1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5 1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1232-1			0	0	N.D.	N.D.
Average 1232-1					0.000	0.000
46) l8 1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8 1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8 1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8 1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8 1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum 1262-1			0	0	N.D.	N.D.
Average 1262-1					0.000	0.000

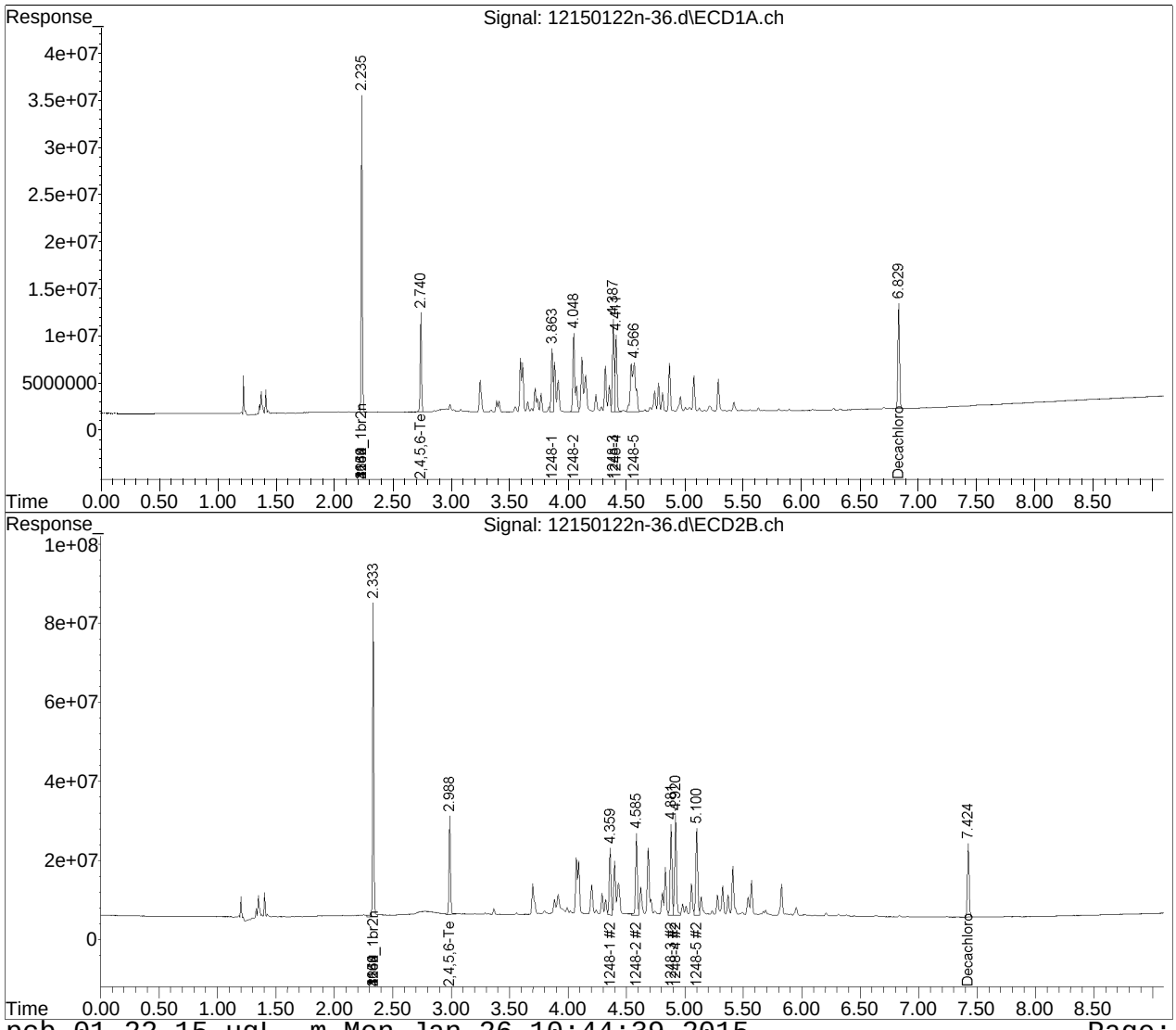
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:09 pm
Operator : pest12:jt
Sample : cicv1248,42e,,6560
Misc : wg756944,
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:22:18 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:21:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

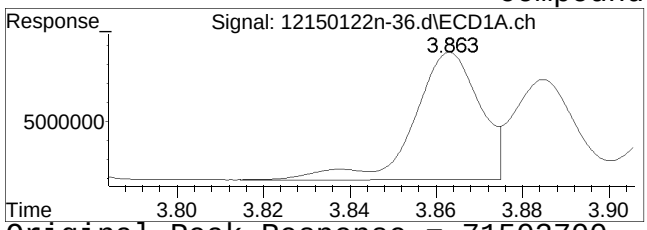


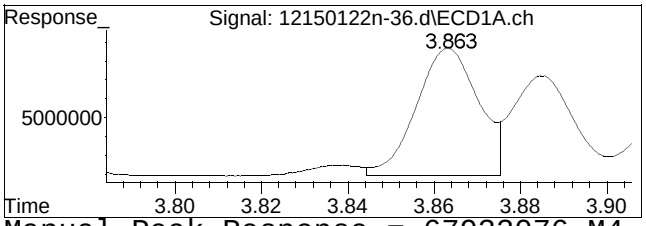
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-36.d
Date Inj'd : 1/22/2015 11:09 pm
Sample : cicv1248,42e,,6560

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:21 am

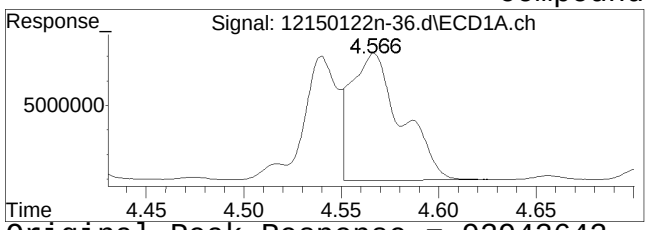
Compound #35: 1248-1

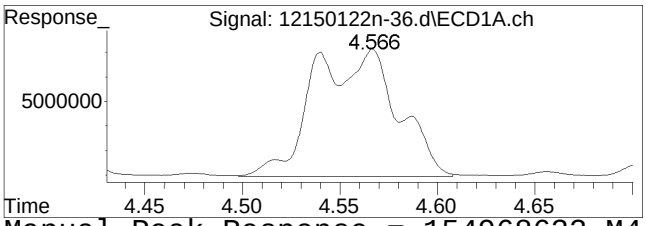




Original Peak Response = 71503700 Manual Peak Response = 67933076 M4
M4 = Poor automated baseline construction.

Compound #39: 1248-5





Original Peak Response = 93943643 Manual Peak Response = 154968633 M4
M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample   : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc   : wg756944,
ALS Vial : 37   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1660_1br2nb	250.000	250.000	0.0	92	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen	80.000	76.862	3.9	89	0.00
3	s	Decachlorobiphenyl	160.000	178.813	-11.8	104	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	90	0.00
23	i	4268_1br2nb	250.000	250.000	0.0	95	0.00
34	i	1248_1br2nb	250.000	250.000	0.0	1	-0.11
40	i	3262_1br2nb	250.000	250.000	0.0	99	0.00
41	l5	1232-1	2500.000	2420.774	3.2	105	0.00
42	l5	1232-2	2500.000	2184.139	12.6	95	0.00
43	l5	1232-3	2500.000	2196.867	12.1	96	0.00
44	l5	1232-4	2500.000	2554.521	-2.2	96	0.00
45	l5	1232-5	2500.000	2272.973	9.1	95	0.00
46	l8	1262-1	2500.000	2131.699	14.7	89	0.00
47	l8	1262-2	2500.000	2184.133	12.6	93	0.00
48	l8	1262-3	2500.000	2140.736	14.4	90	0.00
49	l8	1262-4	2500.000	2134.317	14.6	88	0.00
50	l8	1262-5	2500.000	2160.137	13.6	91	0.00

Signal #2

1	i	1660_1br2nb	250.000	250.000	0.0	92	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	80.000	78.106	2.4	89	0.00
3	s	Decachlorobiphenyl	160.000	181.570	-13.5	103	0.00
14	i	2154_1br2nb	250.000	250.000	0.0	88	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample   : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc   : wg756944,
ALS Vial : 37   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
23	i	4268_1br2nb	250.000	250.000	0.0	94	0.00
34	i	1248_1br2nb	250.000	250.000	0.0	0	-0.03
40	i	3262_1br2nb	250.000	250.000	0.0	98	0.00
41	l5	1232-1	2500.000	2434.355	2.6	103	0.00
42	l5	1232-2	2500.000	2342.428	6.3	97	0.00
43	l5	1232-3	2500.000	2507.863	-0.3	100	0.00
44	l5	1232-4	2500.000	2392.046	4.3	99	0.00
45	l5	1232-5	2500.000	2609.874	-4.4	103	0.00
46	l8	1262-1	2500.000	2270.510	9.2	99	0.00
47	l8	1262-2	2500.000	2209.532	11.6	93	0.00
48	l8	1262-3	2500.000	2236.998	10.5	97	0.00
49	l8	1262-4	2500.000	2153.812	13.8	92	0.00
50	l8	1262-5	2500.000	2172.776	13.1	94	0.00

Evaluate Continuing Calibration Report - Not Founds

4	l1	1016-1	2500.000	0.000	100.0#	0	-2.99#
5	l1	1016-2	2500.000	0.000	100.0#	0	-3.25#
6	l1	1016-3	2500.000	0.000	100.0#	0	-3.61#
7	l1	1016-4	2500.000	0.000	100.0#	0	-3.72#
8	l1	1016-5	2500.000	0.000	100.0#	0	-4.05#
9	l2	1260-1	2500.000	0.000	100.0#	0	-5.00#
10	l2	1260-2	2500.000	0.000	100.0#	0	-5.21#
11	l2	1260-3	2500.000	0.000	100.0#	0	-5.68#
12	l2	1260-4	2500.000	0.000	100.0#	0	-5.89#
13	l2	1260-5	2500.000	0.000	100.0#	0	-6.09#
15	l3	1221-1	2500.000	0.000	100.0#	0	-2.85#
16	l3	1221-2	2500.000	0.000	100.0#	0	-2.96#
17	l3	1221-3	2500.000	0.000	100.0#	0	-2.99#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample   : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc   : wg756944,
ALS Vial : 37   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
18 l4	1254-1	2500.000	0.000	100.0#	0	-4.36#
19 l4	1254-2	2500.000	0.000	100.0#	0	-4.56#
20 l4	1254-3	2500.000	0.000	100.0#	0	-4.87#
21 l4	1254-4	2500.000	0.000	100.0#	0	-5.08#
22 l4	1254-5	2500.000	0.000	100.0#	0	-5.42#
24 l6	1242-1	2500.000	0.000	100.0#	0	-2.99#
25 l6	1242-2	2500.000	0.000	100.0#	0	-3.25#
26 l6	1242-3	2500.000	0.000	100.0#	0	-3.62#
27 l6	1242-4	2500.000	0.000	100.0#	0	-3.72#
28 l6	1242-5	2500.000	0.000	100.0#	0	-4.39#
29 l9	1268-1	2500.000	0.000	100.0#	0	-6.12#
30 l9	1268-2	2500.000	0.000	100.0#	0	-6.15#
31 l9	1268-3	2500.000	0.000	100.0#	0	-6.28#
32 l9	1268-4	2500.000	0.000	100.0#	0	-6.52#
33 l9	1268-5	2500.000	0.000	100.0#	0	-6.71#
35 l7	1248-1	2500.000	0.000	100.0#	0	-3.86#
36 l7	1248-2	2500.000	0.000	100.0#	0	-4.05#
37 l7	1248-3	2500.000	0.000	100.0#	0	-4.39#
38 l7	1248-4	2500.000	0.000	100.0#	0	-4.41#
39 l7	1248-5	2500.000	0.000	100.0#	0	-4.57#

Signal #2

4 l1	1016-1	2500.000	0.000	100.0#	0	-3.37#
5 l1	1016-2	2500.000	0.000	100.0#	0	-3.70#
6 l1	1016-3	2500.000	0.000	100.0#	0	-4.09#
7 l1	1016-4	2500.000	0.000	100.0#	0	-4.20#
8 l1	1016-5	2500.000	0.000	100.0#	0	-4.59#
9 l2	1260-1	2500.000	0.000	100.0#	0	-5.55#
10 l2	1260-2	2500.000	0.000	100.0#	0	-5.69#
11 l2	1260-3	2500.000	0.000	100.0#	0	-6.22#

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample   : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc   : wg756944,
ALS Vial : 37   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
12 l2	1260-4	2500.000	0.000	100.0#	0	-6.38#
13 l2	1260-5	2500.000	0.000	100.0#	0	-6.64#
15 l3	1221-1	2500.000	0.000	100.0#	0	-3.20#
16 l3	1221-2	2500.000	0.000	100.0#	0	-3.32#
17 l3	1221-3	2500.000	0.000	100.0#	0	-3.37#
18 l4	1254-1	2500.000	0.000	100.0#	0	-4.92#
19 l4	1254-2	2500.000	0.000	100.0#	0	-5.06#
20 l4	1254-3	2500.000	0.000	100.0#	0	-5.41#
21 l4	1254-4	2500.000	0.000	100.0#	0	-5.57#
22 l4	1254-5	2500.000	0.000	100.0#	0	-5.96#
24 l6	1242-1	2500.000	0.000	100.0#	0	-3.37#
25 l6	1242-2	2500.000	0.000	100.0#	0	-3.70#
26 l6	1242-3	2500.000	0.000	100.0#	0	-4.10#
27 l6	1242-4	2500.000	0.000	100.0#	0	-4.21#
28 l6	1242-5	2500.000	0.000	100.0#	0	-4.89#
29 l9	1268-1	2500.000	0.000	100.0#	0	-6.64#
30 l9	1268-2	2500.000	0.000	100.0#	0	-6.67#
31 l9	1268-3	2500.000	0.000	100.0#	0	-6.85#
32 l9	1268-4	2500.000	0.000	100.0#	0	-7.03#
33 l9	1268-5	2500.000	0.000	100.0#	0	-7.26#
35 l7	1248-1	2500.000	0.000	100.0#	0	-4.36#
36 l7	1248-2	2500.000	0.000	100.0#	0	-4.59#
37 l7	1248-3	2500.000	0.000	100.0#	0	-4.88#
38 l7	1248-4	2500.000	0.000	100.0#	0	-4.92#
39 l7	1248-5	2500.000	0.000	100.0#	0	-5.10#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc : wg756944,
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.235	2.333	208.4E6	515.2E6	250.000	250.000
14) i	2154_1br2nb	2.235	2.333	208.4E6	515.2E6	250.000	250.000
23) i	4268_1br2nb	2.235	2.333	208.4E6	515.2E6	250.000	250.000
34) i	1248_1br2nb	2.125f	2.306	1168714	652085	250.000	250.000
40) i	3262_1br2nb	2.235	2.333	208.4E6	515.2E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.740	2.987	76558940	205.3E6	76.862	78.106
	Spiked Amount 500.000	Range 30 - 150		Recovery =		15.37%#	15.62%#
3) s	Decachlor...	6.828	7.422	105.7E6	189.0E6	178.813	181.570
	Spiked Amount 500.000	Range 30 - 150		Recovery =		35.76%	36.31%
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1016-1			0	0	N.D.	N.D.
	Average 1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1260-1			0	0	N.D.	N.D.
	Average 1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc : wg756944,
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc : wg756944,
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound		RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	2.989	3.365	50069545	131.6E6	2420.774M4	2434.355
42) l5	1232-2	3.249	3.698	44458180	130.1E6	2184.139	2342.428
43) l5	1232-3	3.611	4.091	48296153	151.0E6	2196.867M4	2507.863
44) l5	1232-4	4.049	4.585	38332453	70818659	2554.521	2392.046
45) l5	1232-5	4.387	4.919	26804933	111.5E6	2272.973	2609.874
Sum	1232-1			208.0E6	595.0E6	11629.273	12286.566
Average	1232-1					2325.855	2457.313
46) l8	1262-1	5.208	5.692	121.0E6	243.2E6	2131.699	2270.510
47) l8	1262-2	5.497	6.011	147.1E6	305.7E6	2184.133	2209.532
48) l8	1262-3	5.891	6.220	256.5E6	273.8E6	2140.736M4	2236.998
49) l8	1262-4	6.110	6.382	96895235	513.1E6	2134.317	2153.812
50) l8	1262-5	6.508	6.628	80040821	345.3E6	2160.137	2172.776
Sum	1262-1			701.6E6	1681.1E6	10751.022	11043.627
Average	1262-1					2150.204	2208.725

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			701.6E6	1681.1E6	10751.022	11043.627
Average	1262-1					2150.204	2208.725

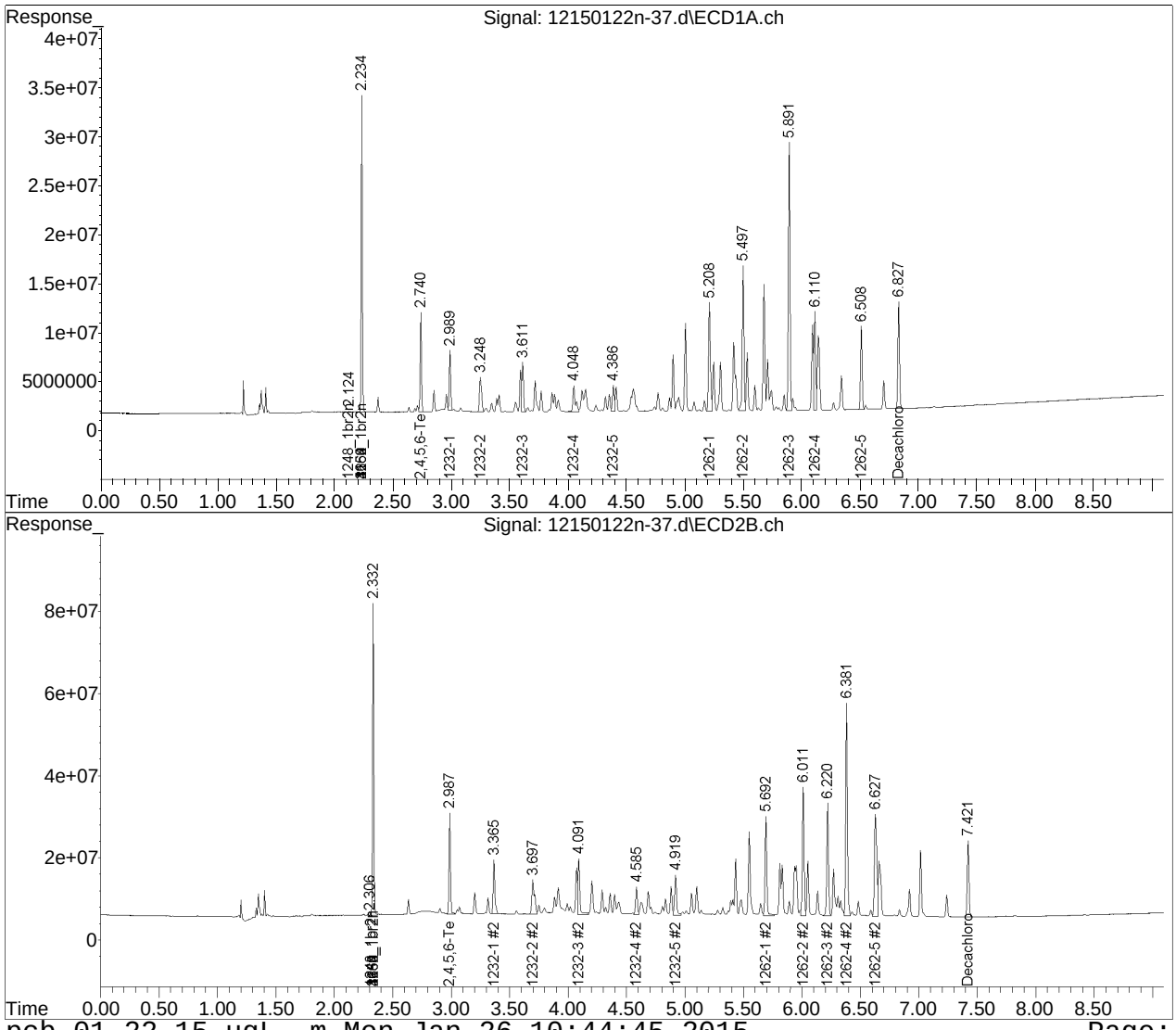
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Jan 2015 11:21 pm
Operator : pest12:jt
Sample : cicv3262,42e,,6557 (Sig #1); cicv1262,42e,,6557 (Sig #2)
Misc : wg756944,
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 26 10:09:35 2015
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Mon Jan 26 10:08:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

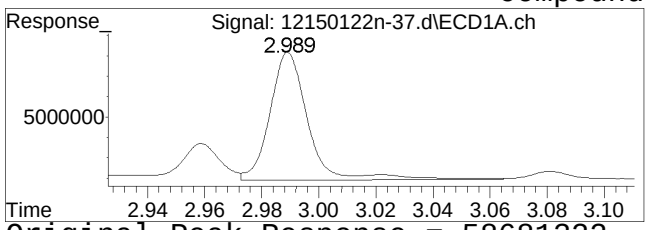


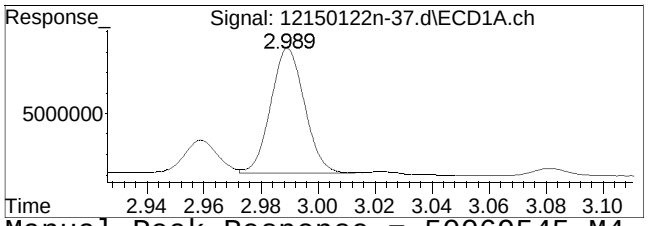
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\150122nical\
Data File : 12150122n-37.d
Date Inj'd : 1/22/2015 11:21 pm
Sample : cicv3262,42e,,6557

QMethod : P12_pcb 01-22-15_ugL_.
Operator : pest12:jt
Instrument : Pest12
Quant Date : 1/26/2015 10:08 am

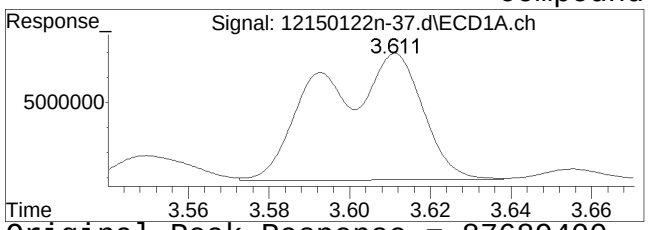
Compound #41: 1232-1

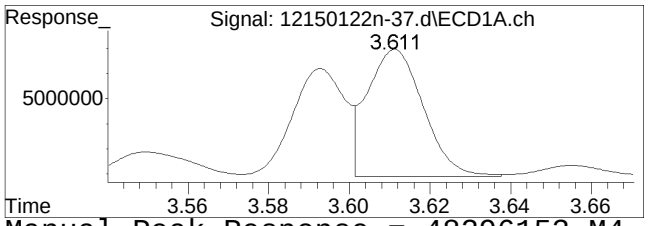




Original Peak Response = 58681322 Manual Peak Response = 50069545 M4
M4 = Poor automated baseline construction.

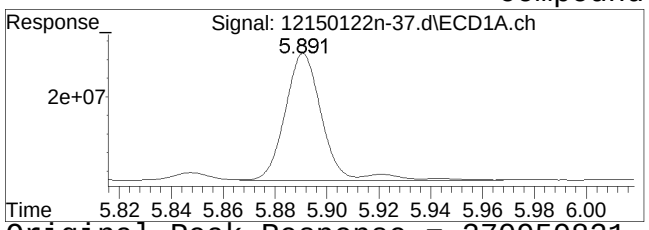
Compound #43: 1232-3

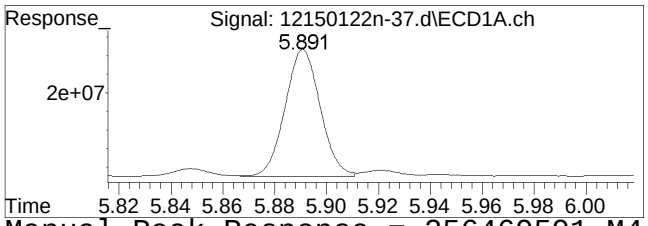




Original Peak Response = 87689400 Manual Peak Response = 48296153 M4
M4 = Poor automated baseline construction.

Compound #48: 1262-3





Original Peak Response = 270959821 Manual Peak Response = 256469591 M4
M4 = Poor automated baseline construction.

Continuing Calibration

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763	
Project Name	: 450 UNION STREET	**Project Number**	: 170301202	
Instrument ID	: PEST12	**Calibration Date**	: 03/16/16 00:19	
Lab File ID	: 12160315-61	**Init. Calib. Date(s)**	: 01/22/15	01/22/15
Sample No	: WG873883-3	**Init. Calib. Times**	: 16:21	22:19
Channel	: A			

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
1660_1br2nb	250	250	0	0	20	100	-.02
2,4,5,6-Tetrachloro-m-xylen	80	81.241	0	-1.6	20	102	-.03
Decachlorobiphenyl	160	165.007	0	-3.1	20	104	-.07
1016-1	2500	2735.815	0	-9.4	20	104	-.04
1016-2	2500	2444.047	0	2.2	20	99	-.04
1016-3	2500	2536.399	0	-1.5	20	103	-.04
1016-4	2500	2515.177	0	-0.6	20	102	-.04
1016-5	2500	2434.963	0	2.6	20	98	-.04
1260-1	2500	2366.44	0	5.3	20	97	-.04
1260-2	2500	2354.97	0	5.8	20	96	-.04
1260-3	2500	2329.161	0	6.8	20	93	-.04
1260-4	2500	2495.931	0	0.2	20	98	-.04
1260-5	2500	2459.116	0	1.6	20	98	-.04

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763	
Project Name	: 450 UNION STREET	**Project Number**	: 170301202	
Instrument ID	: PEST12	**Calibration Date**	: 03/16/16 00:19	
Lab File ID	: 12160315-61	**Init. Calib. Date(s)**	: 01/22/15	01/22/15
Sample No	: WG873883-3	**Init. Calib. Times**	: 16:21	22:19
Channel	: B			

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
1660_1br2nb	250	250	0	0	20	109	-.01
2,4,5,6-Tetrachloro-m-xyl	80	64.284	0	19.6	20	87	-.02
Decachlorobiphenyl	160	182.567	0	-14.1	20	123	-.09
1016-1	2500	2237.274	0	10.5	20	97	-.02
1016-2	2500	2305.691	0	7.8	20	101	-.02
1016-3	2500	2426.383	0	2.9	20	102	-.02
1016-4	2500	2412.082	0	3.5	20	102	-.02
1016-5	2500	2250.843	0	10	20	94	-.02
1260-1	2500	2359.859	0	5.6	20	107	-.02
1260-2	2500	2393.732	0	4.3	20	108	-.02
1260-3	2500	2421.399	0	3.1	20	108	-.03
1260-4	2500	2486.775	0	0.5	20	108	-.04
1260-5	2500	2550.066	0	-2	20	111	-.05

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\160315\
Data File : 12160315-61.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 12:19 am
Operator : pest12:jw
Sample : wg873883-3,42e,,+1016/1260cc PP7208 (Sig #1); +1016/1260cc PP7208 (Sig #2)
Misc : wg873883
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 10:08:23 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1660_1br2nb	250.000	250.000	0.0	100	-0.02
2	s	2,4,5,6-Tetrachloro-m-xylen	80.000	81.241	-1.6	102	-0.03
3	s	Decachlorobiphenyl	160.000	165.007	-3.1	104	-0.07
4	l1	1016-1	2500.000	2735.815	-9.4	104	-0.04
5	l1	1016-2	2500.000	2444.047	2.2	99	-0.04
6	l1	1016-3	2500.000	2536.399	-1.5	103	-0.04
7	l1	1016-4	2500.000	2515.177	-0.6	102	-0.04
8	l1	1016-5	2500.000	2434.963	2.6	98	-0.04
9	l2	1260-1	2500.000	2366.440	5.3	97	-0.04
10	l2	1260-2	2500.000	2354.970	5.8	96	-0.04
11	l2	1260-3	2500.000	2329.161	6.8	93	-0.04
12	l2	1260-4	2500.000	2495.931	0.2	98	-0.04
13	l2	1260-5	2500.000	2459.116	1.6	98	-0.04

Signal #2

1	i	1660_1br2nb	250.000	250.000	0.0	109	-0.01
2	s	2,4,5,6-Tetrachloro-m-xyl	80.000	64.284	19.6	87	-0.02
3	s	Decachlorobiphenyl	160.000	182.567	-14.1	123	-0.09
4	l1	1016-1	2500.000	2237.274	10.5	97	-0.02
5	l1	1016-2	2500.000	2305.691	7.8	101	-0.02
6	l1	1016-3	2500.000	2426.383	2.9	102	-0.02
7	l1	1016-4	2500.000	2412.082	3.5	102	-0.02
8	l1	1016-5	2500.000	2250.843	10.0	94	-0.02
9	l2	1260-1	2500.000	2359.859	5.6	107	-0.02
10	l2	1260-2	2500.000	2393.732	4.3	108	-0.02
11	l2	1260-3	2500.000	2421.399	3.1	108	-0.03
12	l2	1260-4	2500.000	2486.775	0.5	108	-0.04
13	l2	1260-5	2500.000	2550.066	-2.0	111	-0.05

Evaluate Continuing Calibration Report

Data Path : I:\Pest12\160315\
Data File : 12160315-61.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 16 Mar 2016 12:19 am
Operator : pest12:jw
Sample   : wg873883-3,42e,,+1016/1260cc PP7208 (Sig #1); +1016/1260cc PP7208 (Sig #2)
Misc   : wg873883
ALS Vial : 61   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 10:08:23 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area% Dev(Min)

Evaluate Continuing Calibration Report - Not Founds

Signal #2

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-61.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 12:19 am
Operator : pest12:jw
Sample : wg873883-3,42e,,+1016/1260cc PP7208 (Sig #1); +1016/1260cc PP7208 (Sig #2)
Misc : wg873883
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 10:08:23 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.198	2.266	226.8E6	611.6E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.686f	2.874	88061340	200.6E6	81.241	64.284
	Spiked Amount	500.000	Range 30 - 150		Recovery =	16.25%#	12.86%#
3) s	Decachlor...	6.700f	7.210f	106.1E6	225.6E6	165.007	182.567
	Spiked Amount	500.000	Range 30 - 150		Recovery =	33.00%	36.51%
	Target Compounds						
4) l1	1016-1	2.927f	3.236f	52478950	116.0E6	2735.815M4	2237.274
5) l1	1016-2	3.176f	3.547f	100.8E6	270.5E6	2444.047	2305.691M4
6) l1	1016-3	3.523f	3.933f	117.8E6	326.3E6	2536.399	2426.383
7) l1	1016-4	3.625f	4.044f	84451797	217.0E6	2515.177M4	2412.082
8) l1	1016-5	3.947f	4.417f	89641998	156.7E6	2434.963M4	2250.843
	Sum 1016-1				445.1E6	1086.5E6	12666.402	11632.274
	Average 1016-1						2533.280	2326.455
9) l2	1260-1	4.889f	5.372f	123.8E6	314.8E6	2366.440	2359.859
10) l2	1260-2	5.090f	5.513f	189.0E6	362.5E6	2354.970	2393.732
11) l2	1260-3	5.556f	6.037f	110.4E6	290.9E6	2329.161	2421.399
12) l2	1260-4	5.766f	6.197f	256.4E6	588.7E6	2495.931M4	2486.775
13) l2	1260-5	5.966f	6.450f	177.1E6	398.1E6	2459.116	2550.066M4
	Sum 1260-1				856.6E6	1955.0E6	12005.618	12211.832
	Average 1260-1						2401.124	2442.366
	SemiQuant Compounds - Not Calibrated on this Instrument							
	Sum 1260-1				856.6E6	1955.0E6	12005.618	12211.832
	Average 1260-1						2401.124	2442.366

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-61.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 12:19 am
Operator : pest12:jw
Sample : wg873883-3,42e,,+1016/1260cc PP7208 (Sig #1); +1016/1260cc PP7208 (Sig #2)
Misc : wg873883
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 10:08:23 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

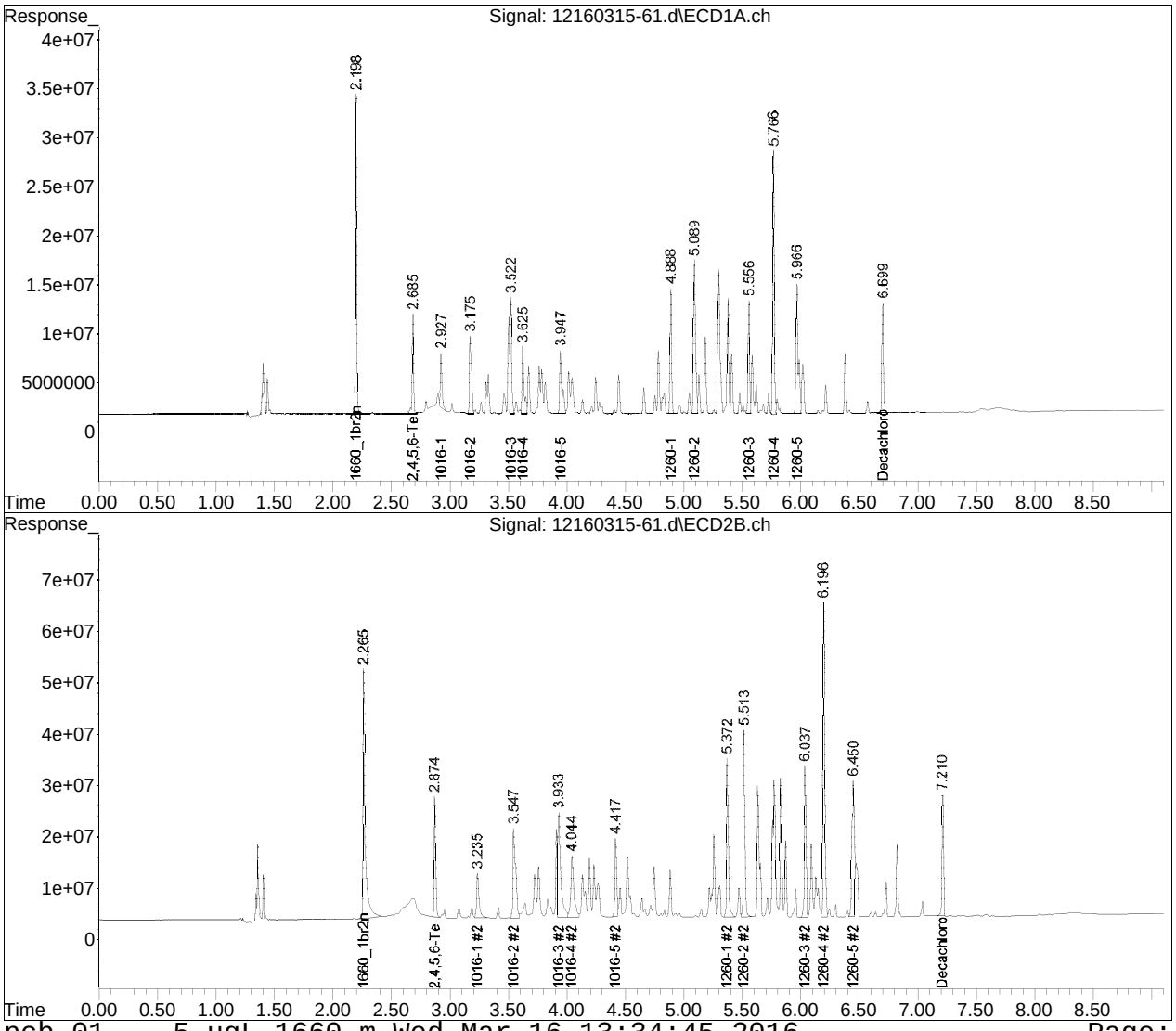
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-61.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 12:19 am
Operator : pest12:jw
Sample : wg873883-3,42e,,+1016/1260cc PP7208 (Sig #1); +1016/1260cc PP7208
Misc : wg873883
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 10:08:23 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

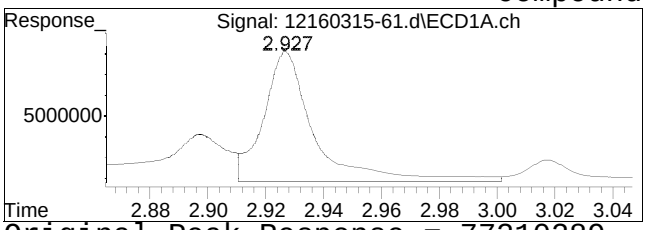
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

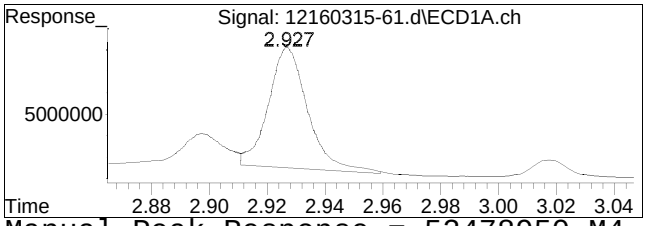


Manual Integration/Negative Proof Report

Data Path : I:\Pest12\160315\ QMethod : P12_pcb 01-22-15_ugL_1
Data File : 12160315-61.d Operator : pest12:jw
Date Inj'd : 3/16/2016 12:19 am Instrument : Pest 12
Sample : wg873883-3,42e,,+1016/1260c Quant Date : 3/16/2016 10:09 am

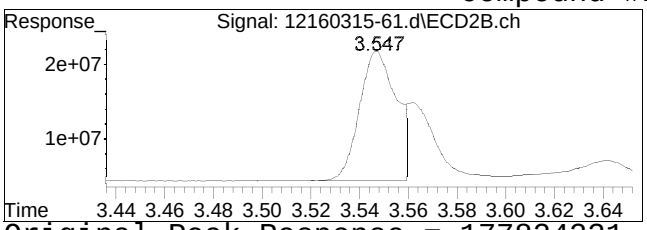
Compound #4: 1016-1

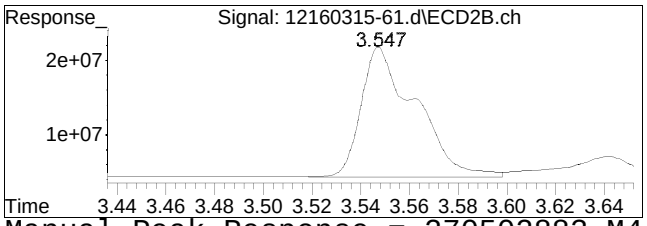




Original Peak Response = 77210289 Manual Peak Response = 52478950 M4
M4 = Poor automated baseline construction.

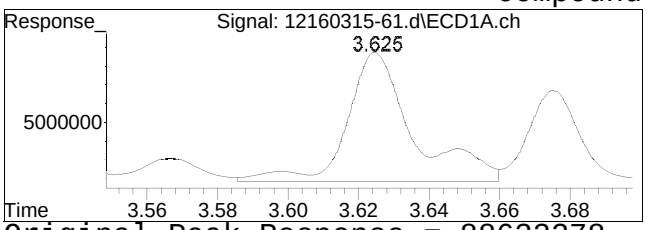
Compound #19: 1016-2 #2

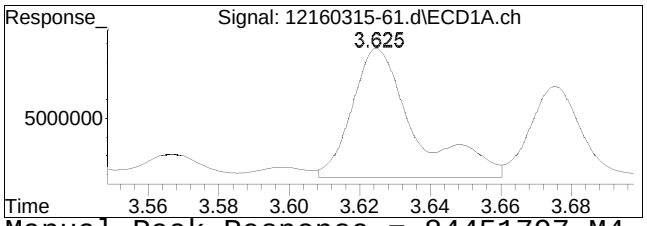




Original Peak Response = 177824231 Manual Peak Response = 270502883 M4
M4 = Poor automated baseline construction.

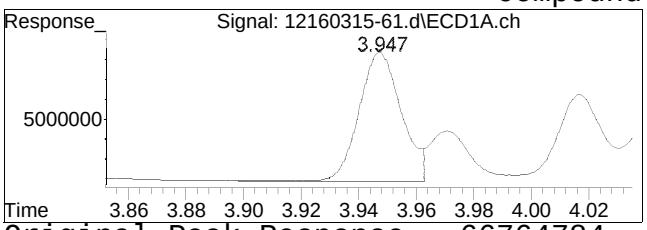
Compound #7: 1016-4

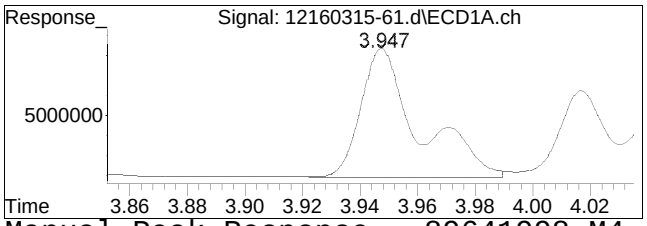




Original Peak Response = 88633278 Manual Peak Response = 84451797 M4
M4 = Poor automated baseline construction.

Compound #8: 1016-5



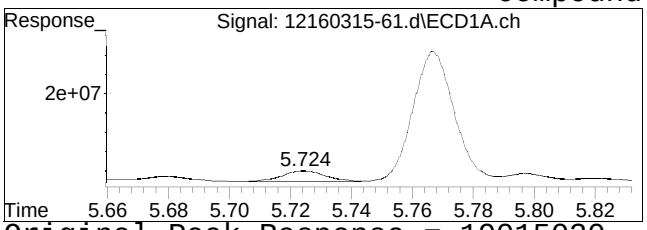


Original Peak Response = 66764784 Manual Peak Response = 89641998 M4
M4 = Poor automated baseline construction.

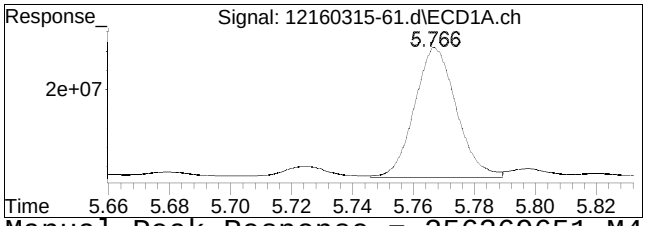
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\160315\ QMethod : P12_pcb 01-22-15_ugL_1
Data File : 12160315-61.d Operator : pest12:jw
Date Inj'd : 3/16/2016 12:19 am Instrument : Pest 12
Sample : wg873883-3,42e,,+1016/1260c Quant Date : 3/16/2016 10:09 am

Compound #12: 1260-4

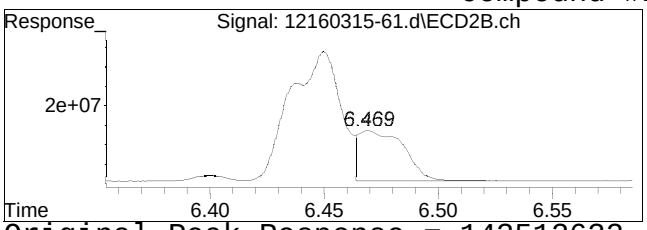


Original Peak Response = 19015030

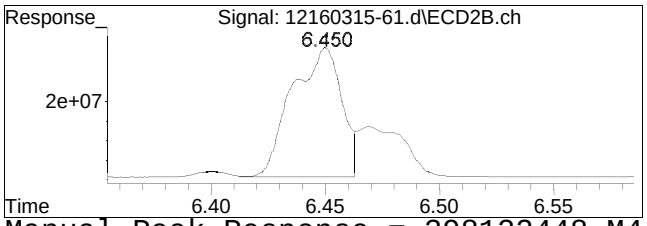


Manual Peak Response = 256369651 M4
M4 = Poor automated baseline construction.

Compound #27: 1260-5 #2



Original Peak Response = 143512632



Manual Peak Response = 398122448 M4
M4 = Poor automated baseline construction.

RT Shift Summary

GC Organics Indentification Summary
Form 10

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**

No Detections Found

Aroclor Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-65.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:08 am
Operator : pest12:jw
Sample : wg873675-1,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 65 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:55:43 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.198	2.266	229.9E6	630.7E6	250.000	250.000
14) i	2154_1br2nb	2.198	2.266	229.9E6	630.7E6	250.000	250.000
23) i	4268_1br2nb	2.198	2.266	229.9E6	630.7E6	250.000	250.000
34) i	1248_1br2nb	2.198	2.266	229.9E6	630.7E6	250.000	250.000
40) i	3262_1br2nb	2.198	2.266	229.9E6	630.7E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.685	2.873	356.0E6	925.8E6	324.026	287.665
Spiked Amount	500.000	Range 30 - 150		Recovery =		64.81%	57.53%
3) s	Decachlor...	6.698	7.208	230.2E6	481.1E6	353.174	377.453
Spiked Amount	500.000	Range 30 - 150		Recovery =		70.63%	75.49%
	Target Compounds						
4) l1	1016-1	0.000	0.000	0	0	N.D. d	N.D. d
5) l1	1016-2	0.000	0.000	0	0	N.D. d	N.D. d
6) l1	1016-3	0.000	0.000	0	0	N.D. d	N.D. d
7) l1	1016-4	0.000	0.000	0	0	N.D. d	N.D. d
8) l1	1016-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1016-1			0	0	N.D.	N.D.
Average	1016-1					0.000	0.000
9) l2	1260-1	0.000	0.000	0	0	N.D. d	N.D. d
10) l2	1260-2	0.000	0.000	0	0	N.D. d	N.D. d
11) l2	1260-3	0.000	0.000	0	0	N.D. d	N.D. d
12) l2	1260-4	0.000	0.000	0	0	N.D. d	N.D. d
13) l2	1260-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1260-1			0	0	N.D.	N.D.
Average	1260-1					0.000	0.000
15) l3	1221-1	0.000	0.000	0	0	N.D. d	N.D. d
16) l3	1221-2	0.000	0.000	0	0	N.D. d	N.D. d
17) l3	1221-3	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest12\160315\
Data File : 12160315-65.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:08 am
Operator : pest12:jw
Sample : wg873675-1,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 65 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:55:43 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Sum 1221-1			0	0	N.D.	N.D.
Average	1221-1					0.000	0.000
18) l4	1254-1	0.000	0.000	0	0	N.D. d	N.D. d
19) l4	1254-2	0.000	0.000	0	0	N.D. d	N.D. d
20) l4	1254-3	0.000	0.000	0	0	N.D. d	N.D. d
21) l4	1254-4	0.000	0.000	0	0	N.D. d	N.D. d
22) l4	1254-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1254-1			0	0	N.D.	N.D.
Average	1254-1					0.000	0.000
24) l6	1242-1	0.000	0.000	0	0	N.D. d	N.D. d
25) l6	1242-2	0.000	0.000	0	0	N.D. d	N.D. d
26) l6	1242-3	0.000	0.000	0	0	N.D. d	N.D. d
27) l6	1242-4	0.000	0.000	0	0	N.D. d	N.D. d
28) l6	1242-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1242-1			0	0	N.D.	N.D.
Average	1242-1					0.000	0.000
29) l9	1268-1	0.000	0.000	0	0	N.D. d	N.D. d
30) l9	1268-2	0.000	0.000	0	0	N.D. d	N.D. d
31) l9	1268-3	0.000	0.000	0	0	N.D. d	N.D. d
32) l9	1268-4	0.000	0.000	0	0	N.D. d	N.D. d
33) l9	1268-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1268-1			0	0	N.D.	N.D.
Average	1268-1					0.000	0.000
35) l7	1248-1	0.000	0.000	0	0	N.D. d	N.D. d
36) l7	1248-2	0.000	0.000	0	0	N.D. d	N.D. d
37) l7	1248-3	0.000	0.000	0	0	N.D. d	N.D. d
38) l7	1248-4	0.000	0.000	0	0	N.D. d	N.D. d
39) l7	1248-5	0.000	0.000	0	0	N.D. d	N.D. d
	Sum 1248-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-65.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:08 am
Operator : pest12:jw
Sample : wg873675-1,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 65 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:55:43 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average	1248-1					0.000	0.000
41) l5	1232-1	0.000	0.000	0	0	N.D. d	N.D. d
42) l5	1232-2	0.000	0.000	0	0	N.D. d	N.D. d
43) l5	1232-3	0.000	0.000	0	0	N.D. d	N.D. d
44) l5	1232-4	0.000	0.000	0	0	N.D. d	N.D. d
45) l5	1232-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1232-1			0	0	N.D.	N.D.
Average	1232-1					0.000	0.000
46) l8	1262-1	0.000	0.000	0	0	N.D. d	N.D. d
47) l8	1262-2	0.000	0.000	0	0	N.D. d	N.D. d
48) l8	1262-3	0.000	0.000	0	0	N.D. d	N.D. d
49) l8	1262-4	0.000	0.000	0	0	N.D. d	N.D. d
50) l8	1262-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	1262-1			0	0	N.D.	N.D.
Average	1262-1					0.000	0.000

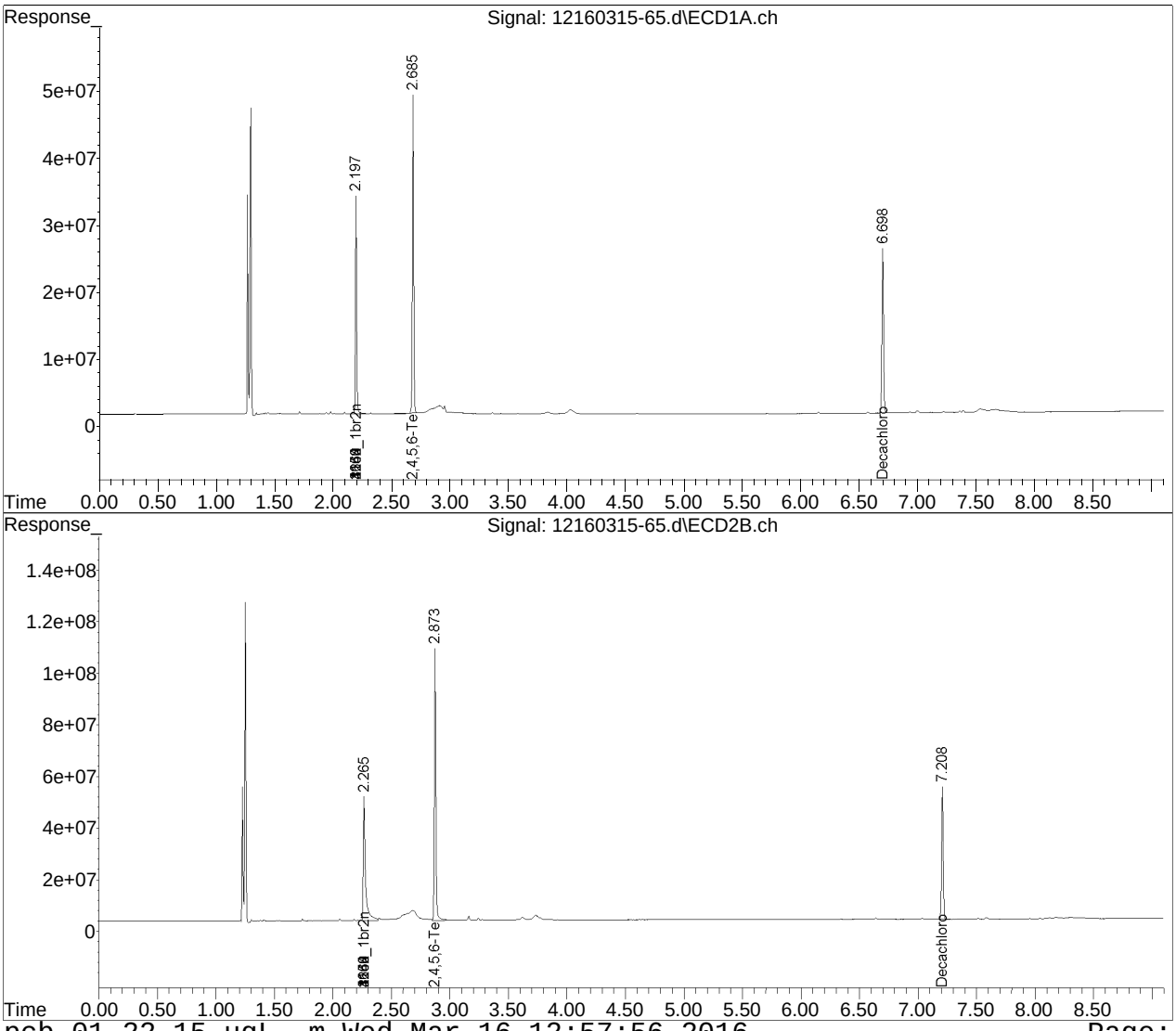
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-65.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:08 am
Operator : pest12:jw
Sample : wg873675-1,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 65 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:55:43 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_.m
Quant Title : pcb
QLast Update : Wed Jan 27 15:59:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration/Negative Proof Report

Data Path	: I:\Pest12\160315\	QMethod	: P12_pcb 01-22-15_ugL_.
Data File	: 12160315-65.d	Operator	: pest12:jw
Date Inj'd	: 3/16/2016 1:08 am	Instrument	: Pest 12
Sample	: wg873675-1,42e,,	Quant Date	: 3/16/2016 12:57 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-66.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:21 am
Operator : pest12:jw
Sample : wg873675-2,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 66 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:56:25 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.199	2.267	230.1E6	612.0E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.686f	2.875	366.5E6	886.7E6	333.302	283.963
	Spiked Amount	500.000	Range 30 - 150	Recovery =		66.66%	56.79%
3) s	Decachlor...	6.699f	7.210f	231.5E6	481.0E6	354.779	388.969
	Spiked Amount	500.000	Range 30 - 150	Recovery =		70.96%	77.79%
	Target Compounds						
4) l1	1016-1	2.927f	3.237f	39259117	113.4E6	2017.283M4	2185.970
5) l1	1016-2	3.176f	3.547f	95569860	256.0E6	2284.441	2180.771M4
6) l1	1016-3	3.523f	3.933f	113.8E6	318.3E6	2415.132	2365.032
7) l1	1016-4	3.625f	4.044f	75890997	211.8E6	2227.791M4	2352.346
8) l1	1016-5	3.947f	4.417f	92284120	152.8E6	2470.771M4	2193.250
	Sum 1016-1				416.8E6	1052.2E6	11415.419	11277.368
	Average 1016-1						2283.084	2255.474
9) l2	1260-1	4.889f	5.372f	123.1E6	297.4E6	2320.576	2227.821
10) l2	1260-2	5.089f	5.513f	195.8E6	360.1E6	2405.001	2375.972
11) l2	1260-3	5.556f	6.037f	96176799	262.4E6	2000.307	2182.228
12) l2	1260-4	5.767f	6.196f	215.7E6	499.5E6	2069.992M4	2108.823
13) l2	1260-5	5.966f	6.450f	156.9E6	356.8E6	2147.675	2283.918M4
	Sum 1260-1				787.7E6	1776.1E6	10943.551	11178.762
	Average 1260-1						2188.710	2235.752
	SemiQuant Compounds - Not Calibrated on this Instrument							
	Sum 1260-1				787.7E6	1776.1E6	10943.551	11178.762
	Average 1260-1						2188.710	2235.752

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-66.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:21 am
Operator : pest12:jw
Sample : wg873675-2,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 66 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:56:25 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

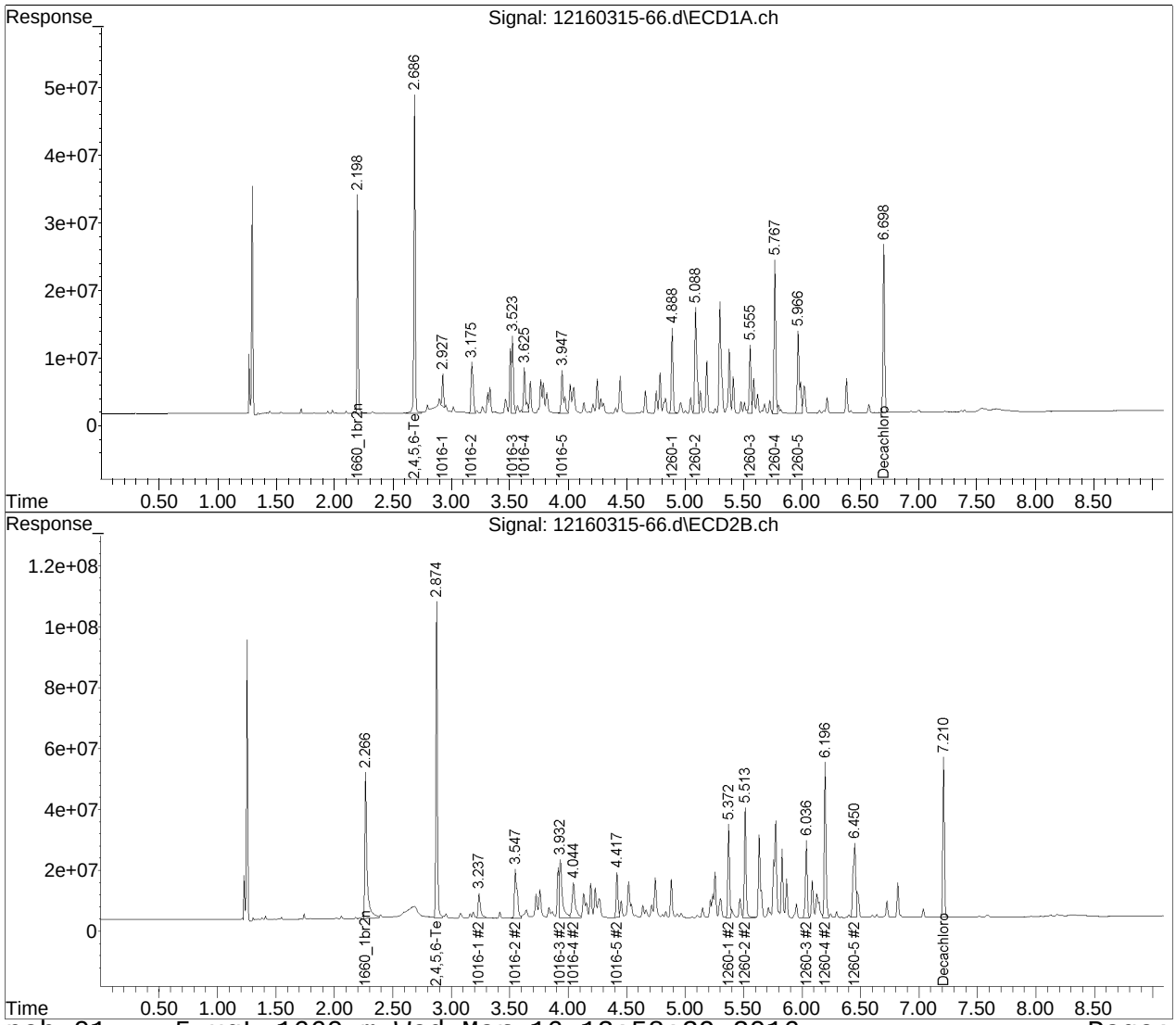
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-66.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:21 am
Operator : pest12:jw
Sample : wg873675-2,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 66 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:56:25 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

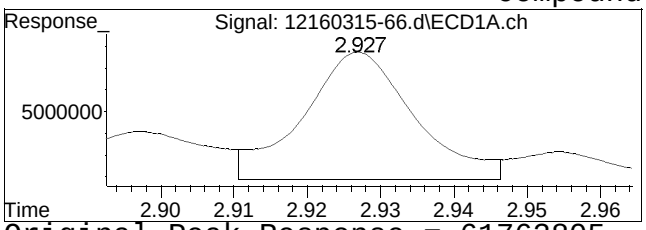


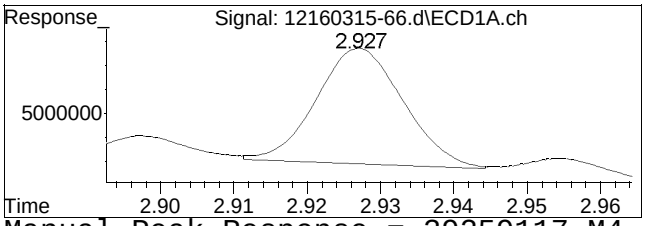
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\160315\
Data File : 12160315-66.d
Date Inj'd : 3/16/2016 1:21 am
Sample : wg873675-2,42e,,

QMethod : P12_pcb 01-22-15_ugL_1
Operator : pest12:jw
Instrument : Pest 12
Quant Date : 3/16/2016 12:58 pm

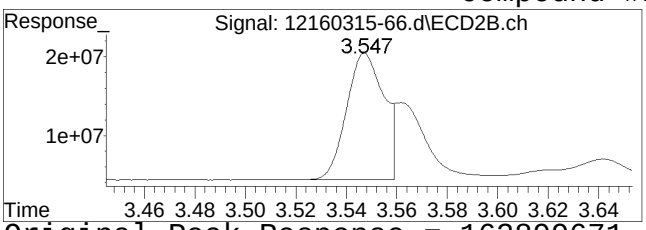
Compound #4: 1016-1

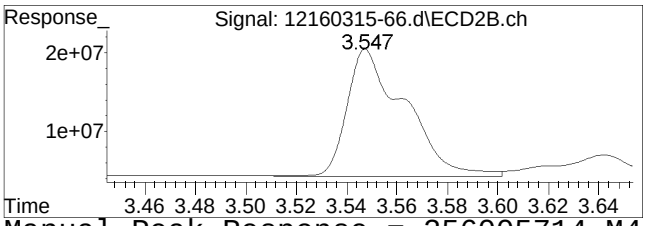




Original Peak Response = 61763805 Manual Peak Response = 39259117 M4
M4 = Poor automated baseline construction.

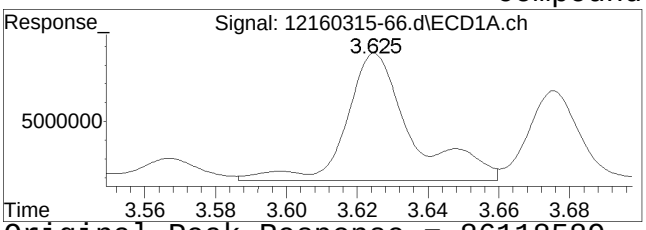
Compound #19: 1016-2 #2

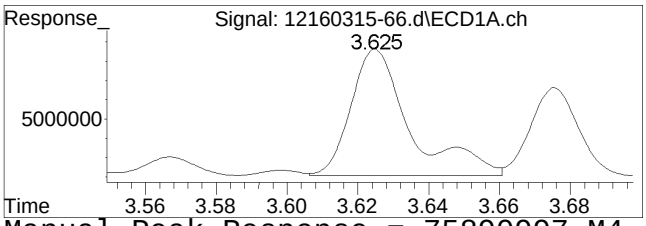




Original Peak Response = 163899671 Manual Peak Response = 256005714 M4
M4 = Poor automated baseline construction.

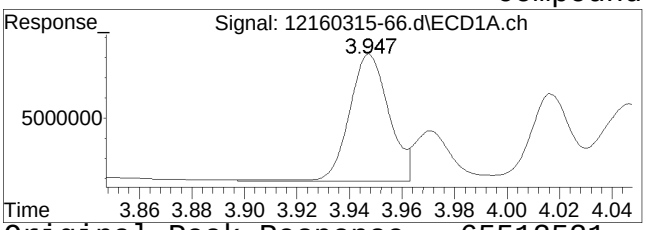
Compound #7: 1016-4

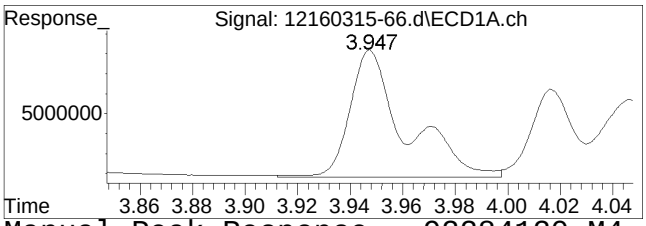




Original Peak Response = 86118589 Manual Peak Response = 75890997 M4
M4 = Poor automated baseline construction.

Compound #8: 1016-5





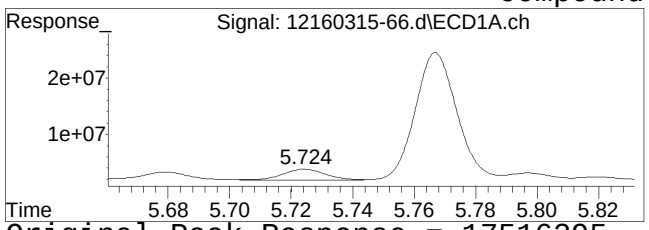
Original Peak Response = 65512521 Manual Peak Response = 92284120 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

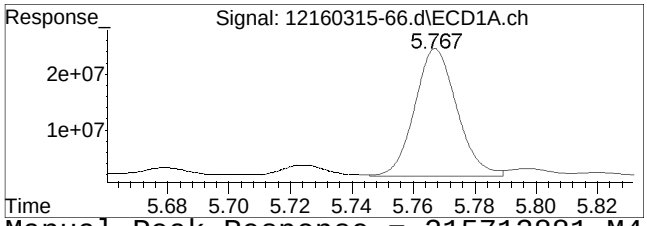
Data Path : I:\Pest12\160315\
Data File : 12160315-66.d
Date Inj'd : 3/16/2016 1:21 am
Sample : wg873675-2,42e,,

QMethod : P12_pcb 01-22-15_ugL_1
Operator : pest12:jw
Instrument : Pest 12
Quant Date : 3/16/2016 12:58 pm

Compound #12: 1260-4



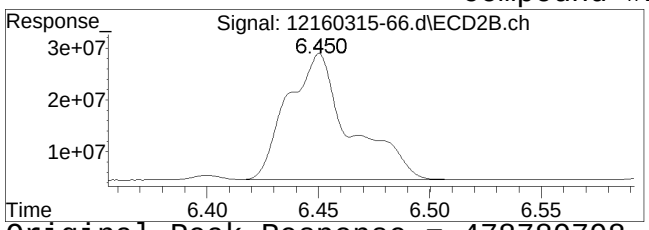
Original Peak Response = 17516295



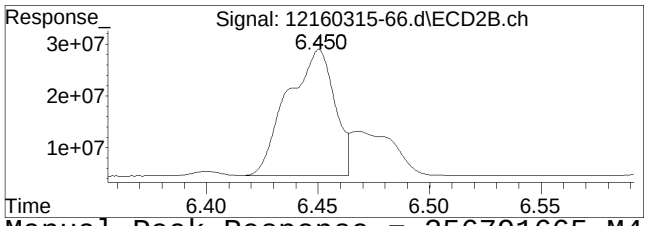
Manual Peak Response = 215713881 M4

M4 = Poor automated baseline construction.

Compound #27: 1260-5 #2



Original Peak Response = 478789798



Manual Peak Response = 356791665 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-67.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:33 am
Operator : pest12:jw
Sample : wg873675-3,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 67 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:57:26 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1660_1br2nb	2.199	2.267	221.1E6	587.7E6	250.000	250.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.686f	2.874	361.1E6	874.0E6	341.774	291.457
	Spiked Amount	500.000	Range 30 - 150	Recovery =		68.35%	58.29%
3) s	Decachlor...	6.698f	7.207f	259.7E6	540.2E6	414.266	454.896
	Spiked Amount	500.000	Range 30 - 150	Recovery =		82.85%	90.98%
	Target Compounds						
4) l1	1016-1	2.927f	3.237f	41045494	122.2E6	2195.071M4	2452.113
5) l1	1016-2	3.176f	3.546f	94960612	252.1E6	2362.433	2235.980M4
6) l1	1016-3	3.523f	3.933f	114.4E6	318.5E6	2528.458	2464.274
7) l1	1016-4	3.625f	4.044f	82444864	211.8E6	2518.864M4	2449.471
8) l1	1016-5	3.947f	4.416f	87985751	156.3E6	2451.742M4	2336.748
	Sum 1016-1				420.9E6	1060.8E6	12056.567 11938.587
	Average 1016-1						2411.313 2387.717
9) l2	1260-1	4.888f	5.371f	124.1E6	298.1E6	2434.516	2325.964
10) l2	1260-2	5.089f	5.512f	197.5E6	363.1E6	2524.848	2495.308
11) l2	1260-3	5.555f	6.036f	97688885	266.5E6	2114.601	2308.121
12) l2	1260-4	5.766f	6.196f	217.3E6	508.4E6	2170.184M4	2235.081
13) l2	1260-5	5.965f	6.450f	160.3E6	368.7E6	2283.379	2457.378M4
	Sum 1260-1				796.9E6	1804.8E6	11527.527 11821.853
	Average 1260-1						2305.505 2364.371
	SemiQuant Compounds - Not Calibrated on this Instrument						
	Sum 1260-1				796.9E6	1804.8E6	11527.527 11821.853
	Average 1260-1						2305.505 2364.371

Quantitation Report (QT Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-67.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:33 am
Operator : pest12:jw
Sample : wg873675-3,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 67 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:57:26 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

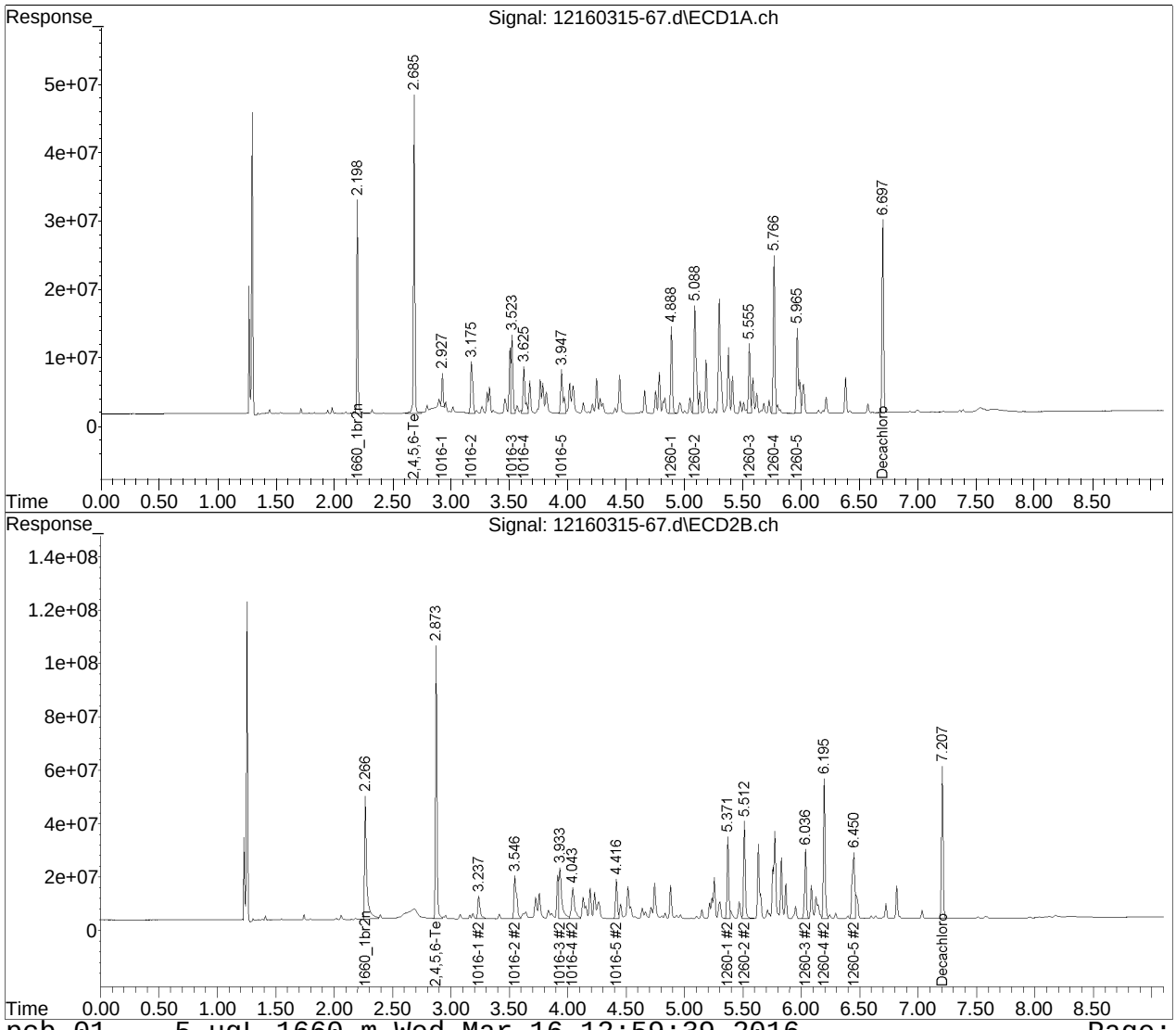
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest12\160315\
Data File : 12160315-67.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Mar 2016 1:33 am
Operator : pest12:jw
Sample : wg873675-3,42e,,
Misc : wg873883,wg873675,ical10654
ALS Vial : 67 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 16 12:57:26 2016
Quant Method : I:\Pest12\Methods Pest12\P12_pcb 01-22-15_ugL_1660.m
Quant Title : pcb
QLast Update : Fri Feb 19 08:09:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

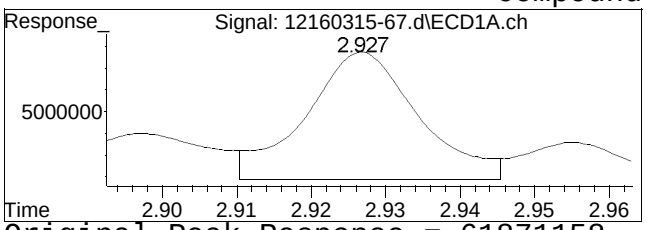


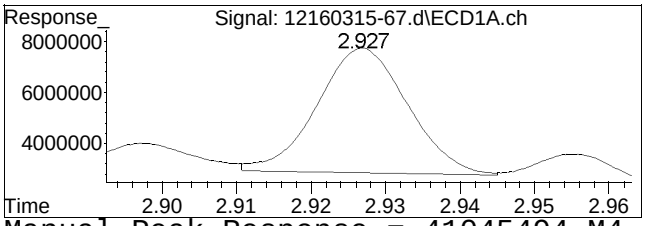
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\160315\
Data File : 12160315-67.d
Date Inj'd : 3/16/2016 1:33 am
Sample : wg873675-3,42e,,

QMethod : P12_pcb 01-22-15_ugL_1
Operator : pest12:jw
Instrument : Pest 12
Quant Date : 3/16/2016 12:58 pm

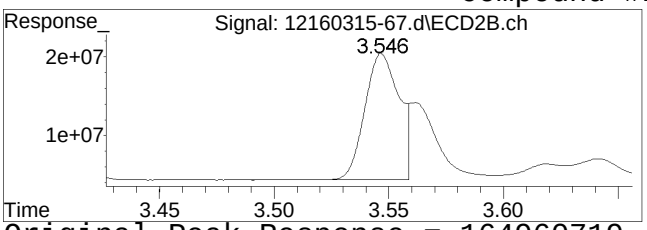
Compound #4: 1016-1

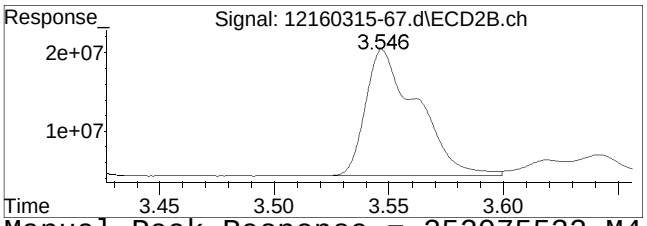




Original Peak Response = 61871158 Manual Peak Response = 41045494 M4
M4 = Poor automated baseline construction.

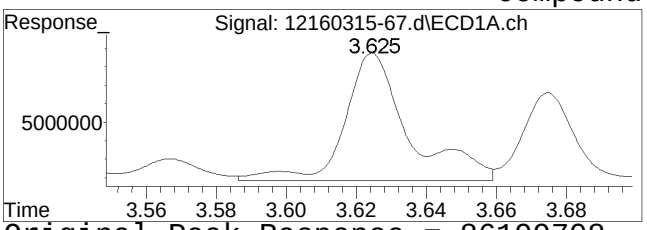
Compound #19: 1016-2 #2

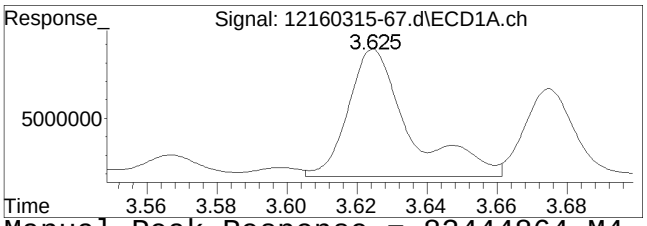




Original Peak Response = 164960719 Manual Peak Response = 252075532 M4
M4 = Poor automated baseline construction.

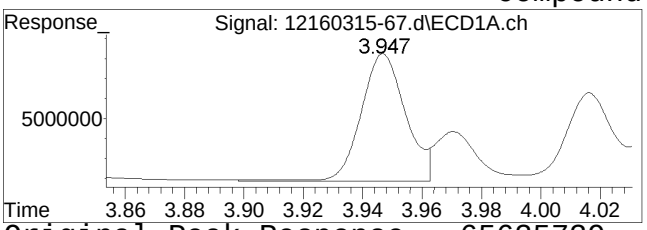
Compound #7: 1016-4

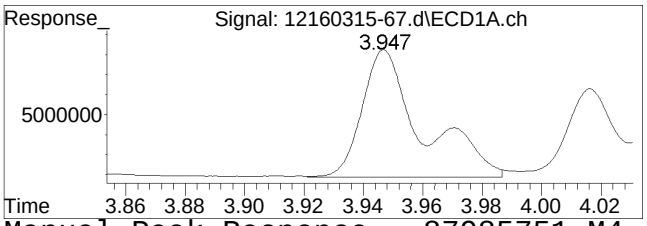




Original Peak Response = 86199708 Manual Peak Response = 82444864 M4
M4 = Poor automated baseline construction.

Compound #8: 1016-5





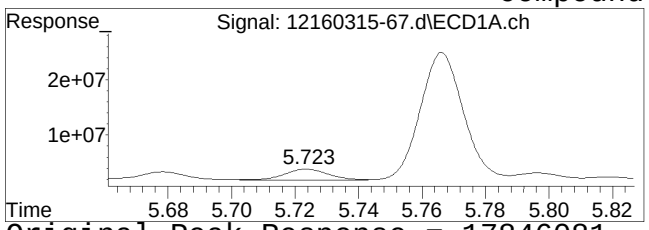
Original Peak Response = 65635739 Manual Peak Response = 87985751 M4
M4 = Poor automated baseline construction.

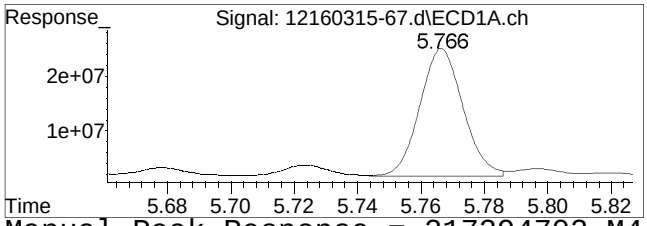
Manual Integration/Negative Proof Report

Data Path : I:\Pest12\160315\
Data File : 12160315-67.d
Date Inj'd : 3/16/2016 1:33 am
Sample : wg873675-3,42e,,

QMethod : P12_pcb 01-22-15_ugL_1
Operator : pest12:jw
Instrument : Pest 12
Quant Date : 3/16/2016 12:58 pm

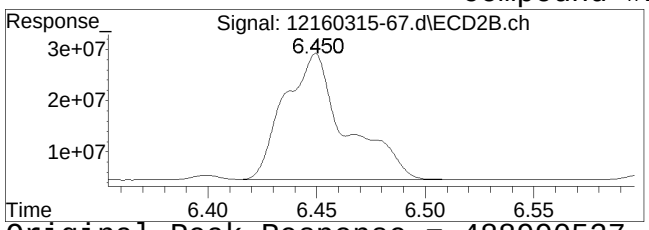
Compound #12: 1260-4

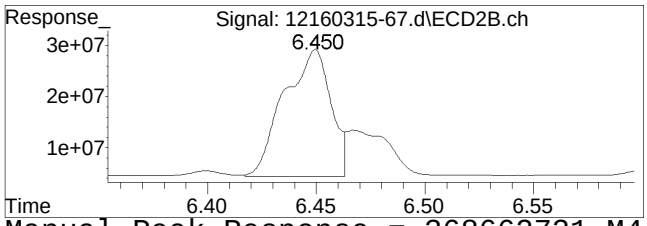




Original Peak Response = 17846081 Manual Peak Response = 217294702 M4
M4 = Poor automated baseline construction.

Compound #27: 1260-5 #2





Original Peak Response = 488990537 Manual Peak Response = 368662721 M4
M4 = Poor automated baseline construction.

Calculation of PCB Aroclors & Pesticides

Aqueous Concentration Formula:
Amt * DF*(Vt/Vp)*(1000/Vo)*(Ve/1000)

Where:
DF = Dilution Factor
Vt = Extract Final Volume (mL)
Vp = Aliquot Cleaned (mL)
Vo = Volume of Sample (mL)
Ve = Extraction Lab Final Volume (mL)

Soil Concentration Formula:
Amt * DF * (Vt/Vp)*(1000/Wt)*(Ve/1000)* (100/TS)

Where:
DF = Dilution Factor
Vt = Extract Final Volume (mL)
Vp = Aliquot Cleaned (mL)
Wt = Weight of Sample (g)
Ve = Extraction Lab Final Volume (mL)
TS = Total Solids

Analysis log File

Total Files Reported in Log : 37
Log Generated From Directory: I:\Pest12\150122nical\

No.	DATA FILE	SAMPLE NAME	MISC	DATE INJ'D	
1	12150122n-01.d	prime		1/22/2015	3:57 p
2	12150122n-02.d	blank		1/22/2015	4:09 p
3	12150122n-03.d	il14268,42e,,6676	wg756944,	1/22/2015	4:21 p
4	12150122n-04.d	il24268,42e,,6638	wg756944,	1/22/2015	4:33 p
5	12150122n-05.d	il34268,42e,,6639	wg756944,	1/22/2015	4:46 p
6	12150122n-06.d	il44268,42e,,6640	wg756944,	1/22/2015	4:58 p
7	12150122n-07.d	il54268,42e,,6641	wg756944,	1/22/2015	5:11 p
8	12150122n-08.d	il64268,42e,,6642	wg756944,	1/22/2015	5:23 p
9	12150122n-09.d	il13262,42e,,6643	wg756944,	1/22/2015	5:35 p
10	12150122n-10.d	il23262,42e,,6644	wg756944,	1/22/2015	5:48 p
11	12150122n-11.d	il33262,42e,,6645	wg756944,	1/22/2015	6:00 p
12	12150122n-12.d	il43262,42e,,6646	wg756944,	1/22/2015	6:12 p
13	12150122n-13.d	il53262,42e,,6647	wg756944,	1/22/2015	6:25 p
14	12150122n-14.d	il63262,42e,,6648	wg756944,	1/22/2015	6:37 p
15	12150122n-15.d	il11248,42e,,6649	wg756944,	1/22/2015	6:49 p
16	12150122n-16.d	il21248,42e,,6650	wg756944,	1/22/2015	7:02 p
17	12150122n-17.d	il31248,42e,,6651	wg756944,	1/22/2015	7:14 p
18	12150122n-18.d	il41248,42e,,6652	wg756944,	1/22/2015	7:26 p
19	12150122n-19.d	il51248,42e,,6653	wg756944,	1/22/2015	7:39 p
20	12150122n-20.d	il61248,42e,,6654	wg756944,	1/22/2015	7:51 p
21	12150122n-21.d	il12154,42e,,6631	wg756944,	1/22/2015	8:03 p
22	12150122n-22.d	il22154,42e,,6632	wg756944,	1/22/2015	8:16 p
23	12150122n-23.d	il32154,42e,,6633	wg756944,	1/22/2015	8:28 p
24	12150122n-24.d	il42154,42e,,6634	wg756944,	1/22/2015	8:41 p
25	12150122n-25.d	il52154,42e,,6635	wg756944,	1/22/2015	8:53 p
26	12150122n-26.d	il62154,42e,,6636	wg756944,	1/22/2015	9:05 p
27	12150122n-27.d	il11660,42e,,6624	wg756944,	1/22/2015	9:18 p
28	12150122n-28.d	il21660,42e,,6625	wg756944,	1/22/2015	9:30 p
29	12150122n-29.d	il31660,42e,,6626	wg756944,	1/22/2015	9:42 p
30	12150122n-30.d	il41660,42e,,6627	wg756944,	1/22/2015	9:55 p
31	12150122n-31.d	il51660,42e,,6628	wg756944,	1/22/2015	10:07 p
32	12150122n-32.d	il61660,42e,,6629	wg756944,	1/22/2015	10:19 p
33	12150122n-33.d	cicv2154,42e,,6558	wg756944,	1/22/2015	10:32 p
34	12150122n-34.d	cicv4268,42e,,6559	wg756944,	1/22/2015	10:44 p
35	12150122n-35.d	cicv1660,42e,,6555	wg756944,	1/22/2015	10:57 p
36	12150122n-36.d	cicv1248,42e,,6560	wg756944,	1/22/2015	11:09 p
37	12150122n-37.d	cicv3262,42e,,6557	wg756944,	1/22/2015	11:21 p

SeqLog 1.0 - (c) 2009 Abacus Database Applications

Sequence Name: C:\msdchem\1\sequence\160315.s
Comment:
Operator: pest12:jw
Data Path: C:\MSDCHEM\1\DATA\160315\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

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

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1) Sample	1	12160315-01	PCB1	+1016/1260cc PP7208
2) Sample	2	12160315-02	PCB1	wg873731-1,42e,,733
3) Sample	3	12160315-03	PCB1	wg873731-2,42e,,733
4) Sample	4	12160315-04	PCB1	wg873731-3,42e,,733
5) Sample	5	12160315-05	PCB1	l1607280-01,42e,,
6) Sample	6	12160315-06	PCB1	l1607303-01,42e,,
7) Sample	7	12160315-07	PCB1	wg873624-1,42em,,617,619
8) Sample	8	12160315-08	PCB1	wg873624-2,42em,,617,619
9) Sample	9	12160315-09	PCB1	wg873624-3,42em,,617,619
10) Sample	10	12160315-10	PCB1	l1606379-01,42e,,re
11) Sample	11	12160315-11	PCB1	l1606039-01,42e,,re
12) Sample	12	12160315-12	PCB1	l1606039-06,42e,,re
13) Sample	13	12160315-13	PCB1	l1605994-01,42em,,re
14) Sample	14	12160315-14	PCB1	l1605994-03,42em,,re
15) Sample	15	12160315-15	PCB1	l1605994-05,42em,,re
16) Sample	16	12160315-16	PCB1	l1605994-07,42em,,re
17) Sample	17	12160315-17	PCB1	l1606382-01,42em,,re
18) Sample	18	12160315-18	PCB1	l1606382-02,42em,,re
19) Sample	19	12160315-19	PCB1	l1606382-03,42em,,re
20) Sample	20	12160315-20	PCB1	l1606382-04,42em,,re
21) Sample	21	12160315-21	PCB1	+1016/1260cc PP7208
22) Sample	22	12160315-22	PCB1	wg873380-3,42e,,608
23) Sample	23	12160315-23	PCB1	wg873380-4,42e,,608
24) Sample	24	12160315-24	PCB1	l1606364-01,42e,,608
25) Sample	25	12160315-25	PCB1	l1606370-01,42e,,608
26) Sample	26	12160315-26	PCB1	l1606529-02,42e,,608
27) Sample	27	12160315-27	PCB1	l1606529-04,42e,,608
28) Sample	28	12160315-28	PCB1	l1606529-05,42e,,608
29) Sample	29	12160315-29	PCB1	l1606364-08,42e,,608
30) Sample	30	12160315-30	PCB1	wg873380-1,42e,,608
31) Sample	31	12160315-31	PCB1	wg873380-2,42e,,608
32) Sample	32	12160315-32	PCB1	wg873689-3,42e,,608
33) Sample	33	12160315-33	PCB1	wg873689-4,42e,,608
34) Sample	34	12160315-34	PCB1	l1607284-01,42e,,608
35) Sample	35	12160315-35	PCB1	l1606619-01,42e,,608
36) Sample	36	12160315-36	PCB1	l1606663-08,42e,,608
37) Sample	37	12160315-37	PCB1	l1607119-01,42e,,608
38) Sample	38	12160315-38	PCB1	wg873689-1,42e,,608
39) Sample	39	12160315-39	PCB1	wg873689-2,42e,,608
40) Sample	40	12160315-40	PCB1	+1016/1260cc PP7208
41) Sample	41	12160315-41	PCB1	l1606849-01,42e,,
42) Sample	42	12160315-42	PCB1	l1606849-02,42e,,
43) Sample	43	12160315-43	PCB1	l1606849-03,42e,,

Sequence Name: C:\msdchem\1\sequence\160315.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)	Sample		44	12160315-44	PCB1	l1606849-04,42e,,
45)	Sample		45	12160315-45	PCB1	l1606849-05,42e,,
46)	Sample		46	12160315-46	PCB1	l1606849-06,42e,,
47)	Sample		47	12160315-47	PCB1	l1606849-07,42e,,
48)	Sample		48	12160315-48	PCB1	l1606849-08,42e,,
49)	Sample		49	12160315-49	PCB1	l1606849-09,42e,,
50)	Sample		50	12160315-50	PCB1	l1606849-10,42e,,
51)	Sample		51	12160315-51	PCB1	l1606849-11,42e,,
52)	Sample		52	12160315-52	PCB1	l1606849-12,42e,,
53)	Sample		53	12160315-53	PCB1	l1606849-13,42e,,
54)	Sample		54	12160315-54	PCB1	l1606849-14,42e,,
55)	Sample		55	12160315-55	PCB1	l1606849-15,42e,,
56)	Sample		56	12160315-56	PCB1	l1606849-16,42e,,
57)	Sample		57	12160315-57	PCB1	l1606849-17,42e,,
58)	Sample		58	12160315-58	PCB1	wg873506-1,42e,,
59)	Sample		59	12160315-59	PCB1	wg873506-2,42e,,
60)	Sample		60	12160315-60	PCB1	wg873506-3,42e,,
61)	Sample		61	12160315-61	PCB1	+1016/1260cc PP7208
62)	Sample		62	12160315-62	PCB1	l1606849-18,42e,,
63)	Sample		63	12160315-63	PCB1	l1606849-19,42e,,
64)	Sample		64	12160315-64	PCB1	l1606849-20,42e,,
65)	Sample		65	12160315-65	PCB1	wg873675-1,42e,,
66)	Sample		66	12160315-66	PCB1	wg873675-2,42e,,
67)	Sample		67	12160315-67	PCB1	wg873675-3,42e,,
68)	Sample		68	12160315-68	PCB1	l1606494-01,42e,,
69)	Sample		69	12160315-69	PCB1	l1606534-01,42e,,
70)	Sample		70	12160315-70	PCB1	l1606544-01,42e,,
71)	Sample		71	12160315-71	PCB1	l1606544-02,42e,,
72)	Sample		72	12160315-72	PCB1	l1606544-03,42e,,
73)	Sample		73	12160315-73	PCB1	l1606544-04,42e,,
74)	Sample		74	12160315-74	PCB1	l1606544-05,42e,,
75)	Sample		75	12160315-75	PCB1	l1606763-01,42e,,
76)	Sample		76	12160315-76	PCB1	l1606768-01,42e,,
77)	Sample		77	12160315-77	PCB1	l1606768-02,42e,,
78)	Sample		78	12160315-78	PCB1	l1606768-03,42e,,
79)	Sample		79	12160315-79	PCB1	l1606768-04,42e,,
80)	Sample		80	12160315-80	PCB1	+1016/1260cc PP7208

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 23 2016, 02:20 pm

Work Group: WG873675 for Department: 2 Organic Preparation

Created: 14-MAR-16 Due: Operator: FOA

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1606494-01	WASTEWATER-030816	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606534-01	AUGER RINSE	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-01	MW05_030816	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-02	GWDUP01_030816	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-03	MW01_030816	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-04	MW07_030816	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606544-05	GWFB01_030816	S	NYTCL-8082-1200ML	WATER	DONE	U	0315	0317	S0	Amber-A1
L1606763-01	MW12_030916	S	NYTCL-8082-1200ML	WATER	DONE	U	0316	0316	S0	Amber-A1
L1606768-01	TW-1	S	NYTCL-8082-1200ML	WATER	DONE	U	0316	0318	S0	Amber-A1
L1606768-02	TW-2	S	NYTCL-8082-1200ML	WATER	DONE	U	0316	0318	S0	Amber-A1
L1606768-03	TW-3	S	NYTCL-8082-1200ML	WATER	DONE	U	0316	0318	S0	Amber-A1
L1606768-04	TW-4	S	NYTCL-8082-1200ML	WATER	DONE	U	0316	0318	S0	Amber-A1
WG873675-1	Laboratory Method Bl	S	NYTCL-8082-1200ML	WATER	DONE	U				
WG873675-2	Laboratory Control S	S	NYTCL-8082-1200ML	WATER	DONE	U				
WG873675-3	LCS Duplicate	S	NYTCL-8082-1200ML	WATER	DONE	U				

Comments:

WG873675-3 WG873675-2

ORGANIC ELN REPORT

Workgroup: WG873675

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP470
Surrogate Type: Pesticide/PCB **Lot #:** 7220
Spike Type: PCB **Lot #:** 7205
Spike Verify by: FOA
Lims Spikelot: PEST_5452
Additional Reagents/Stds

Conc.Method: S-EVAP/N-EVAP
Solvent Type: Hexane
Lot #: dp283
Additional Reagents/Stds

Cleanup 1

Cleanup Method 1: EPA 3665A
Cleanup Method 2:
Solvent Type: Hexane **Lot #:** dp283
Additional Reagents/Stds

H2SO4	C584262

Cleanup 2

Cleanup Method 1: EPA 3660B
Cleanup Method 2:
Solvent Type: Hexane **Lot #:** dp283
Additional Reagents/Stds

Copper	0000030620

Cleanup 3

Cleanup Method 1:
Solvent Type: **Lot #:**
Additional Reagents/Stds

Cleanup 4

Cleanup Method 1:
Solvent Type: **Lot #:**
Additional Reagents/Stds

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
WG873675-1 BLANK	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
WG873675-2 LCS	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25	.25	03/15/16 12:06	Lewis Steen	1	B/D
WG873675-3 LCSD	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25	.25	03/15/16 12:06	Lewis Steen	1	B/D
L1606494-01 SAMP	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D

Reported: 23-MAR-16 02:21 PM

ORGANIC ELN REPORT

Workgroup: WG873675

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1606534-01 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606544-01 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606544-02 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606544-03 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606544-04 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606544-05 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606763-01 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606768-01 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D

Reported: 23-MAR-16 02:21 PM

ORGANIC ELN REPORT

Workgroup: WG873675

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1606768-02 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606768-03 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D
L1606768-04 WATER	03/14/16 18:54	Freddy Ofori-Atta	1200	>5/<9	.25		03/15/16 12:06	Lewis Steen	1	B/D

Reported: 23-MAR-16 02:21 PM

ORGANIC ELN REPORT

Workgroup: WG873675

Sample/ Type	Cleanup 1				Cleanup 2	
	Cleanup Date	Analyst	Pest Aliquot **ml**	Pest Final **ml**	Cleanup Date	Analyst
WG873675-1 BLANK	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
WG873675-2 LCS	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
WG873675-3 LCSD	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606494-01 SAMP	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606534-01 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606544-01 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606544-02 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606544-03 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606544-04 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606544-05 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606763-01 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt

ORGANIC ELN REPORT

Workgroup: WG873675

Sample/ Type	Cleanup 1				Cleanup 2	
	Cleanup Date	Analyst	Pest Aliquot **ml**	Pest Final **ml**	Cleanup Date	Analyst
L1606768-01 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606768-02 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606768-03 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt
L1606768-04 WATER	03/15/16 18:11	Dan Montt	1	1	03/15/16 18:12	Dan Montt

Reported: 23-MAR-16 02:21 PM

GC Extractable Analysis
Pesticides

Semivolatiles QC Summary

Form 2
Surrogate Recovery
PESTICIDES

Client: Langan Engineering & Environmental
Project Name: 450 UNION STREET

Lab Number: L1606763
Project Number: 170301202
Matrix: Water

GC Column 1: CLPPesticides
GC Column 2: CLPPesticidesII

CLIENT ID (LAB SAMPLE NO.)	TCX 1 %REC	TCX 2 %REC	DCB 1 %REC	DCB 2 %REC	OTHER (1)	OTHER (2)	TOT OUT
WG873613-3LCSD	67	72	111	117			0
WG873613-2LCS	69	75	116	127			0
WG873613-1BLANK	64	68	98	109			0
MW12_030916 (L1606763-01)	76	79	70	66			0

	QC LIMITS
TCX = 2,4,5,6-TETRACHLORO-M-XYLENE	(30-150)
DCBP = DECACHLOROBIPHENYL	(30-150)

* Values outside of QC limits

FORM II NYTCL-8081

Laboratory Control Sample
Form 3

Client	: Langan Engineering & Environmental			**Lab Number**	: L1606763
Project Name	: 450 UNION STREET			**Project Number**	: 170301202
Matrix	: WATER				
LCS Sample ID	: WG873613-2	**Analysis Date :**	03/14/16 22:55	**File ID**	: 15160314e-05
LCSD Sample ID	: WG873613-3	**Analysis Date :**	03/14/16 23:08	**File ID**	: 15160314e-06

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Delta-BHC	0.5	0.522	104	0.5	0.526	105	1	30-150	20
Lindane	0.5	0.528	106	0.5	0.527	105	1	30-150	20
Alpha-BHC	0.5	0.549	110	0.5	0.551	110	0	30-150	20
Beta-BHC	0.5	0.528	106	0.5	0.524	105	1	30-150	20
Heptachlor	0.5	0.447	89	0.5	0.460	92	3	30-150	20
Aldrin	0.5	0.480	96	0.5	0.499	100	4	30-150	20
Heptachlor epoxide	0.5	0.532	106	0.5	0.532	106	0	30-150	20
Endrin	0.5	0.532	106	0.5	0.534	107	1	30-150	20
Endrin aldehyde	0.5	0.563	113	0.5	0.552	110	3	30-150	20
Endrin ketone	0.5	0.549	110	0.5	0.515	103	7	30-150	20
Dieldrin	0.5	0.514	103	0.5	0.514	103	0	30-150	20
4,4'-DDE	0.5	0.547	109	0.5	0.546	109	0	30-150	20
4,4'-DDD	0.5	0.566	113	0.5	0.560	112	1	30-150	20
4,4'-DDT	0.5	0.548	110	0.5	0.546	109	1	30-150	20
Endosulfan I	0.5	0.516	103	0.5	0.514	103	0	30-150	20
Endosulfan II	0.5	0.566	113	0.5	0.566	113	0	30-150	20
Endosulfan sulfate	0.5	0.480	96	0.5	0.476	95	1	30-150	20
Methoxychlor	0.5	0.606	121	0.5	0.591	118	3	30-150	20
cis-Chlordane	0.5	0.535	107	0.5	0.534	107	0	30-150	20
trans-Chlordane	0.5	0.515	103	0.5	0.517	103	0	30-150	20

Method Blank Summary
Form 4

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab Sample ID	: WG873613-1	**Lab File ID**	: 15160314e-04
Matrix	: WATER	**Extraction Date**	: 03/14/16
Analysis Date (1)	: 03/14/16 22:42	**Analysis Date (2)**	: 03/14/16 22:42
Instrument ID (1)	: PEST15	**Instrument ID (2)**	: PEST15

Client Sample No.	Lab Sample ID	Analysis Date 1	Analysis Date 2
WG873613-2LCS	WG873613-2	03/14/16 22:55	03/14/16 22:55
WG873613-3LCSD	WG873613-3	03/14/16 23:08	03/14/16 23:08
MW12_030916	L1606763-01	03/15/16 01:19	03/15/16 01:19

Analytical Sequence
Form 8

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: PEST15	**Initial Calib. Date(s)**	: 01/09/16 01/09/16

Client ID	Lab ID	Date/Time Analyzed
R830526-1 PEM	R830526-1	01/09/16 15:34
Pesticides L1	R830526-2	01/09/16 15:47
Pesticides L2	R830526-3	01/09/16 16:00
Pesticides L3	R830526-4	01/09/16 16:14
Pesticides L4	R830526-5	01/09/16 16:27
Pesticides L5	R830526-6	01/09/16 16:40
Pesticides L6	R830526-7	01/09/16 16:53
Pesticides L7	R830526-8	01/09/16 17:06
Pesticides L8	R830526-9	01/09/16 17:19
Pesticides L9	R830526-10	01/09/16 17:32
Pesticides L10	R830526-11	01/09/16 17:45
R830526-12 ICV	R830526-12	01/09/16 17:58
Chlordane/Toxaphene L1	R830526-13	01/09/16 18:11
Chlordane/Toxaphene L2	R830526-14	01/09/16 18:24
Chlordane/Toxaphene L3	R830526-15	01/09/16 18:37
Chlordane/Toxaphene L4	R830526-16	01/09/16 18:50
Chlordane/Toxaphene L5	R830526-17	01/09/16 19:03
Chlordane/Toxaphene L6	R830526-18	01/09/16 19:16
Chlordane/Toxaphene L7	R830526-20	01/09/16 19:29
Chlordane/Toxaphene L8	R830526-19	01/09/16 19:42
Chlordane/Toxaphene L9	R830526-21	01/09/16 19:55
R830526-22 ICV	R830526-22	01/09/16 20:08
WG873703-1 CCAL	WG873703-1	03/14/16 22:07
WG873703-2 CCAL	WG873703-2	03/14/16 22:20
WG873613-1 BLANK	WG873613-1	03/14/16 22:42
WG873613-2 LCS	WG873613-2	03/14/16 22:55
WG873613-3 LCSD	WG873613-3	03/14/16 23:08
MW12_030916	L1606763-01	03/15/16 01:19

Determination of Method Detection Limits

Alpha Analytical Inc.
Westboro, MA

Approved

Page 1 of 3	
Analyst:	SS
Date:	11/11/13, 11/16/13
Instrument ID:	Pest 15
Column ID:	N/A
Prep Method:	EPA 3510C
Prep Chemist:	GA, SF, NS, MW, GN

Method: EPA 8081B 2013

GC Pesticides Liquid

Initial Weight/Volume: 500 mL
Final Volume: 5 mL

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013						
No.	Analytes Channel A	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Hexachlorobenzene	0.01	0.0153	0.0170	0.0162	0.0142	0.0124	0.0141	0.0137	0.0137	0.0153	0.0133	0.0145	145%	0.00141	0.00397	0.020	
2	Alpha-BHC	0.01	0.0114	0.0122	0.0119	0.0103	0.0101	0.0095	0.0108	0.0096	0.0103	0.0105	0.0107	107%	0.00092	0.00258	0.020	
3	Gamma-BHC (Lindane)	0.01	0.0090	0.0098	0.0114	0.0091	0.0086	0.0088	0.0085	0.0083	0.0097	0.0089	0.0092	92%	0.00091	0.00256	0.020	
4	Beta-BHC	0.01	0.0139	0.0121	0.0151	0.0138	0.0141	0.0109	0.0128	0.0115	0.0149	0.0118	0.0131	131%	0.00147	0.00416	0.020	
5	Delta-BHC	0.01	0.0087	0.0097	0.0111	0.0087	0.0082	0.0083	0.0083	0.0094	0.0089	0.0084	0.0090	90%	0.00090	0.00253	0.020	
6	Heptachlor	0.01	0.0113	0.0102	0.0120	0.0097	0.0097	0.0098	0.0102	0.0100	0.0111	0.0098	0.0104	104%	0.00080	0.00226	0.020	
7	Aldrin	0.01	0.0050	0.0056	0.0056	0.0043	0.0044	0.0045	0.0044	0.0042	0.0053	0.0044	0.0048	48%	0.00055	0.00156	0.020	
8	Alachlor	0.01	0.0088	0.0115	0.0104	0.0100	0.0093	0.0095	0.0061	0.0092	0.0101	0.0095	0.0094	94%	0.00140	0.00394	0.100	
9	Heptachlor epoxide	0.01	0.0105	0.0122	0.0115	0.0099	0.0097	0.0100	0.0099	0.0092	0.0101	0.0094	0.0102	102%	0.00094	0.00264	0.020	
10	trans-Chlordane	0.01	0.0115	0.0120	0.0130	0.0106	0.0107	0.0112	0.0103	0.0104	0.0116	0.0094	0.0111	111%	0.00101	0.00286	0.020	
11	cis-Chlordane	0.01	0.0108	0.0111	0.0114	0.0088	0.0094	0.0088	0.0090	0.0083	0.0097	0.0090	0.0096	96%	0.00109	0.00307	0.020	
12	4,4-DDE	0.01	0.0100	0.0098	0.0114	0.0084	0.0085	0.0080	0.0084	0.0074	0.0090	0.0081	0.0089	89%	0.00119	0.00334	0.040	
13	Endosulfan I	0.01	0.0123	0.0130	0.0135	0.0107	0.0110	0.0113	0.0127	0.0100	0.0124	0.0102	0.0117	117%	0.00123	0.00346	0.040	
14	Dieldrin	0.01	0.0120	0.0127	0.0118	0.0098	0.0099	0.0100	0.0098	0.0103	0.0108	0.0098	0.0107	107%	0.00109	0.00307	0.040	
15	Endrin	0.01	0.0113	0.0121	0.0134	0.0103	0.0108	0.0100	0.0109	0.0105	0.0114	0.0107	0.0111	111%	0.00099	0.00281	0.040	
16	4,4-DDD	0.01	0.0094	0.0118	0.0101	0.0086	0.0091	0.0085	0.0089	0.0078	0.0097	0.0095	0.0093	93%	0.00109	0.00307	0.040	
17	Endosulfan II	0.01	0.0135	0.0147	0.0142	0.0131	0.0128	0.0123	0.0129	0.0131	0.0126	0.0126	0.0132	132%	0.00076	0.00213	0.040	
18	Endrin Aldehyde	0.01	0.0089	0.0098	0.0097	0.0094	0.0091	0.0084	0.0088	0.0082	0.0099	0.0088	0.0091	91%	0.00059	0.00166	0.040	
19	Methoxychlor	0.01	0.0111	0.0128	0.0115	0.0111	0.0108	0.0097	0.0097	0.0099	0.0118	0.0110	0.0109	109%	0.00099	0.00278	0.200	
20	Endosulfan sulphate	0.01	0.0092	0.0105	0.0118	0.0087	0.0082	0.0082	0.0085	0.0086	0.0094	0.0087	0.0092	92%	0.00115	0.00324	0.040	
21	Endrin Ketone	0.01	0.0091	0.0100	0.0094	0.0076	0.0080	0.0081	0.0080	0.0074	0.0091	0.0082	0.0085	85%	0.00085	0.00241	0.040	
	Surrogates																	
	TCMX	0.5	0.354	0.388	0.384	0.296	0.287	0.312	0.320	0.296	0.339	0.309	0.328	66%				
	Decachlorobiphenyl	0.5	0.553	0.591	0.587	0.493	0.503	0.479	0.497	0.460	0.529	0.464	0.516	103%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013						
No.	Analytes Channel A	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
22	4,4-DDT	0.04	0.0324	0.0376	0.0377	0.0355	0.0353	0.0385	0.0365	0.0394	0.0369	0.0452	0.0375	94%	0.00334	0.00941	0.040	
	Surrogates																	
	TCMX	0.5	0.222	0.209	0.206	0.198	0.203	0.218	0.225	0.245	0.258	0.275	0.226	45%				
	Decachlorobiphenyl	0.5	0.401	0.463	0.482	0.451	0.438	0.460	0.435	0.472	0.452	0.521	0.457	91%				

Comments: _____

Technical Director: _____ Date Effective: 11/9/14

Determination of Method Detection Limits

Alpha Analytical Inc.
Westboro, MA

Approved

Page 2 of 3	
Analyst:	SS
Date:	11/11/13, 11/16/13
Instrument ID:	Pest 15
Column ID:	N/A
Prep Method:	EPA 3510C
Prep Chemist:	GA, SF, NS, MW, GN

Method: EPA 8081B **2013**

GC **Pesticides** **Liquid**

Initial Weight/Volume: 500 mL
Final Volume: 5 mL

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013	11/16/2013						
No.	Analytes Channel B	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Hexachlorobenzene	0.01	0.0148	0.0156	0.0147	0.0120	0.0129	0.0132	0.0131	0.0126	0.0147	0.0123	0.0136	136%	0.00125	0.00352	0.020	
2	Alpha-BHC	0.01	0.0111	0.0118	0.0112	0.0095	0.0095	0.0092	0.0097	0.0091	0.0108	0.0117	0.0104	104%	0.00106	0.00300	0.020	
3	Gamma-BHC (Lindane)	0.01	0.0126	0.0135	0.0132	0.0103	0.0114	0.0103	0.0101	0.0100	0.0110	0.0110	0.0113	113%	0.00131	0.00370	0.020	
4	Beta-BHC	0.01	0.0121	0.0126	0.0119	0.0101	0.0101	0.0118	0.0099	0.0124	0.0108	0.0106	0.0112	112%	0.00104	0.00293	0.020	
5	Delta-BHC	0.01	0.0097	0.0120	0.0110	0.0092	0.0101	0.0091	0.0096	0.0095	0.0105	0.0103	0.0102	102%	0.00090	0.00254	0.020	
6	Heptachlor	0.01	0.0117	0.0113	0.0122	0.0097	0.0094	0.0098	0.0094	0.0093	0.0116	0.0094	0.0104	104%	0.00117	0.00329	0.020	
7	Aldrin	0.01	0.0090	0.0098	0.0095	0.0072	0.0081	0.0082	0.0081	0.0074	0.0092	0.0076	0.0084	84%	0.00091	0.00257	0.020	
8	Alachlor	0.01	0.0132	0.0160	0.0147	0.0124	0.0125	0.0125	0.0103	0.0118	0.0136	0.0127	0.0130	130%	0.00156	0.00441	0.100	
9	Heptachlor epoxide	0.01	0.0150	0.0177	0.0162	0.0141	0.0124	0.0155	0.0126	0.0126	0.0185	0.0117	0.0146	146%	0.00235	0.00664	0.020	
10	trans-Chlordane	0.01	0.0130	0.0142	0.0138	0.0118	0.0113	0.0116	0.0107	0.0099	0.0138	0.0110	0.0121	121%	0.00149	0.00420	0.020	
11	cis-Chlordane	0.01	0.0117	0.0130	0.0119	0.0094	0.0105	0.0100	0.0111	0.0094	0.0116	0.0099	0.0109	109%	0.00120	0.00339	0.020	
12	4,4-DDE	0.01	0.0115	0.0129	0.0123	0.0096	0.0102	0.0096	0.0103	0.0093	0.0112	0.0097	0.0107	107%	0.00125	0.00353	0.040	
13	Endosulfan I	0.01	0.0134	0.0135	0.0134	0.0115	0.0118	0.0106	0.0113	0.0108	0.0124	0.0109	0.0120	120%	0.00114	0.00322	0.040	
14	Dieldrin	0.01	0.0120	0.0135	0.0128	0.0098	0.0103	0.0100	0.0106	0.0097	0.0117	0.0109	0.0111	111%	0.00132	0.00371	0.040	
15	Endrin	0.01	0.0118	0.0130	0.0135	0.0101	0.0105	0.0105	0.0108	0.0102	0.0120	0.0105	0.0113	113%	0.00122	0.00343	0.040	
16	4,4-DDD	0.01	0.0114	0.0125	0.0119	0.0097	0.0111	0.0101	0.0105	0.0096	0.0114	0.0101	0.0108	108%	0.00098	0.00276	0.040	
17	Endosulfan II	0.01	0.0125	0.0133	0.0131	0.0105	0.0112	0.0105	0.0106	0.0095	0.0112	0.0103	0.0113	113%	0.00128	0.00361	0.040	
18	Endrin Aldehyde	0.01	0.0116	0.0177	0.0110	0.0124	0.0117	0.0156	0.0088	0.0093	0.0117	0.0103	0.0120	120%	0.00274	0.00772	0.040	
19	Methoxychlor	0.01	0.0130	0.0134	0.0130	0.0097	0.0110	0.0102	0.0118	0.0112	0.0121	0.0101	0.0116	116%	0.00132	0.00373	0.200	
20	Endosulfan sulphate	0.01	0.0090	0.0103	0.0097	0.0087	0.0083	0.0084	0.0081	0.0080	0.0092	0.0081	0.0088	88%	0.00077	0.00216	0.040	
21	Endrin Ketone	0.01	0.0113	0.0119	0.0108	0.0092	0.0099	0.0091	0.0095	0.0090	0.0102	0.0094	0.0100	100%	0.00100	0.00283	0.040	
	Surrogates																	
	TCMX	0.5	0.372	0.411	0.380	0.291	0.297	0.317	0.326	0.300	0.351	0.314	0.336	67%				
	Decachlorobiphenyl	0.5	0.553	0.612	0.563	0.475	0.511	0.494	0.509	0.478	0.557	0.475	0.522	104%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013	11/11/2013						
No.	Analytes Channel B	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
22	4,4-DDT	0.04	0.0358	0.0393	0.0383	0.0379	0.0351	0.0409	0.0381	0.0408	0.0374	0.0481	0.0392	98%	0.00365	0.01030	0.040	
	Surrogates																	
	TCMX	0.5	0.237	0.217	0.210	0.212	0.209	0.231	0.238	0.266	0.265	0.308	0.239	48%				
	Decachlorobiphenyl	0.5	0.436	0.466	0.488	0.473	0.448	0.478	0.468	0.501	0.462	0.585	0.480	96%				

Comments: _____

Determination of Method Detection Limits

Alpha Analytical Inc.
Westboro, MA

Approved

Page 3 of 3	
Analyst:	SS
Date:	11/18/13, 11/19/13
Instrument ID:	Pest 15
Column ID:	N/A
Prep Method:	EPA 3510C
Prep Chemist:	GA, GY, HA, NS, SF

Method: EPA 8081B **2013**

GC **Pesticides** **Liquid**

Initial Weight/Volume: 500 mL
Final Volume: 5 mL

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating					
		Date Analyzed	11/18/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	MDL: 2.821					
No.	Analytes Channel A	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Chlordane	0.125	0.153	0.116	0.130	0.123	0.144	0.114	0.134	0.105	0.116	0.113	0.125	100%	0.0152	0.0428	0.200	
	Surrogates																	
	TCMX	0.5	0.377	0.328	0.346	0.326	0.380	0.319	0.327	0.293	0.331	0.296	0.332	66%				
	Decachlorobiphenyl	0.5	0.509	0.436	0.477	0.463	0.504	0.428	0.447	0.375	0.437	0.443	0.452	90%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating					
		Date Analyzed	11/18/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	11/19/2013	MDL: 2.821					
No.	Analytes Channel B	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Chlordane	0.125	0.150	0.144	0.161	0.148	0.164	0.136	0.147	0.121	0.148	0.131	0.145	116%	0.0131	0.0369	0.200	
	Surrogates																	
	TCMX	0.5	0.368	0.350	0.369	0.353	0.408	0.341	0.362	0.319	0.363	0.307	0.354	71%				
	Decachlorobiphenyl	0.5	0.469	0.471	0.524	0.515	0.560	0.477	0.518	0.432	0.497	0.484	0.495	99%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating					
		Date Analyzed	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	MDL: 2.821					
No.	Analytes Channel A	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Toxaphene	0.5	0.522	0.567	0.573	0.529	0.552	0.540	0.535	0.575	0.561	0.595	0.555	111%	0.0233	0.0658	0.200	
	Surrogates																	
	TCMX	0.5	0.377	0.357	0.402	0.354	0.393	0.374	0.356	0.348	0.387	0.345	0.364	73%				
	Decachlorobiphenyl	0.5	0.532	0.531	0.571	0.485	0.522	0.523	0.488	0.474	0.467	0.476	0.507	101%				

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating					
		Date Analyzed	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	MDL: 2.821					
No.	Analytes Channel B	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Toxaphene	0.5	0.523	0.527	0.528	0.529	0.529	0.487	0.499	0.558	0.488	0.526	0.520	104%	0.0219	0.0617	0.200	
	Surrogates																	
	TCMX	0.5	0.392	0.374	0.426	0.360	0.416	0.387	0.371	0.369	0.363	0.359	0.382	76%				
	Decachlorobiphenyl	0.5	0.577	0.583	0.652	0.534	0.607	0.580	0.553	0.542	0.529	0.533	0.569	114%				

Comments: _____

Pesticide Sample Data

Form 1
GC Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 01:19
Sample Matrix	: WATER	Date Extracted	: 03/14/16
Analytical Method	: 1,8081B	Dilution Factor	: 1
Lab File ID	: 15160314e-16	Analyst	: AM
Sample Amount	: 500 ml	Instrument ID	: PEST15
Extraction Method	: EPA 3510C	GC Column	: CLPPesticides
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL
Sulfur Cleanup	: N		

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
319-86-8	Delta-BHC	ND	0.020	0.005	U
58-89-9	Lindane	ND	0.020	0.004	U
319-84-6	Alpha-BHC	ND	0.020	0.004	U
319-85-7	Beta-BHC	ND	0.020	0.006	U
76-44-8	Heptachlor	ND	0.020	0.003	U
309-00-2	Aldrin	ND	0.020	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.020	0.004	U
72-20-8	Endrin	ND	0.040	0.004	U
7421-93-4	Endrin aldehyde	ND	0.040	0.008	U
53494-70-5	Endrin ketone	ND	0.040	0.005	U
60-57-1	Dieldrin	ND	0.040	0.004	U
72-55-9	4,4'-DDE	ND	0.040	0.004	U
72-54-8	4,4'-DDD	ND	0.040	0.005	U
50-29-3	4,4'-DDT	ND	0.040	0.004	U
959-98-8	Endosulfan I	ND	0.020	0.003	U
33213-65-9	Endosulfan II	ND	0.040	0.005	U
1031-07-8	Endosulfan sulfate	ND	0.040	0.005	U
72-43-5	Methoxychlor	ND	0.200	0.007	U
8001-35-2	Toxaphene	ND	0.200	0.063	U
5103-71-9	cis-Chlordane	ND	0.020	0.007	U
5103-74-2	trans-Chlordane	ND	0.020	0.006	U
57-74-9	Chlordane	ND	0.200	0.046	U

Form 1
GC Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873613-1	Date Collected	: NA
Client ID	: WG873613-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/14/16 22:42
Sample Matrix	: WATER	Date Extracted	: 03/14/16
Analytical Method	: 1,8081B	Dilution Factor	: 1
Lab File ID	: 15160314e-04	Analyst	: AM
Sample Amount	: 500 ml	Instrument ID	: PEST15
Extraction Method	: EPA 3510C	GC Column	: CLPPesticides
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL
Sulfur Cleanup	: N		

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
319-86-8	Delta-BHC	ND	0.020	0.005	U
58-89-9	Lindane	ND	0.020	0.004	U
319-84-6	Alpha-BHC	ND	0.020	0.004	U
319-85-7	Beta-BHC	ND	0.020	0.006	U
76-44-8	Heptachlor	ND	0.020	0.003	U
309-00-2	Aldrin	ND	0.020	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.020	0.004	U
72-20-8	Endrin	ND	0.040	0.004	U
7421-93-4	Endrin aldehyde	ND	0.040	0.008	U
53494-70-5	Endrin ketone	ND	0.040	0.005	U
60-57-1	Dieldrin	ND	0.040	0.004	U
72-55-9	4,4'-DDE	ND	0.040	0.004	U
72-54-8	4,4'-DDD	ND	0.040	0.005	U
50-29-3	4,4'-DDT	ND	0.040	0.004	U
959-98-8	Endosulfan I	ND	0.020	0.003	U
33213-65-9	Endosulfan II	ND	0.040	0.005	U
1031-07-8	Endosulfan sulfate	ND	0.040	0.005	U
72-43-5	Methoxychlor	ND	0.200	0.007	U
8001-35-2	Toxaphene	ND	0.200	0.063	U
5103-71-9	cis-Chlordane	ND	0.020	0.007	U
5103-74-2	trans-Chlordane	ND	0.020	0.006	U
57-74-9	Chlordane	ND	0.200	0.046	U

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 15 Mar 2016 1:19 am
Operator : pest15:am
Sample : l1606763-01,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 14:18:32 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	1.988	1.959	96467202	60182977	25.000M4	25.000M4
26) i	1-br-2-nb...	1.988	1.959	95392733	60510567	25.000	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.487	2.565	180.3E6	110.6E6	38.192	39.367
	Spiked Amount	50.000	Range 30 - 150		Recovery =	76.38%	78.73%
25) s	Decachlor...	6.456	6.852	106.6E6	68695720	34.838M4	33.120M4
	Spiked Amount	50.000	Range 30 - 150		Recovery =	69.68%	66.24%
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D.
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D.	N.D.
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160314e\
Data File : 15160314e-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 15 Mar 2016 1:19 am
Operator : pest15:am
Sample : l1606763-01,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 14:18:32 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

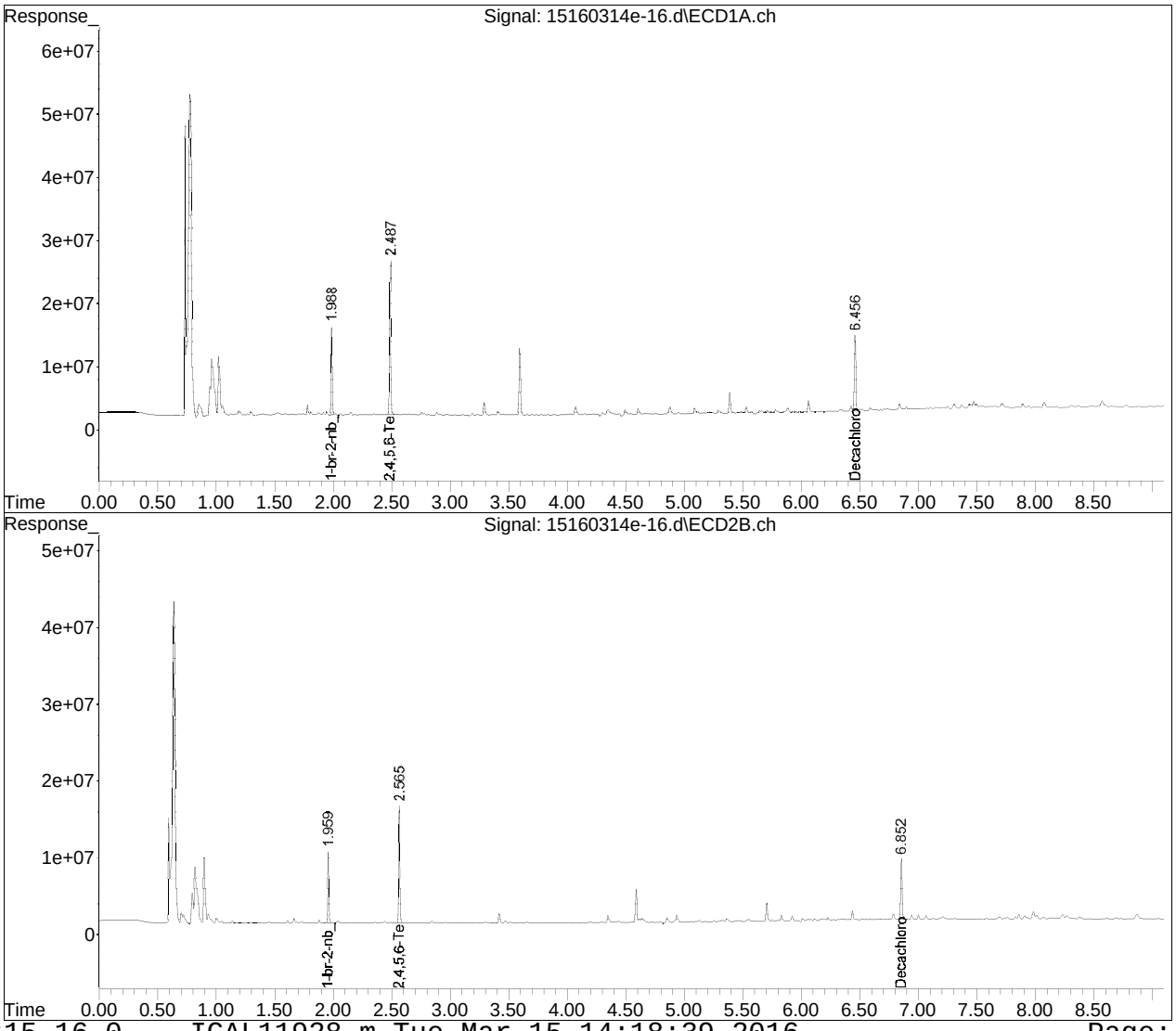
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 15 Mar 2016 1:19 am
Operator : pest15:am
Sample : l1606763-01,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 14:18:32 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

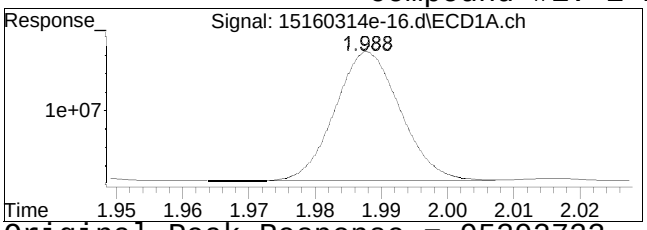


Manual Integration/Negative Proof Report

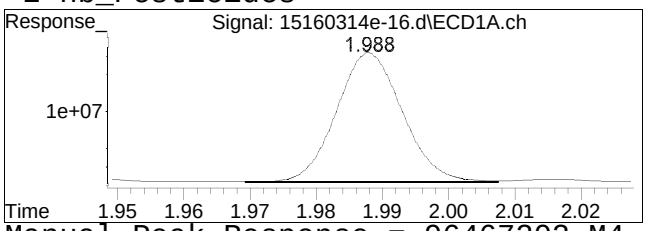
Data Path : I:\Pest15\160314e\
Data File : 15160314e-16.d
Date Inj'd : 3/15/2016 1:19 am
Sample : l1606763-01,42e,,

QMethod : pest15_16_01_09a_ICAL1
Operator : pest15:am
Instrument : Pest 15
Quant Date : 3/15/2016 2:16 pm

Compound #1: 1-br-2-nb_Pesticides



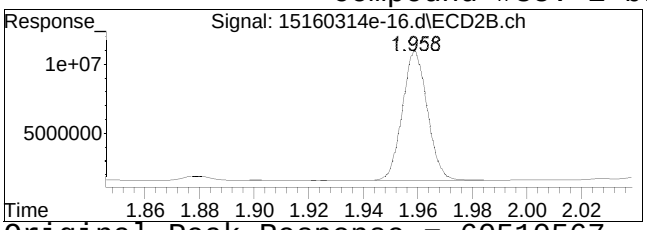
Original Peak Response = 95392733



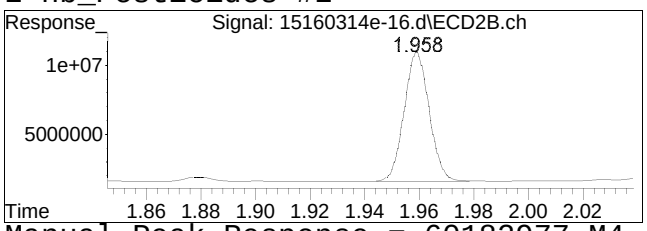
Manual Peak Response = 96467202 M4

M4 = Poor automated baseline construction.

Compound #35: 1-br-2-nb_Pesticides #2



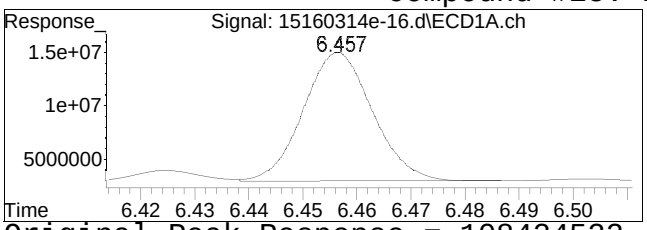
Original Peak Response = 60510567



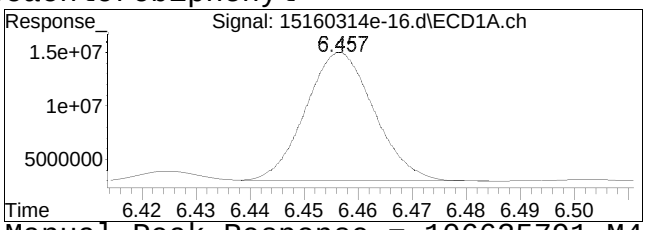
Manual Peak Response = 60182977 M4

M4 = Poor automated baseline construction.

Compound #25: Decachlorobiphenyl



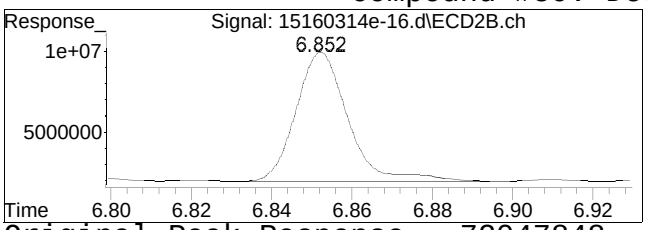
Original Peak Response = 108424522



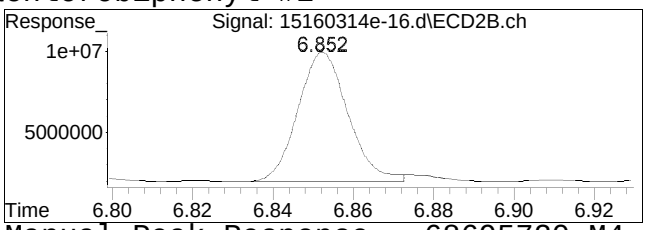
Manual Peak Response = 106635791 M4

M4 = Poor automated baseline construction.

Compound #59: Decachlorobiphenyl #2



Original Peak Response = 72047848



Manual Peak Response = 68695720 M4

M4 = Poor automated baseline construction.

Pesticides Standards Data

Initial Calibration

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST15**	**Ical Ref**	**: ICAL11928**
Calibration dates	**: 01/09/16 15:47 01/09/16 19:55**		

Calibration Files

1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d

6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
1)	i	1-br-2-nb_Pesticides	----------ISTD----------											
2)	s	2,4,5,6-Tetrachloro-m-xylene	1.385	1.294	1.248	1.182	1.197	1.217	1.199	1.177	1.182	1.155	1.223	5.68
3)		Hexachlorobenzene	1.703	1.550	1.469	1.386	1.387	1.386	1.320	1.223	1.228	1.213	*L	1.000
0)														
4)		alpha-BHC	1.518	1.423	1.333	1.290	1.319	1.350	1.381	1.501	1.575	1.597	1.429	7.80
5)		gamma-BHC (lindane)	1.539	1.381	1.313	1.273	1.279	1.295	1.323	1.382	1.441	1.453	1.368	6.41
6)		beta-BHC	1.081	0.927	0.821	0.759	0.758	0.759	0.734	0.653	0.656	0.654	*L	1.000
0)														
7)		delta-BHC	1.876	1.522	1.374	1.262	1.309	1.310	1.325	1.404	1.487	1.517	1.439	12.46
8)		Heptachlor	1.706	1.578	1.471	1.384	1.384	1.390	1.380	1.334	1.351	1.319	1.430	8.60
9)		Aldrin	1.352	1.215	1.169	1.125	1.133	1.140	1.150	1.176	1.221	1.229	1.191	5.70
10)		Alachlor		0.273	0.266	0.262	0.265	0.260	0.245	0.215	0.197	0.180	*L	0.997
1)														
11)		Heptachlor Ep	1.659	1.498	1.388	1.310	1.273	1.276	1.258	1.151	1.159	1.131	*L	0.999
9)														
12)		gamma-Chlorda	1.418	1.332	1.262	1.265	1.245	1.254	1.220	1.171	1.219	1.231	*L	0.999
9)														
13)		alpha-Chlorda	1.411	1.323	1.270	1.191	1.171	1.176	1.173	1.135	1.168	1.174	*L	0.999
9)														
14)		4,4'-DDE	1.257	1.035	1.057	0.999	1.030	1.050	1.047	1.127	1.185	1.197	1.098	7.94
15)		Endosulfan I	1.257	1.181	1.133	1.061	1.083	1.085	1.071	1.044	1.058	1.033	1.101	6.38
16)		Dieldrin	1.630	1.378	1.234	1.151	1.138	1.160	1.128	1.148	1.177	1.157	1.230	12.91
17)		Endrin	1.297	1.401	1.185	1.116	1.122	1.116	1.096	1.086	1.112	1.099	1.163	8.99
18)		4,4'-DDD	0.932	0.933	0.930	0.904	0.914	0.914	0.915	0.937	0.975	0.986	0.934	2.88
19)		Endosulfan II	1.463	1.167	1.141	1.045	1.062	1.083	1.058	1.003	1.010	0.969	*L	0.999
7)														
20)		4,4'-DDT		1.277	1.113	1.034	1.075	1.064	1.034	0.999	1.033	1.039	*L	0.999
9)														
21)		Endrin Aldehyde	.521	1.233	1.070	0.922	0.971	0.937	0.892	0.807	0.815	0.811	*L	1.000
0)														
22)		Methoxychlor	.872	0.814	0.747	0.686	0.674	0.675	0.637	0.552	0.537	0.517	*L	0.999
6)														
23)		Endosulfan Su	.627	1.229	1.111	1.036	1.072	1.051	0.998	0.936	0.952	0.944	*L	1.000
0)														
24)		Endrin Ketone	.507	1.301	1.188	1.137	1.141	1.160	1.107	1.055	1.062	1.058	*L	1.000
0)														
25)	s	Decachlorobip	.368	1.175	1.087	1.001	1.012	1.007	0.909	0.789	0.773	0.776	*L	0.999
9)														
26)	i	1-br-2-nb_ChlorTox	----------ISTD----------											
27)	l1	chlordane-1		0.051	0.046	0.046	0.044	0.042	0.041	0.040			0.044	8.37

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST15**	**Ical Ref**	**: ICAL11928**
Calibration dates	**: 01/09/16 15:47 01/09/16 19:55**		

Calibration Files

1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d

6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
28)	l1	chlordane-3		0.065	0.054	0.060	0.054	0.050	0.047	0.043			0.053	13.83
29)	l1	chlordane-4		0.163	0.188	0.194	0.186	0.178	0.172	0.163			0.178	6.92
30)	l1	chlordane-5		0.349	0.285	0.282	0.272	0.272	0.251	0.247			0.280	12.09
31)	l2	toxaphene-1	.051	0.057	0.062	0.065	0.060	0.056	0.054	0.051	0.045		0.056	11.24
32)	l2	toxaphene-2	.031	0.036	0.035	0.035	0.034	0.033	0.032	0.031	0.026		0.032	9.33
33)	l2	toxaphene-5		0.036	0.038	0.040	0.036	0.034	0.033	0.031	0.028		0.034	11.16
1)	i	1-br-2-nb_Pesticides	----------ISTD----------											
2)	s	2,4,5,6-Tetra		1.347	1.250	1.206	1.140	1.117	1.140	1.106	1.099	1.128	1.137	1.167	6.73
3)		Hexachloroben		1.668	1.528	1.450	1.355	1.316	1.334	1.269	1.172	1.187	1.198	*L	0.999
9)															
4)		alpha-BHC		1.450	1.324	1.278	1.227	1.224	1.265	1.308	1.477	1.588	1.654	1.380	11.13
5)		gamma-BHC (li		1.508	1.370	1.301	1.240	1.238	1.261	1.277	1.376	1.458	1.511	1.354	7.94
6)		beta-BHC		1.044	0.921	0.824	0.776	0.767	0.764	0.727	0.652	0.661	0.665	*L	0.999
9)															
7)		delta-BHC		1.835	1.502	1.325	1.237	1.253	1.270	1.288	1.417	1.537	1.600	1.426	13.52
8)		Heptachlor		1.709	1.599	1.488	1.391	1.381	1.380	1.346	1.341	1.389	1.401	1.442	8.40
9)		Aldrin		1.263	1.230	1.183	1.128	1.128	1.136	1.152	1.216	1.299	1.342	1.208	6.26
10)		Alachlor		0.341	0.307	0.288	0.288	0.292	0.268	0.224	0.209	0.193	*L	0.997	
9)															
11)		Heptachlor Ep	.904	1.672	1.567	1.425	1.375	1.392	1.301	1.206	1.258	1.264	*L	0.999	
8)															
12)		gamma-Chlorda		2.044	1.615	1.435	1.429	1.441	1.316	1.238	1.320	1.367	*L	0.999	
3)															
13)		alpha-Chlorda	.666	1.456	1.398	1.303	1.282	1.293	1.242	1.199	1.275	1.288	*L	0.999	
7)															
14)		4,4'-DDE	.186	1.222	1.248	1.149	1.122	1.148	1.119	1.177	1.285	1.319	1.198	5.76	
15)		Endosulfan I	.407	1.263	1.227	1.138	1.130	1.148	1.110	1.066	1.139	1.143	1.177	8.32	
16)		Dieldrin	.459	1.344	1.265	1.152	1.164	1.204	1.167	1.202	1.281	1.310	1.255	7.77	
17)		Endrin	.446	1.268	1.172	1.119	1.138	1.138	1.107	1.116	1.190	1.206	1.190	8.63	
18)		4,4'-DDD	.176	1.028	0.969	0.916	0.922	0.944	0.920	0.965	1.043	1.064	0.995	8.37	
19)		Endosulfan II	.741	1.575	1.445	1.292	1.211	1.235	1.133	1.070	1.107	1.088	*L	0.999	
9)															
20)		4,4'-DDT			1.378	1.193	1.186	1.118	1.066	1.015	1.068	1.099	*L	0.999	
5)															
21)		Endrin Aldehyde	.102	1.588	1.234	1.126	1.070	1.061	0.959	0.893	0.917	0.916	*L	0.999	
9)															
22)		Methoxychlor	.858	0.787	0.731	0.697	0.683	0.693	0.627	0.560	0.551	0.547	*L	1.000	
0)															
23)		Endosulfan Su	.598	1.389	1.265	1.184	1.157	1.151	1.076	1.032	1.064	1.078	*L	0.999	
8)															

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**
Instrument ID	**: PEST15**	**Ical Ref**	**: ICAL11928**
Calibration dates	**: 01/09/16 15:47 01/09/16 19:55**		

Calibration Files

1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d

6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
24)		Endrin Ketone	.760	1.396	1.307	1.224	1.195	1.239	1.145	1.121	1.149	1.164	*L	0.999
9)														
25)	s	Decachlorobip	.380	1.282	1.230	1.134	1.104	1.116	1.006	0.863	0.837	0.838	*L	0.999
9)														
26)	i	1-br-2-nb_ChlorTox	----------ISTD----------											
27)	l1	chlordane-1		0.051	0.047	0.045	0.043	0.042	0.042	0.041			0.044	8.16
28)	l1	chlordane-3		0.069	0.058	0.060	0.053	0.053	0.049	0.045			0.055	14.69
29)	l1	chlordane-4		0.266	0.184	0.177	0.165	0.168	0.165	0.160			0.183	20.24
30)	l1	chlordane-5		0.144	0.129	0.136	0.133	0.135	0.133	0.128			0.134	3.91
31)	l2	toxaphene-1	.028	0.030	0.028	0.031	0.029	0.029	0.028	0.027	0.024		0.028	6.91
32)	l2	toxaphene-2	.031	0.037	0.040	0.040	0.037	0.036	0.036	0.034	0.031		0.036	9.57
33)	l2	toxaphene-5		0.063	0.048	0.051	0.046	0.045	0.044	0.043	0.038		0.047	15.87

Response Factor Report Pest 15

Method Path : I:\Pest15\methods\
Method File : pest15_16_01_09a_ICAL.m
Title : pest
Last Update : Tue Jan 12 19:11:05 2016
Response Via : Initial Calibration

Calibration Files
1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d
6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
1)	i	1-br-2-nb_Pesticides	----------ISTD----------											
2)	s	2,4,5,6-Tetra...	1.385	1.294	1.248	1.182	1.197	1.217	1.199	1.177	1.182	1.155	1.223	5.68
3)		Hexachloroben...	1.703	1.550	1.469	1.386	1.387	1.386	1.320	1.223	1.228	1.213	*L	1.000
4)		alpha-BHC	1.518	1.423	1.333	1.290	1.319	1.350	1.381	1.501	1.575	1.597	1.429	7.80
5)		gamma-BHC (li...	1.539	1.381	1.313	1.273	1.279	1.295	1.323	1.382	1.441	1.453	1.368	6.41
6)		beta-BHC	1.081	0.927	0.821	0.759	0.758	0.759	0.734	0.653	0.656	0.654	*L	1.000
7)		delta-BHC	1.876	1.522	1.374	1.262	1.309	1.310	1.325	1.404	1.487	1.517	1.439	12.46
8)		Heptachlor	1.706	1.578	1.471	1.384	1.384	1.390	1.380	1.334	1.351	1.319	1.430	8.60
9)		Aldrin	1.352	1.215	1.169	1.125	1.133	1.140	1.150	1.176	1.221	1.229	1.191	5.70
10)		Alachlor		0.273	0.266	0.262	0.265	0.260	0.245	0.215	0.197	0.180	*L	0.997
11)		Heptachlor Ep...	1.659	1.498	1.388	1.310	1.273	1.276	1.258	1.151	1.159	1.131	*L	0.999
12)		gamma-Chlorda...	1.418	1.332	1.262	1.265	1.245	1.254	1.220	1.171	1.219	1.231	*L	0.999
13)		alpha-Chlorda...	1.411	1.323	1.270	1.191	1.171	1.176	1.173	1.135	1.168	1.174	*L	0.999
14)		4,4'-DDE	1.257	1.035	1.057	0.999	1.030	1.050	1.047	1.127	1.185	1.197	1.098	7.94
15)		Endosulfan I	1.257	1.181	1.133	1.061	1.083	1.085	1.071	1.044	1.058	1.033	1.101	6.38
16)		Dieldrin	1.630	1.378	1.234	1.151	1.138	1.160	1.128	1.148	1.177	1.157	1.230	12.91

Response Factor Report Pest 15

Method Path : I:\Pest15\methods\
Method File : pest15_16_01_09a_ICAL.m
Title : pest
Last Update : Tue Jan 12 19:11:05 2016
Response Via : Initial Calibration

Calibration Files
1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d
6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
17)		Endrin	1.297	1.401	1.185	1.116	1.122	1.116	1.096	1.086	1.112	1.099	1.163	8.99
18)		4,4'-DDD	0.932	0.933	0.930	0.904	0.914	0.914	0.915	0.937	0.975	0.986	0.934	2.88
19)		Endosulfan II	1.463	1.167	1.141	1.045	1.062	1.083	1.058	1.003	1.010	0.969	*L	0.999
7														
20)		4,4'-DDT		1.277	1.113	1.034	1.075	1.064	1.034	0.999	1.033	1.039	*L	0.999
9														
21)		Endrin Aldehyde	1.521	1.233	1.070	0.922	0.971	0.937	0.892	0.807	0.815	0.811	*L	1.000
0														
22)		Methoxychlor	0.872	0.814	0.747	0.686	0.674	0.675	0.637	0.552	0.537	0.517	*L	0.999
6														
23)		Endosulfan Su...	1.627	1.229	1.111	1.036	1.072	1.051	0.998	0.936	0.952	0.944	*L	1.000
0														
24)		Endrin Ketone	1.507	1.301	1.188	1.137	1.141	1.160	1.107	1.055	1.062	1.058	*L	1.000
0														
25)	s	Decachlorobip...	1.368	1.175	1.087	1.001	1.012	1.007	0.909	0.789	0.773	0.776	*L	0.999
9														
26)	i	1-br-2-nb_ChlorTox	----------ISTD----------											
27)	l1	chlordane-1		0.051	0.046	0.046	0.044	0.042	0.041	0.040			0.044	8.37
28)	l1	chlordane-3		0.065	0.054	0.060	0.054	0.050	0.047	0.043			0.053	13.83
29)	l1	chlordane-4		0.163	0.188	0.194	0.186	0.178	0.172	0.163			0.178	6.92
30)	l1	chlordane-5		0.349	0.285	0.282	0.272	0.272	0.251	0.247			0.280	12.09
31)	l2	toxaphene-1	0.051	0.057	0.062	0.065	0.060	0.056	0.054	0.051	0.045		0.056	11.24
32)	l2	toxaphene-2	0.031	0.036	0.035	0.035	0.034	0.033	0.032	0.031	0.026		0.032	9.33
33)	l2	toxaphene-5		0.036	0.038	0.040	0.036	0.034	0.033	0.031	0.028		0.034	11.16

Response Factor Report Pest 15

Method Path : I:\Pest15\methods\
Method File : pest15_16_01_09a_ICAL.m
Title : pest
Last Update : Tue Jan 12 19:11:05 2016
Response Via : Initial Calibration

Calibration Files
1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d
6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

Signal #2 Calibration Files
1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d
6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
1)	i	1-br-2-nb_Pesticides	----------ISTD----------											
2)	s	2,4,5,6-Tetra...	1.347	1.250	1.206	1.140	1.117	1.140	1.106	1.099	1.128	1.137	1.167	6.73
3)		Hexachloroben...	1.668	1.528	1.450	1.355	1.316	1.334	1.269	1.172	1.187	1.198	*L	0.999
4)		alpha-BHC	1.450	1.324	1.278	1.227	1.224	1.265	1.308	1.477	1.588	1.654	1.380	11.13
5)		gamma-BHC (li...	1.508	1.370	1.301	1.240	1.238	1.261	1.277	1.376	1.458	1.511	1.354	7.94
6)		beta-BHC	1.044	0.921	0.824	0.776	0.767	0.764	0.727	0.652	0.661	0.665	*L	0.999
7)		delta-BHC	1.835	1.502	1.325	1.237	1.253	1.270	1.288	1.417	1.537	1.600	1.426	13.52
8)		Heptachlor	1.709	1.599	1.488	1.391	1.381	1.380	1.346	1.341	1.389	1.401	1.442	8.40
9)		Aldrin	1.263	1.230	1.183	1.128	1.128	1.136	1.152	1.216	1.299	1.342	1.208	6.26
10)		Alachlor		0.341	0.307	0.288	0.288	0.292	0.268	0.224	0.209	0.193	*L	0.997
11)		Heptachlor Ep...	1.904	1.672	1.567	1.425	1.375	1.392	1.301	1.206	1.258	1.264	*L	0.999
12)		gamma-Chlorda...		2.044	1.615	1.435	1.429	1.441	1.316	1.238	1.320	1.367	*L	0.999
13)		alpha-Chlorda...	1.666	1.456	1.398	1.303	1.282	1.293	1.242	1.199	1.275	1.288	*L	0.999

Response Factor Report Pest 15

Method Path : I:\Pest15\methods\
Method File : pest15_16_01_09a_ICAL.m
Title : pest
Last Update : Tue Jan 12 19:11:05 2016
Response Via : Initial Calibration

Calibration Files
1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d
6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
14)		4,4'-DDE	1.186	1.222	1.248	1.149	1.122	1.148	1.119	1.177	1.285	1.319	1.198	5.76
15)		Endosulfan I	1.407	1.263	1.227	1.138	1.130	1.148	1.110	1.066	1.139	1.143	1.177	8.32
16)		Dieldrin	1.459	1.344	1.265	1.152	1.164	1.204	1.167	1.202	1.281	1.310	1.255	7.77
17)		Endrin	1.446	1.268	1.172	1.119	1.138	1.138	1.107	1.116	1.190	1.206	1.190	8.63
18)		4,4'-DDD	1.176	1.028	0.969	0.916	0.922	0.944	0.920	0.965	1.043	1.064	0.995	8.37
19)		Endosulfan II	1.741	1.575	1.445	1.292	1.211	1.235	1.133	1.070	1.107	1.088	*L	0.999
9														
20)		4,4'-DDT			1.378	1.193	1.186	1.118	1.066	1.015	1.068	1.099	*L	0.999
5														
21)		Endrin Aldehyde	2.102	1.588	1.234	1.126	1.070	1.061	0.959	0.893	0.917	0.916	*L	0.999
9														
22)		Methoxychlor	0.858	0.787	0.731	0.697	0.683	0.693	0.627	0.560	0.551	0.547	*L	1.000
0														
23)		Endosulfan Su...	1.598	1.389	1.265	1.184	1.157	1.151	1.076	1.032	1.064	1.078	*L	0.999
8														
24)		Endrin Ketone	1.760	1.396	1.307	1.224	1.195	1.239	1.145	1.121	1.149	1.164	*L	0.999
9														
25)	s	Decachlorobip...	1.380	1.282	1.230	1.134	1.104	1.116	1.006	0.863	0.837	0.838	*L	0.999
9														
26)	i	1-br-2-nb_ChlorTox	----------ISTD----------											
27)	l1	chlordane-1			0.051	0.047	0.045	0.043	0.042	0.042	0.041		0.044	8.16
28)	l1	chlordane-3			0.069	0.058	0.060	0.053	0.053	0.049	0.045		0.055	14.69
29)	l1	chlordane-4			0.266	0.184	0.177	0.165	0.168	0.165	0.160		0.183	20.24

Method Path : I:\Pest15\methods\
Method File : pest15_16_01_09a_ICAL.m
Title : pest
Last Update : Tue Jan 12 19:11:05 2016
Response Via : Initial Calibration

Calibration Files
1 =15160109a-15.d 2 =15160109a-16.d 3 =15160109a-17.d 4 =15160109a-18.d 5 =15160109a-19.d
6 =15160109a-20.d 7 =15160109a-21.d 8 =15160109a-22.d 9 =15160109a-23.d 10 =15160109a-13.d

		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD
30)	l1	chlordane-5		0.144	0.129	0.136	0.133	0.135	0.133	0.128			0.134	3.91
31)	l2	toxaphene-1	0.028	0.030	0.028	0.031	0.029	0.029	0.028	0.027	0.024		0.028	6.91
32)	l2	toxaphene-2	0.031	0.037	0.040	0.040	0.037	0.036	0.036	0.034	0.031		0.036	9.57
33)	l2	toxaphene-5		0.063	0.048	0.051	0.046	0.045	0.044	0.043	0.038		0.047	15.87

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 3:34 pm
Operator : pest15:ss
Sample : pem160109a01,42e,,deg std 7175 (Sig #1); deg std 7175 (Sig #2)
Misc : WG856778,ical
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 20:31:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : DEG - DDT/Endrin degradation check

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.011	1.983	86749536	55311464	25.000	25.000
	System Monitoring Compounds						
	Target Compounds						
14)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.
17)	Endrin	4.901	5.217	171.0E6	116.5E6	42.376M3	44.259
18)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.
20)	4,4'-DDT	5.150	5.499	160.9E6	104.9E6	44.858M3	43.818M3
21)	Endrin Al...	5.360	5.597	2205813	1708876	0.188M3	0.327M4 #
24)	Endrin Ke...	5.850	6.148	3133953	2000849	0.570	0.842 #
	Sum chlordane-1			0	0	N.D.	N.D.
	Average chlordane-1					0.000	0.000
	Sum toxaphene-1			0	0	N.D.	N.D.
	Average toxaphene-1					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						
	Sum toxaphene-1			0	0	N.D.	N.D.
	Average toxaphene-1					0.000	0.000

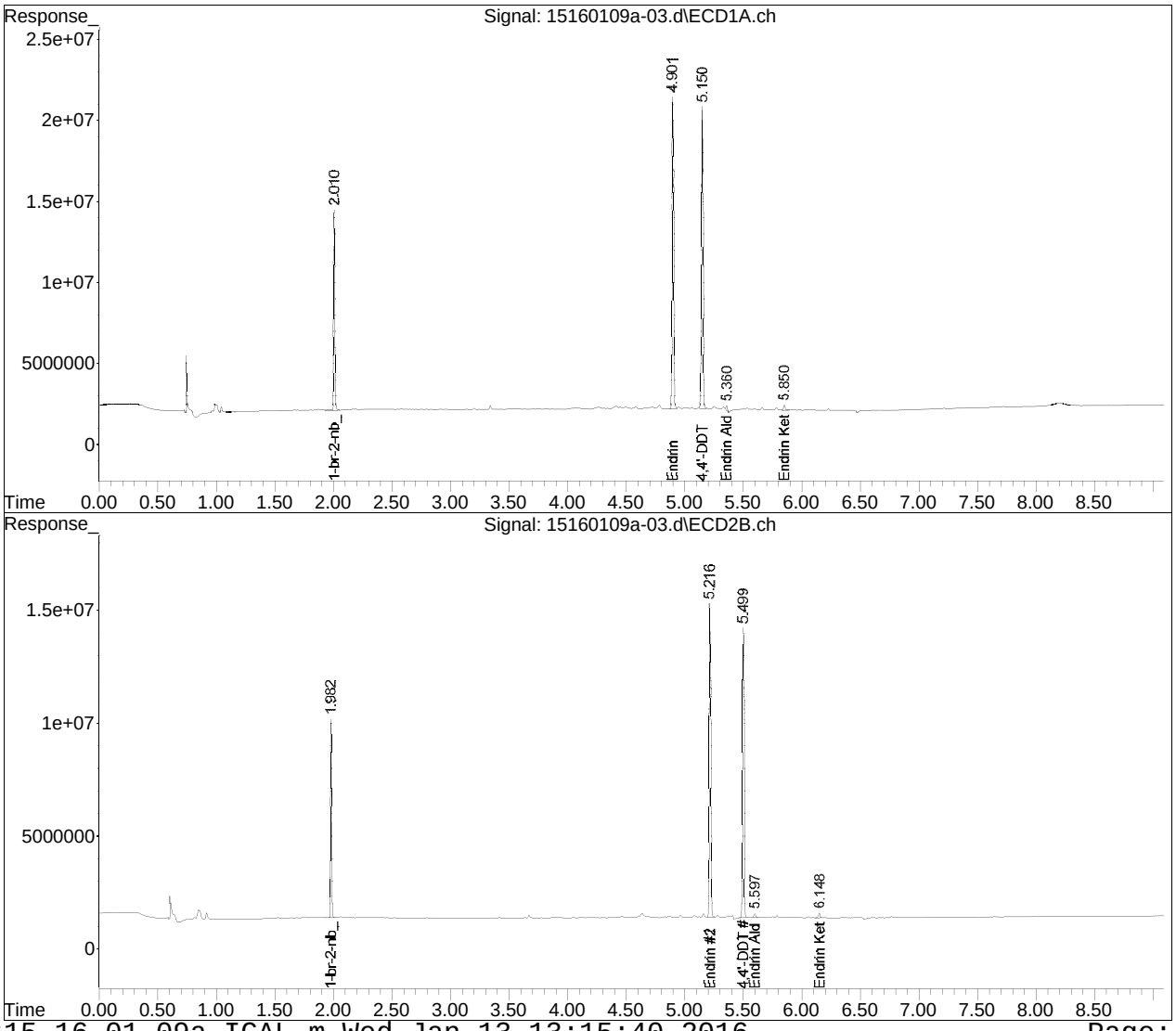
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : DEG - DDT/Endrin degradation checkiewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 3:34 pm
Operator : pest15:ss
Sample : pem160109a01,42e,,deg std 7175 (Sig #1); deg std 7175 (Sig #2)
Misc : WG856778,ical
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 20:31:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

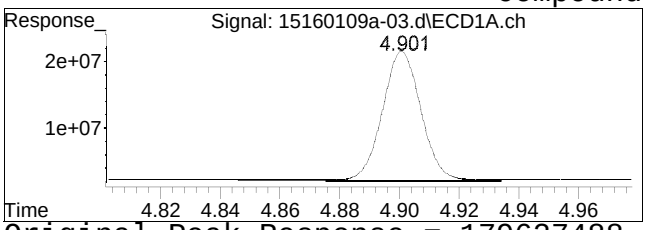
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

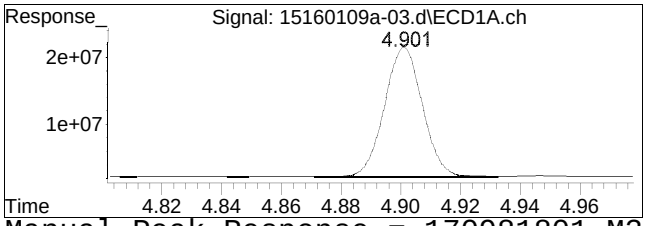


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-03.d Operator : pest15:ss
Date Inj'd : 1/9/2016 3:34 pm Instrument : Pest 15
Sample : pem160109a01,42e,,deg std 7Quant Date : 1/12/2016 8:31 pm

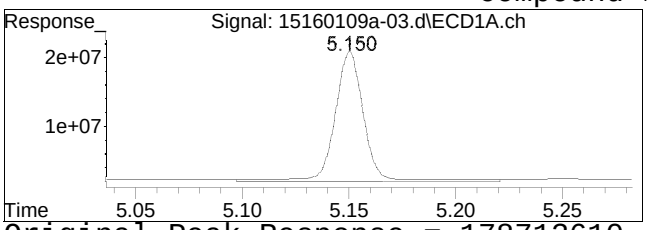
Compound #17: Endrin

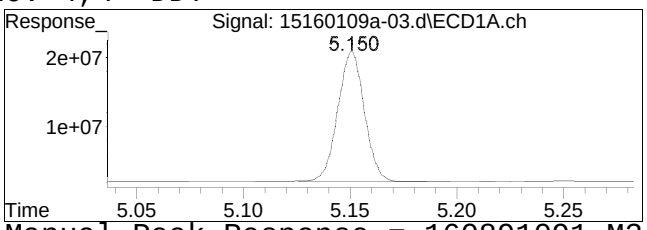




Original Peak Response = 179627488 Manual Peak Response = 170981801 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

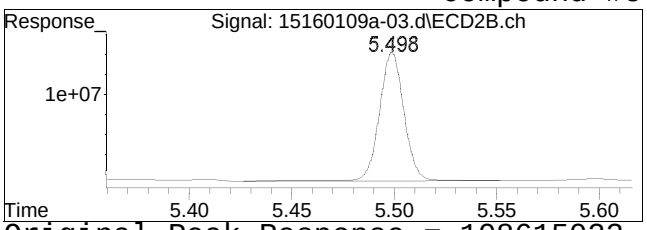
Compound #20: 4,4'-DDT

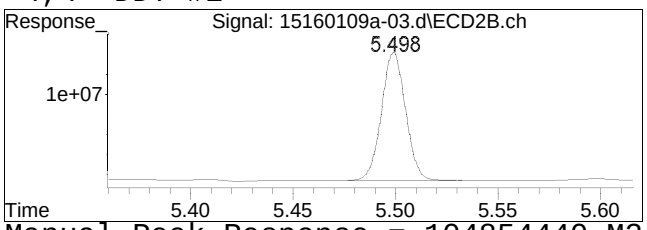




Original Peak Response = 178713610 Manual Peak Response = 160891091 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

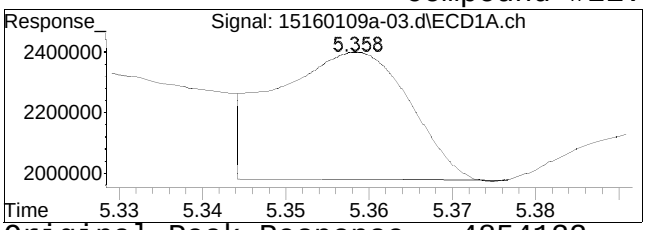
Compound #54: 4,4'-DDT #2

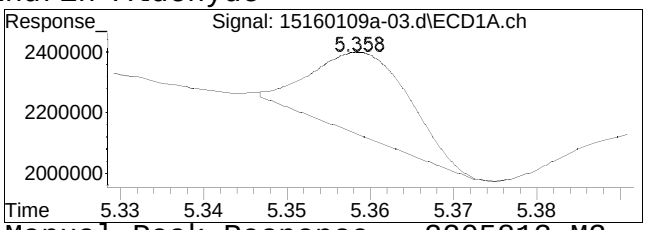




Original Peak Response = 108615023 Manual Peak Response = 104854440 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #21: Endrin Aldehyde



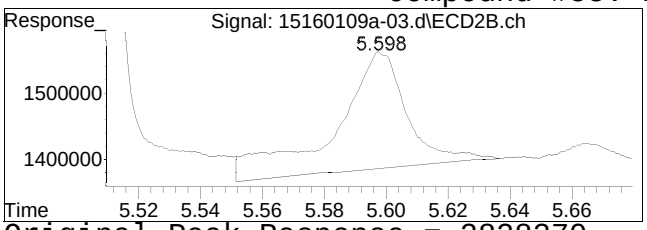


Original Peak Response = 4854122 Manual Peak Response = 2205813 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

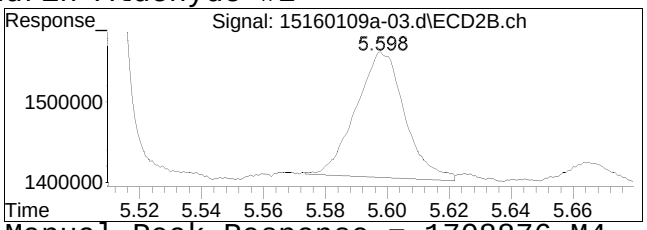
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-03.d Operator : pest15:ss
Date Inj'd : 1/9/2016 3:34 pm Instrument : Pest 15
Sample : pem160109a01,42e,,deg std 7Quant Date : 1/12/2016 8:31 pm

Compound #55: Endrin Aldehyde #2



Original Peak Response = 2828370



Manual Peak Response = 1708876 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 3:47 pm
Operator : pest15:ss
Sample : il1pest,42e,,7145
Misc : WG856778,ical
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:12:39 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.983	98122459	63767665	25.000M3	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.514	2.597	2717308	1717977	0.588	0.613
	Spiked Amount 50.000	Range 30 - 150		Recovery =		1.18%#	1.23%#
25) s	Decachlor...	6.499	6.901	2684696	1759483	0.866	0.799
	Spiked Amount 50.000	Range 30 - 150		Recovery =		1.73%#	1.60%#
	Target Compounds						
3)	Hexachlor...	2.784	2.956	3341672	2127912	0.696M3	0.712
4)	alpha-BHC	2.904	3.062	2979191	1849762	0.506M3	0.491
5)	gamma-BHC...	3.137	3.352	3019244	1923518	0.557M3	0.548M4
6)	beta-BHC	3.200	3.417	2121890	1331698	0.828	0.800M3
7)	delta-BHC	3.339	3.671	3680602	2339647	0.668M3	0.647
8)	Heptachlor	3.510	3.730	3348455	2179415	0.640M3	0.637
9)	Aldrin	3.755	4.013	2652783	1610421	0.575M4	0.519
10)	Alachlor	3.867	3.908	531868	555332	0.631M3	0.974M3
#							
11)	Heptachlo...	4.243	4.480	3256375	2428077	0.721M3	0.789M3
12)	gamma-Chl...	4.341	4.628	2783105	4900695	0.605M3	1.552M4
#							
13)	alpha-Chl...	4.443	4.739	2768588	2124723	0.622M4	0.695
14)	4,4'-DDE	4.499	4.857	2467133	1512605	0.558M3	0.504M3
15)	Endosulfan I	4.547	4.787	2466132	1793955	0.602M3	0.660
16)	Dieldrin	4.728	4.992	3199423	1861018	0.710M3	0.607
17)	Endrin	4.900	5.215	2545093	1843746	0.597M3	0.648M3
18)	4,4'-DDD	4.946	5.279	1828885	1499928	0.497M3	0.609

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 3:47 pm
Operator : pest15:ss
Sample : il1pest,42e,,7145
Misc : WG856778,ical
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:12:39 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
19)	Endosulfa...	5.063	5.365	2870461	2220426	0.729	0.814M3
20)	4,4'-DDT	5.149	5.500	3661991	3524370	0.934M3	1.361 #
21)	Endrin Al...	5.359	5.598	2984262	2680399	0.942M3	1.177
22)	Methoxychlor	5.490	5.956	1711167	1093942	0.789M3	0.766
23)	Endosulfa...	5.660	5.786	3192774	2038461	0.869	0.775
24)	Endrin Ke...	5.849	6.148	2956523	2244515	0.714	0.785
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

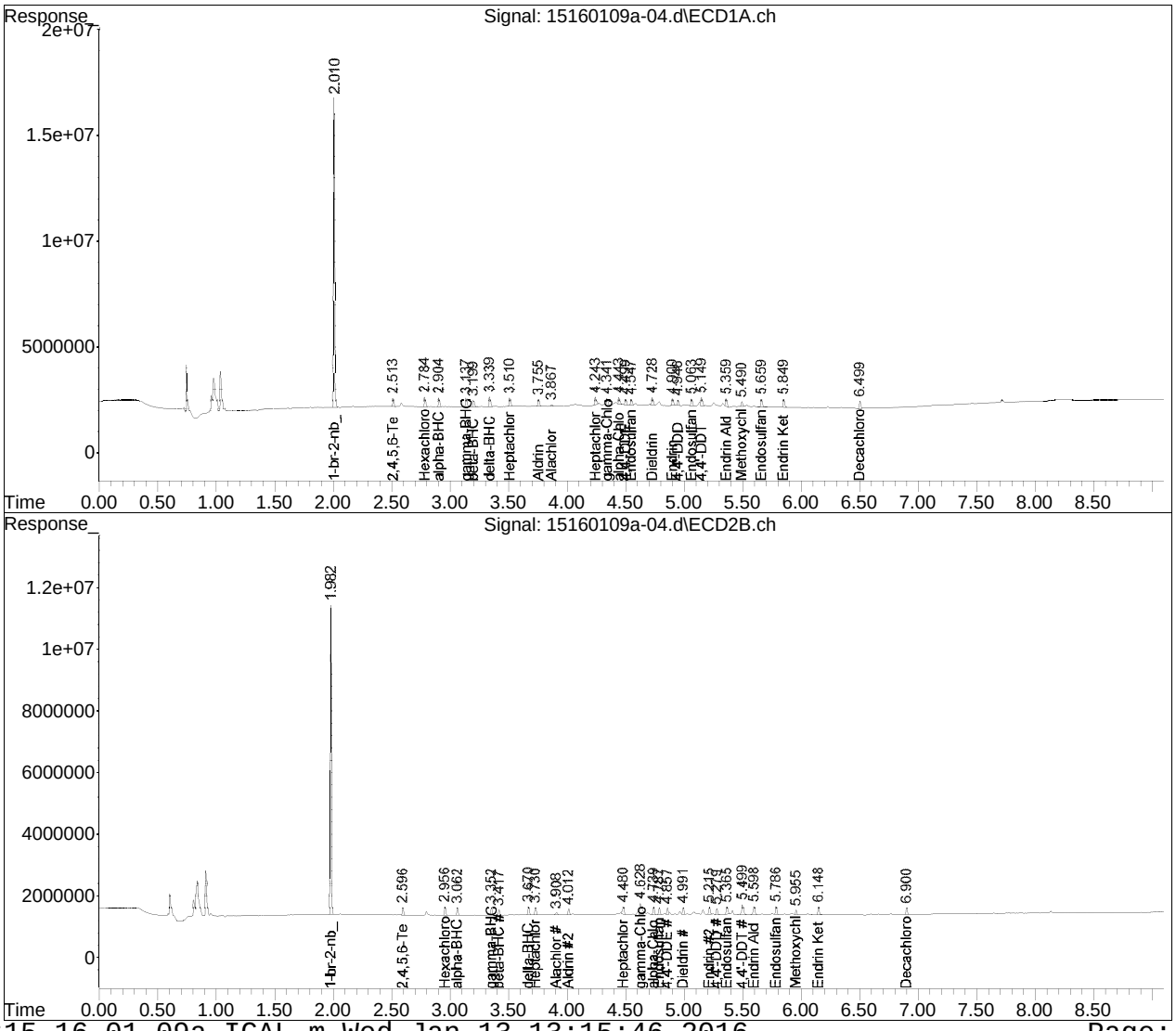
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 3:47 pm
Operator : pest15:ss
Sample : il1pest,42e,,7145
Misc : WG856778,ical
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:12:39 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

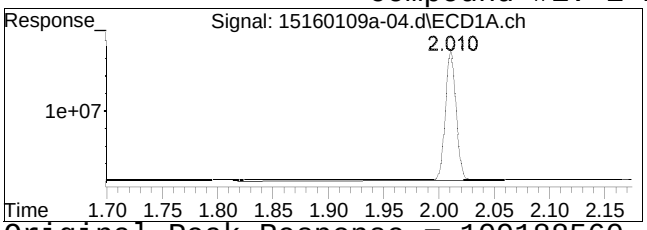
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

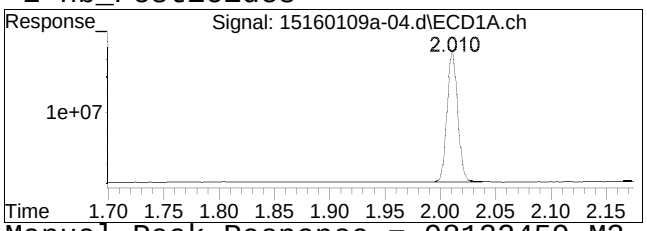


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-04.d Operator : pest15:ss
Date Inj'd : 1/9/2016 3:47 pm Instrument : Pest 15
Sample : il1pest,42e,,7145 Quant Date : 1/12/2016 1:05 pm

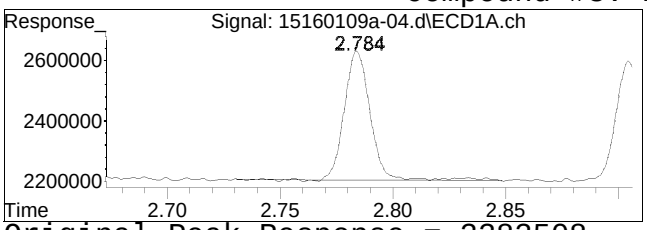
Compound #1: 1-br-2-nb_Pesticides

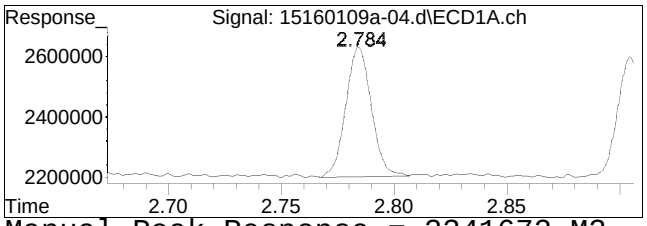




Original Peak Response = 109188560 Manual Peak Response = 98122459 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

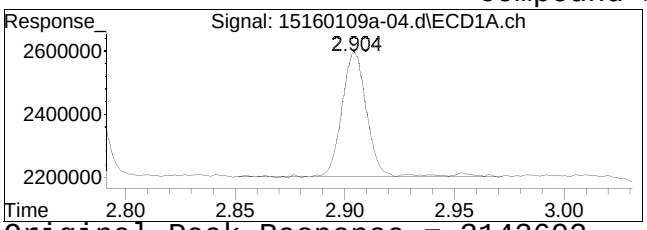
Compound #3: Hexachlorobenzene

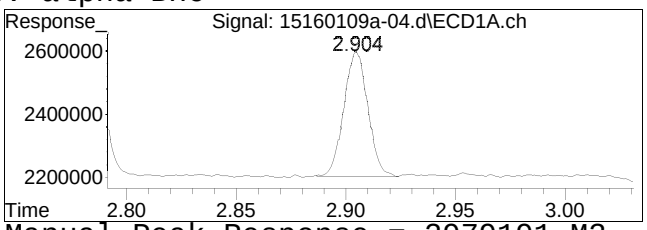




Original Peak Response = 3383508 Manual Peak Response = 3341672 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

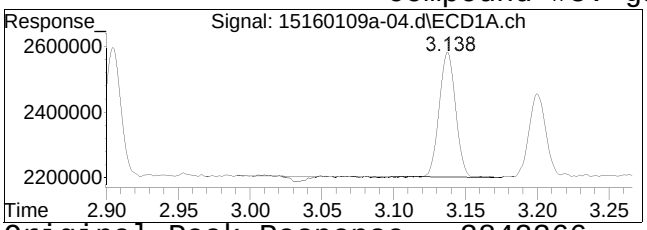
Compound #4: alpha-BHC

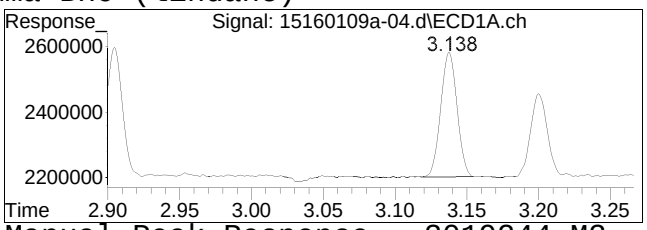




Original Peak Response = 3142692 Manual Peak Response = 2979191 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #5: gamma-BHC (lindane)





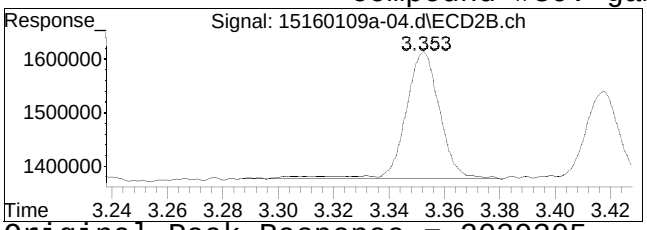
Original Peak Response = 2842366 Manual Peak Response = 3019244 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

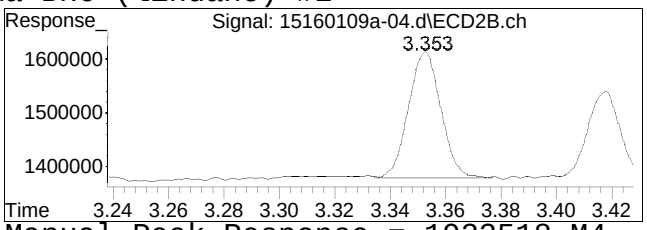
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Date Inj'd : 1/9/2016 3:47 pm
Sample : il1pest,42e,,7145

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:05 pm

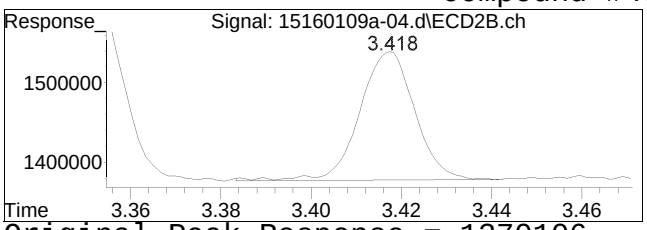
Compound #39: gamma-BHC (lindane) #2

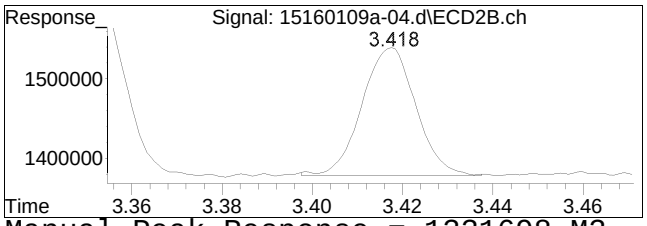




Original Peak Response = 2039305 Manual Peak Response = 1923518 M4
M4 = Poor automated baseline construction.

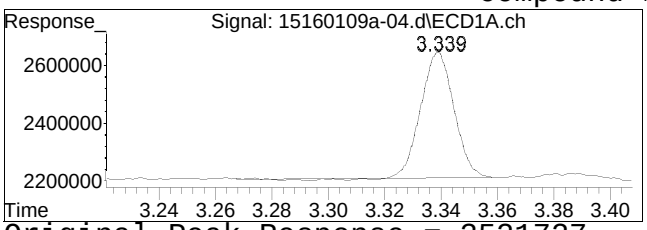
Compound #40: beta-BHC #2

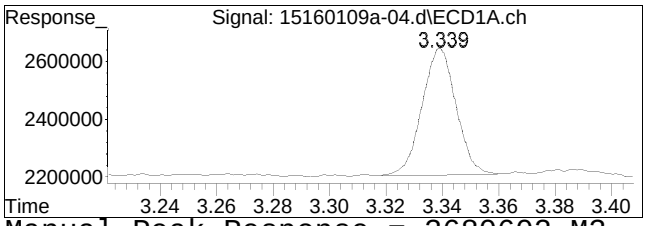




Original Peak Response = 1370106 Manual Peak Response = 1331698 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

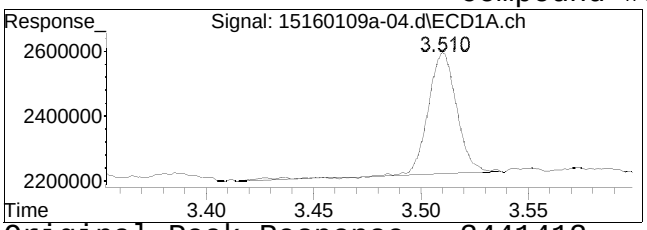
Compound #7: delta-BHC

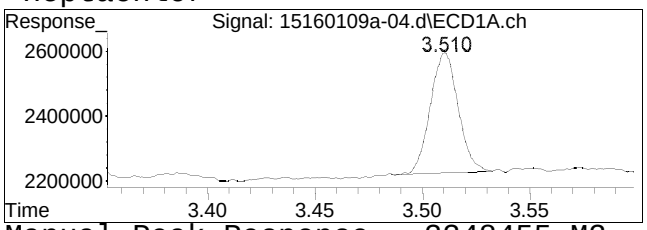




Original Peak Response = 3521727 Manual Peak Response = 3680602 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #8: Heptachlor





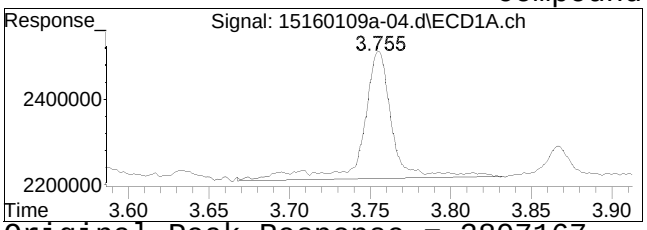
Original Peak Response = 3441412 Manual Peak Response = 3348455 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

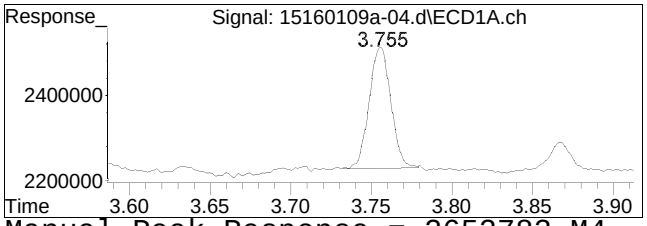
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Date Inj'd : 1/9/2016 3:47 pm
Sample : il1pest,42e,,7145

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:05 pm

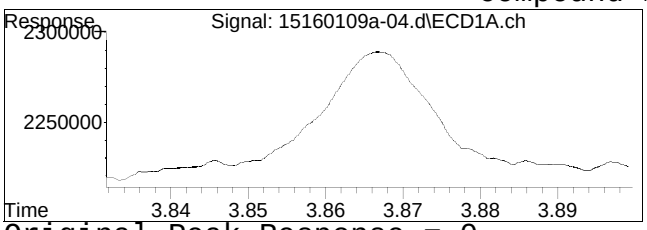
Compound #9: Aldrin

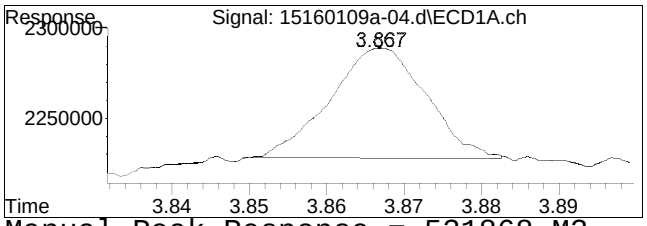




Original Peak Response = 3807167 Manual Peak Response = 2652783 M4
M4 = Poor automated baseline construction.

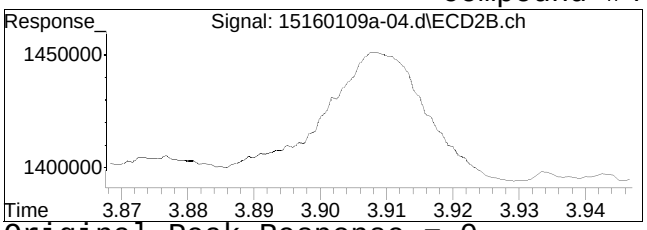
Compound #10: Alachlor

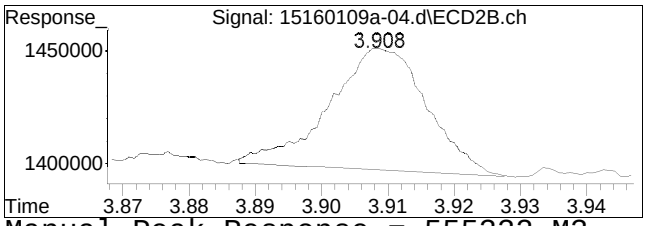




Original Peak Response = 0 Manual Peak Response = 531868 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

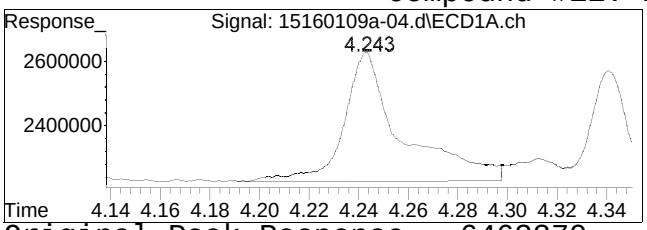
Compound #44: Alachlor #2

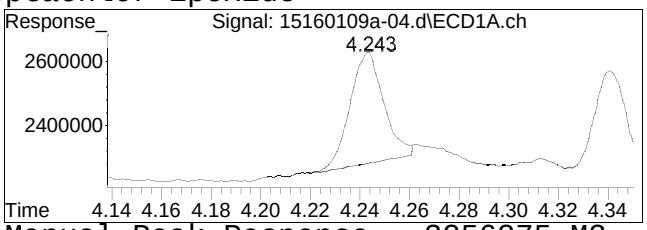




Original Peak Response = 0 Manual Peak Response = 555332 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #11: Heptachlor Epoxide



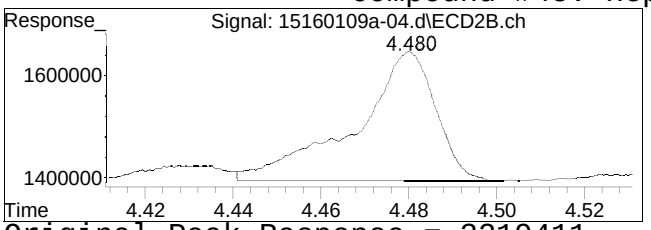


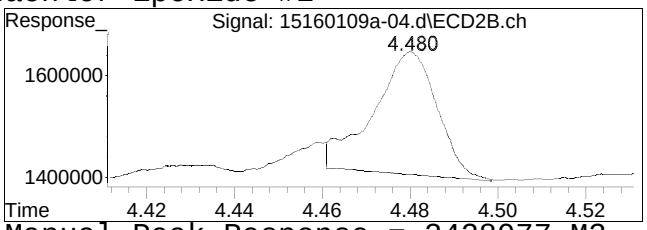
Original Peak Response = 6463370 Manual Peak Response = 3256375 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-04.d Operator : pest15:ss
Date Inj'd : 1/9/2016 3:47 pm Instrument : Pest 15
Sample : il1pest,42e,,7145 Quant Date : 1/12/2016 1:05 pm

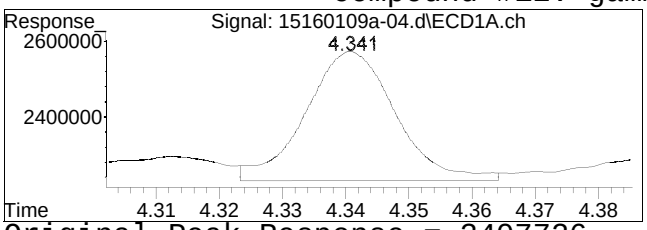
Compound #45: Heptachlor Epoxide #2

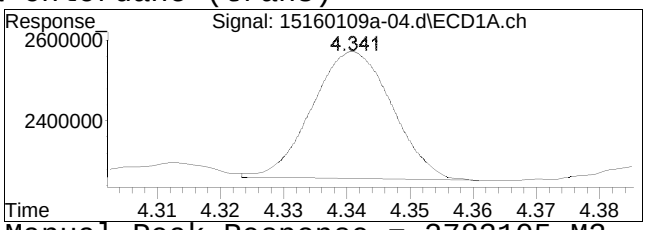




Original Peak Response = 3219411 Manual Peak Response = 2428077 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

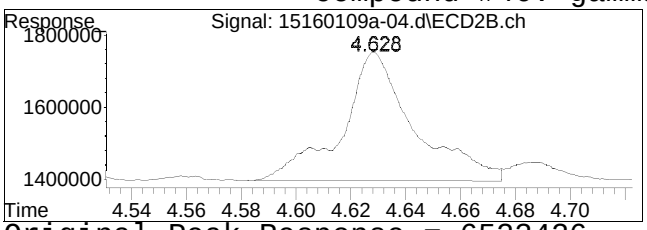
Compound #12: gamma-Chlordane (trans)

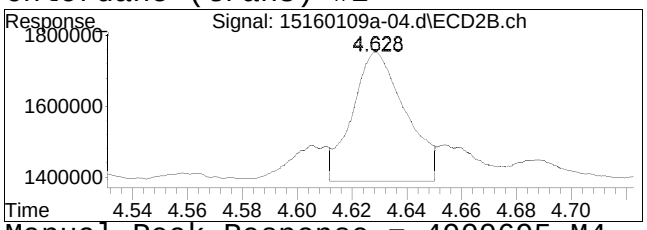




Original Peak Response = 3407726 Manual Peak Response = 2783105 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

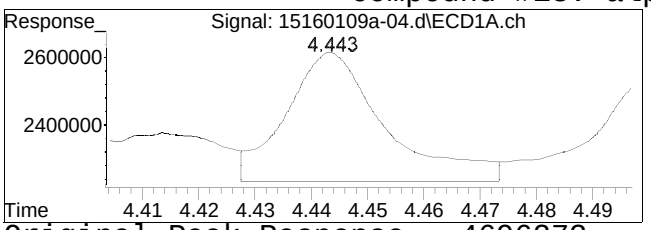
Compound #46: gamma-Chlordane (trans) #2

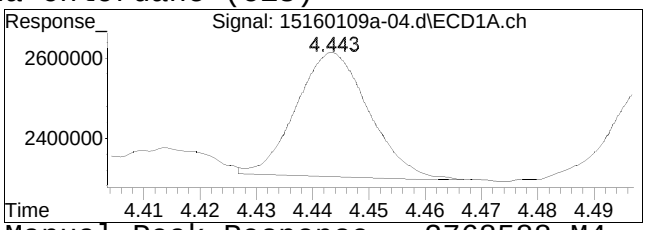




Original Peak Response = 6523426 Manual Peak Response = 4900695 M4
M4 = Poor automated baseline construction.

Compound #13: alpha-Chlordane (cis)





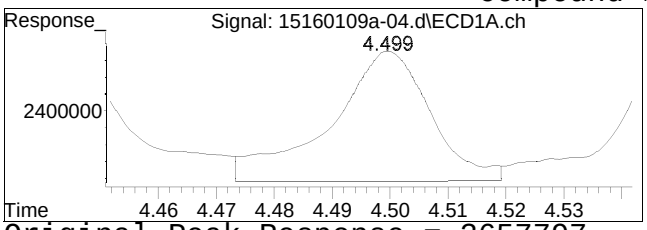
Original Peak Response = 4696273 Manual Peak Response = 2768588 M4
M4 = Poor automated baseline construction.

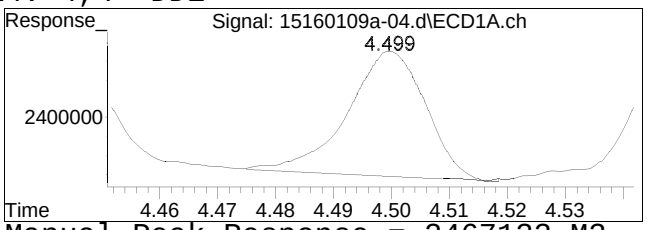
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Date Inj'd : 1/9/2016 3:47 pm
Sample : il1pest,42e,,7145

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:05 pm

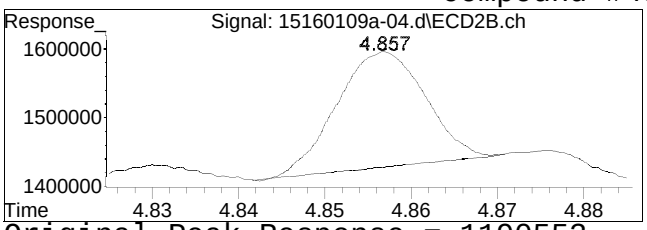
Compound #14: 4,4'-DDE

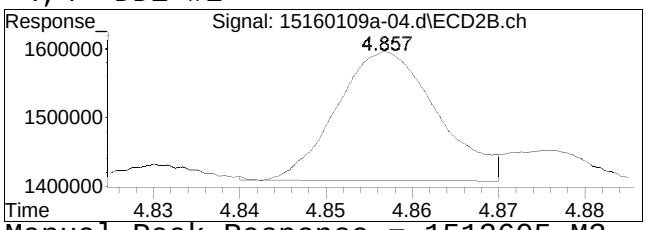




Original Peak Response = 3657797 Manual Peak Response = 2467133 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

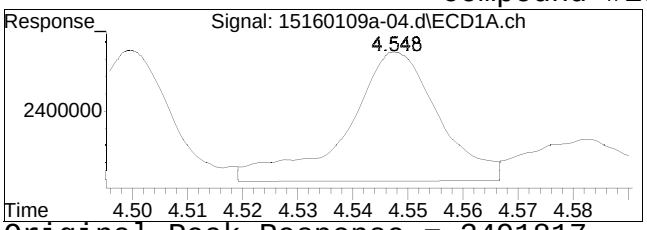
Compound #48: 4,4'-DDE #2

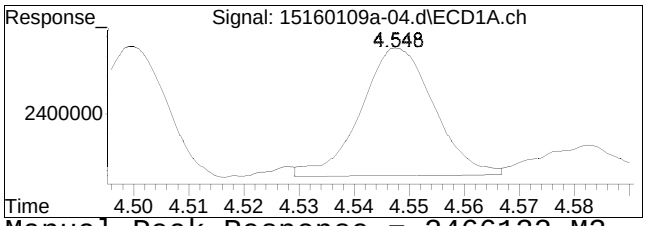




Original Peak Response = 1190553 Manual Peak Response = 1512605 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

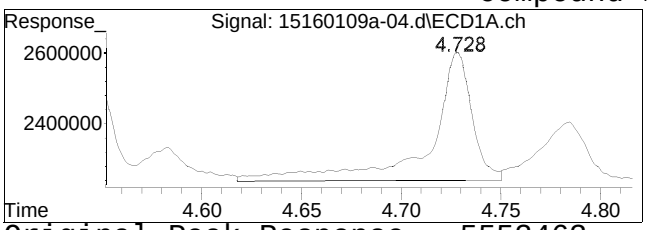
Compound #15: Endosulfan I

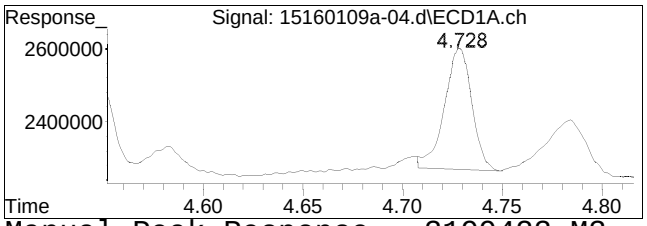




Original Peak Response = 3491817 Manual Peak Response = 2466132 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #16: Dieldrin





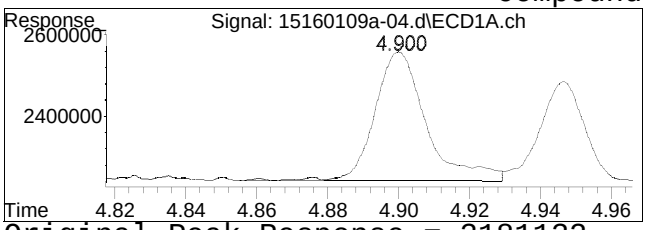
Original Peak Response = 5553463 Manual Peak Response = 3199423 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

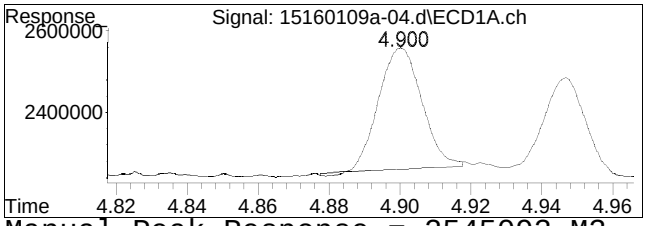
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Date Inj'd : 1/9/2016 3:47 pm
Sample : il1pest,42e,,7145

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:05 pm

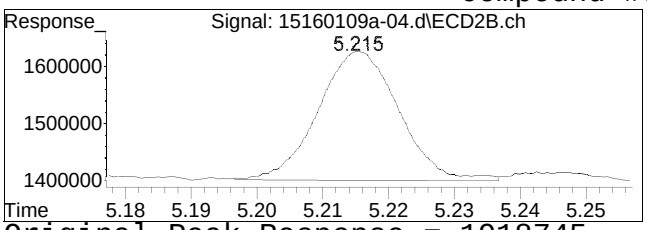
Compound #17: Endrin

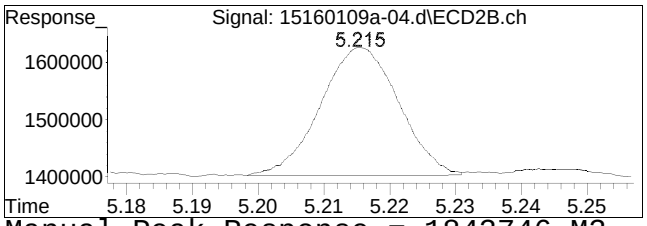




Original Peak Response = 3181132 Manual Peak Response = 2545093 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

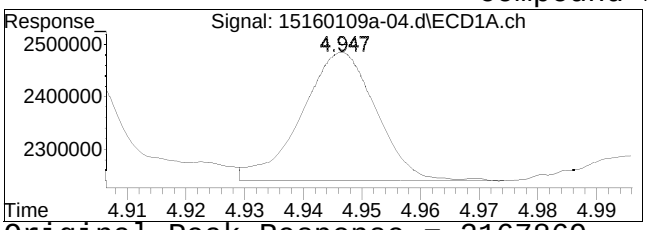
Compound #51: Endrin #2

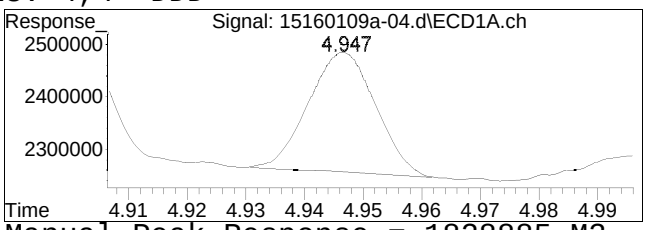




Original Peak Response = 1918745 Manual Peak Response = 1843746 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

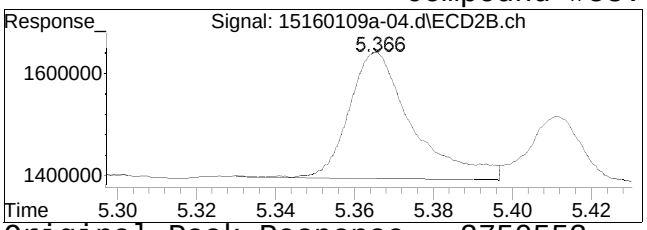
Compound #18: 4,4'-DDD

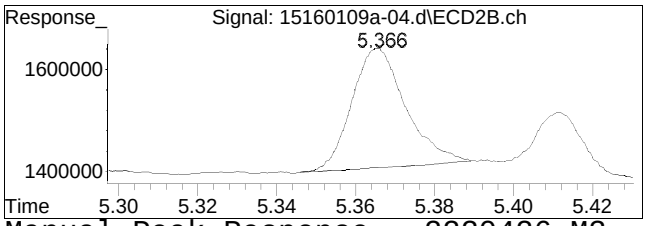




Original Peak Response = 2167869 Manual Peak Response = 1828885 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #53: Endosulfan II #2





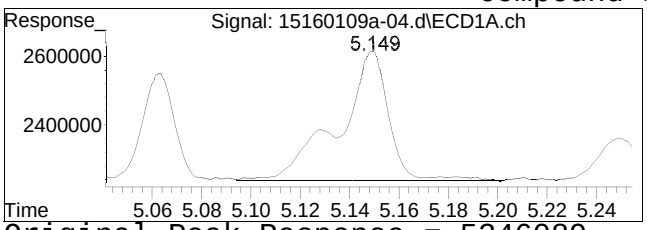
Original Peak Response = 2750553 Manual Peak Response = 2220426 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

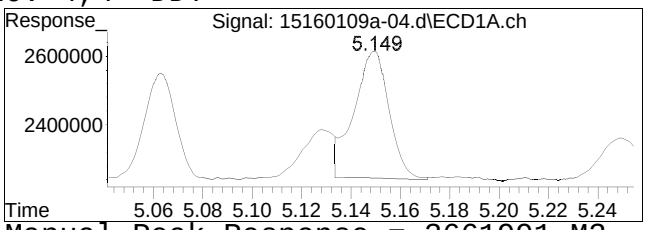
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-04.d
Date Inj'd : 1/9/2016 3:47 pm
Sample : il1pest,42e,,7145

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:05 pm

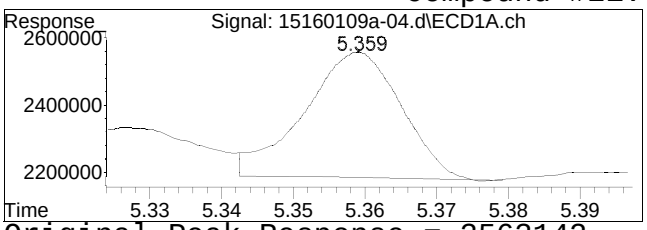
Compound #20: 4,4'-DDT

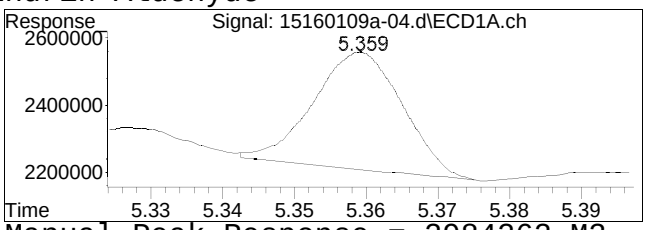




Original Peak Response = 5346089 Manual Peak Response = 3661991 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

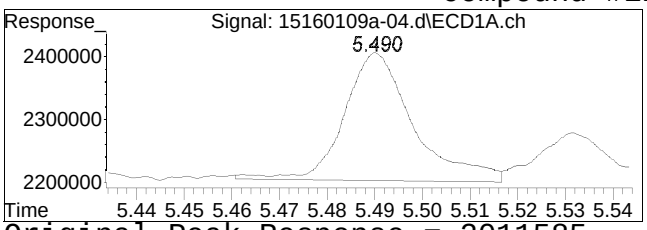
Compound #21: Endrin Aldehyde

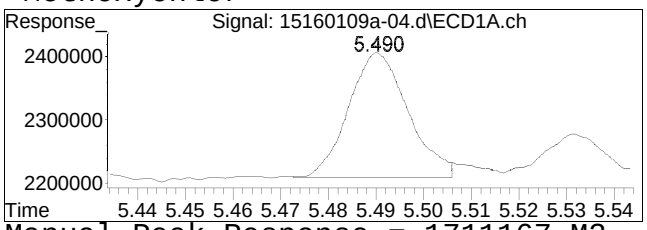




Original Peak Response = 3563142 Manual Peak Response = 2984262 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #22: Methoxychlor





Original Peak Response = 2011585 Manual Peak Response = 1711167 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:00 pm
Operator : pest15:ss
Sample : il2pest,42e,,7146
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:08:26 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:08:18 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	91127040	59467520	25.000	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.596	4718089	2973005	1.058M3	1.071
	Spiked Amount 50.000	Range 30 - 150		Recovery =		2.12%#	2.14%#
25) s	Decachlor...	6.499	6.900	4284696	3048402	0.542M4	0.380 #
	Spiked Amount 50.000	Range 30 - 150		Recovery =		1.08%#	0.76%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	5650026	3635640	0.731M3	1.036 #
4)	alpha-BHC	2.904	3.062	5188369	3149708	0.996	0.960
5)	gamma-BHC...	3.136	3.352	5034526	3258352	1.010M3	1.012
6)	beta-BHC	3.200	3.417	3379077	2189763	0.829	0.972
7)	delta-BHC	3.338	3.670	5549423	3571781	1.058M3	1.053M2
8)	Heptachlor	3.509	3.729	5753037	3803776	1.104M4	1.109
9)	Aldrin	3.755	4.013	4429609	2926327	1.020M3	1.019
10)	Alachlor	3.866	3.908	996391	811124	N.D. M4	N.D. M3
11)	Heptachlo...	4.242	4.480	5459312	3977954	0.654M3	1.206M3
#							
12)	gamma-Chl...	4.341	4.627	4854219	6844207	1.287M3	2.075M4
#							
13)	alpha-Chl...	4.443	4.739	4821379	3463512	1.238M3	1.459
14)	4,4'-DDE	4.500	4.856	3771971	2907600	0.942M4	1.021M3
15)	Endosulfan I	4.548	4.787	4303462	3004486	1.073M3	1.073
16)	Dieldrin	4.728	4.992	5022992	3196842	1.120M3	1.071
17)	Endrin	4.900	5.215	5105890	3016899	1.205	1.066
18)	4,4'-DDD	4.947	5.279	3399116	2445555	0.998M3	1.034
19)	Endosulfa...	5.062	5.365	4253469	3745427	0.500M3	0.991M3

#

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:00 pm
Operator : pest15:ss
Sample : il2pest,42e,,7146
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:08:26 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:08:18 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
20)	4,4'-DDT	5.149	5.498	4656164	4782539	1.290M3	1.957M3 #
21)	Endrin Al...	5.359	5.598	4494310	3777709	0.927M4	1.221 #
22)	Methoxychlor	5.490	5.955	2967373	1871787	0.086M3	0.507 #
23)	Endosulfa...	5.659	5.786	4479592	3304591	0.913M4	1.294 #
24)	Endrin Ke...	5.849	6.147	4742175	3320603	0.947M3	1.266M3 #
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

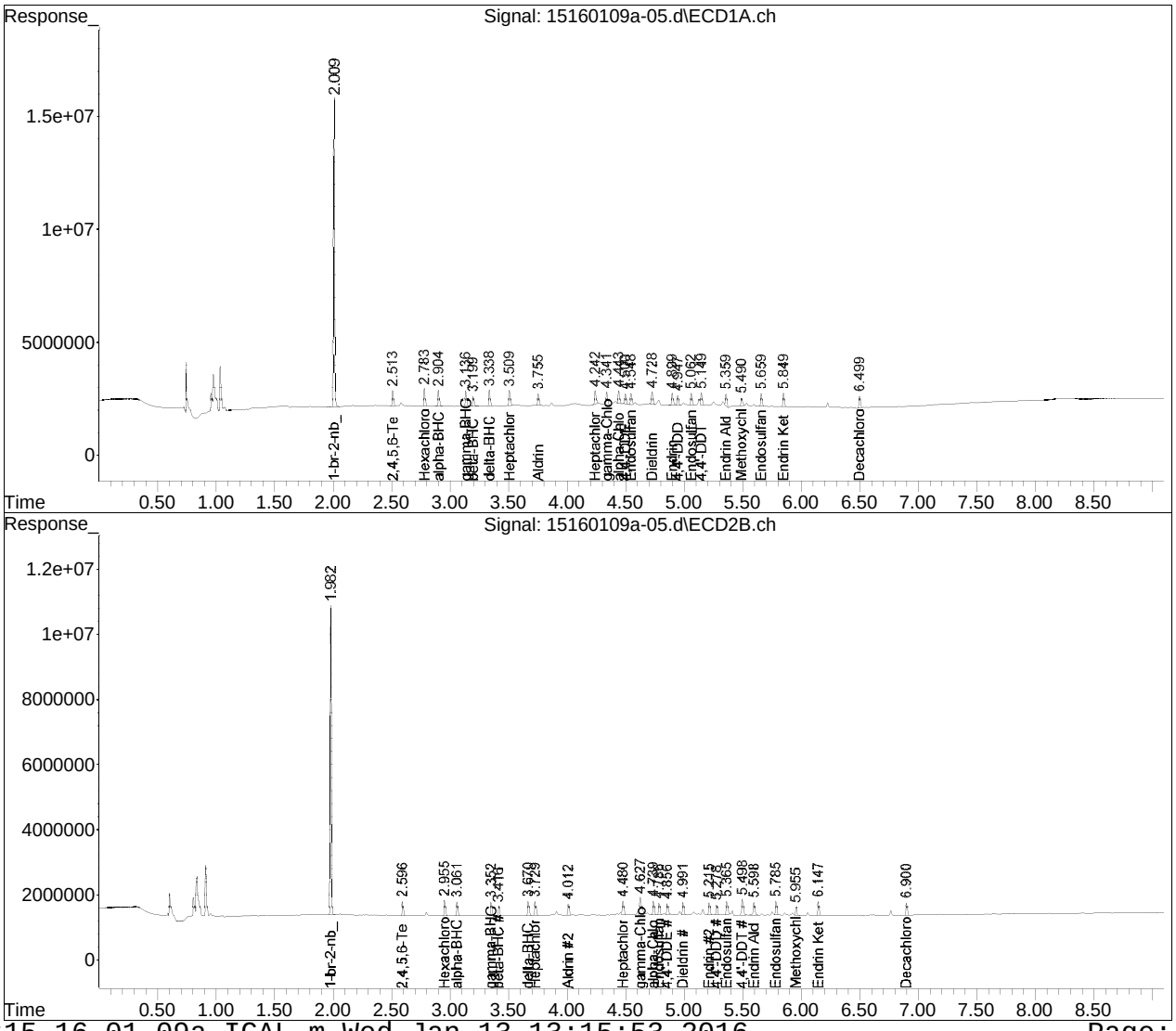
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:00 pm
Operator : pest15:ss
Sample : il2pest,42e,,7146
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:08:26 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:08:18 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

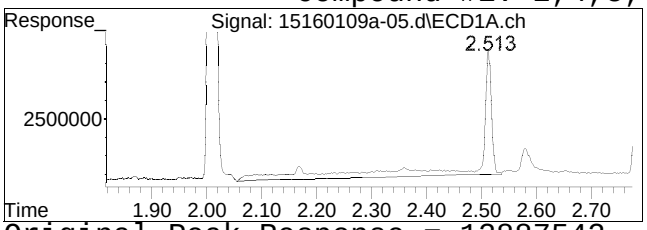


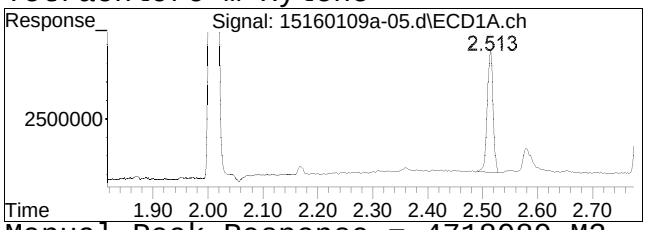
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

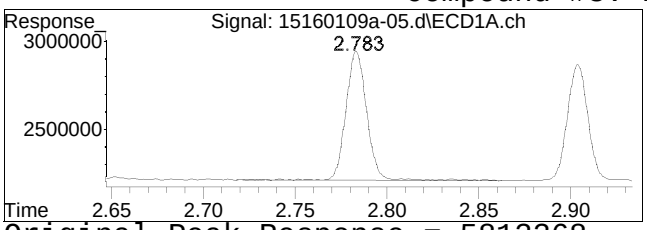
Compound #2: 2,4,5,6-Tetrachloro-m-xylene

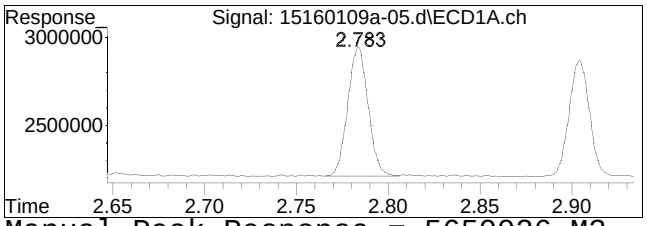




Original Peak Response = 12887542 Manual Peak Response = 4718089 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

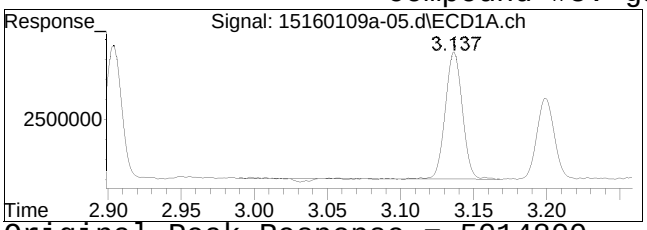
Compound #3: Hexachlorobenzene

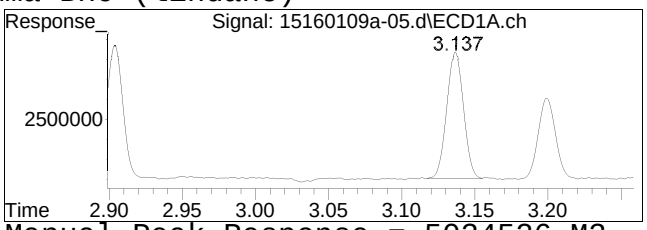




Original Peak Response = 5813368 Manual Peak Response = 5650026 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

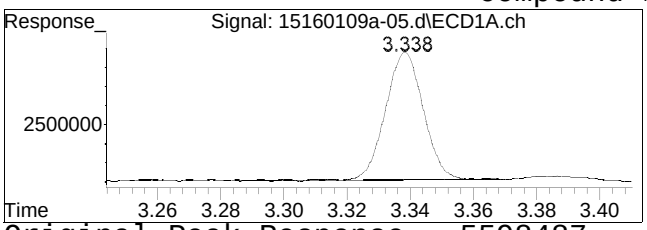
Compound #5: gamma-BHC (lindane)

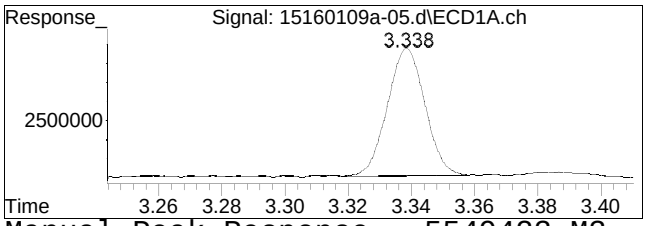




Original Peak Response = 5014800 Manual Peak Response = 5034526 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #7: delta-BHC





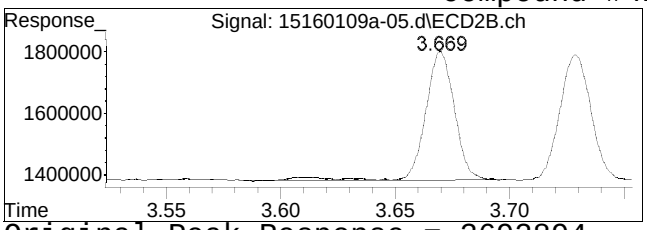
Original Peak Response = 5598487 Manual Peak Response = 5549423 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

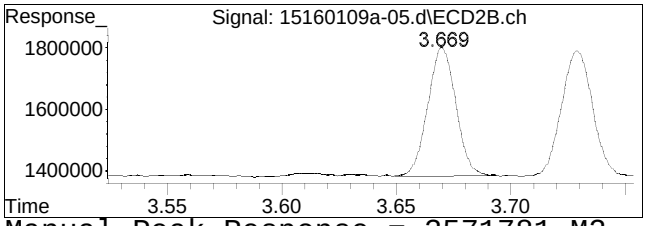
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

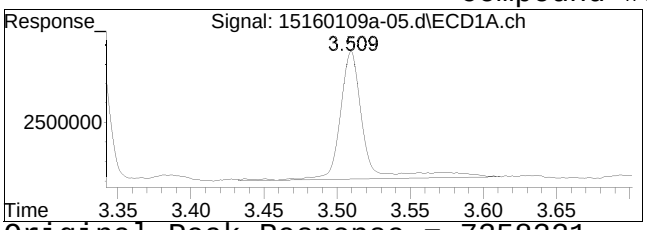
Compound #41: delta-BHC #2

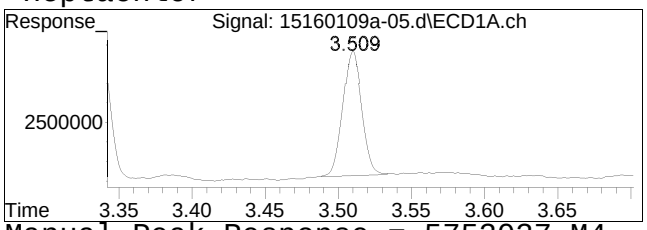




Original Peak Response = 3692894 Manual Peak Response = 3571781 M2
M2 = Peak not found by automatic integration algorithm.

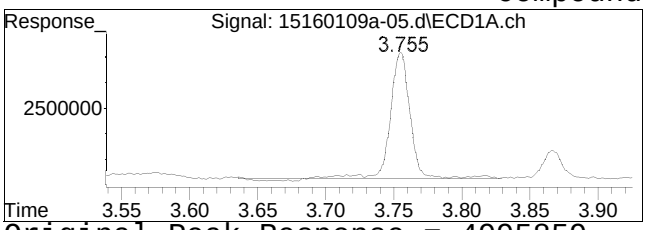
Compound #8: Heptachlor

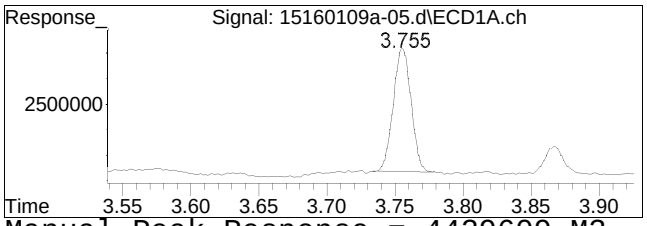




Original Peak Response = 7358321 Manual Peak Response = 5753037 M4
M4 = Poor automated baseline construction.

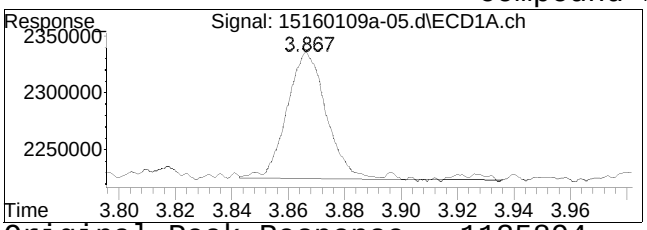
Compound #9: Aldrin

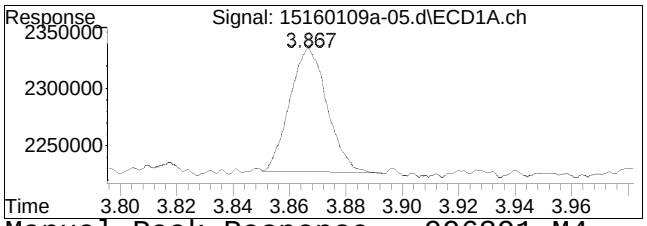




Original Peak Response = 4995859 Manual Peak Response = 4429609 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #10: Alachlor





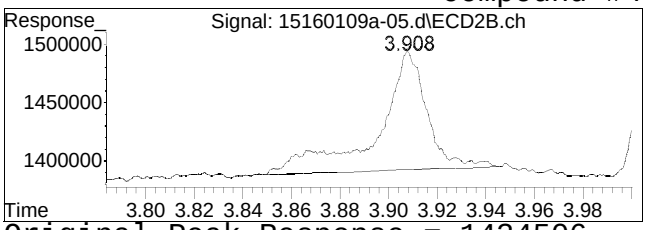
Original Peak Response = 1135894 Manual Peak Response = 996391 M4
M4 = Poor automated baseline construction.

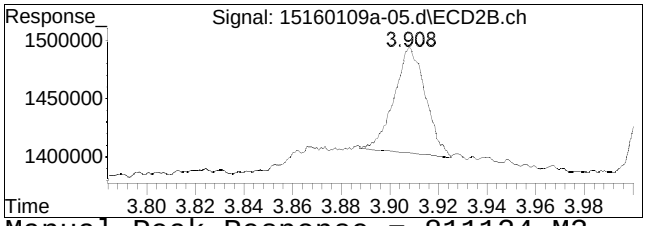
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

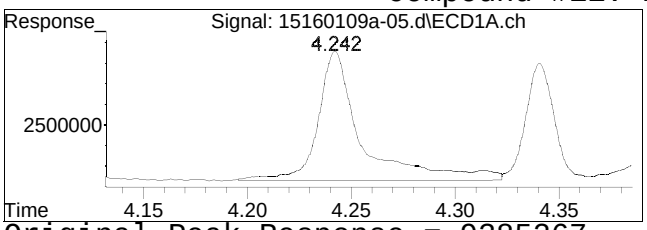
Compound #44: Alachlor #2

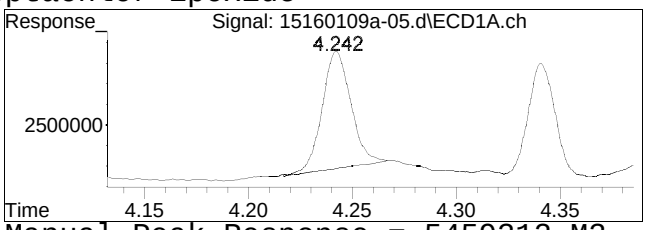




Original Peak Response = 1434506 Manual Peak Response = 811124 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

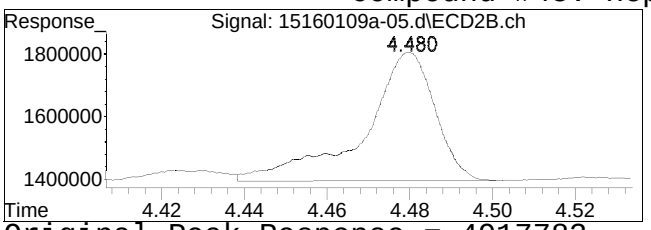
Compound #11: Heptachlor Epoxide

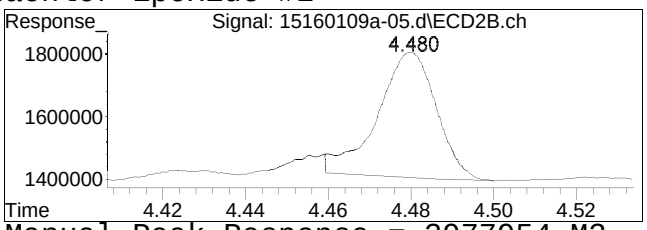




Original Peak Response = 9385267 Manual Peak Response = 5459312 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

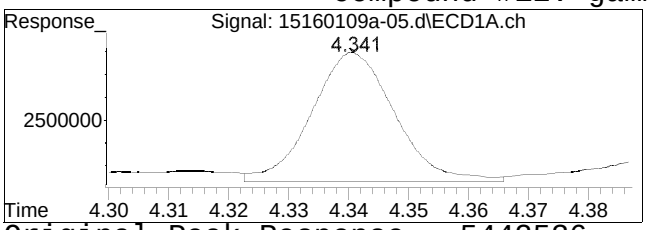
Compound #45: Heptachlor Epoxide #2

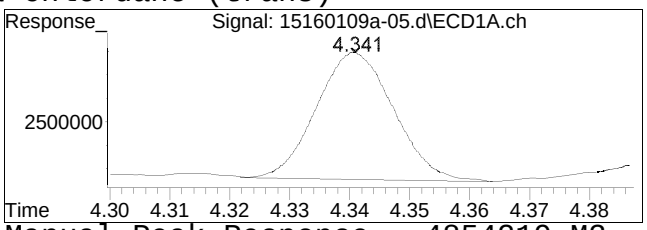




Original Peak Response = 4917783 Manual Peak Response = 3977954 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #12: gamma-Chlordane (trans)





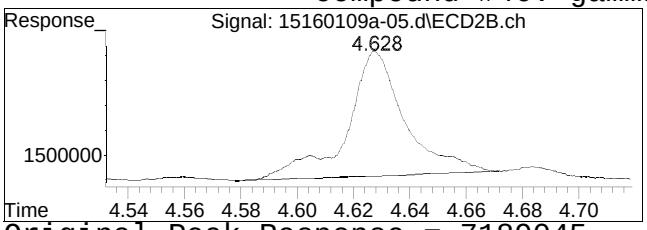
Original Peak Response = 5442536 Manual Peak Response = 4854219 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

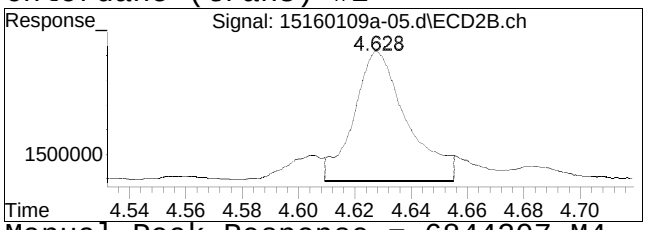
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

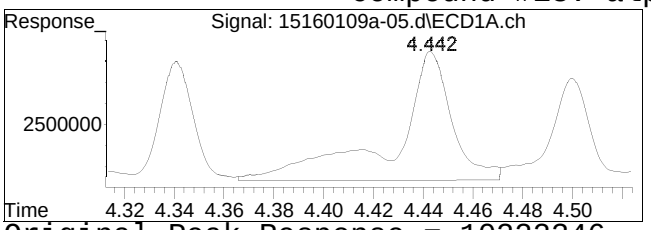
Compound #46: gamma-Chlordane (trans) #2

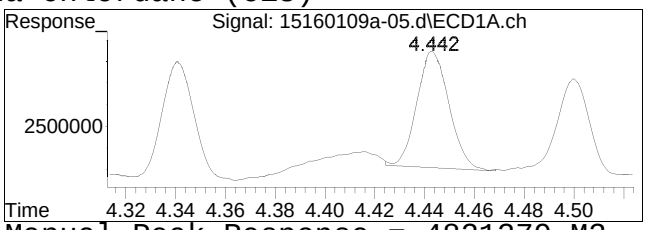




Original Peak Response = 7189045 Manual Peak Response = 6844207 M4
M4 = Poor automated baseline construction.

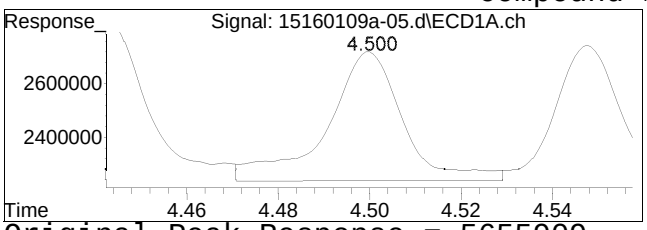
Compound #13: alpha-Chlordane (cis)

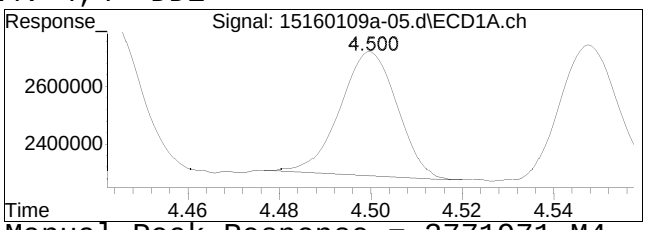




Original Peak Response = 10222346 Manual Peak Response = 4821379 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

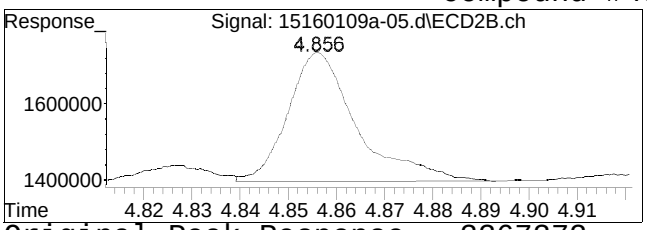
Compound #14: 4,4'-DDE

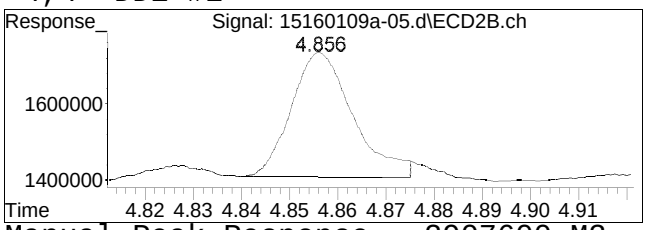




Original Peak Response = 5655909 Manual Peak Response = 3771971 M4
M4 = Poor automated baseline construction.

Compound #48: 4,4'-DDE #2





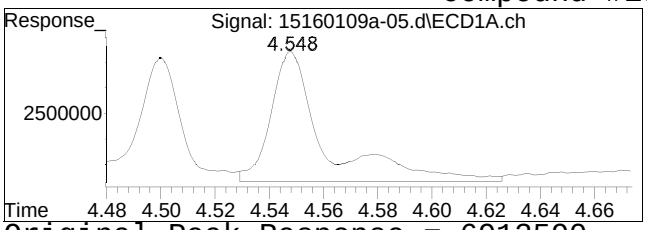
Original Peak Response = 3367372 Manual Peak Response = 2907600 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

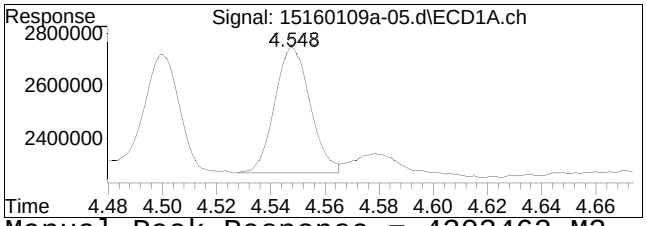
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

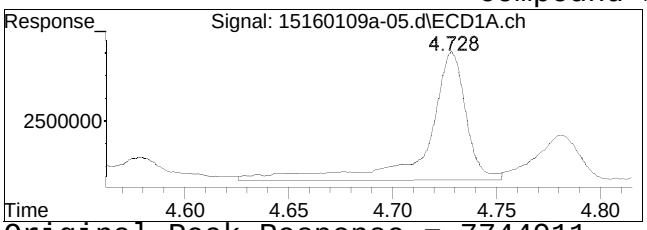
Compound #15: Endosulfan I

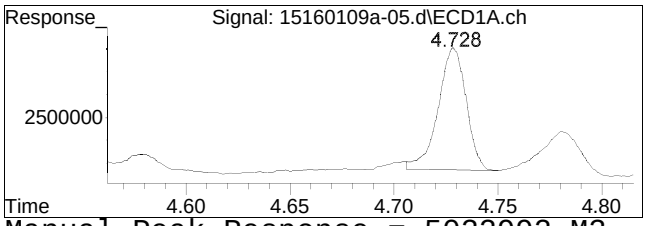




Original Peak Response = 6913590 Manual Peak Response = 4303462 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

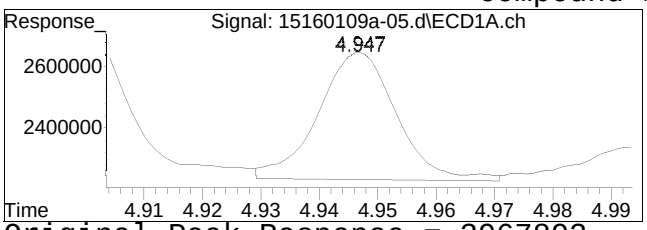
Compound #16: Dieldrin

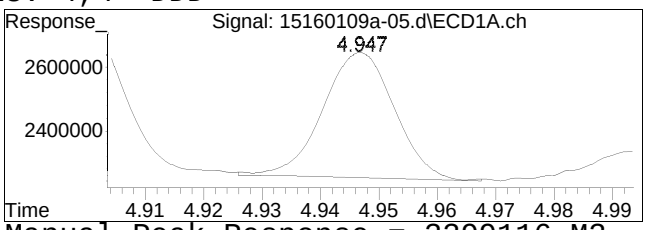




Original Peak Response = 7744911 Manual Peak Response = 5022992 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

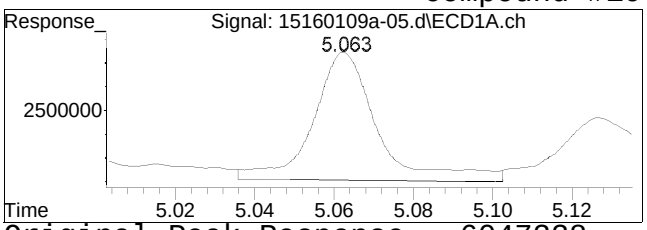
Compound #18: 4,4'-DDD

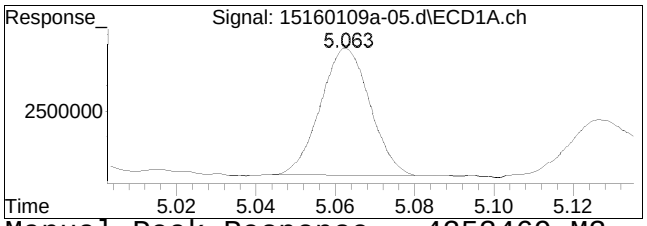




Original Peak Response = 3967893 Manual Peak Response = 3399116 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #19: Endosulfan II





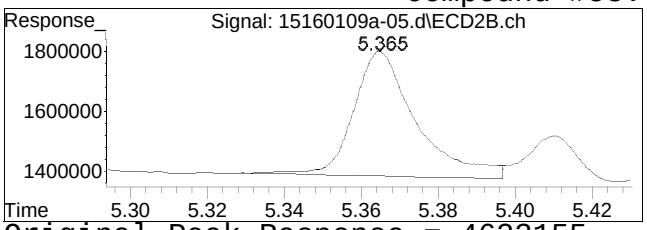
Original Peak Response = 6047338 Manual Peak Response = 4253469 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

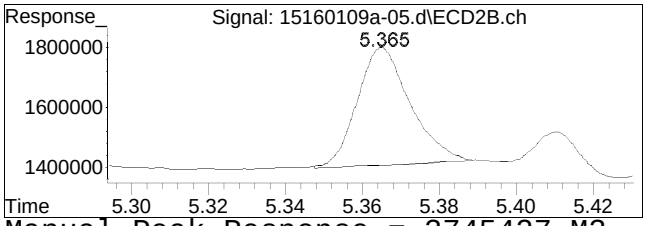
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

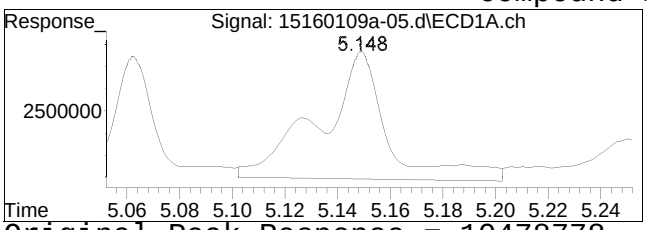
Compound #53: Endosulfan II #2

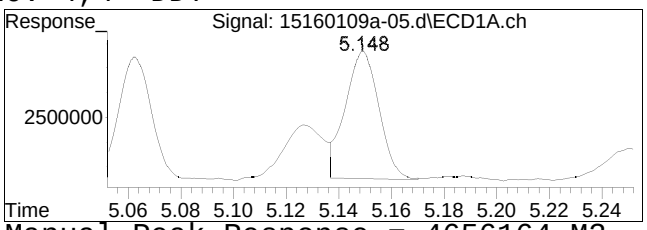




Original Peak Response = 4623155 Manual Peak Response = 3745427 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

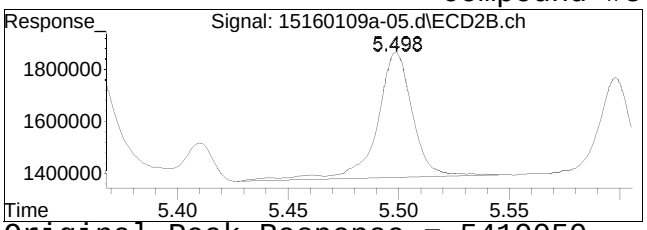
Compound #20: 4,4'-DDT

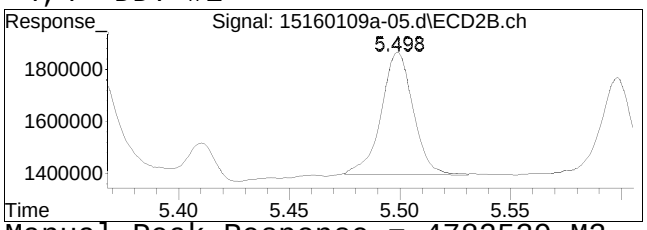




Original Peak Response = 10478778 Manual Peak Response = 4656164 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

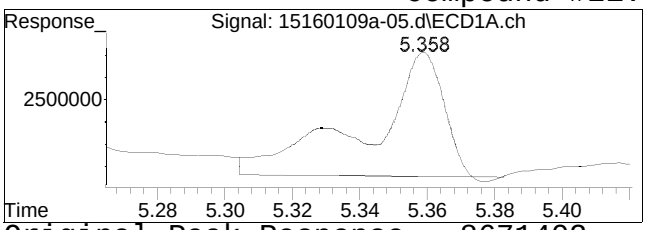
Compound #54: 4,4'-DDT #2

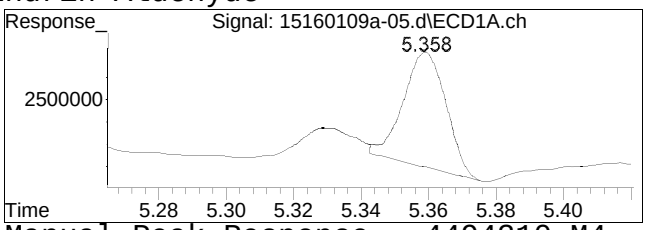




Original Peak Response = 5419050 Manual Peak Response = 4782539 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #21: Endrin Aldehyde





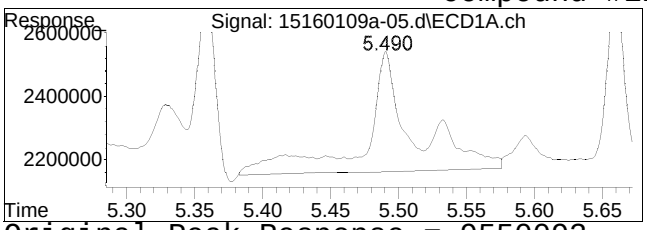
Original Peak Response = 8671402 Manual Peak Response = 4494310 M4
M4 = Poor automated baseline construction.

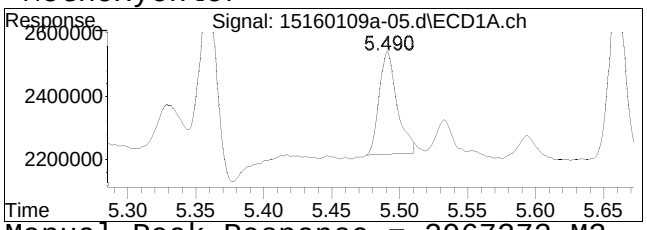
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

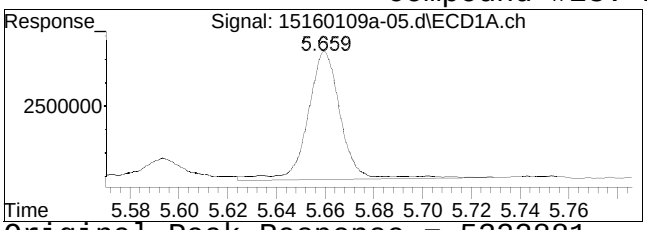
Compound #22: Methoxychlor

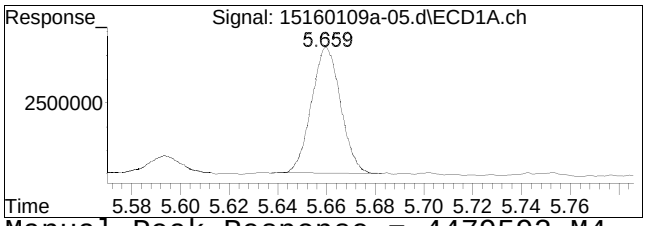




Original Peak Response = 9550093 Manual Peak Response = 2967373 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

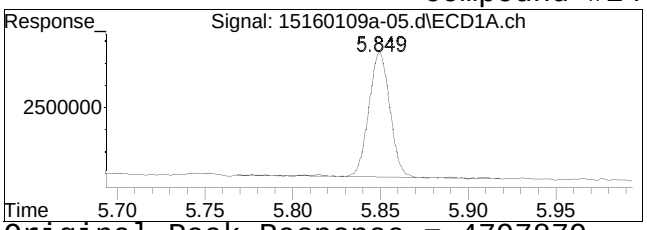
Compound #23: Endosulfan Sulfate

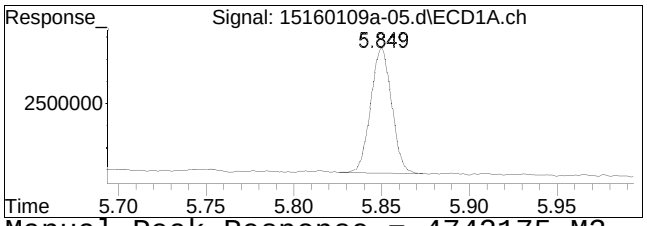




Original Peak Response = 5322881 Manual Peak Response = 4479592 M4
M4 = Poor automated baseline construction.

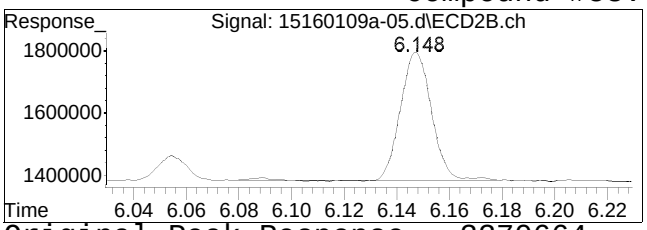
Compound #24: Endrin Ketone

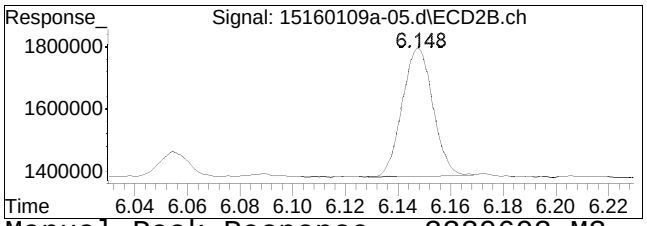




Original Peak Response = 4797879 Manual Peak Response = 4742175 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #58: Endrin Ketone #2





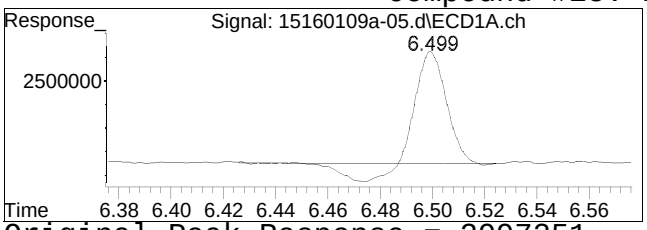
Original Peak Response = 3370664 Manual Peak Response = 3320603 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

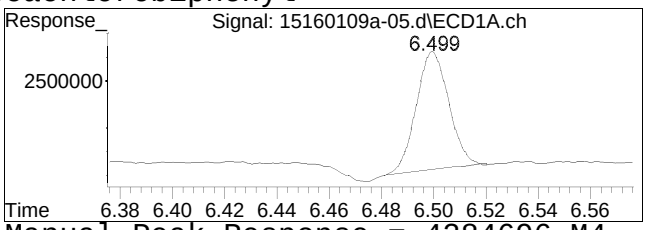
Data Path : I:\Pest15\160109a\
Data File : 15160109a-05.d
Date Inj'd : 1/9/2016 4:00 pm
Sample : il2pest,42e,,7146

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

Compound #25: Decachlorobiphenyl



Original Peak Response = 2997251



Manual Peak Response = 4284696 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:14 pm
Operator : pest15:ss
Sample : il3pest,42e,,7147
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:09:06 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:08:58 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.983	97313574	62825847	25.000M4	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.597	9719103	6063161	2.041M3	2.067
	Spiked Amount 50.000	Range 30 - 150		Recovery =		4.08%#	4.13%#
25) s	Decachlor...	6.499	6.900	8459585	6182480	1.835	1.795
	Spiked Amount 50.000	Range 30 - 150		Recovery =		3.67%#	3.59%#
	Target Compounds						
3)	Hexachlor...	2.784	2.956	11439184	7289570	1.877M3	2.186
4)	alpha-BHC	2.904	3.062	10380279	6424159	1.866M4	1.853
5)	gamma-BHC...	3.138	3.353	10225043	6536840	1.920	1.921
6)	beta-BHC	3.200	3.417	6393521	4140178	1.927	2.070
7)	delta-BHC	3.339	3.670	10700299	6658900	1.911	1.858
8)	Heptachlor	3.510	3.729	11449448	7480140	2.057M3	2.064
9)	Aldrin	3.755	4.013	9102458	5947351	1.963M3	1.960
10)	Alachlor	3.867	3.908	2073961	1544505	0.324M3	0.492M4
#							
11)	Heptachlo...	4.243	4.480	10803768	7876767	1.783M3	2.367M3
#							
12)	gamma-Chl...	4.341	4.628	9822696	10258701	2.258M3	2.967M4
#							
13)	alpha-Chl...	4.444	4.739	9885791	7028260	2.276M4	2.503
14)	4,4'-DDE	4.500	4.857	8228741	6270632	1.924M4	2.084
15)	Endosulfan I	4.548	4.787	8820156	6165566	2.059M3	2.084
16)	Dieldrin	4.729	4.992	9607590	6358146	2.006M3	2.016
17)	Endrin	4.901	5.215	9223092	5892566	2.038	1.970
18)	4,4'-DDD	4.947	5.279	7241281	4869157	1.992	1.948
19)	Endosulfa...	5.063	5.366	8884413	7261012	1.645	2.200 #
20)	4,4'-DDT	5.149	5.498	8667373	6926256	2.206M3	2.640M3

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:14 pm
Operator : pest15:ss
Sample : il3pest,42e,,7147
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:09:06 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:08:58 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
21)	Endrin Al...	5.360	5.599	8327737	6204214	2.048	2.187
22)	Methoxychlor	5.490	5.956	5812127	3675772	1.399M3	1.748
23)	Endosulfa...	5.660	5.786	8646109	6359695	1.965M3	2.358
24)	Endrin Ke...	5.850	6.148	9251789	6568913	1.965M3	2.316
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

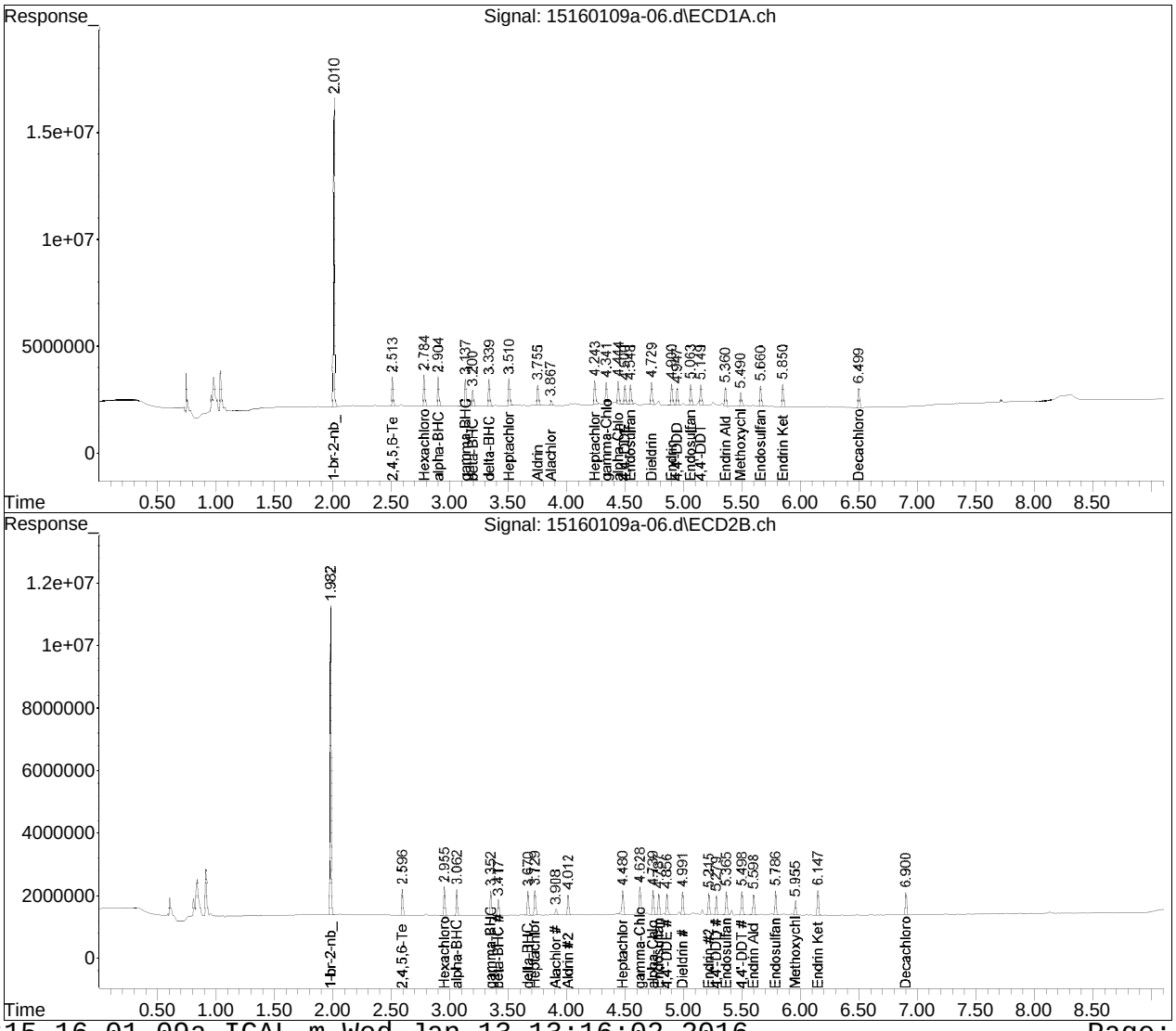
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:14 pm
Operator : pest15:ss
Sample : il3pest,42e,,7147
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:09:06 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:08:58 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

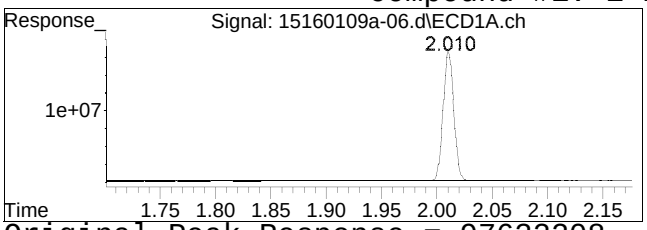


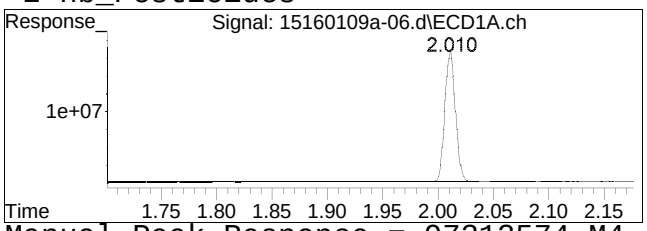
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Date Inj'd : 1/9/2016 4:14 pm
Sample : il3pest,42e,,7147

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

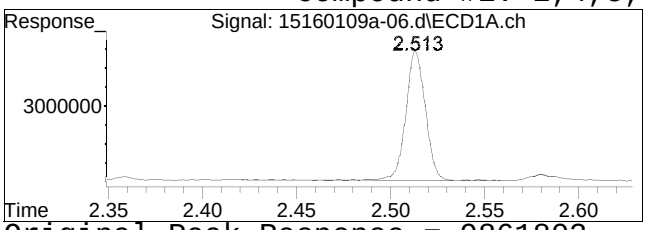
Compound #1: 1-br-2-nb_Pesticides

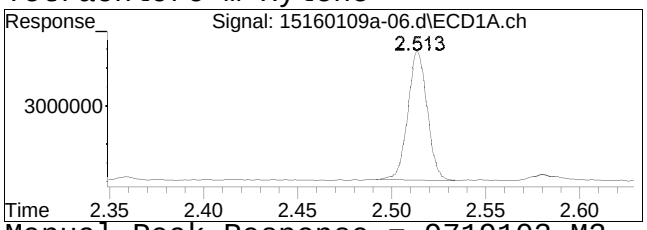




Original Peak Response = 97632208 Manual Peak Response = 97313574 M4
M4 = Poor automated baseline construction.

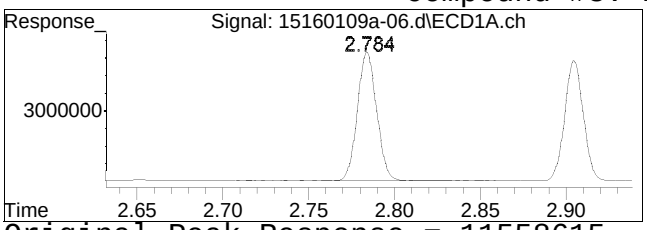
Compound #2: 2,4,5,6-Tetrachloro-m-xylene

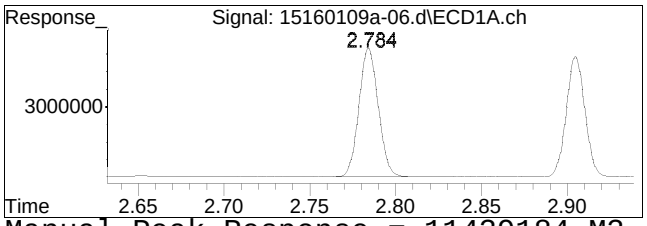




Original Peak Response = 9861803 Manual Peak Response = 9719103 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

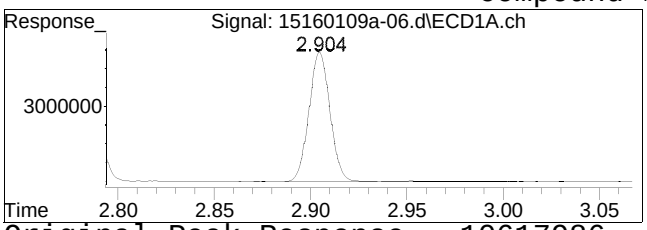
Compound #3: Hexachlorobenzene

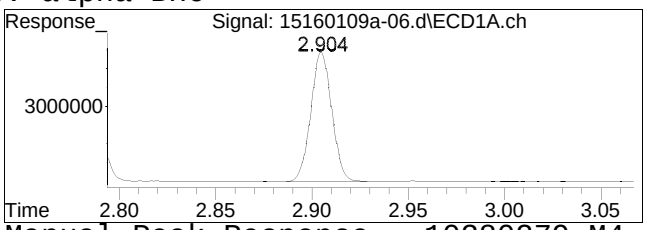




Original Peak Response = 11558615 Manual Peak Response = 11439184 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #4: alpha-BHC





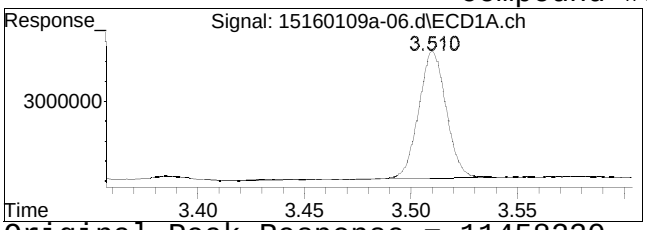
Original Peak Response = 10617986 Manual Peak Response = 10380279 M4
M4 = Poor automated baseline construction.

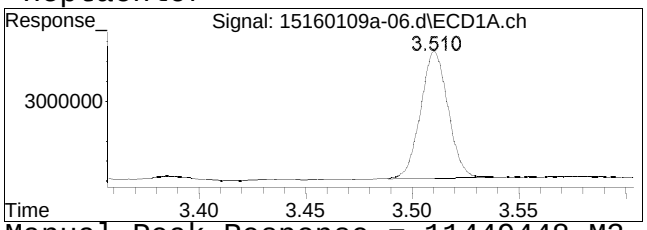
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Date Inj'd : 1/9/2016 4:14 pm
Sample : il3pest,42e,,7147

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

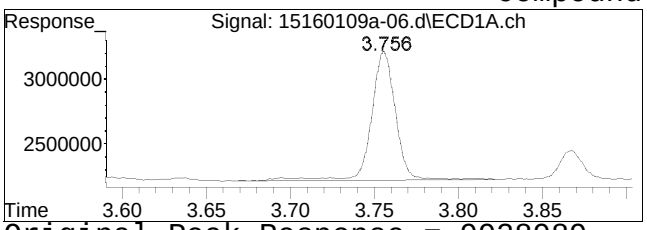
Compound #8: Heptachlor

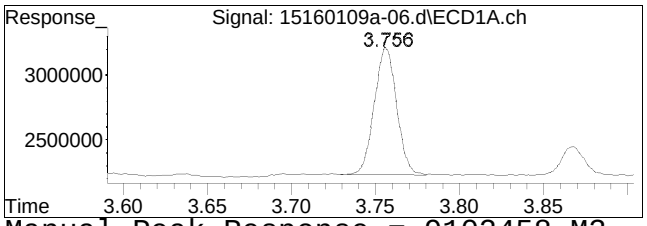




Original Peak Response = 11458230 Manual Peak Response = 11449448 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

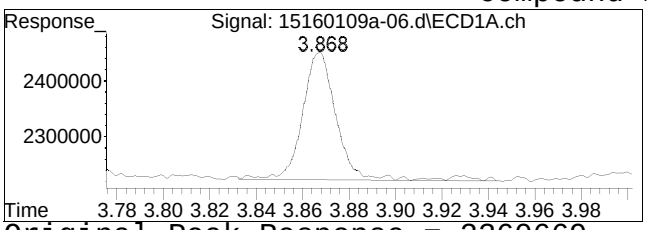
Compound #9: Aldrin

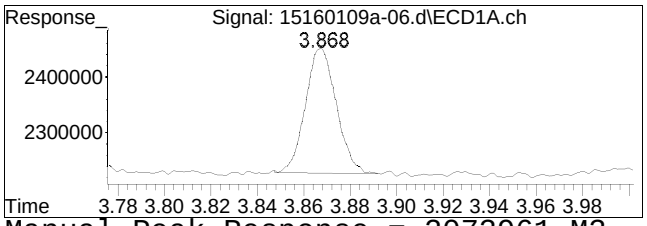




Original Peak Response = 9928989 Manual Peak Response = 9102458 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

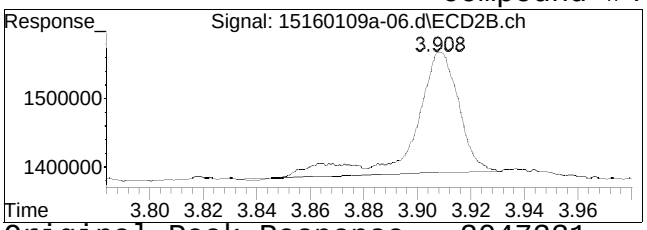
Compound #10: Alachlor

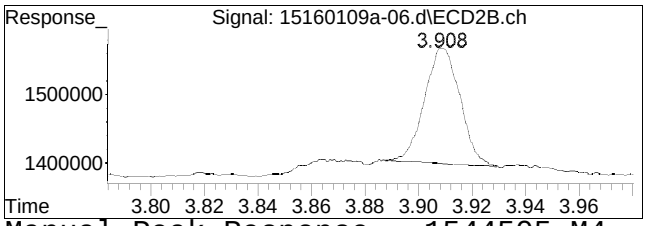




Original Peak Response = 2360669 Manual Peak Response = 2073961 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #44: Alachlor #2





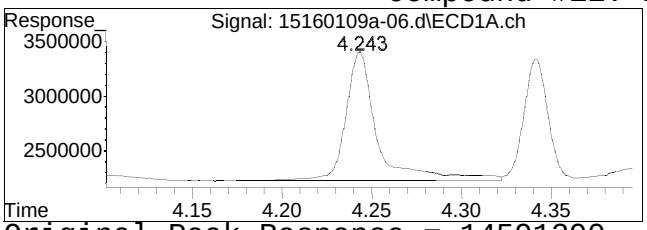
Original Peak Response = 2047331 Manual Peak Response = 1544505 M4
M4 = Poor automated baseline construction.

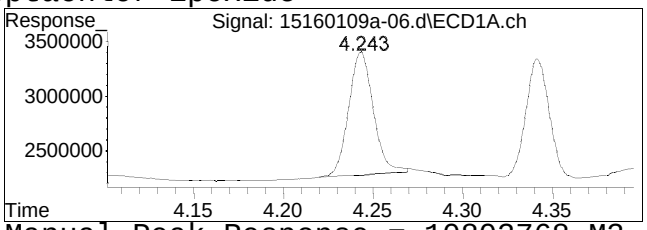
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Date Inj'd : 1/9/2016 4:14 pm
Sample : il3pest,42e,,7147

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

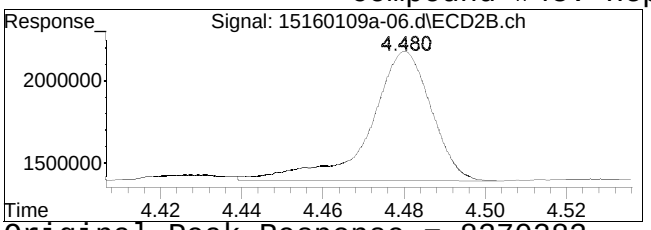
Compound #11: Heptachlor Epoxide

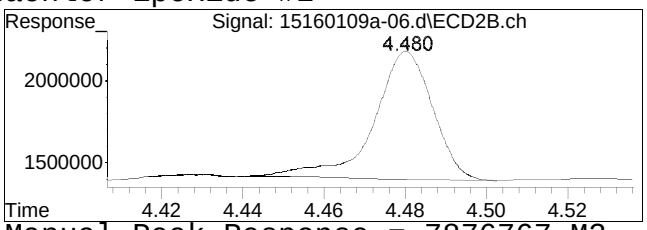




Original Peak Response = 14591290 Manual Peak Response = 10803768 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

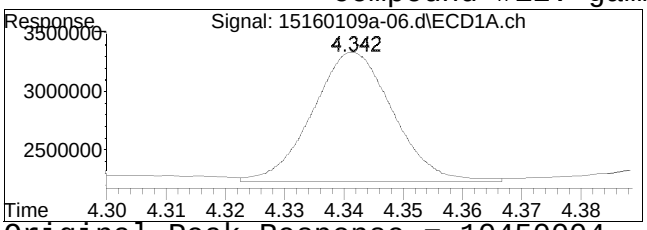
Compound #45: Heptachlor Epoxide #2

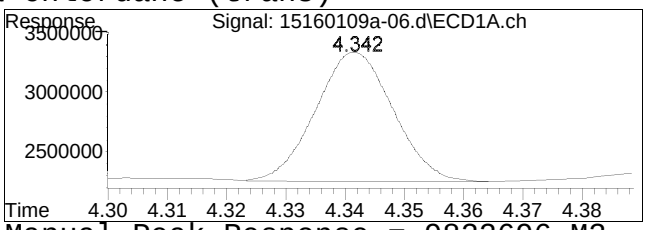




Original Peak Response = 8370283 Manual Peak Response = 7876767 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

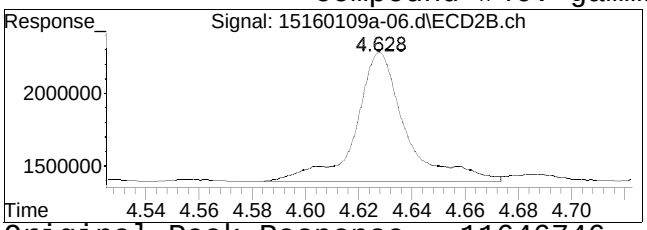
Compound #12: gamma-Chlordane (trans)

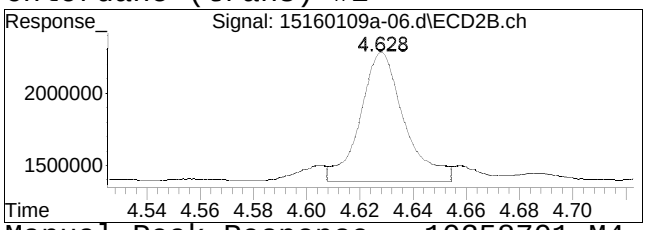




Original Peak Response = 10450004 Manual Peak Response = 9822696 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #46: gamma-Chlordane (trans) #2





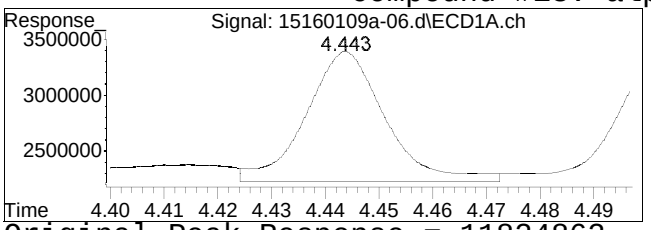
Original Peak Response = 11646746 Manual Peak Response = 10258701 M4
M4 = Poor automated baseline construction.

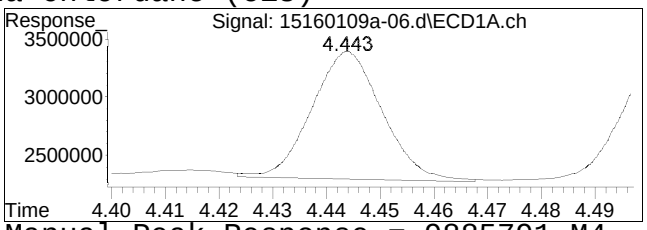
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Date Inj'd : 1/9/2016 4:14 pm
Sample : il3pest,42e,,7147

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

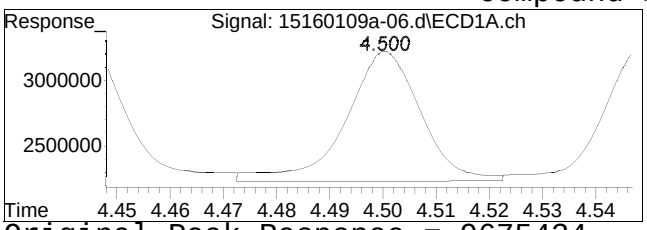
Compound #13: alpha-Chlordane (cis)

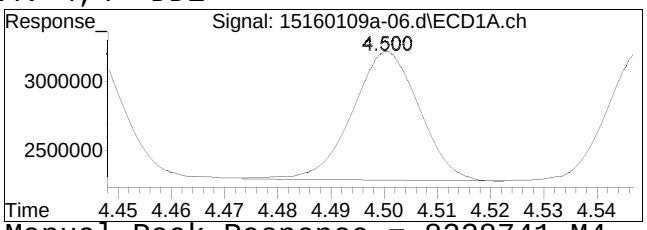




Original Peak Response = 11824862 Manual Peak Response = 9885791 M4
M4 = Poor automated baseline construction.

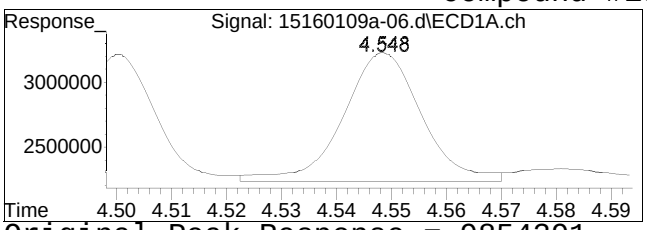
Compound #14: 4,4'-DDE

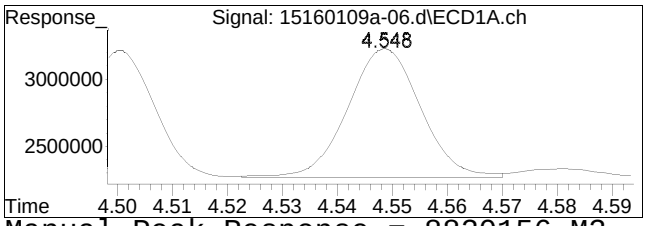




Original Peak Response = 9675434 Manual Peak Response = 8228741 M4
M4 = Poor automated baseline construction.

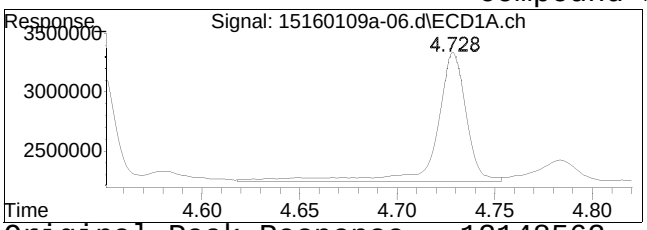
Compound #15: Endosulfan I

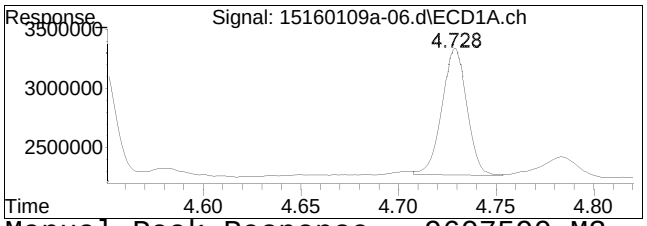




Original Peak Response = 9854391 Manual Peak Response = 8820156 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #16: Dieldrin



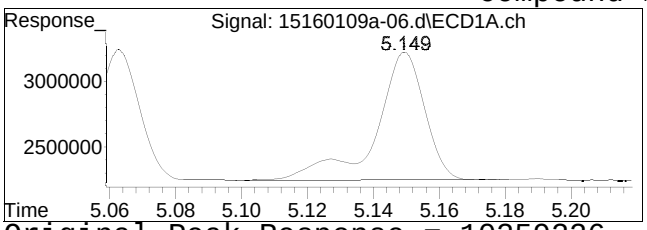


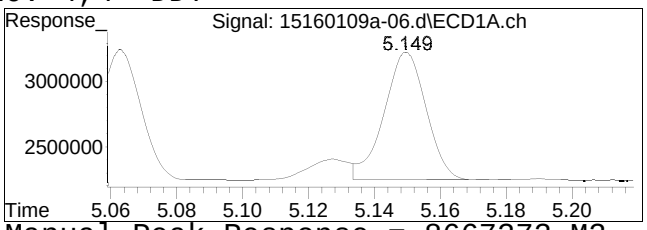
Original Peak Response = 12148562 Manual Peak Response = 9607590 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-06.d Operator : pest15:ss
Date Inj'd : 1/9/2016 4:14 pm Instrument : Pest 15
Sample : il3pest,42e,,7147 Quant Date : 1/13/2016 1:08 pm

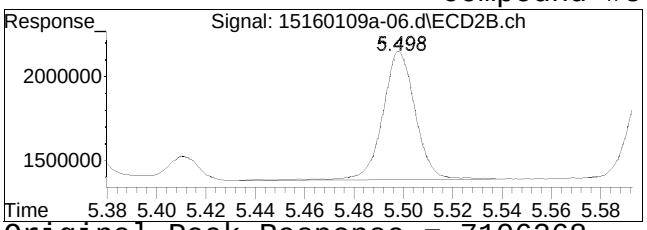
Compound #20: 4,4'-DDT

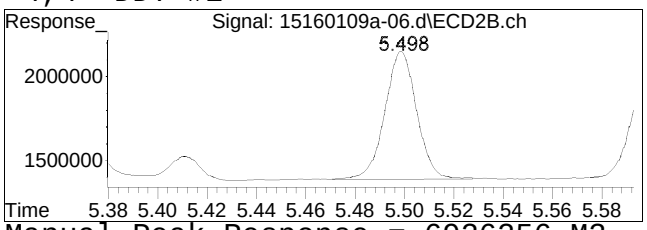




Original Peak Response = 10259226 Manual Peak Response = 8667373 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

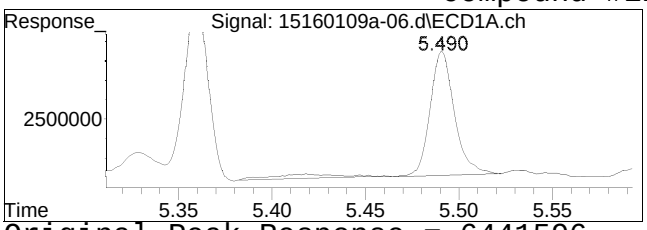
Compound #54: 4,4'-DDT #2

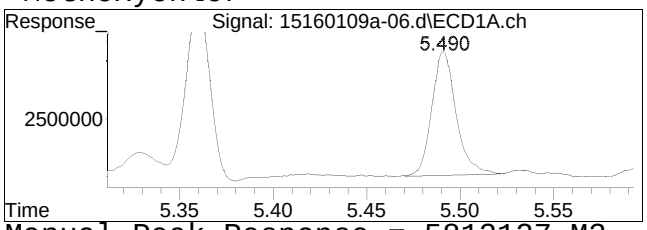




Original Peak Response = 7106268 Manual Peak Response = 6926256 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

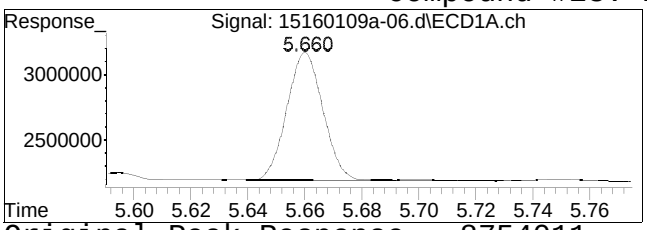
Compound #22: Methoxychlor

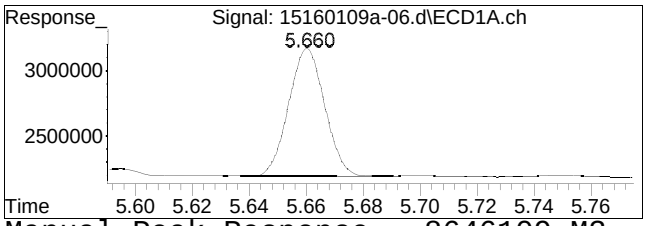




Original Peak Response = 6441596 Manual Peak Response = 5812127 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #23: Endosulfan Sulfate





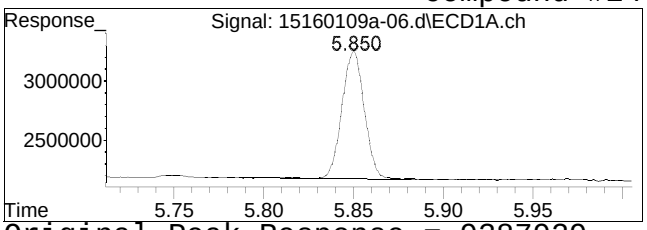
Original Peak Response = 8754011 Manual Peak Response = 8646109 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

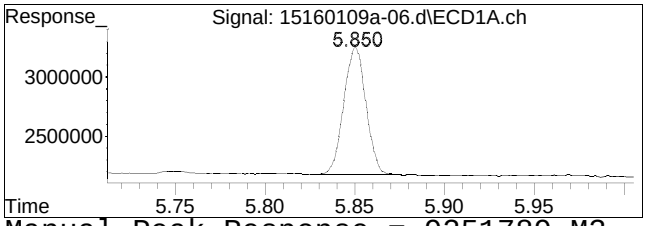
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-06.d
Date Inj'd : 1/9/2016 4:14 pm
Sample : il3pest,42e,,7147

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:08 pm

Compound #24: Endrin Ketone





Original Peak Response = 9387929 Manual Peak Response = 9251789 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:27 pm
Operator : pest15:ss
Sample : il4pest,42e,,7148
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:12:39 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:12:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	101.2E6	65367051	25.000M4	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.596	14344736	8940580	2.897M4	2.930
	Spiked Amount	50.000	Range 30 - 150		Recovery =	5.79%#	5.86%#
25) s	Decachlor...	6.499	6.900	12151400	8891811	2.910M4	2.925
	Spiked Amount	50.000	Range 30 - 150		Recovery =	5.82%#	5.85%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	16826914	10629905	2.883M3	3.162
4)	alpha-BHC	2.904	3.062	15666326	9627769	2.710	2.669
5)	gamma-BHC...	3.137	3.352	15459236	9723923	2.793	2.747M3
6)	beta-BHC	3.200	3.417	9210829	6087654	2.899	3.099
7)	delta-BHC	3.339	3.670	15320185	9703915	2.631	2.602
8)	Heptachlor	3.509	3.729	16805008	10911832	2.905M4	2.893
9)	Aldrin	3.754	4.012	13657017	8845040	2.834M3	2.801
10)	Alachlor	3.866	3.908	3176756	2261078	1.710	1.784M4
11)	Heptachlo...	4.242	4.480	15899008	11181310	2.801M3	3.274M4
12)	gamma-Chl...	4.341	4.627	15359011	12988860	3.294	3.622M4
13)	alpha-Chl...	4.443	4.739	14463433	10219500	3.159M3	3.368
14)	4,4'-DDE	4.500	4.856	12131219	9014173	2.729M2	2.879
15)	Endosulfan I	4.547	4.787	12878449	8928328	2.892M2	2.901
16)	Dieldrin	4.728	4.991	13975417	9039157	2.807M3	2.755
17)	Endrin	4.900	5.216	13542902	8780569	2.878	2.822
18)	4,4'-DDD	4.947	5.279	10972530	7182006	2.903	2.762
19)	Endosulfa...	5.062	5.365	12683447	10137917	2.520M3	3.108
20)	4,4'-DDT	5.149	5.498	12548716	9355406	3.050M3	3.394M4
21)	Endrin Al...	5.359	5.599	11188700	8832734	2.821M3	3.184
22)	Methoxychlor	5.490	5.956	8333050	5468291	2.494M4	2.902

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:27 pm
Operator : pest15:ss
Sample : il4pest,42e,,7148
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:12:39 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:12:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
23)	Endosulfa...	5.659	5.786	12574496	9285748	2.905M3	3.309
24)	Endrin Ke...	5.849	6.148	13807086	9604242	2.944	3.230
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

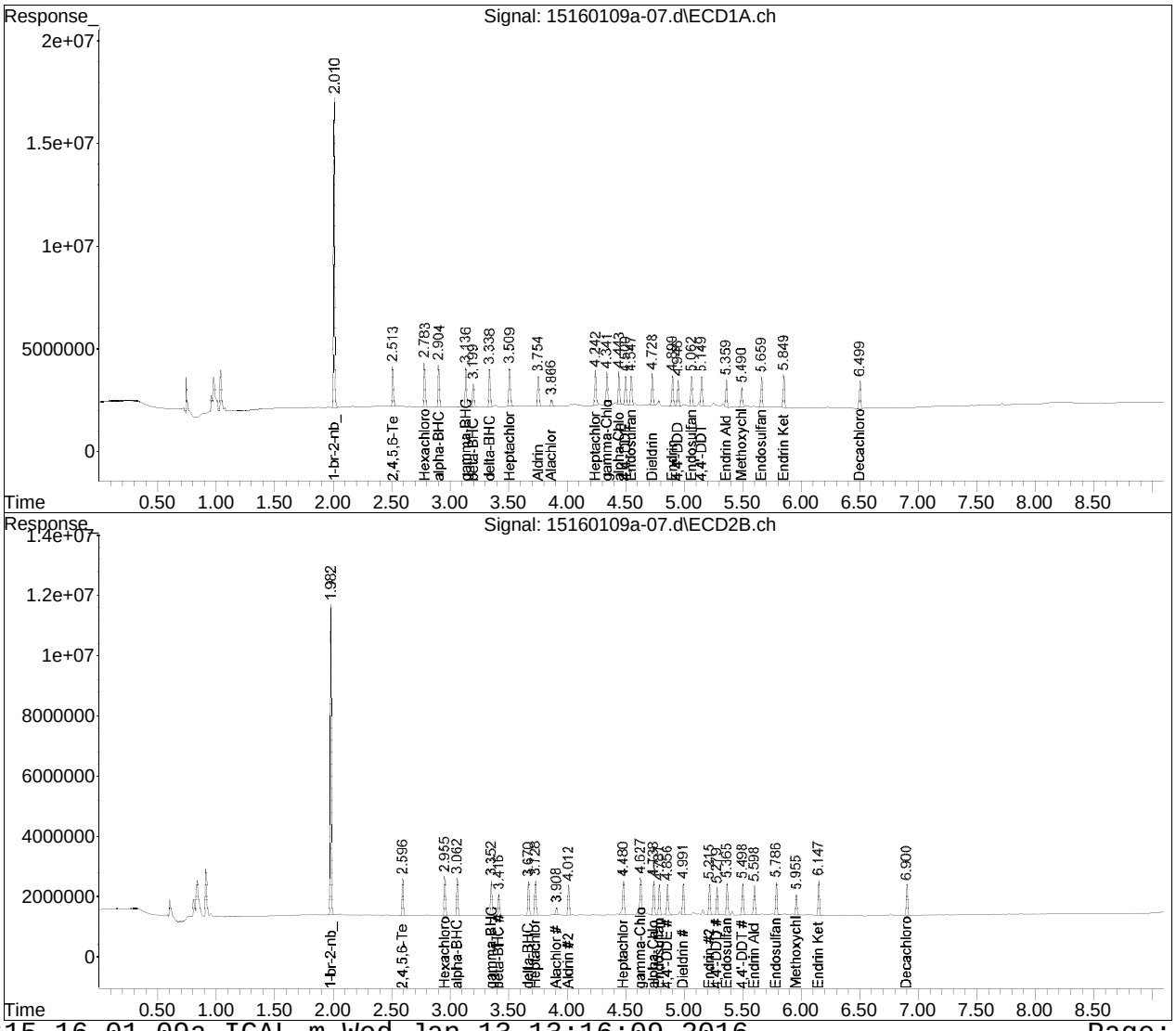
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:27 pm
Operator : pest15:ss
Sample : il4pest,42e,,7148
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:12:39 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:12:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

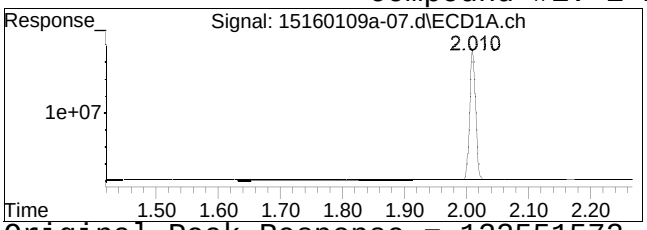


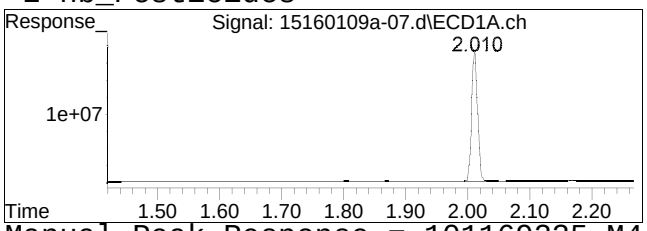
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Date Inj'd : 1/9/2016 4:27 pm
Sample : il4pest,42e,,7148

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:12 pm

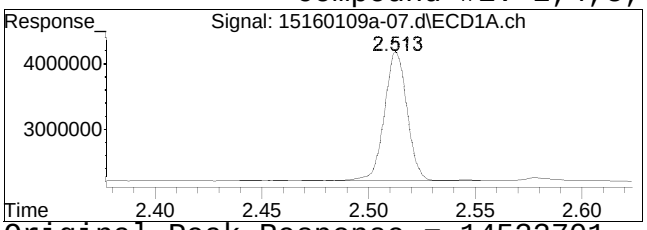
Compound #1: 1-br-2-nb_Pesticides

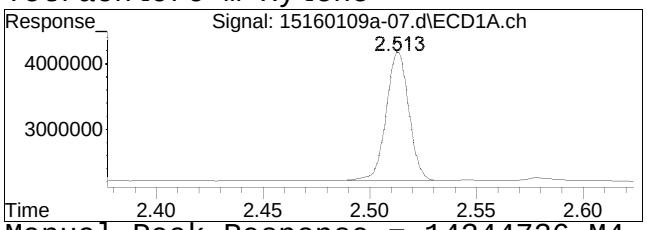




Original Peak Response = 122551572 Manual Peak Response = 101169235 M4
M4 = Poor automated baseline construction.

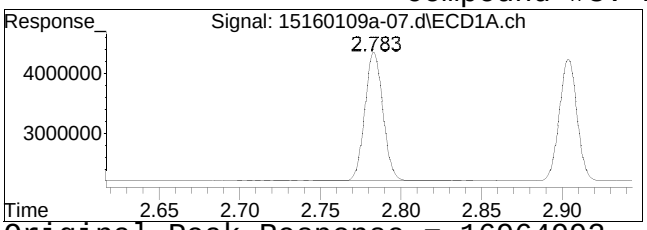
Compound #2: 2,4,5,6-Tetrachloro-m-xylene

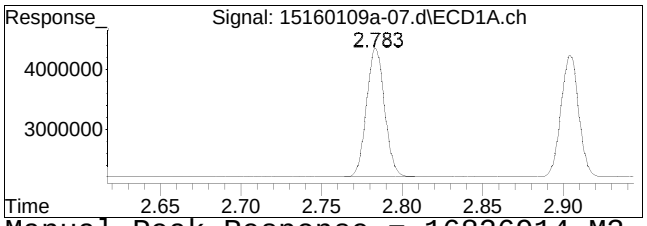




Original Peak Response = 14533701 Manual Peak Response = 14344736 M4
M4 = Poor automated baseline construction.

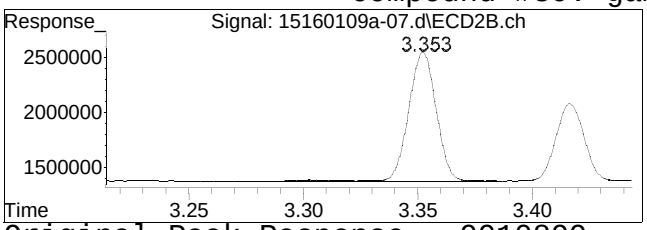
Compound #3: Hexachlorobenzene

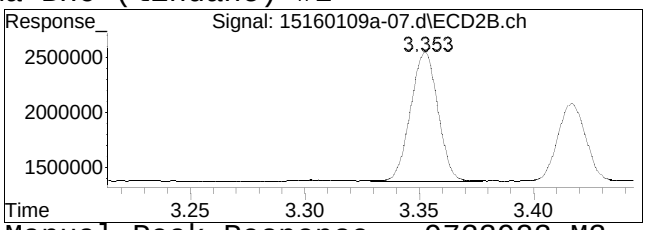




Original Peak Response = 16964992 Manual Peak Response = 16826914 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #39: gamma-BHC (lindane) #2





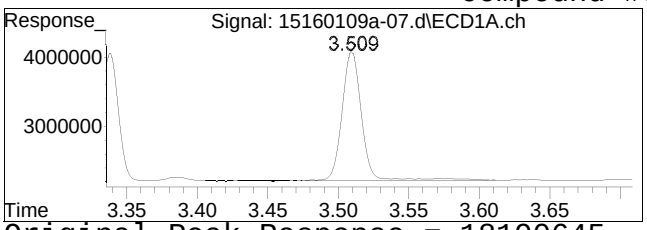
Original Peak Response = 9910899 Manual Peak Response = 9723923 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

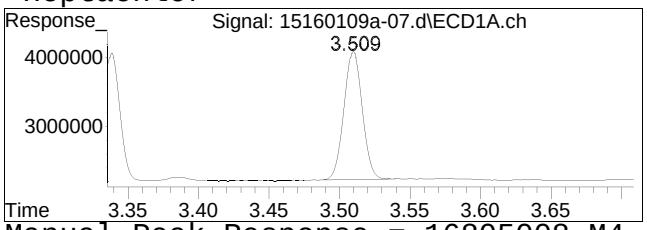
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Date Inj'd : 1/9/2016 4:27 pm
Sample : il4pest,42e,,7148

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:12 pm

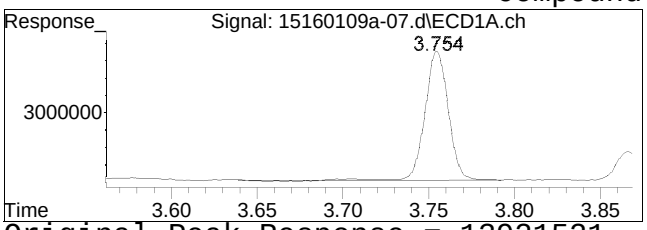
Compound #8: Heptachlor

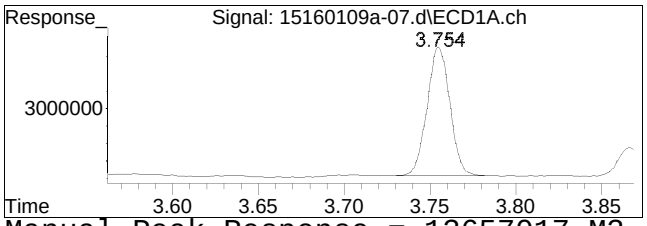




Original Peak Response = 18190645 Manual Peak Response = 16805008 M4
M4 = Poor automated baseline construction.

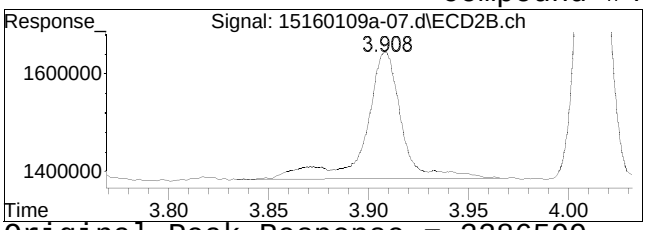
Compound #9: Aldrin

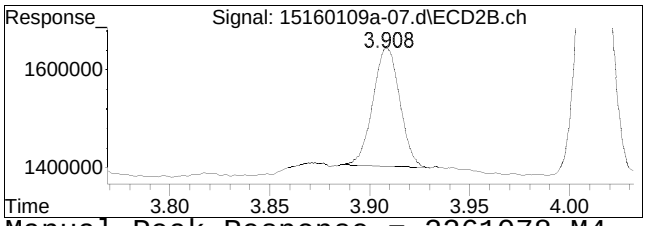




Original Peak Response = 13921521 Manual Peak Response = 13657017 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

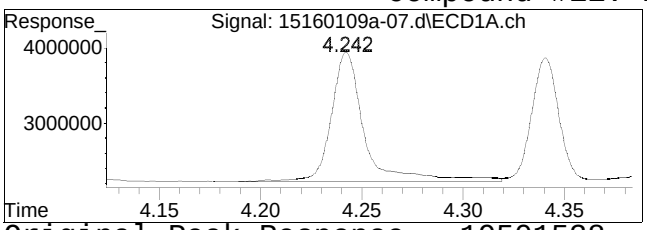
Compound #44: Alachlor #2

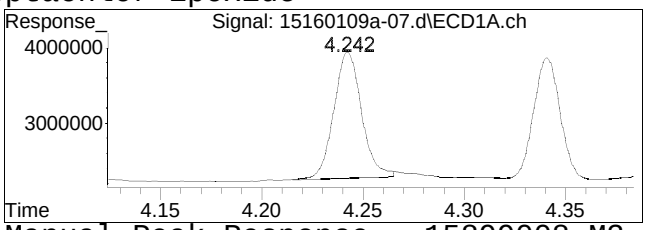




Original Peak Response = 3286599 Manual Peak Response = 2261078 M4
M4 = Poor automated baseline construction.

Compound #11: Heptachlor Epoxide





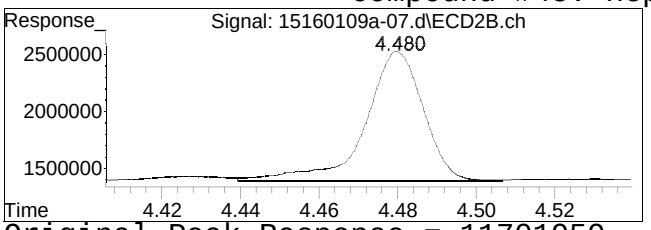
Original Peak Response = 19501538 Manual Peak Response = 15899008 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

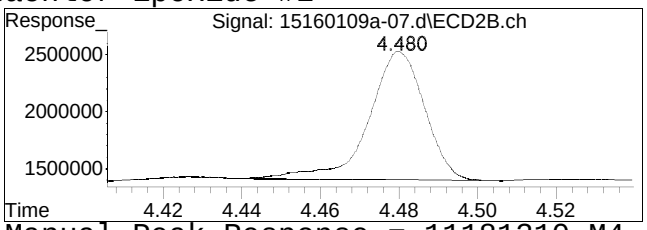
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Date Inj'd : 1/9/2016 4:27 pm
Sample : il4pest,42e,,7148

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:12 pm

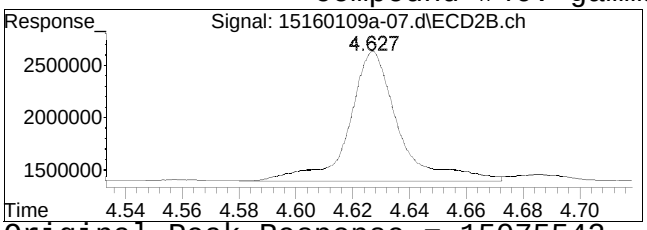
Compound #45: Heptachlor Epoxide #2

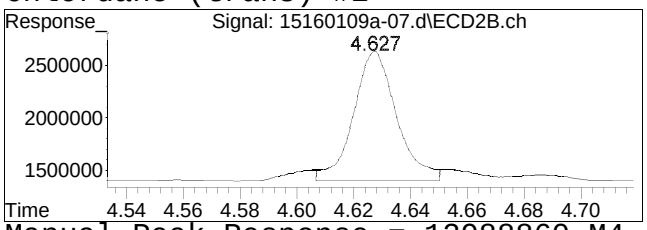




Original Peak Response = 11701959 Manual Peak Response = 11181310 M4
M4 = Poor automated baseline construction.

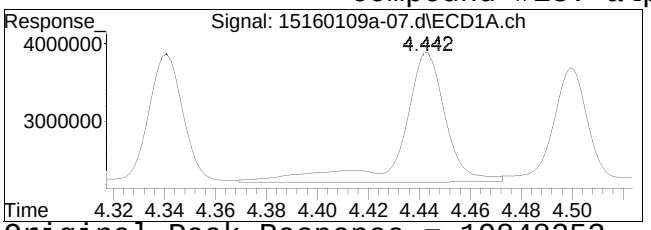
Compound #46: gamma-Chlordane (trans) #2

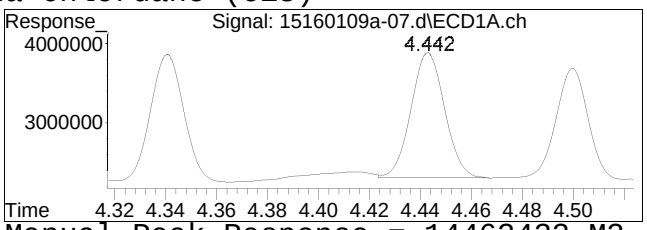




Original Peak Response = 15075542 Manual Peak Response = 12988860 M4
M4 = Poor automated baseline construction.

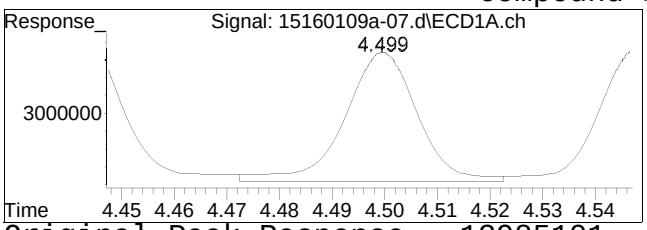
Compound #13: alpha-Chlordane (cis)

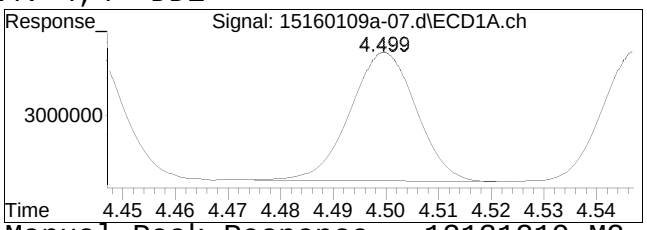




Original Peak Response = 19848253 Manual Peak Response = 14463433 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #14: 4,4'-DDE





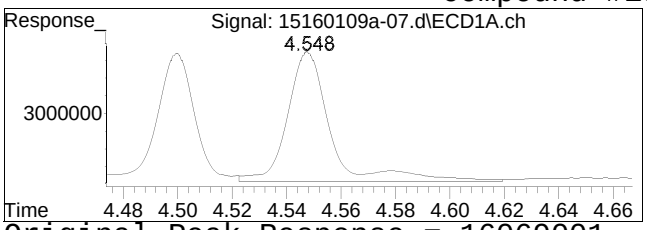
Original Peak Response = 13985101 Manual Peak Response = 12131219 M2
M2 = Peak not found by automatic integration algorithm.

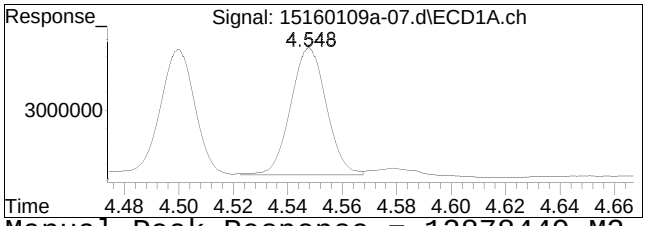
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Date Inj'd : 1/9/2016 4:27 pm
Sample : il4pest,42e,,7148

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:12 pm

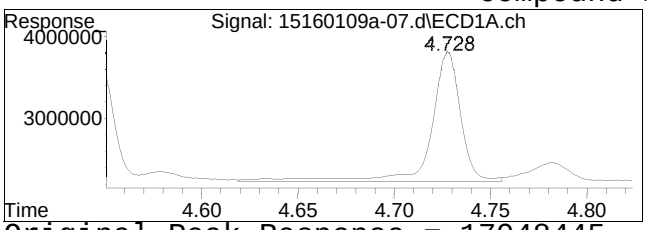
Compound #15: Endosulfan I

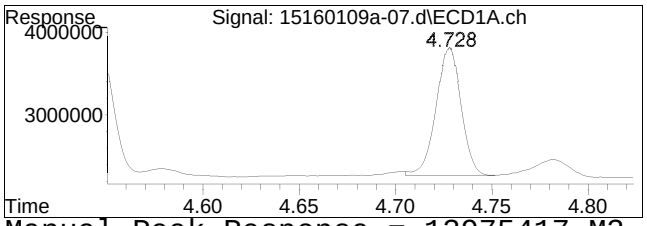




Original Peak Response = 16069001 Manual Peak Response = 12878449 M2
M2 = Peak not found by automatic integration algorithm.

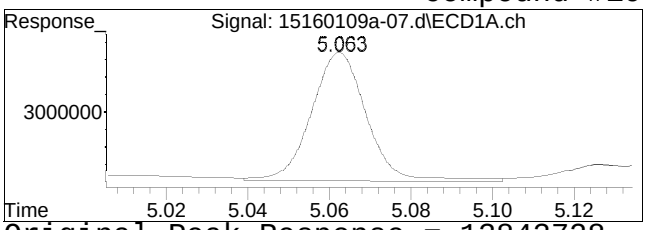
Compound #16: Dieldrin

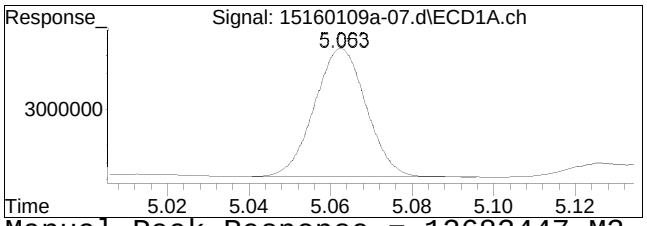




Original Peak Response = 17048445 Manual Peak Response = 13975417 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

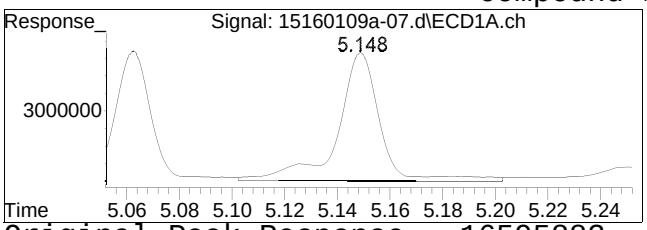
Compound #19: Endosulfan II

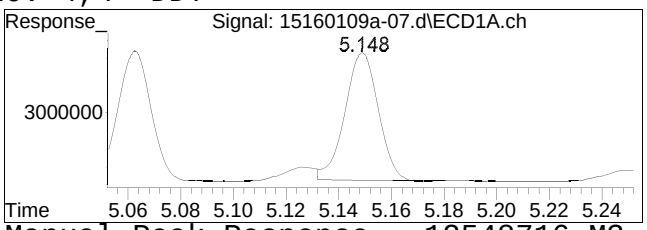




Original Peak Response = 13843728 Manual Peak Response = 12683447 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #20: 4,4'-DDT



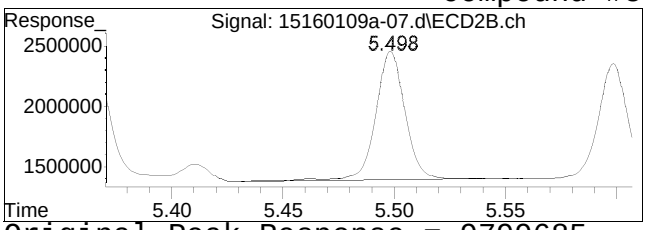


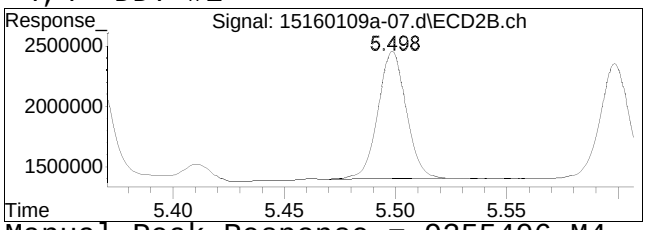
Original Peak Response = 16595883 Manual Peak Response = 12548716 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-07.d Operator : pest15:ss
Date Inj'd : 1/9/2016 4:27 pm Instrument : Pest 15
Sample : il4pest,42e,,7148 Quant Date : 1/13/2016 1:12 pm

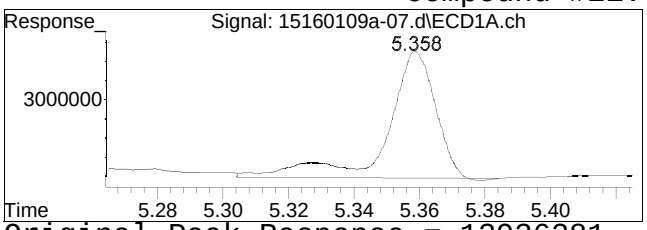
Compound #54: 4,4'-DDT #2

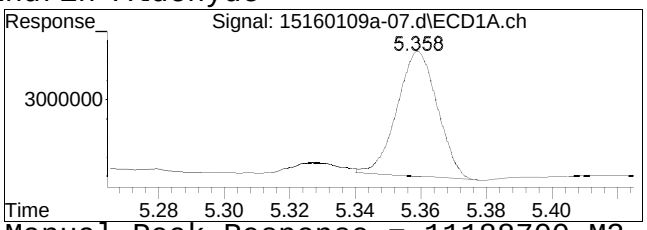




Original Peak Response = 9799685 Manual Peak Response = 9355406 M4
M4 = Poor automated baseline construction.

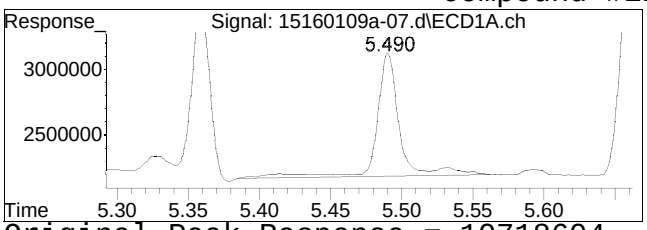
Compound #21: Endrin Aldehyde

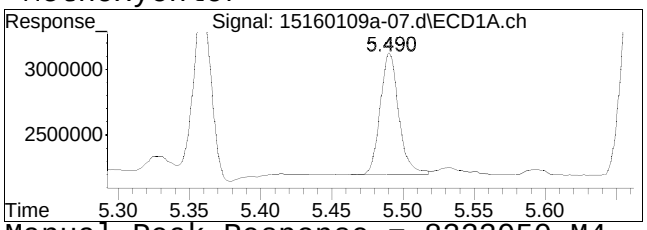




Original Peak Response = 13936281 Manual Peak Response = 11188700 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

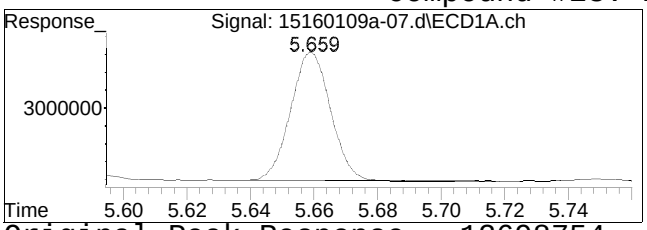
Compound #22: Methoxychlor

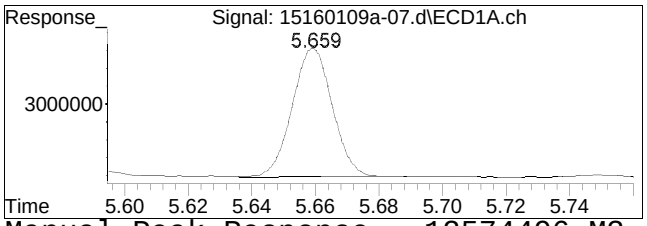




Original Peak Response = 10718604 Manual Peak Response = 8333050 M4
M4 = Poor automated baseline construction.

Compound #23: Endosulfan Sulfate





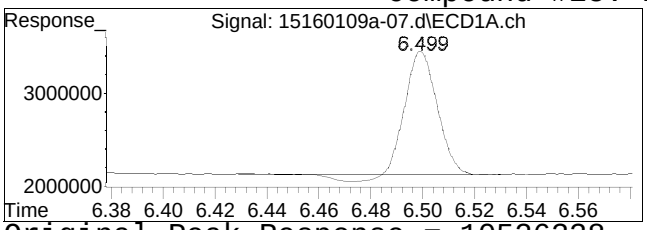
Original Peak Response = 12698754 Manual Peak Response = 12574496 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

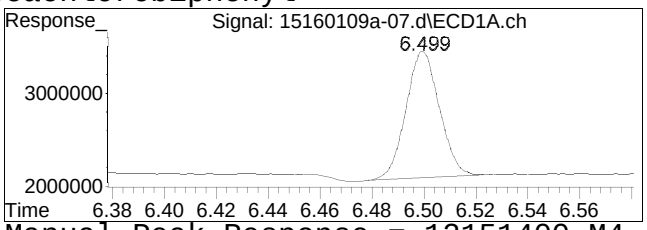
Data Path : I:\Pest15\160109a\
Data File : 15160109a-07.d
Date Inj'd : 1/9/2016 4:27 pm
Sample : il4pest,42e,,7148

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:12 pm

Compound #25: Decachlorobiphenyl



Original Peak Response = 10526338



Manual Peak Response = 12151400 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:40 pm
Operator : pest15:ss
Sample : il5pest,42e,,7149
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:13:34 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:13:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	101.1E6	65100834	25.000	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.596	19356727	11637865	3.912	3.830
	Spiked Amount 50.000	Range 30 - 150		Recovery =		7.82%#	7.66%#
25) s	Decachlor...	6.499	6.900	16367522	11500144	4.264	4.145
	Spiked Amount 50.000	Range 30 - 150		Recovery =		8.53%#	8.29%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	22441406	13705057	4.031	4.166
4)	alpha-BHC	2.904	3.062	21334598	12751882	3.692	3.550
5)	gamma-BHC...	3.136	3.352	20690960	12890567	3.740M4	3.656
6)	beta-BHC	3.199	3.417	12269426	7986081	4.062	4.215
7)	delta-BHC	3.338	3.670	21180142	13050826	3.640	3.514
8)	Heptachlor	3.509	3.729	22393365	14383021	3.873M3	3.829
9)	Aldrin	3.755	4.012	18334546	11750055	3.807	3.737
10)	Alachlor	3.866	3.908	4284626	3004032	3.219	3.275M4
11)	Heptachlo...	4.242	4.479	20588244	14323833	3.828M4	4.245M4
12)	gamma-Chl...	4.341	4.627	20132906	16455720	4.258	4.622M4
13)	alpha-Chl...	4.442	4.739	18934622	13354193	4.104M3	4.318
14)	4,4'-DDE	4.499	4.856	16658701	11687521	3.750M4	3.748
15)	Endosulfan I	4.547	4.787	17519716	11774793	3.937M4	3.841
16)	Dieldrin	4.727	4.991	18408832	12120828	3.700M3	3.709
17)	Endrin	4.899	5.215	18143112	11850353	3.858	3.824
18)	4,4'-DDD	4.946	5.278	14787064	9602503	3.915	3.707
19)	Endosulfa...	5.061	5.364	17187367	12612816	3.665M3	3.996M4
20)	4,4'-DDT	5.148	5.498	17395538	12354616	4.209M3	4.464
21)	Endrin Al...	5.358	5.598	15702339	11140357	4.203	4.170
22)	Methoxychlor	5.489	5.955	10907860	7111312	3.728M4	4.076

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:40 pm
Operator : pest15:ss
Sample : il5pest,42e,,7149
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:13:34 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:13:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
23)	Endosulfa...	5.659	5.786	17335002	12056524	4.155	4.313
24)	Endrin Ke...	5.849	6.148	18461069	12443376	4.035	4.183
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

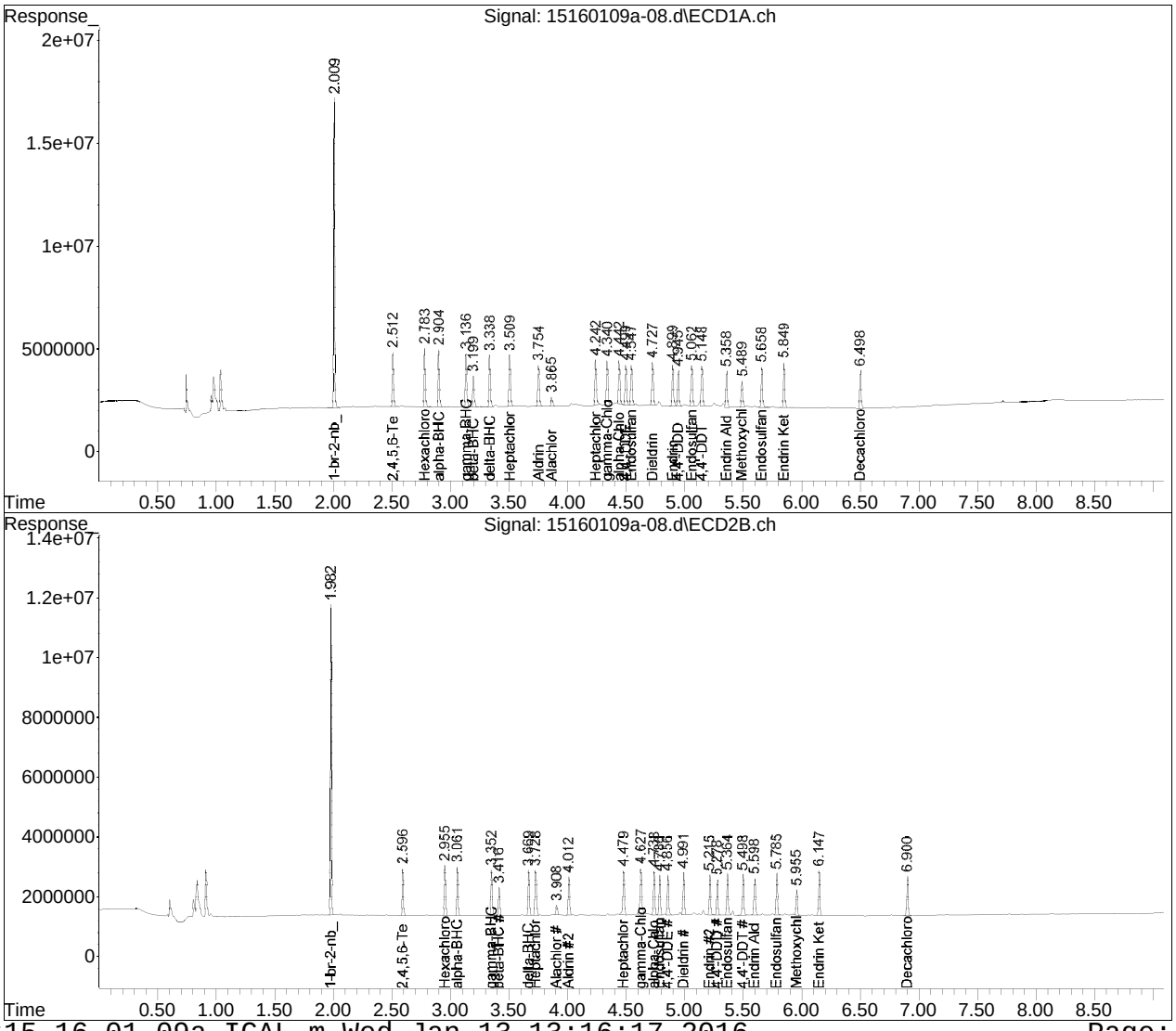
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:40 pm
Operator : pest15:ss
Sample : il5pest,42e,,7149
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:13:34 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:13:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

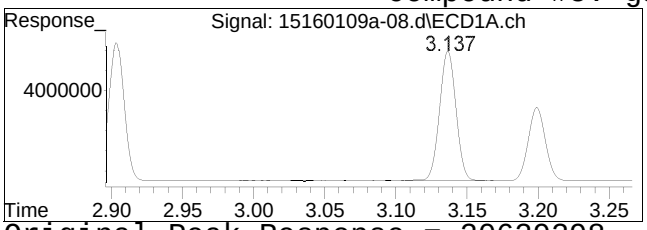


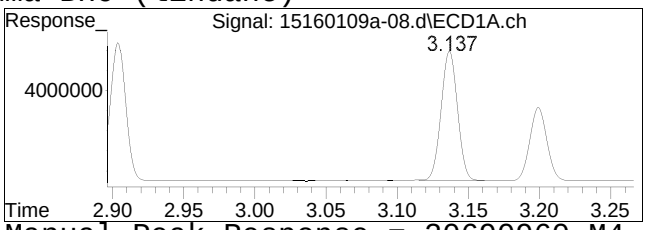
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-08.d
Date Inj'd : 1/9/2016 4:40 pm
Sample : il5pest,42e,,7149

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:13 pm

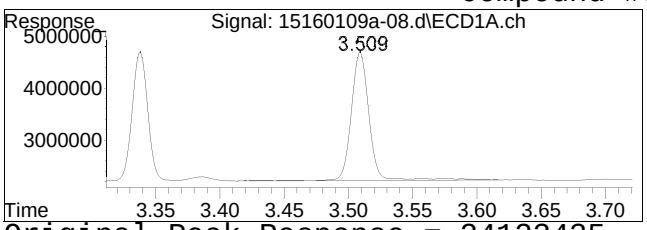
Compound #5: gamma-BHC (lindane)

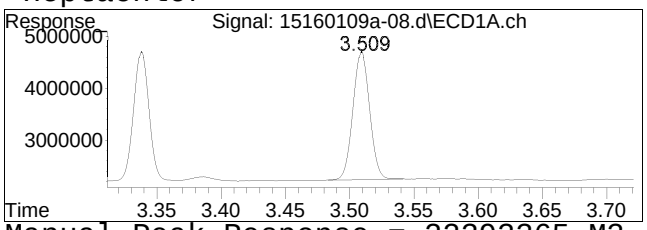




Original Peak Response = 20629298 Manual Peak Response = 20690960 M4
M4 = Poor automated baseline construction.

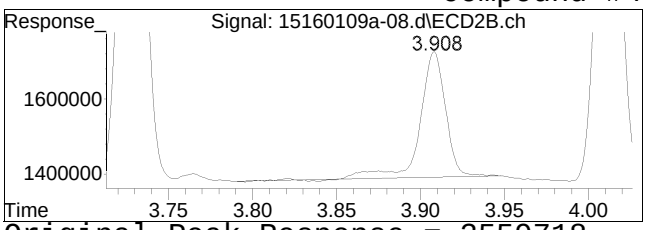
Compound #8: Heptachlor

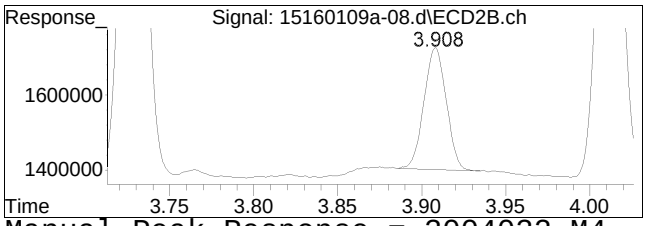




Original Peak Response = 24123435 Manual Peak Response = 22393365 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

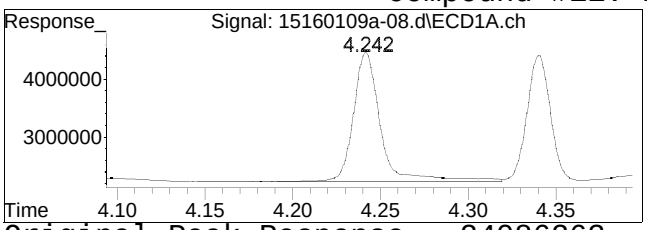
Compound #44: Alachlor #2

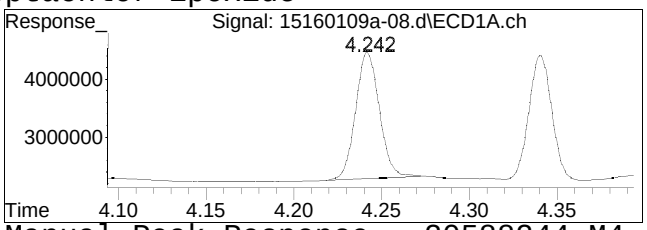




Original Peak Response = 3559718 Manual Peak Response = 3004032 M4
M4 = Poor automated baseline construction.

Compound #11: Heptachlor Epoxide



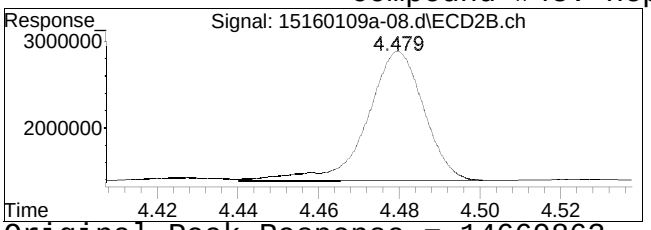


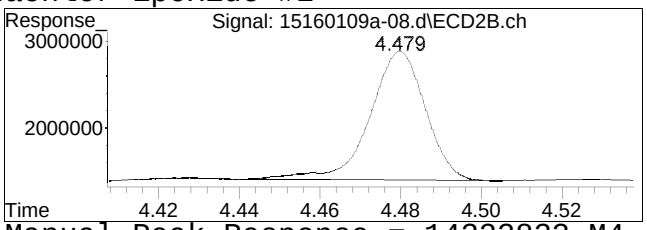
Original Peak Response = 24086263 Manual Peak Response = 20588244 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-08.d Operator : pest15:ss
Date Inj'd : 1/9/2016 4:40 pm Instrument : Pest 15
Sample : il5pest,42e,,7149 Quant Date : 1/13/2016 1:13 pm

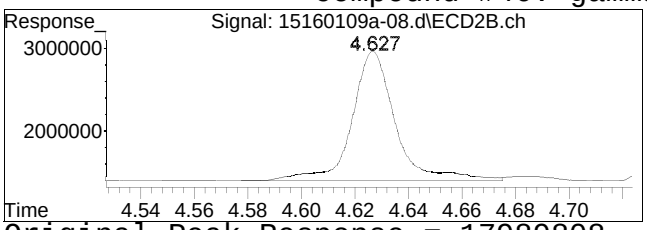
Compound #45: Heptachlor Epoxide #2

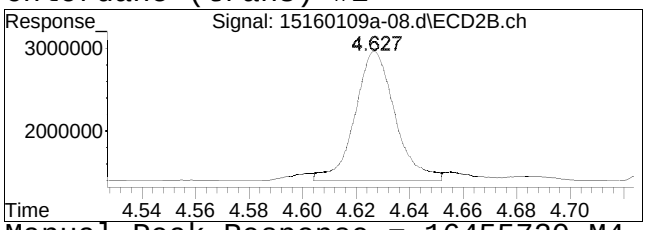




Original Peak Response = 14669863 Manual Peak Response = 14323833 M4
M4 = Poor automated baseline construction.

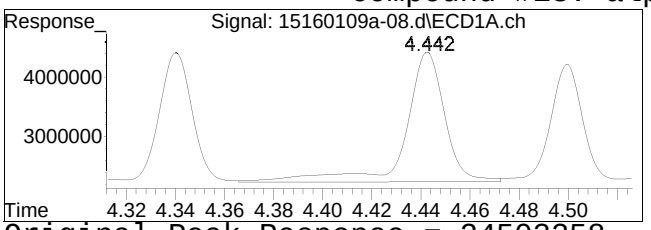
Compound #46: gamma-Chlordane (trans) #2

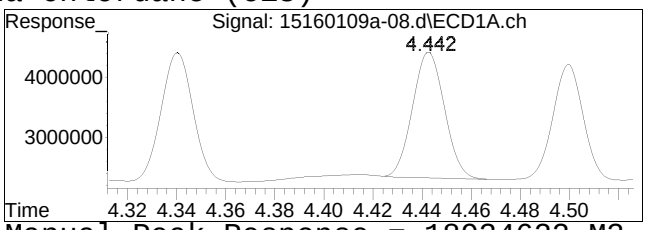




Original Peak Response = 17989808 Manual Peak Response = 16455720 M4
M4 = Poor automated baseline construction.

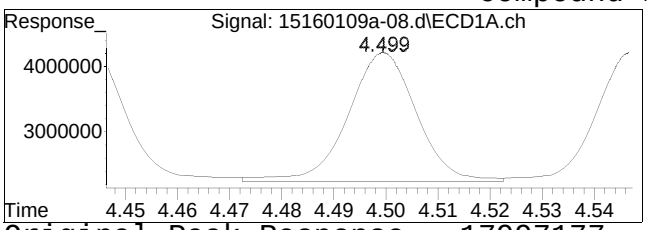
Compound #13: alpha-Chlordane (cis)

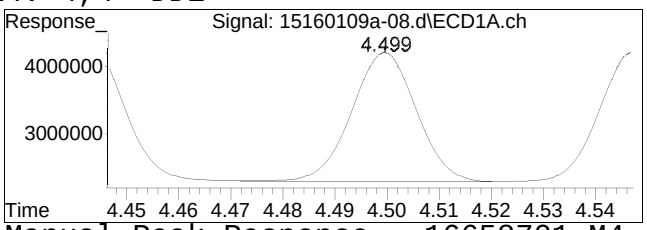




Original Peak Response = 24503258 Manual Peak Response = 18934622 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #14: 4,4'-DDE



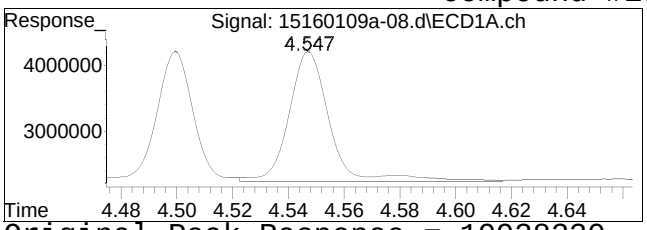


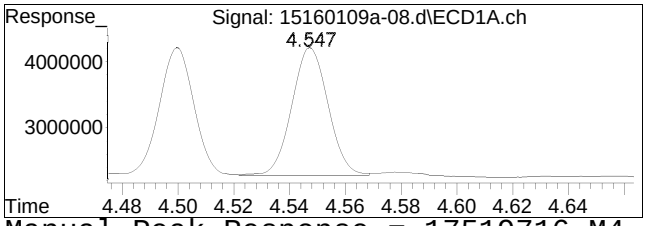
Original Peak Response = 17997177 Manual Peak Response = 16658701 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-08.d Operator : pest15:ss
Date Inj'd : 1/9/2016 4:40 pm Instrument : Pest 15
Sample : il5pest,42e,,7149 Quant Date : 1/13/2016 1:13 pm

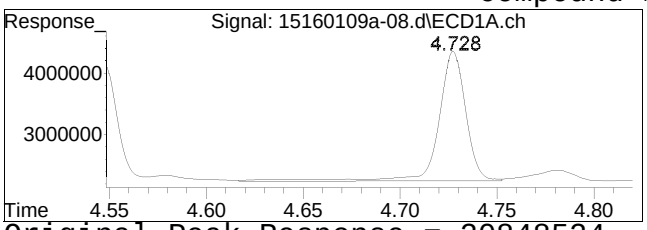
Compound #15: Endosulfan I

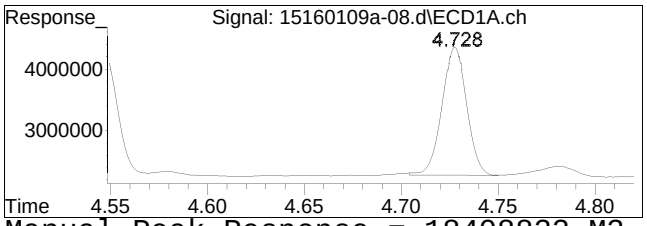




Original Peak Response = 19938330 Manual Peak Response = 17519716 M4
M4 = Poor automated baseline construction.

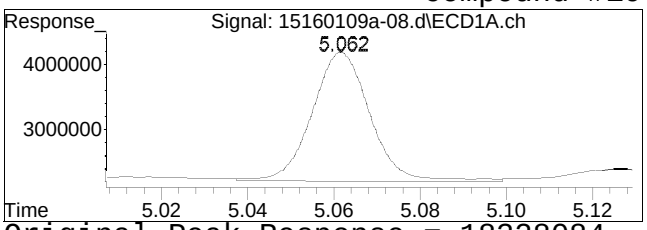
Compound #16: Dieldrin

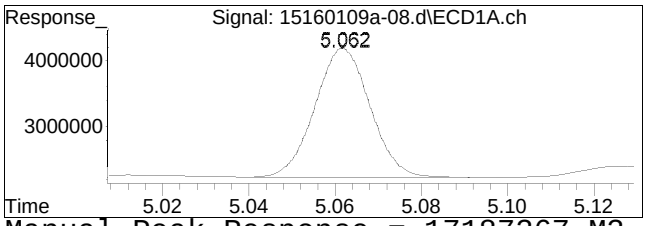




Original Peak Response = 20848524 Manual Peak Response = 18408832 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

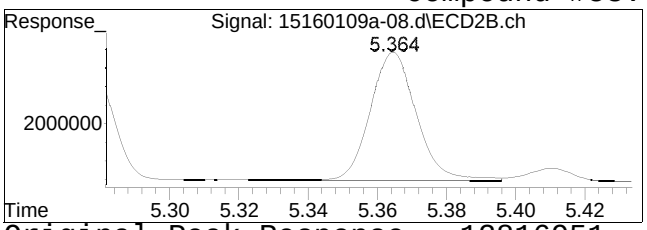
Compound #19: Endosulfan II

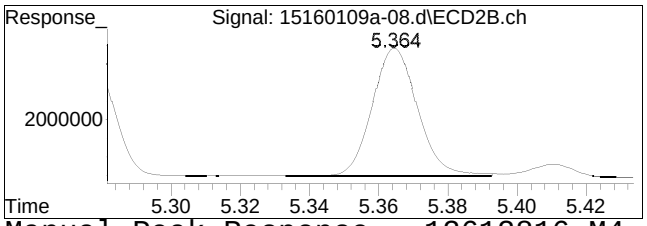




Original Peak Response = 18328084 Manual Peak Response = 17187367 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #53: Endosulfan II #2





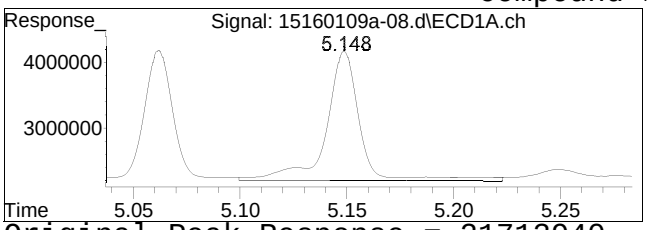
Original Peak Response = 12816951 Manual Peak Response = 12612816 M4
M4 = Poor automated baseline construction.

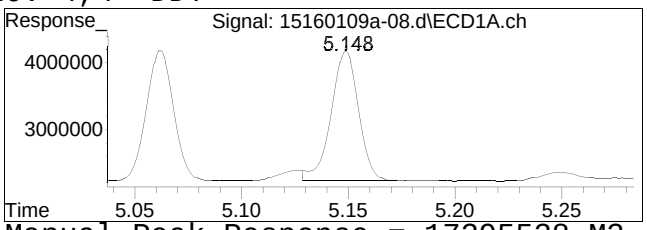
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-08.d
Date Inj'd : 1/9/2016 4:40 pm
Sample : il5pest,42e,,7149

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 1:13 pm

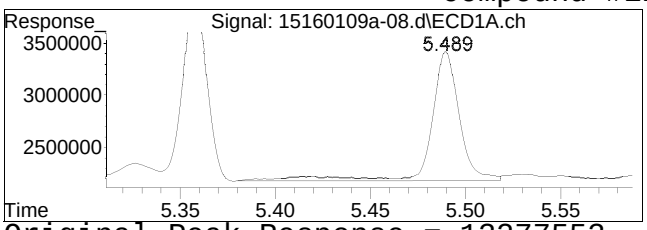
Compound #20: 4,4'-DDT

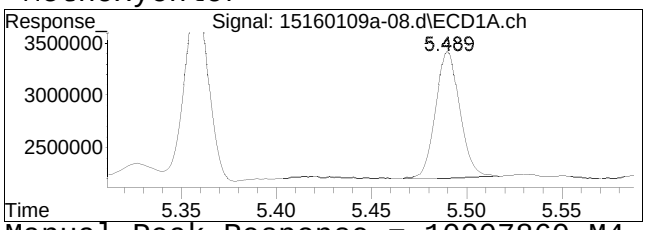




Original Peak Response = 21713940 Manual Peak Response = 17395538 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #22: Methoxychlor





Original Peak Response = 13277553 Manual Peak Response = 10907860 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:53 pm
Operator : pest15:ss
Sample : il6pest,42e,,7150
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:08:14 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	98027511	62838671	25.000	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.597	23851312	14326930	5.170M3	5.188
	Spiked Amount 50.000	Range 30 - 150		Recovery =		10.34%#	10.38%#
25) s	Decachlor...	6.499	6.900	19738704	14030494	6.376M3	6.470
	Spiked Amount 50.000	Range 30 - 150		Recovery =		12.75%#	12.94%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	27163662	16761518	5.663M3	5.688
4)	alpha-BHC	2.904	3.062	26463537	15897065	4.497	4.283
5)	gamma-BHC...	3.137	3.353	25398032	15850027	4.686M4	4.584
6)	beta-BHC	3.200	3.417	14872901	9596334	5.811	5.853
7)	delta-BHC	3.339	3.670	25682287	15955325	4.666	4.479
8)	Heptachlor	3.510	3.729	27251042	17345175	5.210	5.147
9)	Aldrin	3.755	4.013	22342474	14276667	4.844M3	4.671
10)	Alachlor	3.866	3.908	5093459	3663874	6.049M3	6.521M3
11)	Heptachlo...	4.242	4.480	25011433	17489407	5.543M4	5.768
12)	gamma-Chl...	4.341	4.627	24580897	19224213	5.353	6.177M4
13)	alpha-Chl...	4.443	4.739	23057329	16254205	5.182M4	5.393
14)	4,4'-DDE	4.500	4.856	20587364	14421486	4.659M4	4.875
15)	Endosulfan I	4.547	4.787	21269759	14433891	5.195M4	5.385
16)	Dieldrin	4.728	4.991	22748088	15129349	5.055M3	5.006
17)	Endrin	4.900	5.215	21884577	14305072	5.140	5.099
18)	4,4'-DDD	4.946	5.279	17923486	11859398	4.878	4.887
19)	Endosulfa...	5.063	5.365	21241562	15516975	5.403	5.771
20)	4,4'-DDT	5.149	5.498	20864225	14054350	5.326M3	5.507M4
21)	Endrin Al...	5.359	5.599	18368958	13329095	5.804M4	5.937
22)	Methoxychlor	5.490	5.956	13225448	8713736	6.107	6.192

Data Path : I:\Pest15\160109a\
Data File : 15160109a-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:53 pm
Operator : pest15:ss
Sample : il6pest,42e,,7150
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:08:14 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
23)	Endosulfa...	5.659	5.786	20610078	14468084	5.616M3	5.578
24)	Endrin Ke...	5.850	6.148	22751874	15574649	5.501	5.527
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

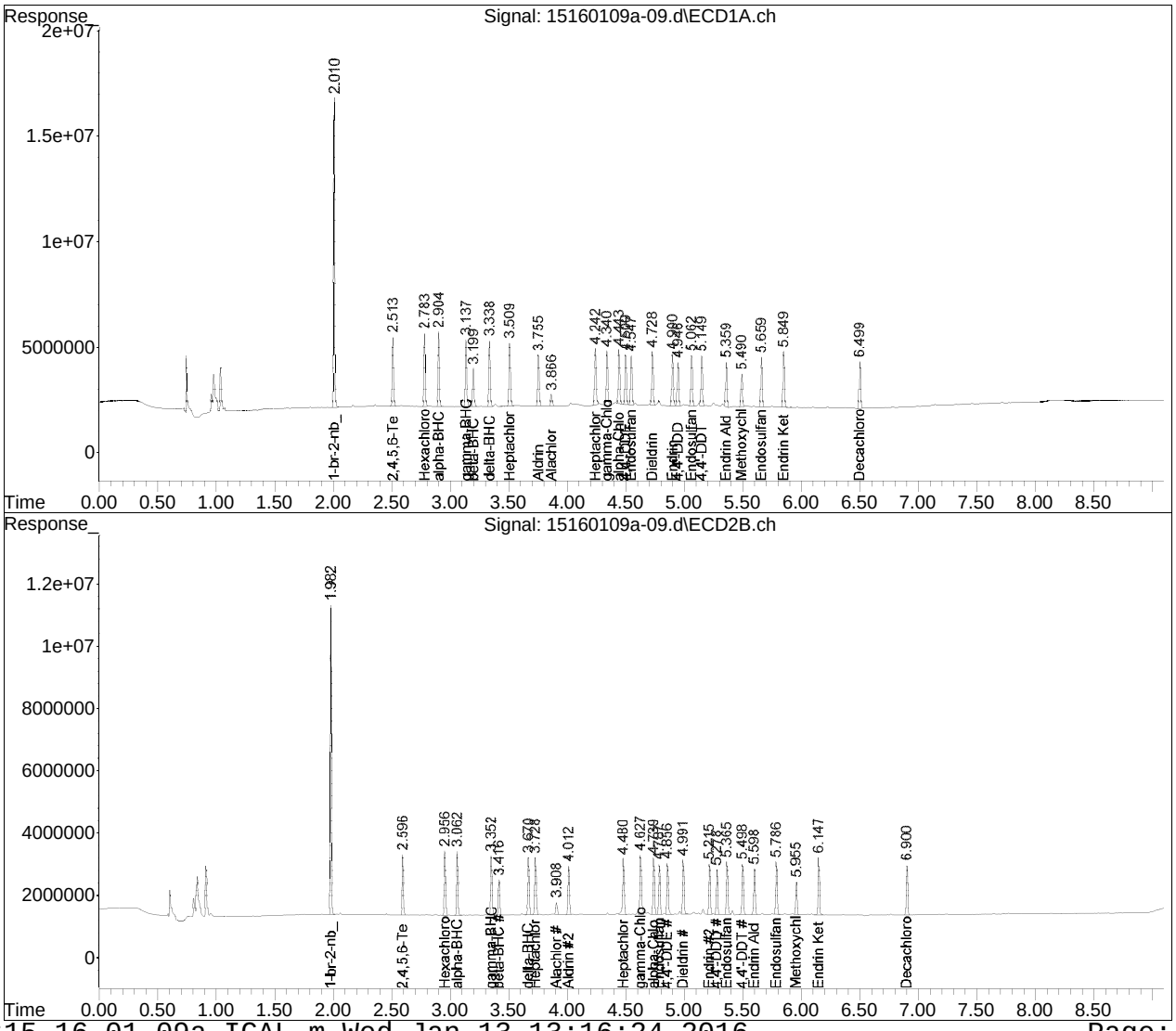
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-09.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 4:53 pm
Operator : pest15:ss
Sample : il6pest,42e,,7150
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:08:14 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

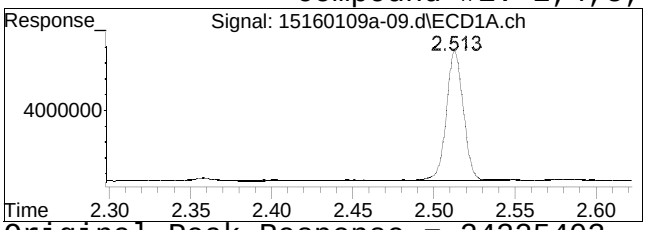


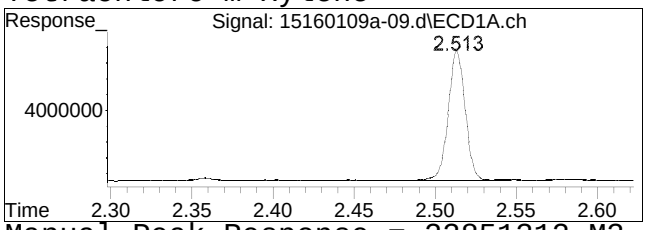
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-09.d
Date Inj'd : 1/9/2016 4:53 pm
Sample : il6pest,42e,,7150

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

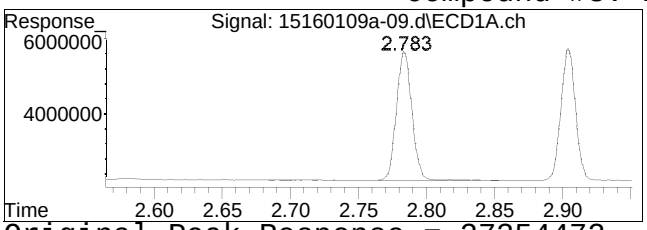
Compound #2: 2,4,5,6-Tetrachloro-m-xylene

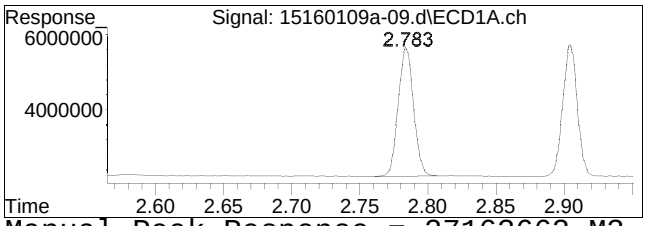




Original Peak Response = 24325403 Manual Peak Response = 23851312 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

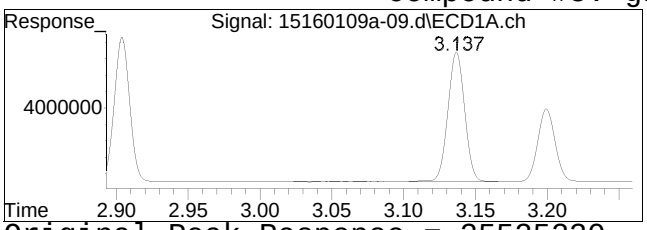
Compound #3: Hexachlorobenzene

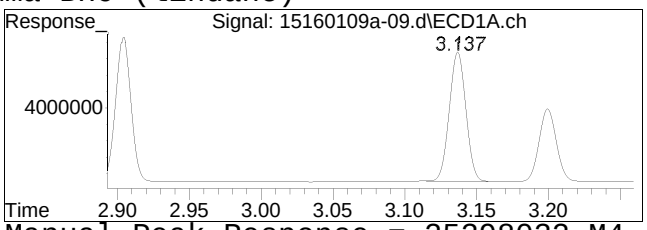




Original Peak Response = 27354472 Manual Peak Response = 27163662 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

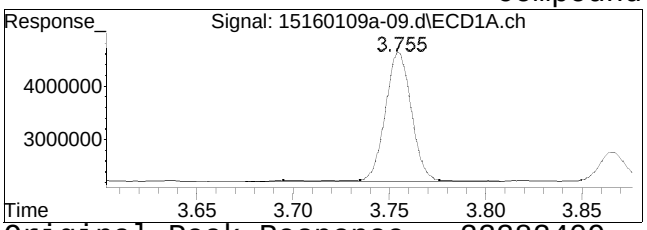
Compound #5: gamma-BHC (lindane)

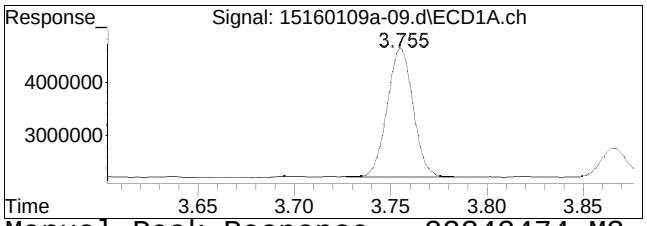




Original Peak Response = 25525230 Manual Peak Response = 25398032 M4
M4 = Poor automated baseline construction.

Compound #9: Aldrin





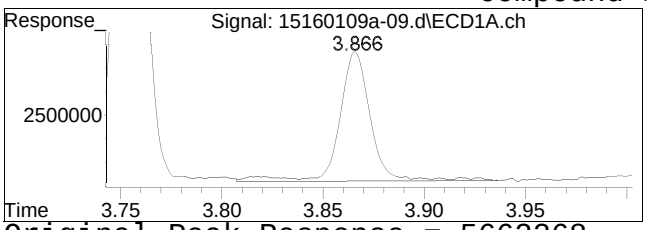
Original Peak Response = 23382409 Manual Peak Response = 22342474 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

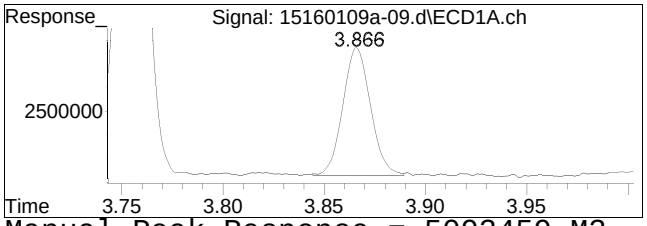
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-09.d
Date Inj'd : 1/9/2016 4:53 pm
Sample : il6pest,42e,,7150

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

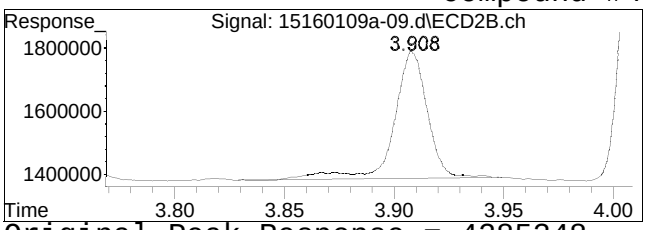
Compound #10: Alachlor

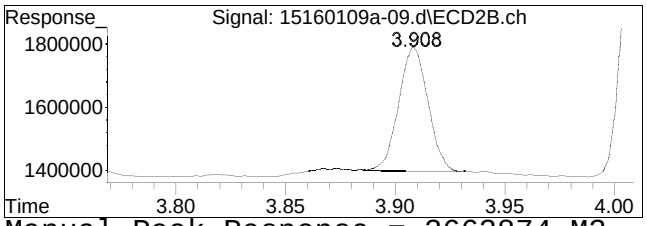




Original Peak Response = 5662268 Manual Peak Response = 5093459 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

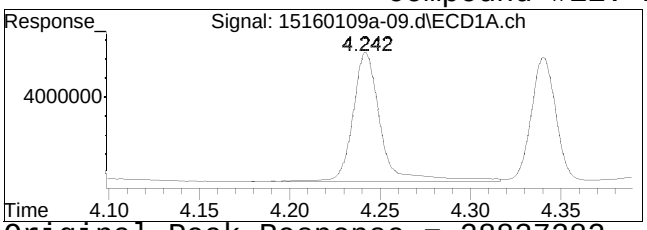
Compound #44: Alachlor #2

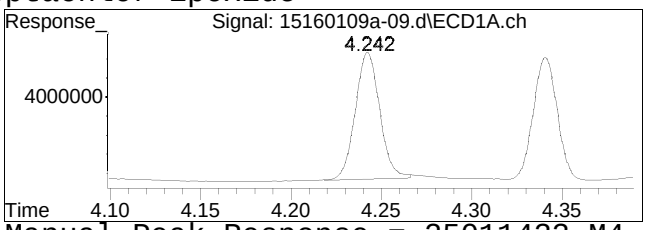




Original Peak Response = 4285348 Manual Peak Response = 3663874 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

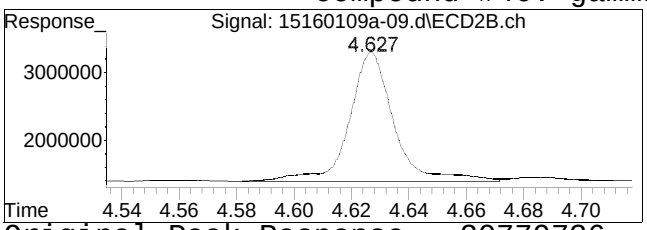
Compound #11: Heptachlor Epoxide

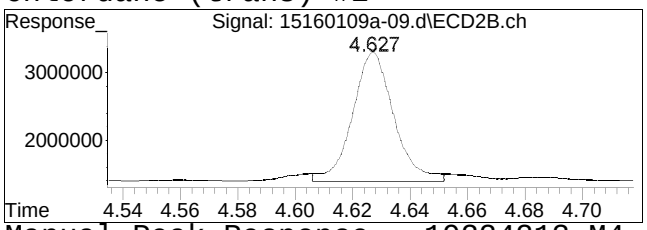




Original Peak Response = 28837382 Manual Peak Response = 25011433 M4
M4 = Poor automated baseline construction.

Compound #46: gamma-Chlordane (trans) #2



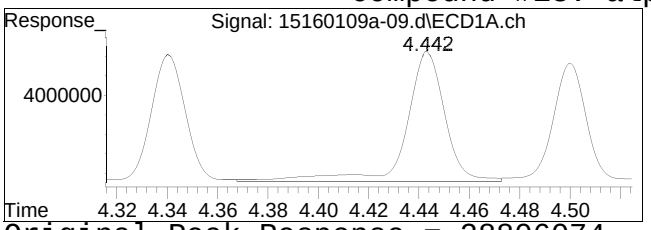


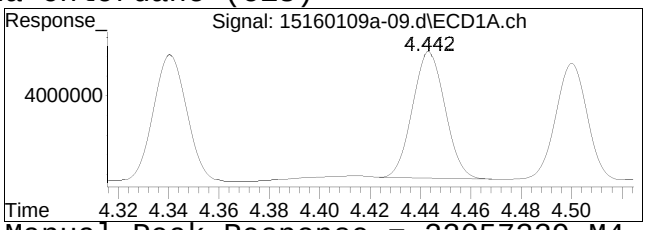
Original Peak Response = 20779736 Manual Peak Response = 19224213 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-09.d Operator : pest15:ss
Date Inj'd : 1/9/2016 4:53 pm Instrument : Pest 15
Sample : il6pest,42e,,7150 Quant Date : 1/12/2016 1:06 pm

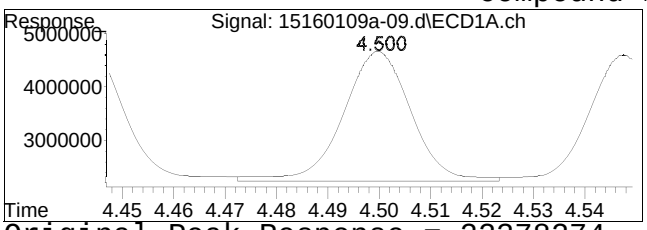
Compound #13: alpha-Chlordane (cis)

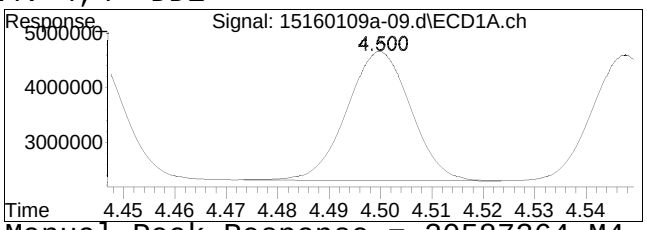




Original Peak Response = 28806074 Manual Peak Response = 23057329 M4
M4 = Poor automated baseline construction.

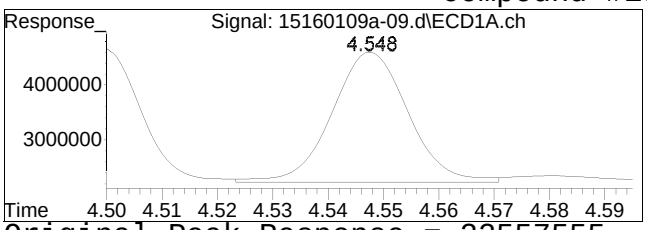
Compound #14: 4,4'-DDE

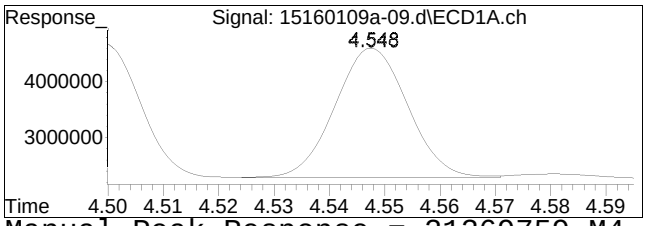




Original Peak Response = 22378274 Manual Peak Response = 20587364 M4
M4 = Poor automated baseline construction.

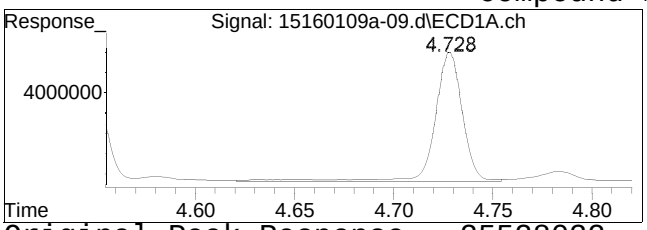
Compound #15: Endosulfan I

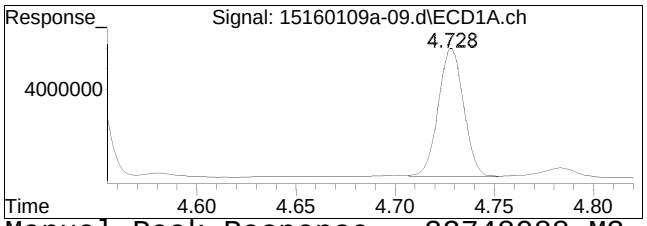




Original Peak Response = 22557555 Manual Peak Response = 21269759 M4
M4 = Poor automated baseline construction.

Compound #16: Dieldrin



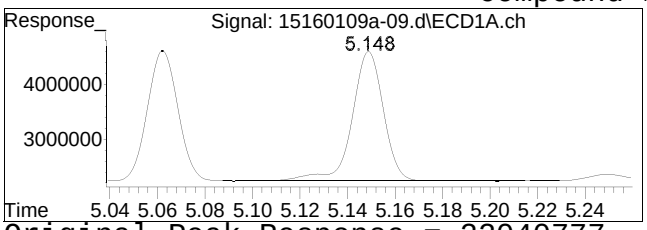


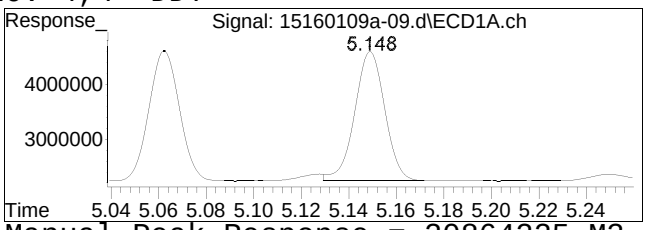
Original Peak Response = 25528032 Manual Peak Response = 22748088 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-09.d Operator : pest15:ss
Date Inj'd : 1/9/2016 4:53 pm Instrument : Pest 15
Sample : il6pest,42e,,7150 Quant Date : 1/12/2016 1:06 pm

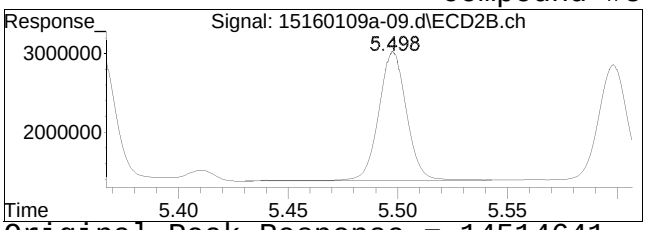
Compound #20: 4,4'-DDT

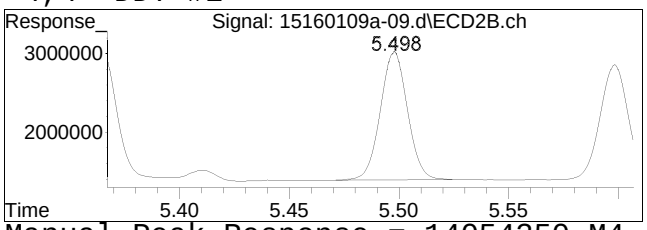




Original Peak Response = 22040777 Manual Peak Response = 20864225 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

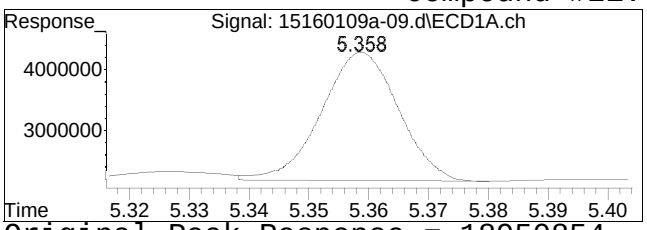
Compound #54: 4,4'-DDT #2

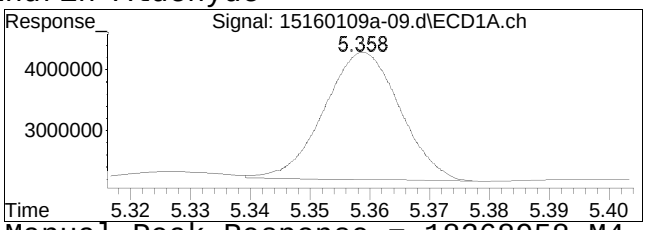




Original Peak Response = 14514641 Manual Peak Response = 14054350 M4
M4 = Poor automated baseline construction.

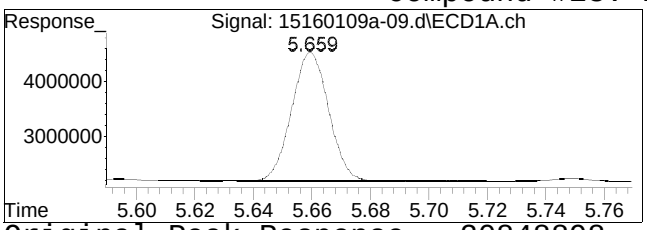
Compound #21: Endrin Aldehyde

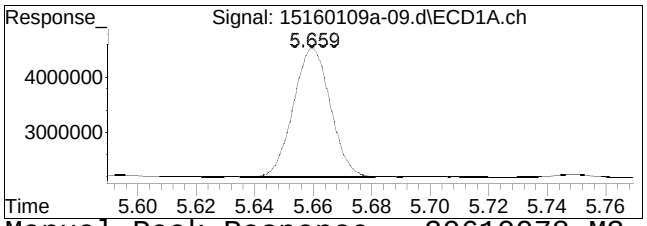




Original Peak Response = 18950854 Manual Peak Response = 18368958 M4
M4 = Poor automated baseline construction.

Compound #23: Endosulfan Sulfate





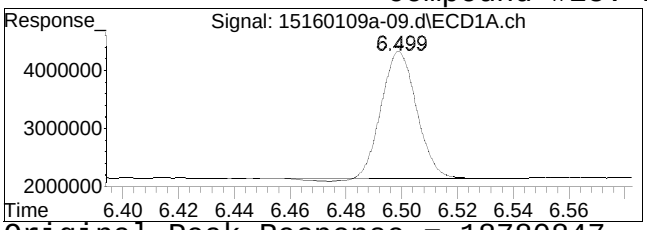
Original Peak Response = 20848898 Manual Peak Response = 20610078 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

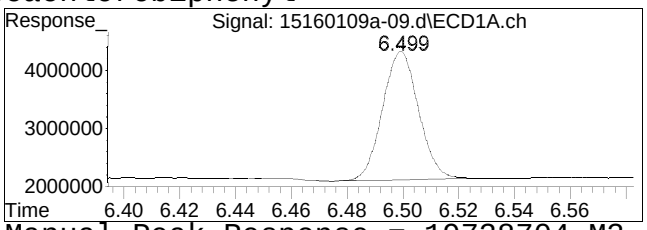
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-09.d
Date Inj'd : 1/9/2016 4:53 pm
Sample : il6pest,42e,,7150

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

Compound #25: Decachlorobiphenyl





Original Peak Response = 18780847 Manual Peak Response = 19738704 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:06 pm
Operator : pest15:ss
Sample : il7pest,42e,,7151
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:15:55 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.983	94289648	62487003	25.000M4	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.514	2.597	45210484	27654436	10.188	10.070
	Spiked Amount 50.000	Range 30 - 150		Recovery =		20.38%#	20.14%#
25) s	Decachlor...	6.498	6.900	34294908	25148558	11.518	11.662
	Spiked Amount 50.000	Range 30 - 150		Recovery =		23.04%#	23.32%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	49801885	31728619	10.794M4	10.827
4)	alpha-BHC	2.904	3.062	52075505	32682526	9.200	8.855
5)	gamma-BHC...	3.137	3.352	49886740	31929835	9.570M3	9.287
6)	beta-BHC	3.200	3.417	27666224	18165405	11.238	11.141
7)	delta-BHC	3.338	3.670	49967840	32181924	9.438M3	9.085
8)	Heptachlor	3.510	3.729	52040149	33652898	10.344	10.043
9)	Aldrin	3.755	4.013	43377508	28793022	9.777M3	9.474
10)	Alachlor	3.865	3.908	9256062	6701523	11.428M3	11.994M3
11)	Heptachlo...	4.242	4.480	47427996	32530722	10.927M3	10.789
12)	gamma-Chl...	4.341	4.627	46029650	32883066	10.421	10.625M3
13)	alpha-Chl...	4.443	4.739	44254517	31052088	10.340M4	10.360
14)	4,4'-DDE	4.500	4.856	39503421	27973355	9.295M4	9.508
15)	Endosulfan I	4.548	4.787	40394361	27734942	10.257M3	10.406
16)	Dieldrin	4.728	4.991	42543546	29157722	9.829M3	9.701
17)	Endrin	4.900	5.215	41325377	27661529	10.091	9.915
18)	4,4'-DDD	4.946	5.278	34504190	22993743	9.762	9.529
19)	Endosulfa...	5.062	5.365	39902199	28325800	10.551	10.594
20)	4,4'-DDT	5.148	5.498	38993811	26649527	10.348M3	10.501
21)	Endrin Al...	5.359	5.598	33660278	23965828	11.056	10.735
22)	Methoxychlor	5.489	5.955	24010440	15667961	11.526M3	11.197
23)	Endosulfa...	5.659	5.786	37628358	26882465	10.660	10.423

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:06 pm
Operator : pest15:ss
Sample : il7pest,42e,,7151
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:15:55 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
24)	Endrin Ke...	5.849	6.148	41770022	28618463	10.500	10.212
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

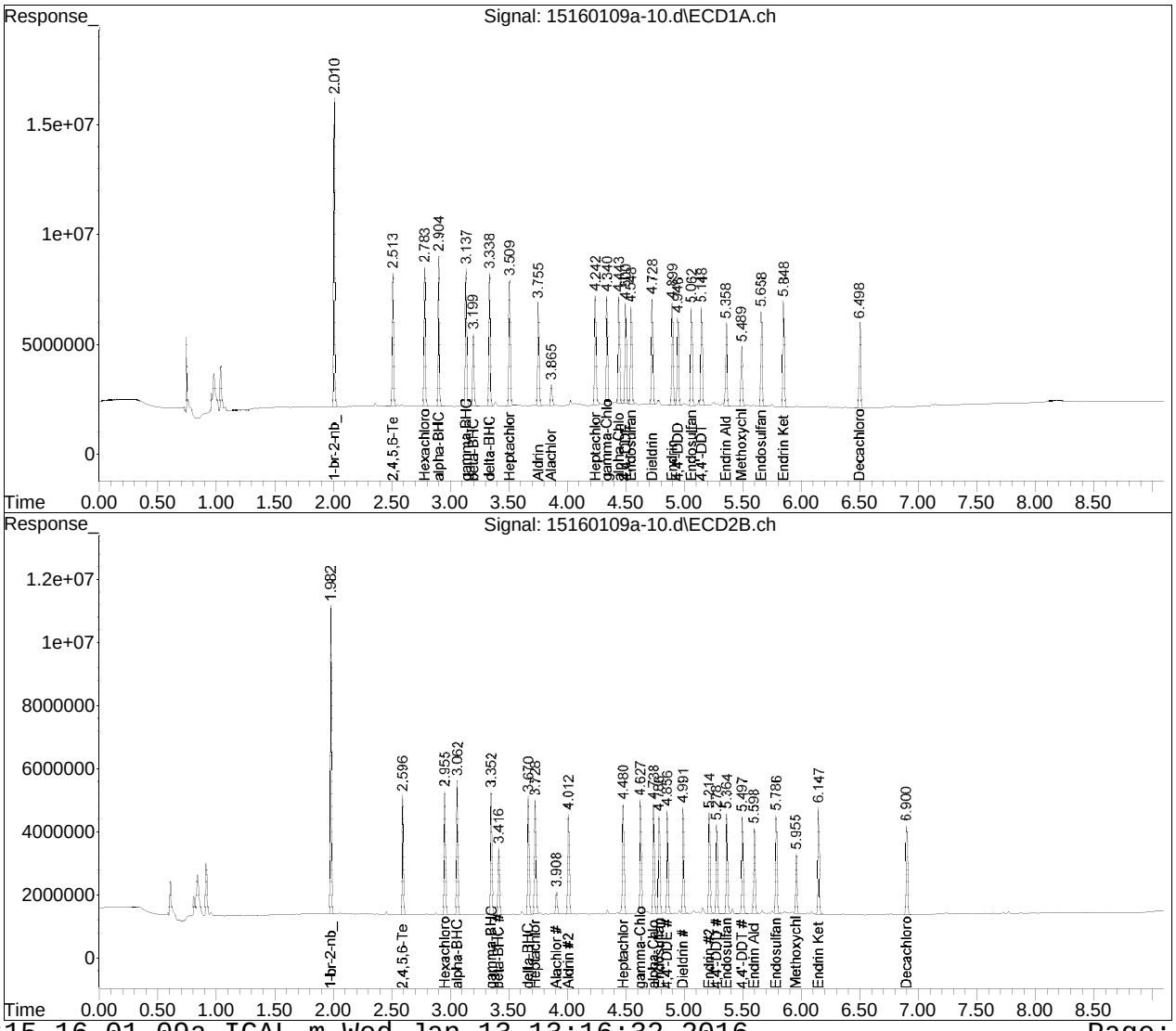
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:06 pm
Operator : pest15:ss
Sample : il7pest,42e,,7151
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:15:55 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

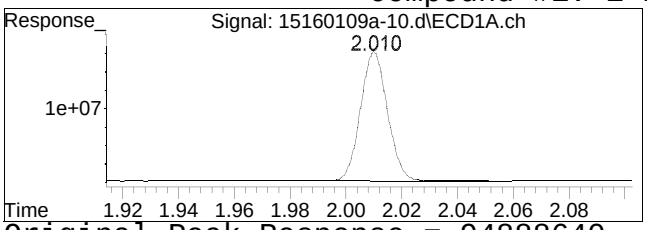


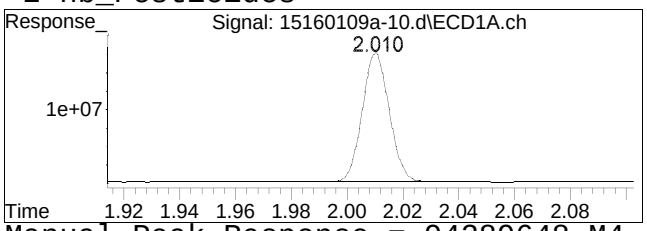
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-10.d
Date Inj'd : 1/9/2016 5:06 pm
Sample : il7pest,42e,,7151

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

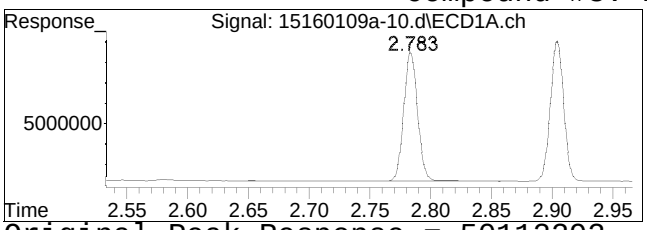
Compound #1: 1-br-2-nb_Pesticides

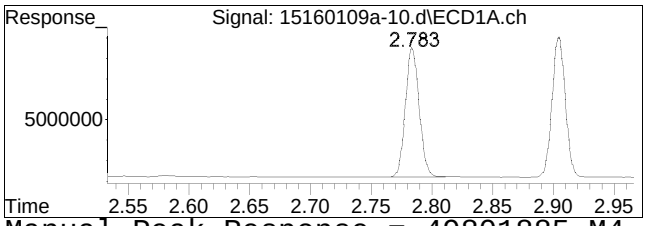




Original Peak Response = 94888640 Manual Peak Response = 94289648 M4
M4 = Poor automated baseline construction.

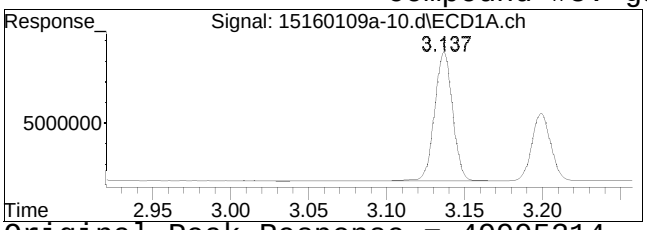
Compound #3: Hexachlorobenzene

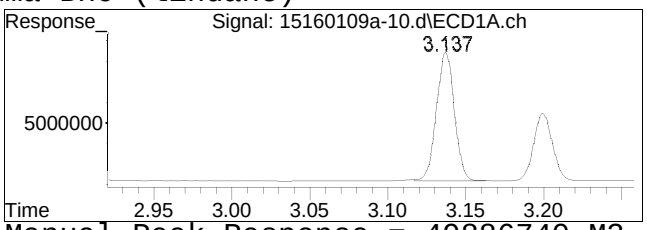




Original Peak Response = 50112292 Manual Peak Response = 49801885 M4
M4 = Poor automated baseline construction.

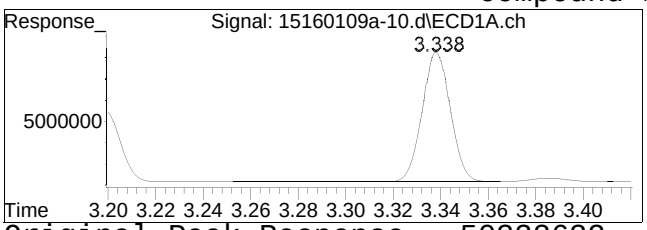
Compound #5: gamma-BHC (lindane)

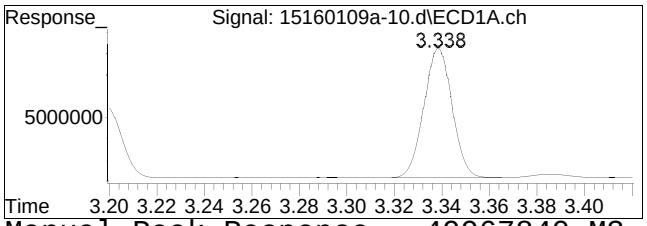




Original Peak Response = 49995314 Manual Peak Response = 49886740 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #7: delta-BHC



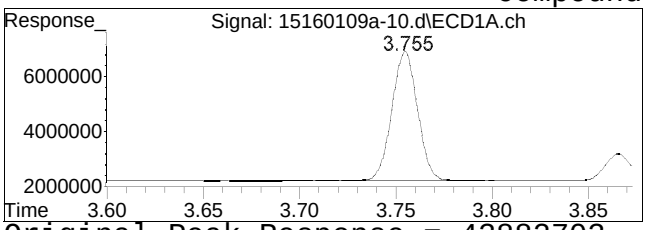


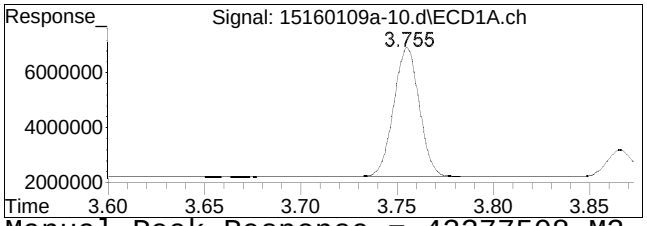
Original Peak Response = 50332632 Manual Peak Response = 49967840 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-10.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:06 pm Instrument : Pest 15
Sample : il7pest,42e,,7151 Quant Date : 1/12/2016 1:06 pm

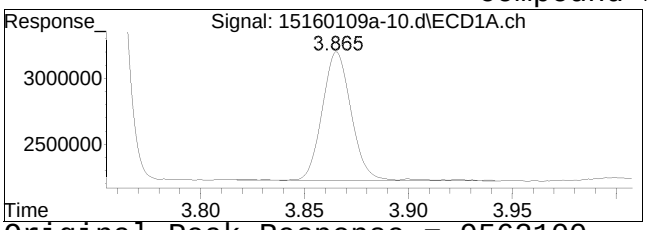
Compound #9: Aldrin

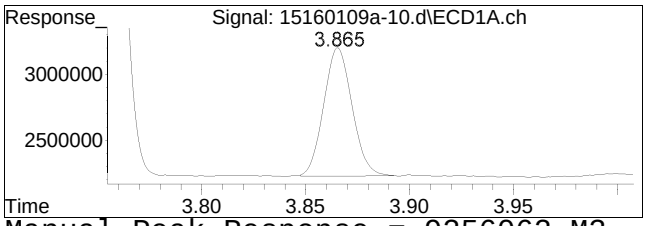




Original Peak Response = 43882703 Manual Peak Response = 43377508 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

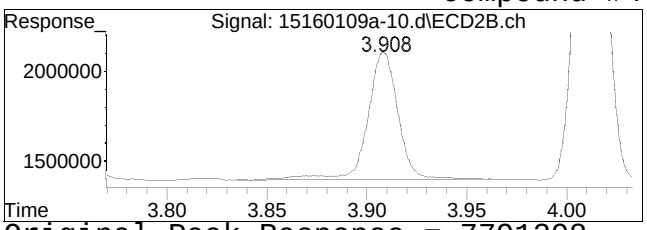
Compound #10: Alachlor

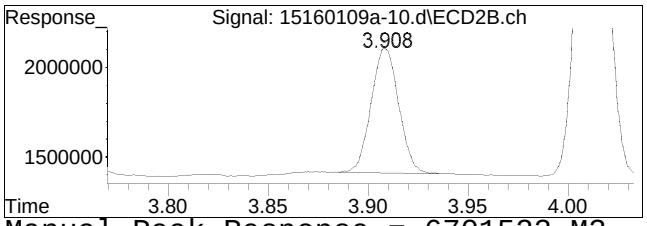




Original Peak Response = 9562100 Manual Peak Response = 9256062 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

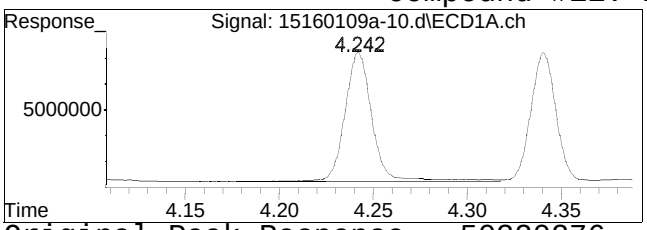
Compound #44: Alachlor #2

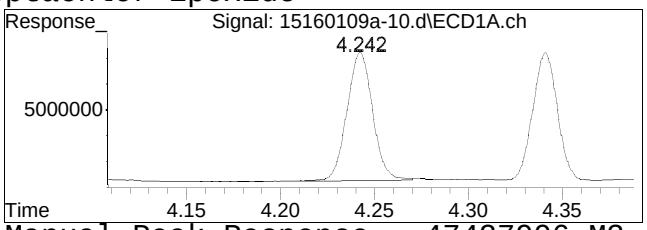




Original Peak Response = 7791298 Manual Peak Response = 6701523 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #11: Heptachlor Epoxide





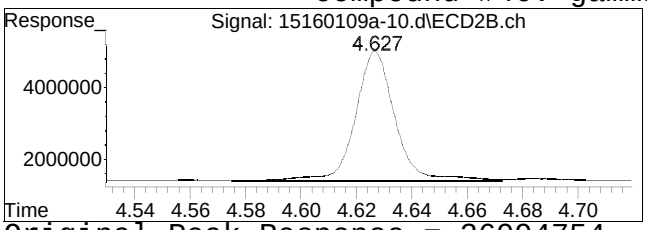
Original Peak Response = 50320276 Manual Peak Response = 47427996 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

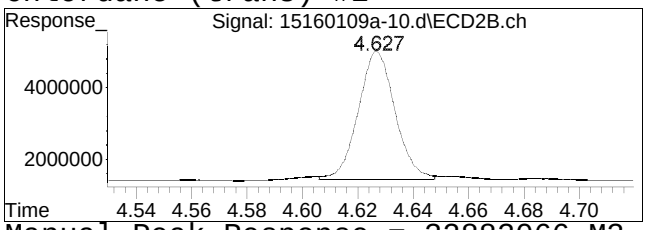
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-10.d
Date Inj'd : 1/9/2016 5:06 pm
Sample : il7pest,42e,,7151

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

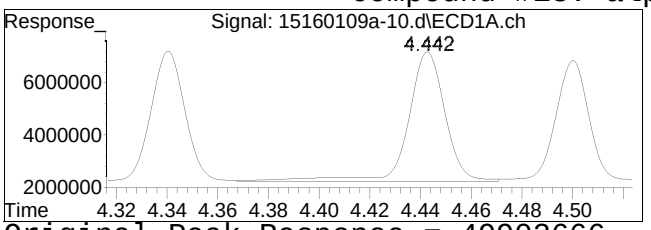
Compound #46: gamma-Chlordane (trans) #2

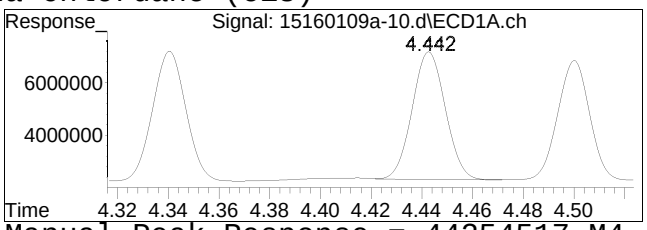




Original Peak Response = 36094754 Manual Peak Response = 32883066 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

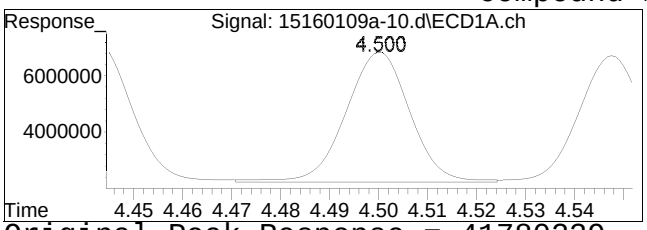
Compound #13: alpha-Chlordane (cis)

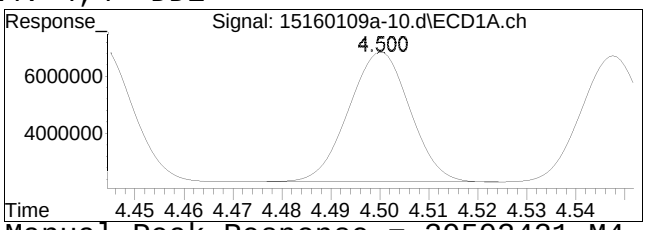




Original Peak Response = 49902666 Manual Peak Response = 44254517 M4
M4 = Poor automated baseline construction.

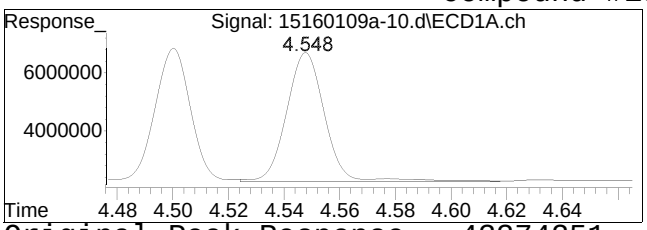
Compound #14: 4,4'-DDE

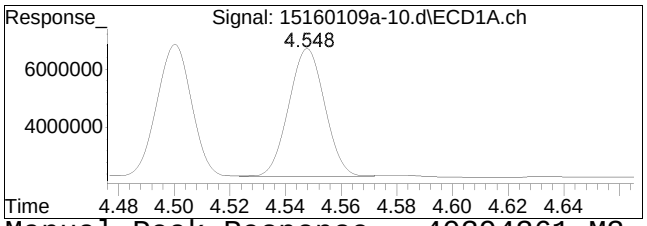




Original Peak Response = 41780239 Manual Peak Response = 39503421 M4
M4 = Poor automated baseline construction.

Compound #15: Endosulfan I



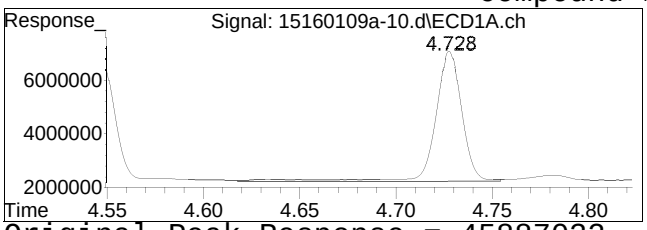


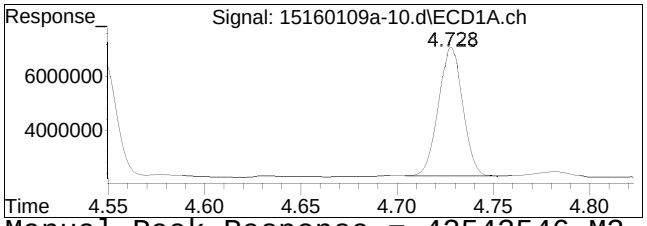
Original Peak Response = 43374251 Manual Peak Response = 40394361 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-10.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:06 pm Instrument : Pest 15
Sample : il7pest,42e,,7151 Quant Date : 1/12/2016 1:06 pm

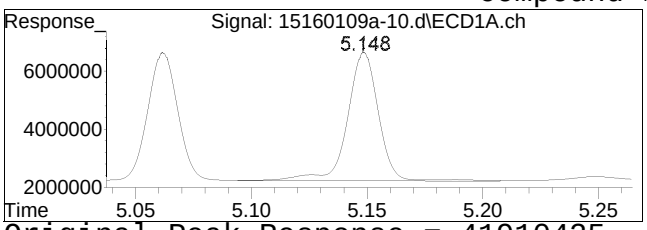
Compound #16: Dieldrin

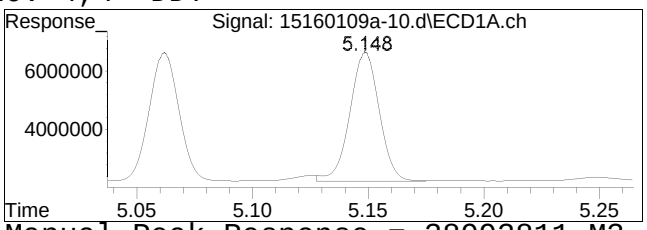




Original Peak Response = 45887032 Manual Peak Response = 42543546 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

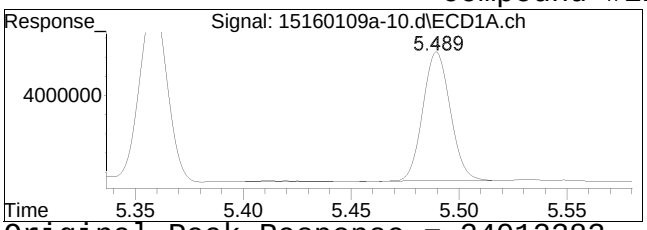
Compound #20: 4,4'-DDT

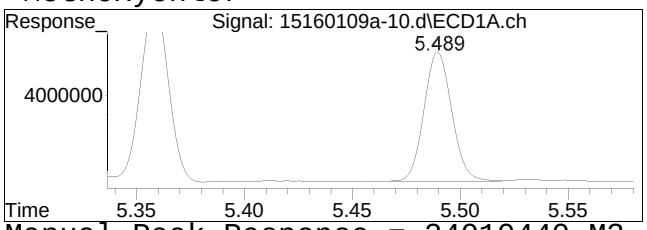




Original Peak Response = 41910425 Manual Peak Response = 38993811 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #22: Methoxychlor





Original Peak Response = 24012383 Manual Peak Response = 24010440 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:19 pm
Operator : pest15:ss
Sample : il8pest,42e,,7152
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:04:58 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 08:00:18 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	97065778	62618199	25.000	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.514	2.597	228.4E6	137.6E6	NoCal	NoCal
	Spiked Amount 50.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
25) s	Decachlor...	6.499	6.900	153.3E6	108.1E6	NoCal M4	NoCal
	Spiked Amount 50.000	Range 30 - 150		Recovery =		0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	237.5E6	146.8E6	NoCal M3	NoCal
4)	alpha-BHC	2.905	3.063	291.3E6	184.9E6	NoCal	NoCal
5)	gamma-BHC...	3.137	3.353	268.3E6	172.3E6	NoCal M3	NoCal
6)	beta-BHC	3.200	3.417	126.7E6	81692891	NoCal	NoCal
7)	delta-BHC	3.339	3.671	272.5E6	177.5E6	NoCal	NoCal
8)	Heptachlor	3.510	3.729	259.0E6	167.9E6	NoCal	NoCal
9)	Aldrin	3.756	4.013	228.4E6	152.3E6	NoCal	NoCal
10)	Alachlor	3.865	3.908	41690137	27995795	NoCal M4	NoCal M4
11)	Heptachlo...	4.242	4.481	223.4E6	151.1E6	NoCal M4	NoCal
12)	gamma-Chl...	4.341	4.627	227.4E6	155.1E6	NoCal M4	NoCal M3
13)	alpha-Chl...	4.443	4.739	220.3E6	150.2E6	NoCal M5	NoCal
14)	4,4'-DDE	4.501	4.857	218.8E6	147.4E6	NoCal	NoCal
15)	Endosulfan I	4.548	4.788	202.7E6	133.5E6	NoCal	NoCal
16)	Dieldrin	4.729	4.992	222.8E6	150.6E6	NoCal	NoCal
17)	Endrin	4.900	5.216	210.8E6	139.8E6	NoCal	NoCal
18)	4,4'-DDD	4.947	5.279	181.9E6	120.9E6	NoCal	NoCal
19)	Endosulfa...	5.063	5.365	194.7E6	134.0E6	NoCal	NoCal
20)	4,4'-DDT	5.149	5.498	194.0E6	127.2E6	NoCal M3	NoCal
21)	Endrin Al...	5.359	5.599	156.7E6	111.9E6	NoCal M4	NoCal
22)	Methoxychlor	5.490	5.956	107.2E6	70114637	NoCal M3	NoCal

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:19 pm
Operator : pest15:ss
Sample : il8pest,42e,,7152
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:04:58 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 08:00:18 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
23)	Endosulfa...	5.660	5.786	181.7E6	129.2E6	NoCal	NoCal
24)	Endrin Ke...	5.849	6.148	204.8E6	140.4E6	NoCal	NoCal
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

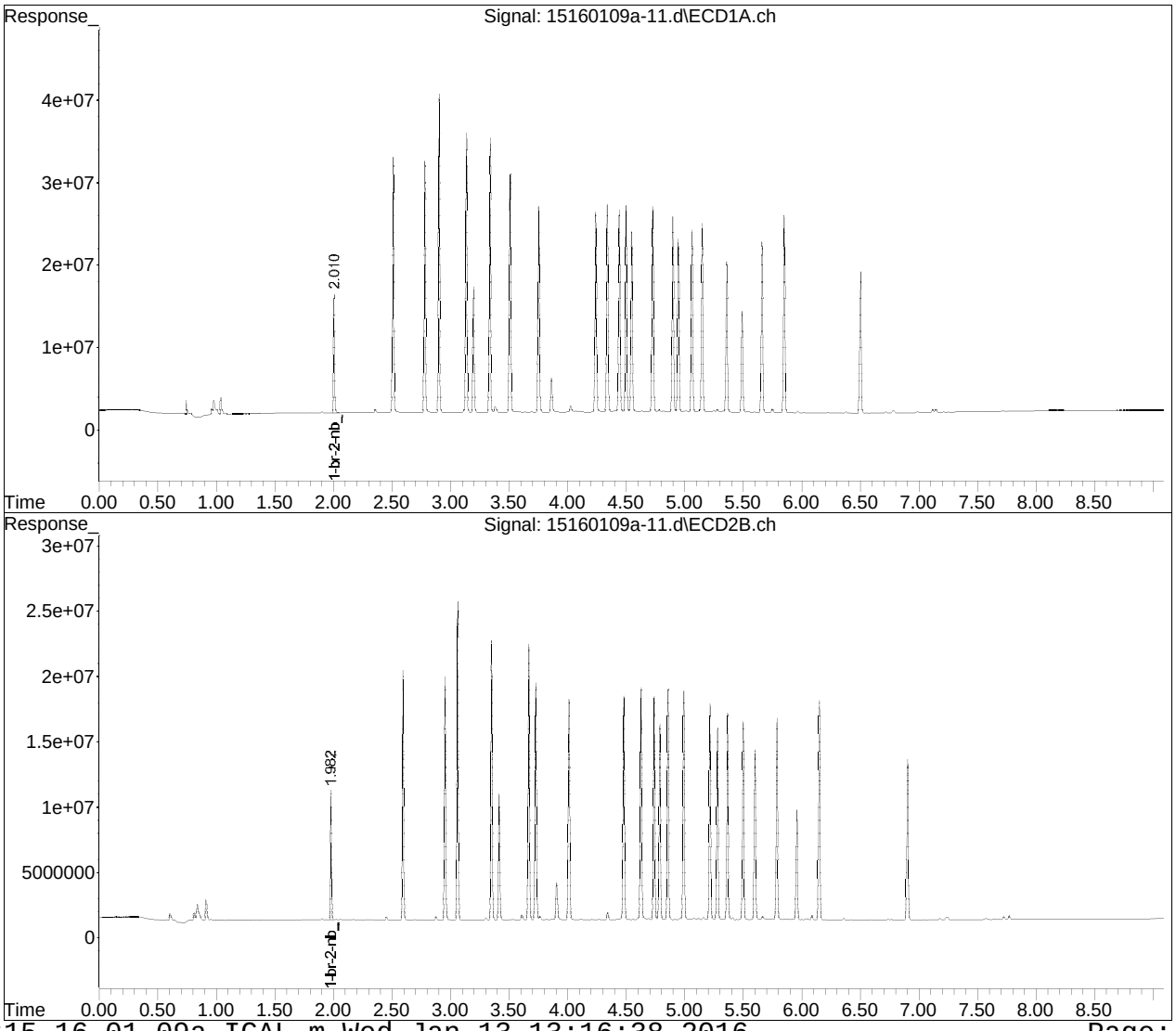
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:19 pm
Operator : pest15:ss
Sample : il8pest,42e,,7152
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:04:58 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 08:00:18 2016
Response via : Initial Calibration
Integrator: ChemStation

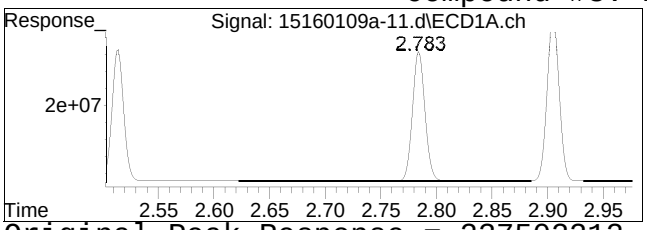
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

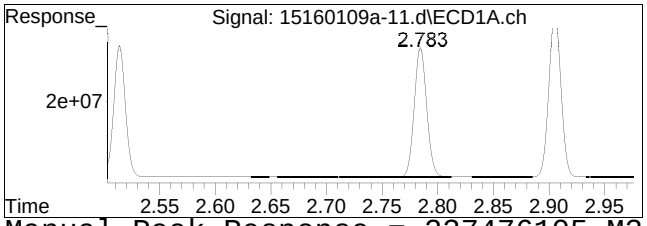


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-11.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:19 pm Instrument : Pest 15
Sample : il8pest,42e,,7152 Quant Date : 1/12/2016 1:00 pm

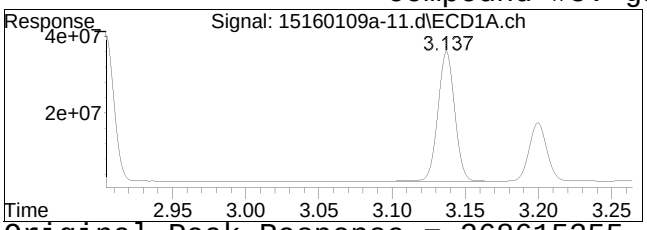
Compound #3: Hexachlorobenzene

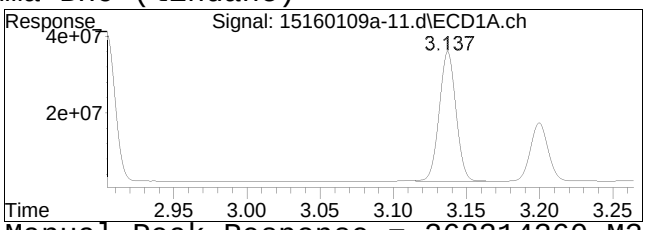




Original Peak Response = 237502212 Manual Peak Response = 237476105 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

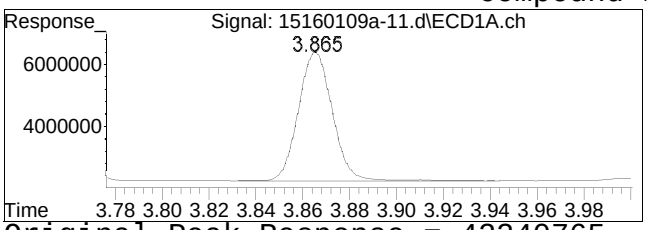
Compound #5: gamma-BHC (lindane)

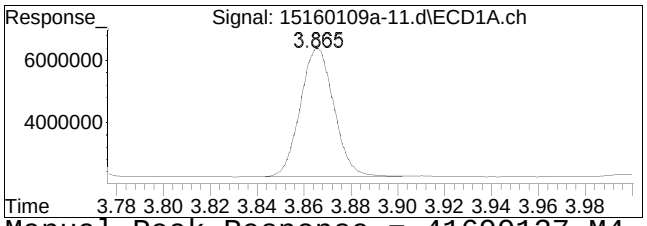




Original Peak Response = 268615355 Manual Peak Response = 268314360 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

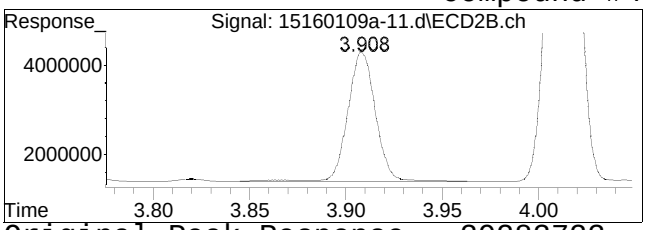
Compound #10: Alachlor

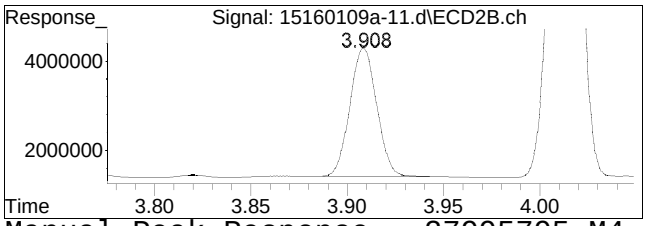




Original Peak Response = 42240765 Manual Peak Response = 41690137 M4
M4 = Poor automated baseline construction.

Compound #44: Alachlor #2





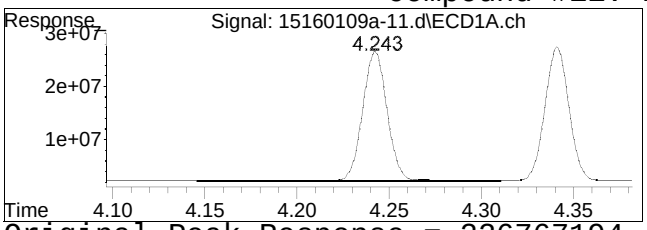
Original Peak Response = 29283723 Manual Peak Response = 27995795 M4
M4 = Poor automated baseline construction.

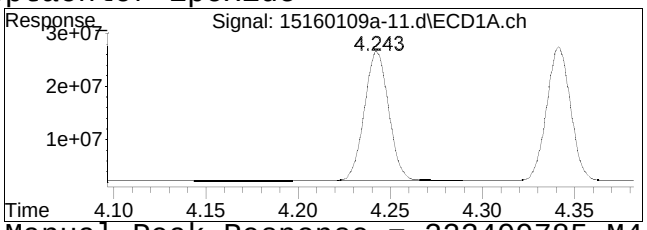
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-11.d
Date Inj'd : 1/9/2016 5:19 pm
Sample : il8pest,42e,,7152

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:00 pm

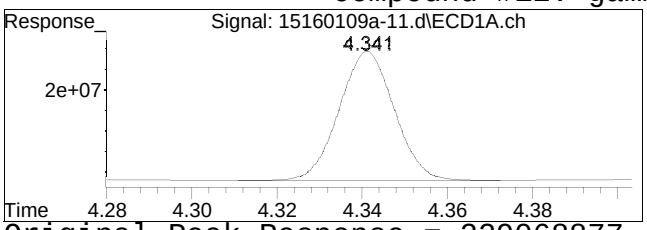
Compound #11: Heptachlor Epoxide

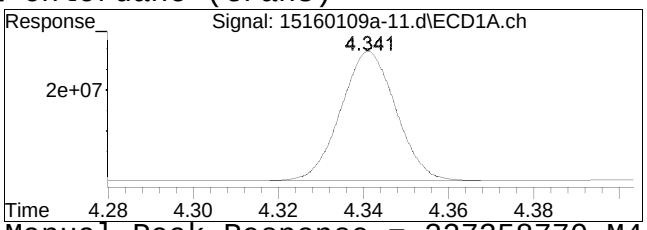




Original Peak Response = 226767194 Manual Peak Response = 223409785 M4
M4 = Poor automated baseline construction.

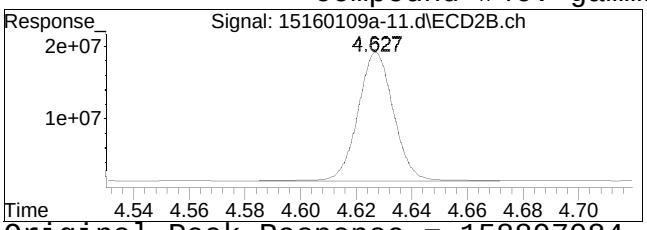
Compound #12: gamma-Chlordane (trans)

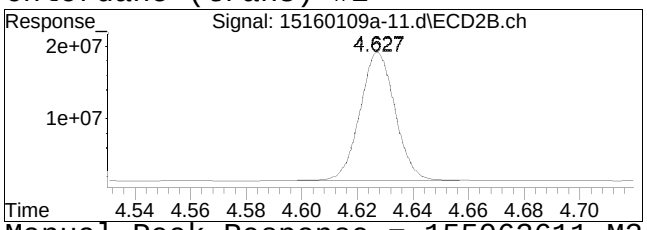




Original Peak Response = 229068877 Manual Peak Response = 227358770 M4
M4 = Poor automated baseline construction.

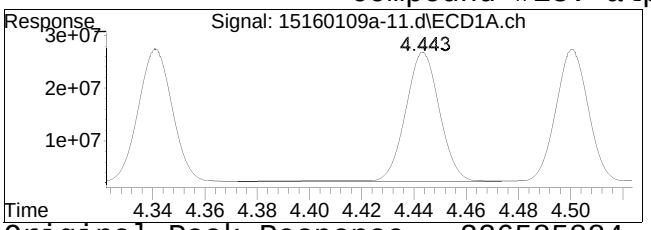
Compound #46: gamma-Chlordane (trans) #2

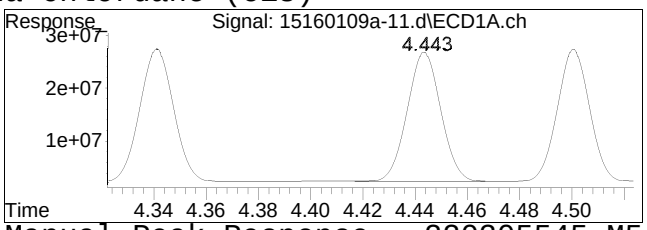




Original Peak Response = 158897084 Manual Peak Response = 155063611 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #13: alpha-Chlordane (cis)



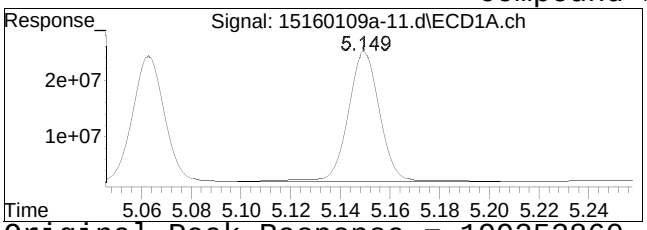


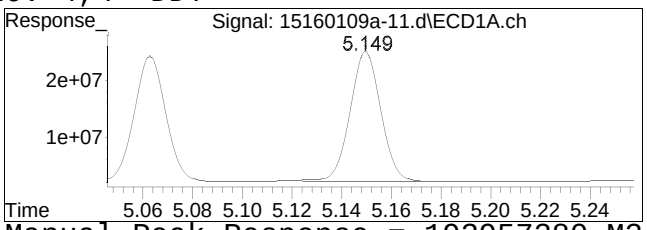
Original Peak Response = 226585884 Manual Peak Response = 220305545 M5
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-11.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:19 pm Instrument : Pest 15
Sample : il8pest,42e,,7152 Quant Date : 1/12/2016 1:00 pm

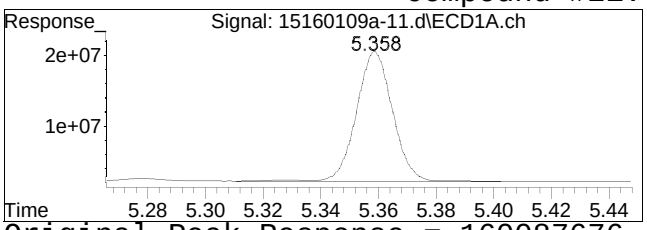
Compound #20: 4,4'-DDT

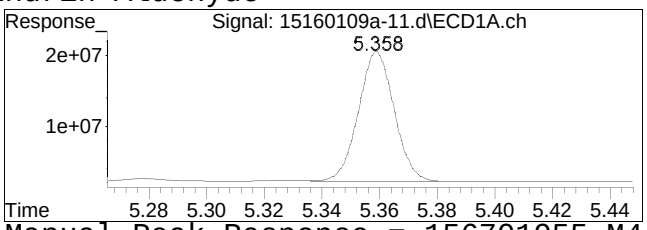




Original Peak Response = 199253860 Manual Peak Response = 193957380 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

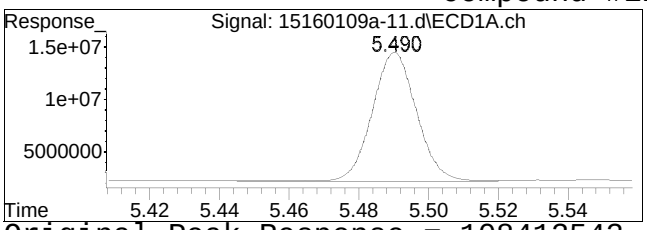
Compound #21: Endrin Aldehyde

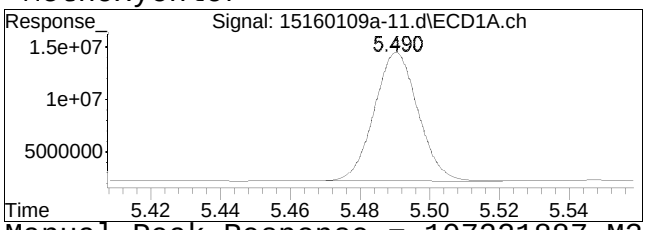




Original Peak Response = 160087676 Manual Peak Response = 156701955 M4
M4 = Poor automated baseline construction.

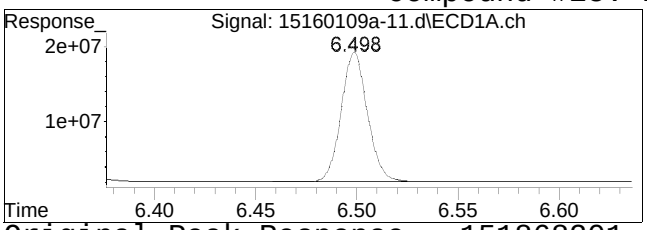
Compound #22: Methoxychlor

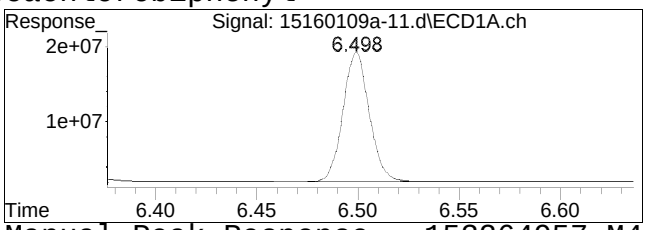




Original Peak Response = 108413543 Manual Peak Response = 107221887 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #25: Decachlorobiphenyl





Original Peak Response = 151868201 Manual Peak Response = 153264957 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:32 pm
Operator : pest15:ss
Sample : il9pest,42e,,7153
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:12:00 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	94431166	61028981	25.000M4	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.596	446.5E6	275.3E6	100.474	102.657
	Spiked Amount	50.000	Range 30 - 150		Recovery =	200.95%#	205.31%#
25) s	Decachlor...	6.499	6.900	292.0E6	204.2E6	97.924	96.967
	Spiked Amount	50.000	Range 30 - 150		Recovery =	195.85%#	193.93%#
	Target Compounds						
3)	Hexachlor...	2.784	2.956	463.7E6	289.8E6	100.363	101.263
4)	alpha-BHC	2.905	3.062	595.0E6	387.6E6	104.964	107.533
5)	gamma-BHC...	3.137	3.353	544.2E6	356.0E6	104.240	106.000
6)	beta-BHC	3.200	3.417	248.0E6	161.4E6	100.570	101.384
7)	delta-BHC	3.339	3.671	561.8E6	375.2E6	105.964	108.443
8)	Heptachlor	3.509	3.729	510.4E6	339.0E6	101.306	103.593
9)	Aldrin	3.755	4.013	461.0E6	317.0E6	103.757	106.799
10)	Alachlor	3.864	3.908	74547536	51053546	91.901M4	93.555M4
11)	Heptachlo...	4.242	4.480	437.8E6	307.1E6	100.714M4	104.283
12)	gamma-Chl...	4.341	4.627	460.5E6	322.1E6	104.090	106.572M4
13)	alpha-Chl...	4.443	4.739	441.3E6	311.3E6	102.960M4	106.358
14)	4,4'-DDE	4.500	4.856	447.6E6	313.7E6	105.165	109.171M4
15)	Endosulfan I	4.548	4.787	399.7E6	278.1E6	101.354	106.831
16)	Dieldrin	4.728	4.991	444.6E6	312.7E6	102.560	106.532M5
17)	Endrin	4.900	5.215	419.8E6	290.5E6	102.370	106.625
18)	4,4'-DDD	4.946	5.279	368.3E6	254.6E6	104.053	108.031
19)	Endosulfa...	5.062	5.365	381.6E6	270.3E6	100.763	103.501
20)	4,4'-DDT	5.149	5.498	390.1E6	260.8E6	103.375M4	105.223
21)	Endrin Al...	5.358	5.599	307.8E6	223.8E6	100.940M3	102.655
22)	Methoxychlor	5.490	5.956	202.8E6	134.5E6	97.192	98.406
23)	Endosulfa...	5.659	5.786	359.7E6	259.8E6	101.761	103.141

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:32 pm
Operator : pest15:ss
Sample : il9pest,42e,,7153
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:12:00 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
24)	Endrin Ke...	5.849	6.148	401.0E6	280.5E6	100.643	102.477
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

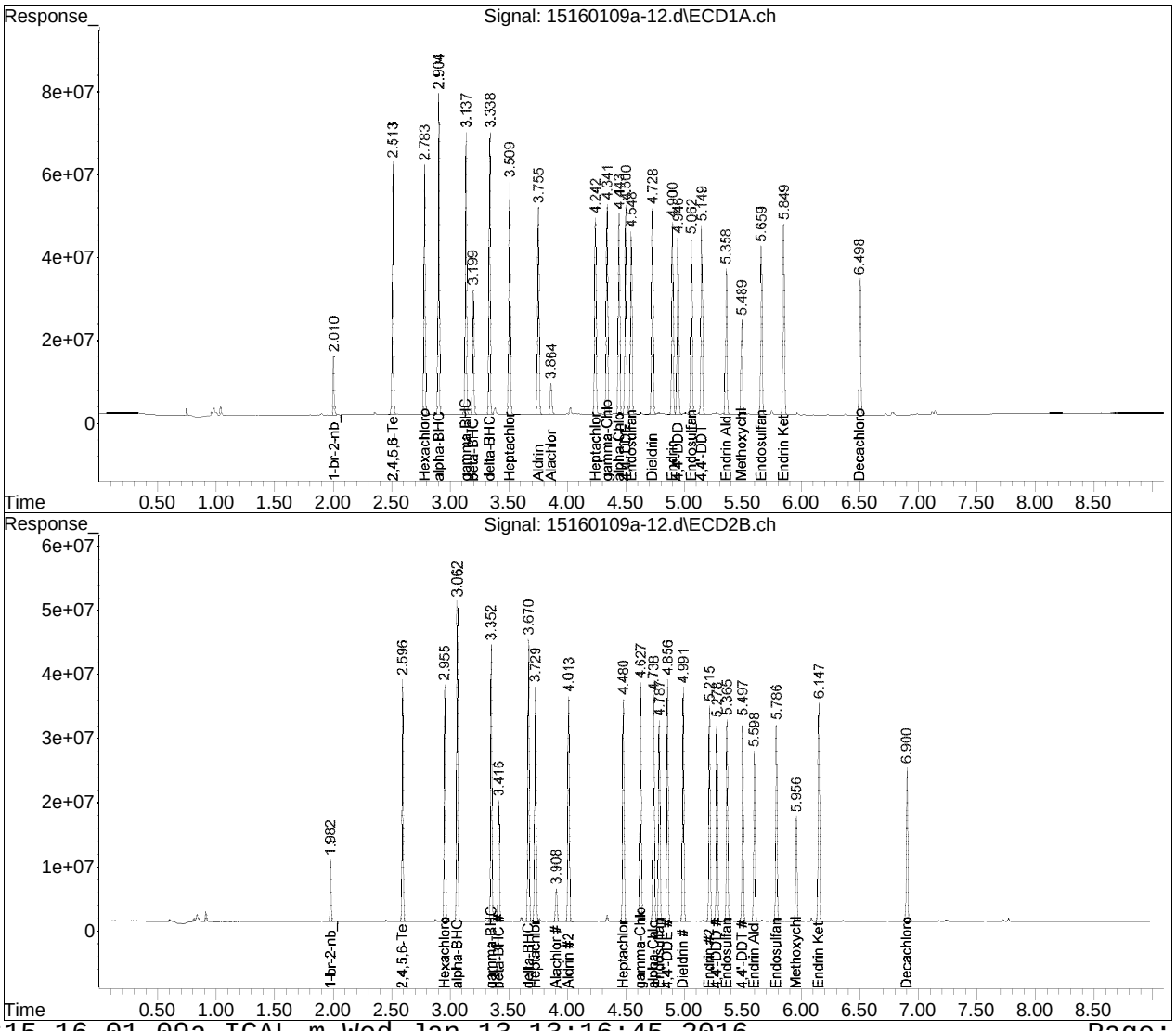
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:32 pm
Operator : pest15:ss
Sample : il9pest,42e,,7153
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 13:12:00 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 13:05:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

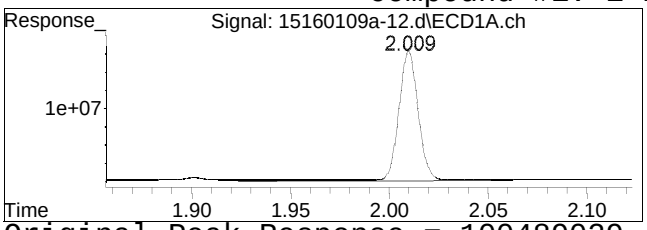


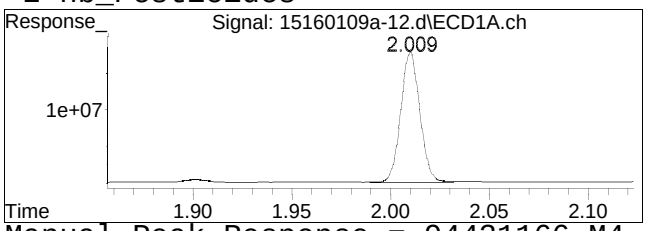
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-12.d
Date Inj'd : 1/9/2016 5:32 pm
Sample : il9pest,42e,,7153

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

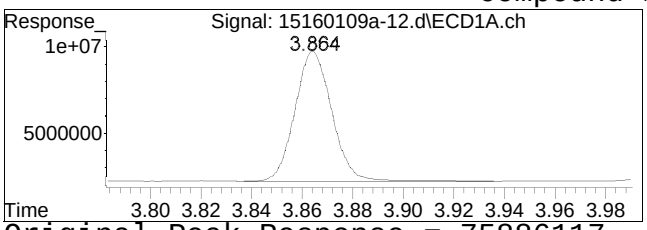
Compound #1: 1-br-2-nb_Pesticides

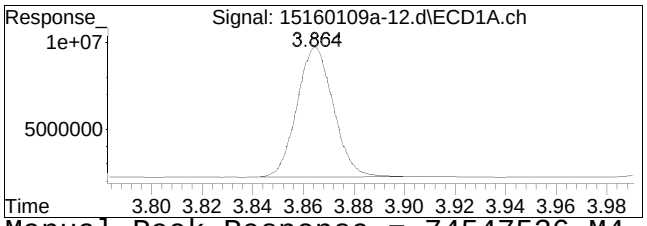




Original Peak Response = 100489029 Manual Peak Response = 94431166 M4
M4 = Poor automated baseline construction.

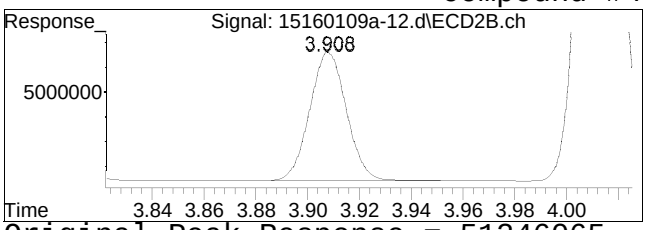
Compound #10: Alachlor

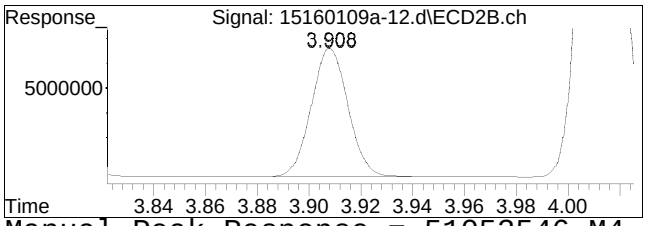




Original Peak Response = 75886117 Manual Peak Response = 74547536 M4
M4 = Poor automated baseline construction.

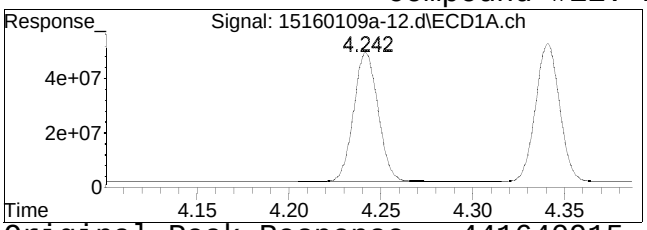
Compound #44: Alachlor #2

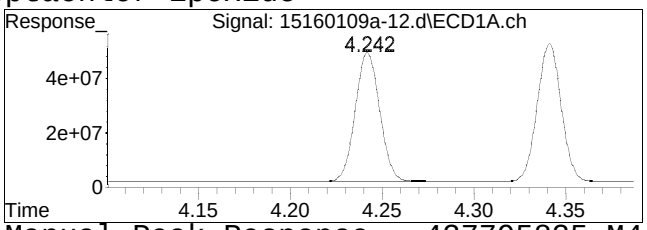




Original Peak Response = 51246065 Manual Peak Response = 51053546 M4
M4 = Poor automated baseline construction.

Compound #11: Heptachlor Epoxide





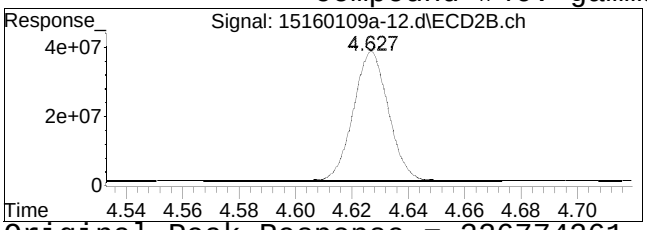
Original Peak Response = 441640915 Manual Peak Response = 437795835 M4
M4 = Poor automated baseline construction.

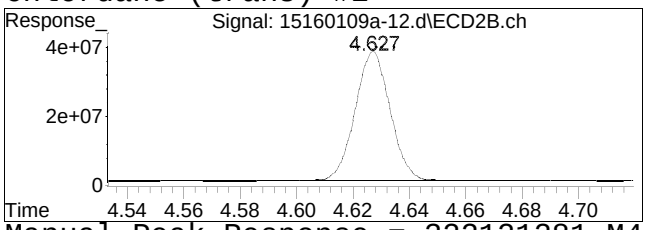
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-12.d
Date Inj'd : 1/9/2016 5:32 pm
Sample : il9pest,42e,,7153

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

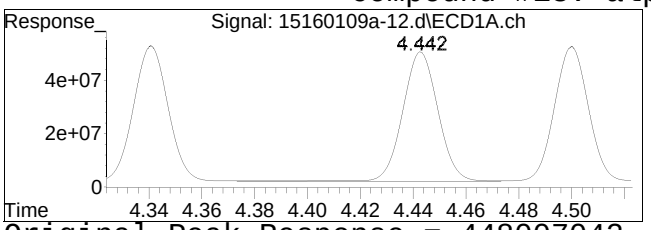
Compound #46: gamma-Chlordane (trans) #2

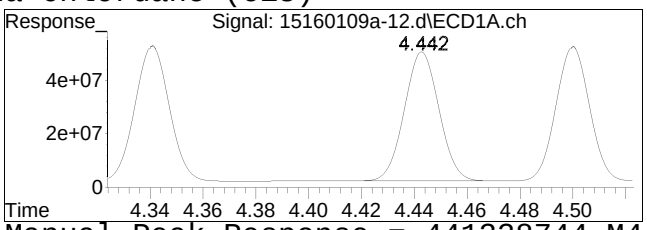




Original Peak Response = 326774261 Manual Peak Response = 322121281 M4
M4 = Poor automated baseline construction.

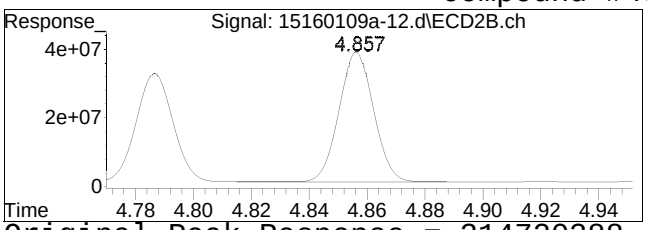
Compound #13: alpha-Chlordane (cis)

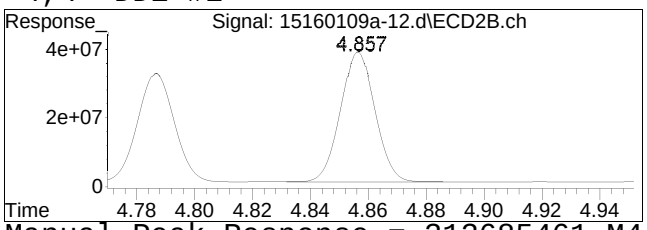




Original Peak Response = 448007042 Manual Peak Response = 441338744 M4
M4 = Poor automated baseline construction.

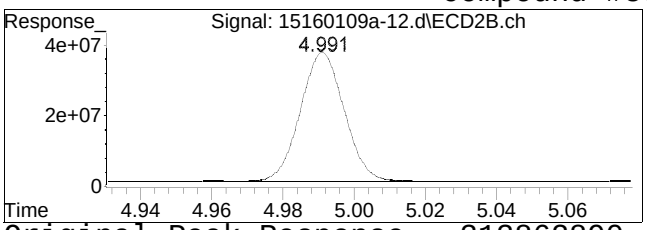
Compound #48: 4,4'-DDE #2

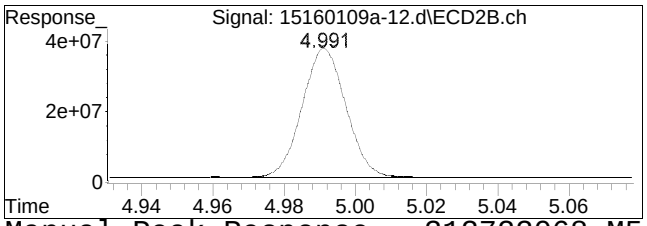




Original Peak Response = 314720388 Manual Peak Response = 313685461 M4
M4 = Poor automated baseline construction.

Compound #50: Dieldrin #2





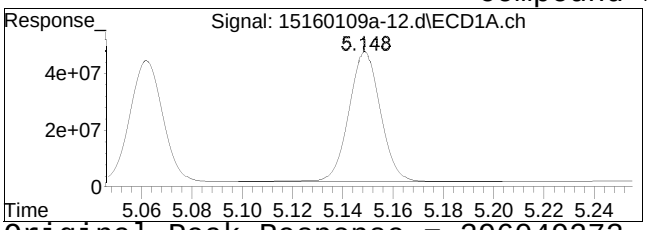
Original Peak Response = 313862890 Manual Peak Response = 312723068 M5
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

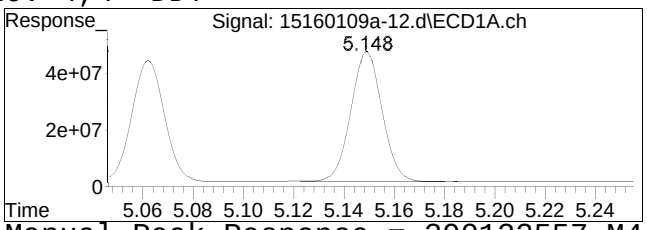
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-12.d
Date Inj'd : 1/9/2016 5:32 pm
Sample : il9pest,42e,,7153

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 1:06 pm

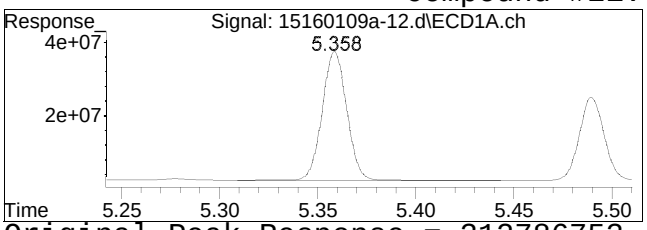
Compound #20: 4,4'-DDT

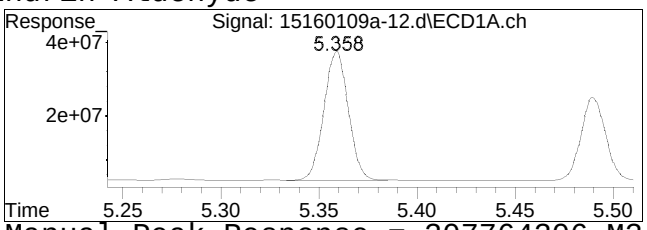




Original Peak Response = 396049273 Manual Peak Response = 390122557 M4
M4 = Poor automated baseline construction.

Compound #21: Endrin Aldehyde





Original Peak Response = 312786753 Manual Peak Response = 307764306 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:45 pm
Operator : pest15:ss
Sample : il10pest,42e,,7154
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:14:43 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 10:14:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.009	1.982	97606036	63558582	25.000M4	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.513	2.596	901.8E6	577.9E6	188.784M4	194.800
	Spiked Amount	50.000	Range 30 - 150		Recovery =	377.57%#	389.60%#
25) s	Decachlor...	6.499	6.901	606.3E6	426.0E6	200.290	200.109
	Spiked Amount	50.000	Range 30 - 150		Recovery =	400.58%#	400.22%#
	Target Compounds						
3)	Hexachlor...	2.783	2.956	947.0E6	609.3E6	199.619	200.613
4)	alpha-BHC	2.904	3.062	1246.7E6	841.1E6	223.502	239.820
5)	gamma-BHC...	3.136	3.353	1134.5E6	768.2E6	212.427M4	223.188
6)	beta-BHC	3.199	3.417	510.4E6	338.0E6	200.016	200.483
7)	delta-BHC	3.339	3.670	1184.8E6	813.7E6	210.926	224.407
8)	Heptachlor	3.510	3.729	1029.6E6	712.1E6	184.449	194.183
9)	Aldrin	3.755	4.013	959.7E6	682.2E6	206.386	222.206
10)	Alachlor	3.864	3.907	140.7E6	97893288	195.491	196.108M4
11)	Heptachlo...	4.242	4.481	882.9E6	642.9E6	199.095M4	200.652
12)	gamma-Chl...	4.341	4.627	960.9E6	695.1E6	200.731	202.237
13)	alpha-Chl...	4.443	4.739	916.9E6	655.1E6	200.457M3	200.918
14)	4,4'-DDE	4.501	4.857	935.0E6	670.9E6	218.004	220.360
15)	Endosulfan I	4.548	4.787	806.3E6	581.4E6	187.666	194.254
16)	Dieldrin	4.729	4.992	903.2E6	666.1E6	188.058	208.786M4
17)	Endrin	4.900	5.216	858.2E6	613.0E6	189.044	202.617
18)	4,4'-DDD	4.947	5.279	770.2E6	541.0E6	211.204	213.927M4
19)	Endosulfa...	5.063	5.365	757.0E6	553.5E6	198.322	199.659
20)	4,4'-DDT	5.149	5.498	811.0E6	558.9E6	200.545M4	201.748
21)	Endrin Al...	5.359	5.598	633.6E6	465.8E6	200.071M3	200.369M4
22)	Methoxychlor	5.490	5.956	403.5E6	277.9E6	198.346	199.744
23)	Endosulfa...	5.659	5.786	737.3E6	548.2E6	199.871M3	200.881

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:45 pm
Operator : pest15:ss
Sample : il10pest,42e,,7154
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:14:43 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 10:14:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
24)	Endrin Ke...	5.849	6.148	826.4E6	591.9E6	200.000	200.817
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

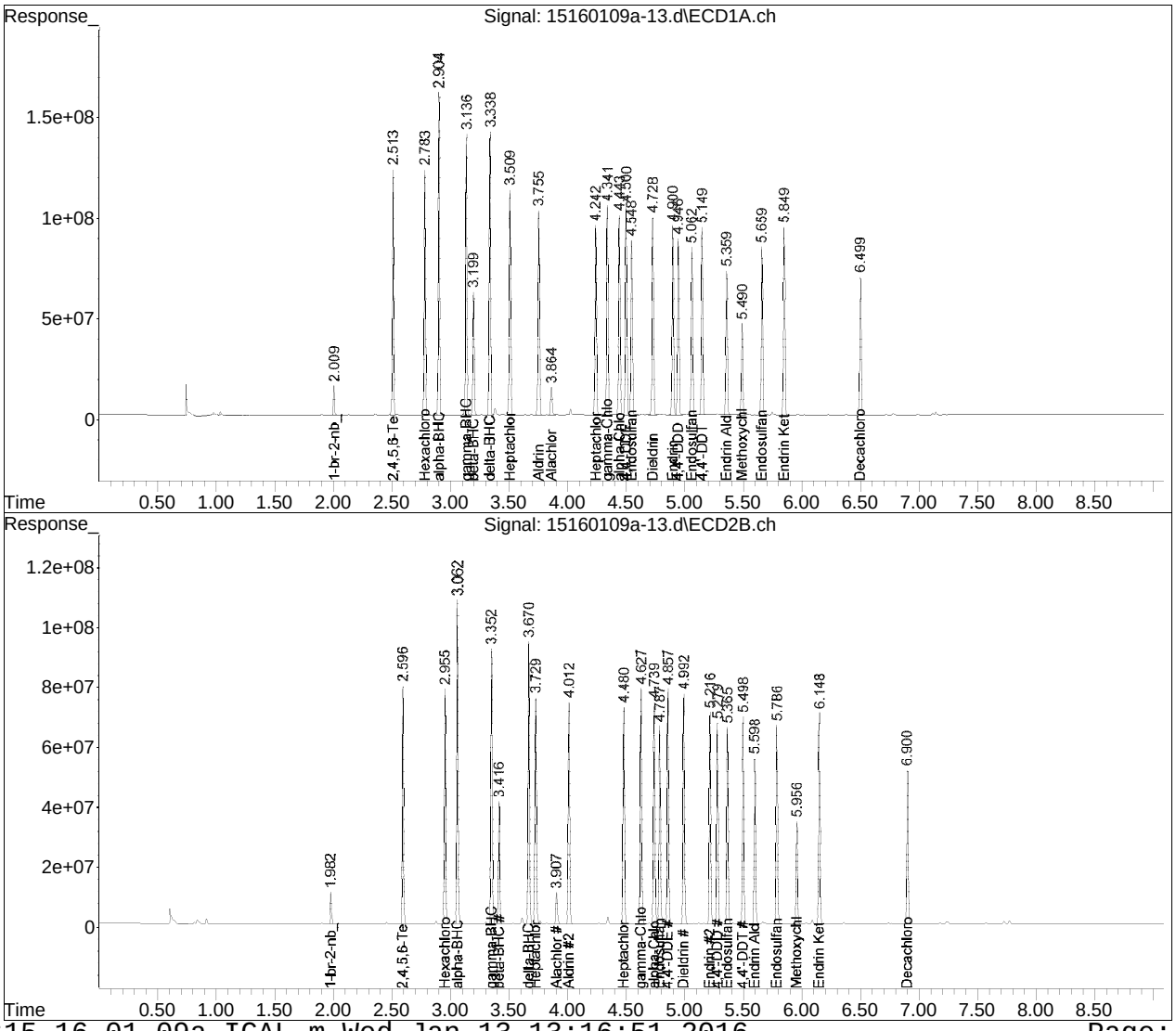
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:45 pm
Operator : pest15:ss
Sample : il10pest,42e,,7154
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 10:14:43 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 10:14:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

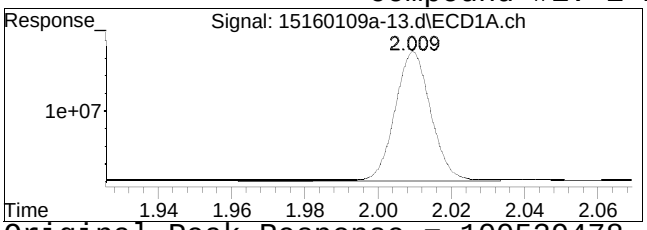


Manual Integration/Negative Proof Report

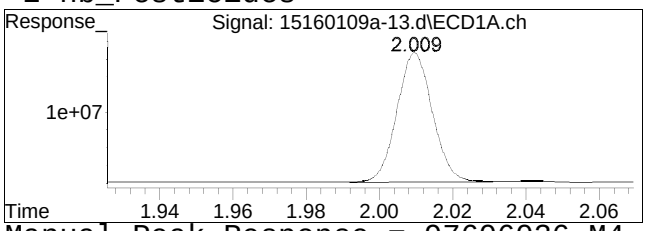
Data Path : I:\Pest15\160109a\
Data File : 15160109a-13.d
Date Inj'd : 1/9/2016 5:45 pm
Sample : il10pest,42e,,7154

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/13/2016 10:14 am

Compound #1: 1-br-2-nb_Pesticides



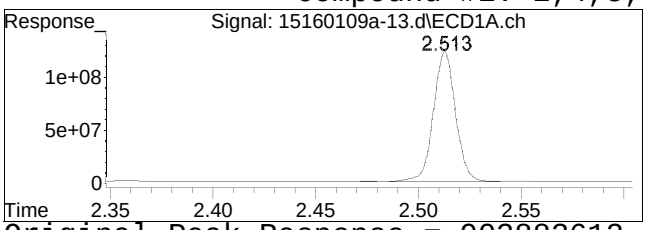
Original Peak Response = 100539478



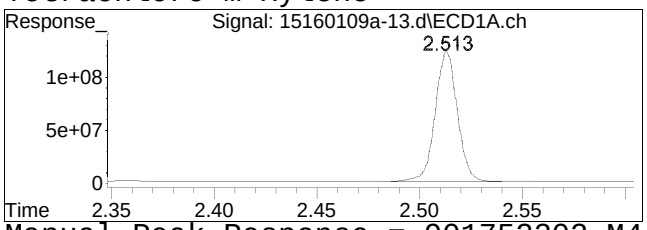
Manual Peak Response = 97606036 M4

M4 = Poor automated baseline construction.

Compound #2: 2,4,5,6-Tetrachloro-m-xylene



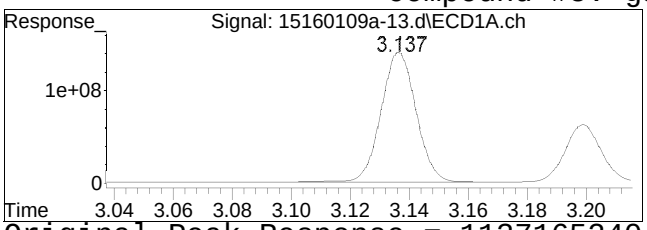
Original Peak Response = 903883612



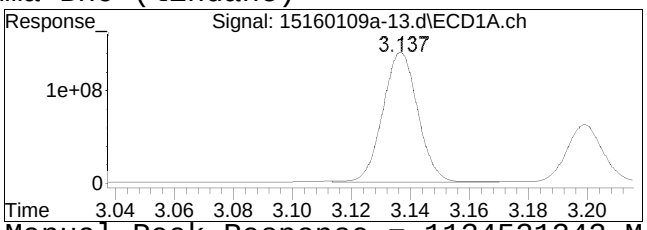
Manual Peak Response = 901752202 M4

M4 = Poor automated baseline construction.

Compound #5: gamma-BHC (lindane)



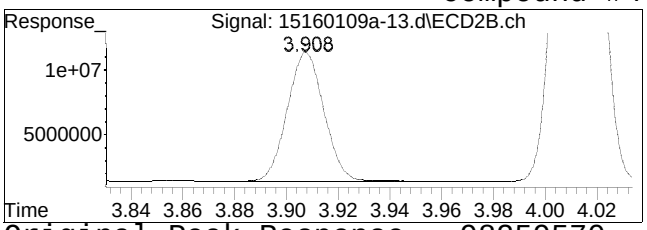
Original Peak Response = 1137165240



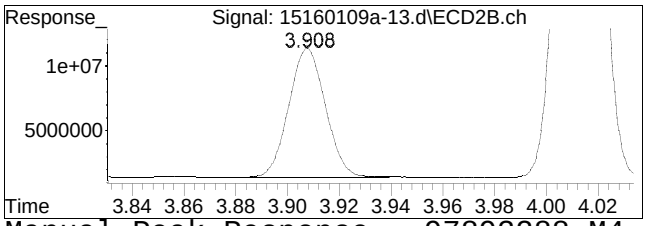
Manual Peak Response = 1134531343 M4

M4 = Poor automated baseline construction.

Compound #44: Alachlor #2



Original Peak Response = 98259570



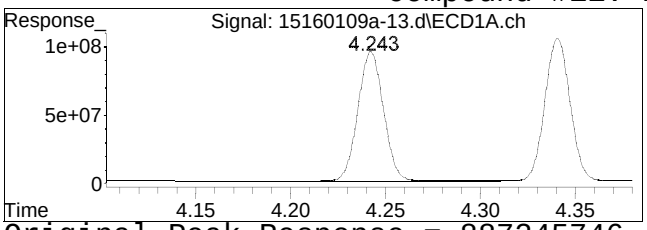
Manual Peak Response = 97893288 M4

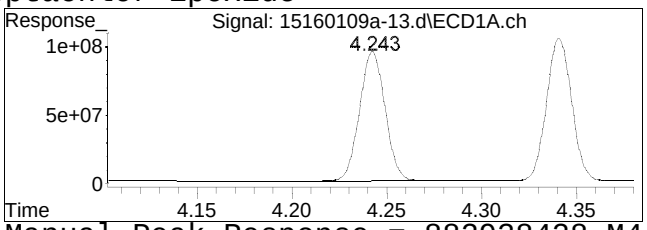
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-13.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:45 pm Instrument : Pest 15
Sample : il10pest,42e,,7154 Quant Date : 1/13/2016 10:14 am

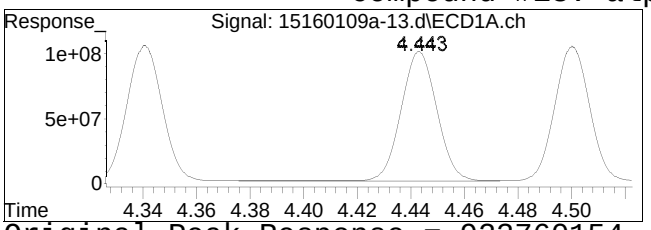
Compound #11: Heptachlor Epoxide

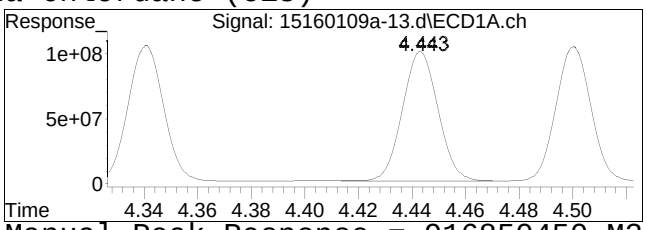




Original Peak Response = 887245746 Manual Peak Response = 882938428 M4
M4 = Poor automated baseline construction.

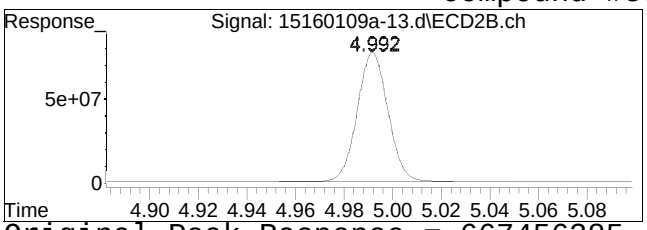
Compound #13: alpha-Chlordane (cis)

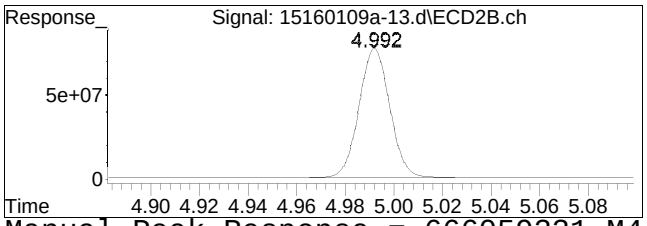




Original Peak Response = 923760154 Manual Peak Response = 916850450 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

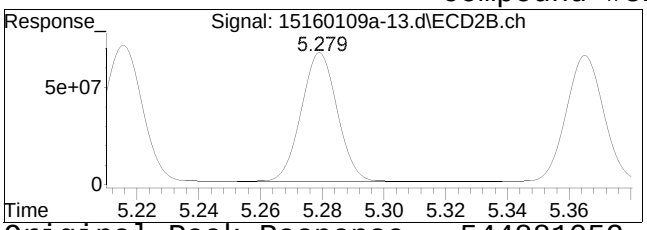
Compound #50: Dieldrin #2

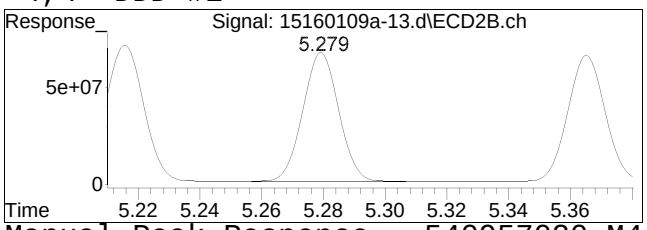




Original Peak Response = 667456385 Manual Peak Response = 666059331 M4
M4 = Poor automated baseline construction.

Compound #52: 4,4'-DDD #2



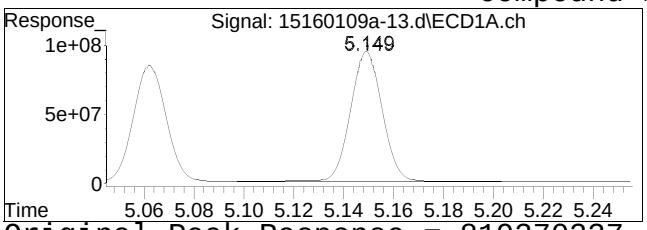


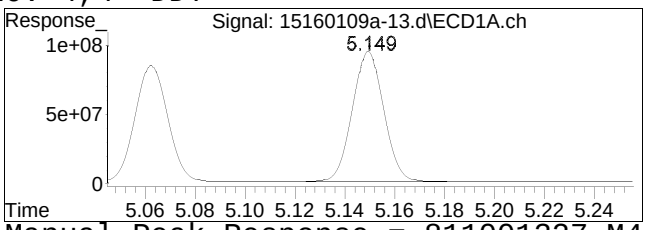
Original Peak Response = 544881052 Manual Peak Response = 540957020 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-13.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:45 pm Instrument : Pest 15
Sample : il10pest,42e,,7154 Quant Date : 1/13/2016 10:14 am

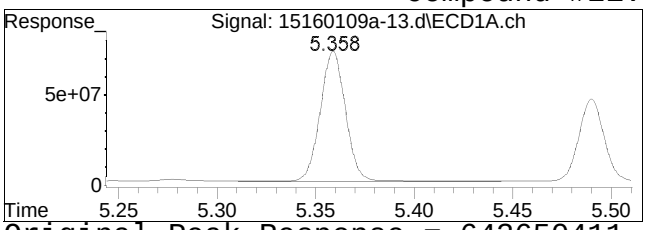
Compound #20: 4,4'-DDT

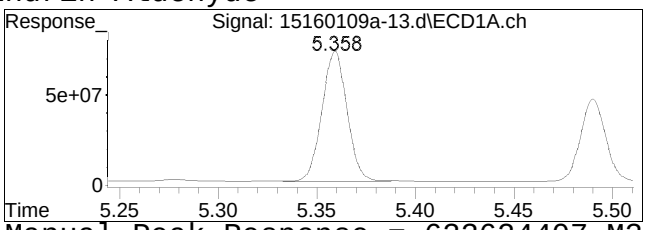




Original Peak Response = 819370237 Manual Peak Response = 811001327 M4
M4 = Poor automated baseline construction.

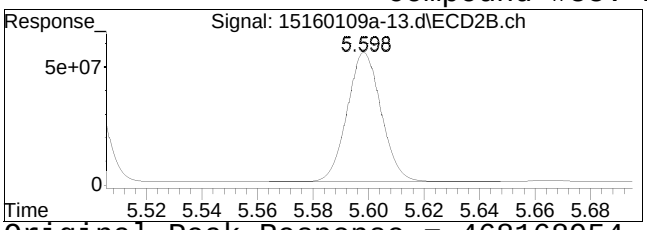
Compound #21: Endrin Aldehyde

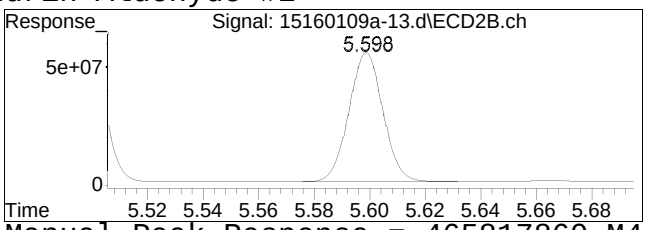




Original Peak Response = 643650411 Manual Peak Response = 633624407 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

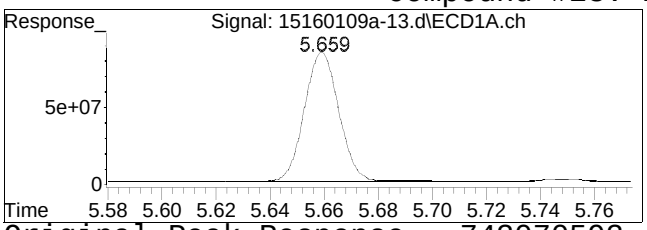
Compound #55: Endrin Aldehyde #2

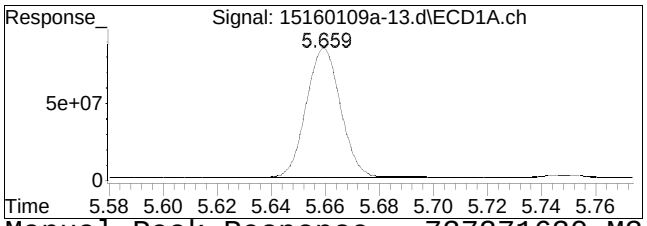




Original Peak Response = 468168954 Manual Peak Response = 465817860 M4
M4 = Poor automated baseline construction.

Compound #23: Endosulfan Sulfate





Original Peak Response = 743070593 Manual Peak Response = 737271630 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 9 Jan 2016   5:58 pm
Operator : pest15:ss
Sample   : cicvpest,42e,,7095
Misc   : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 14   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:14:21 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:14:15 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	101	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen	50.000	46.869	6.3	98	0.00
3		Hexachlorobenzene	50.000	47.860	4.3	97	0.00
4		alpha-BHC	50.000	49.292	1.4	94	0.00
5		gamma-BHC (lindane)	50.000	46.654	6.7	93	0.00
6		beta-BHC	50.000	45.733	8.5	93	0.00
7		delta-BHC	50.000	48.951	2.1	101	0.00
8		Heptachlor	50.000	43.174	13.7	93	0.00
9		Aldrin	50.000	46.599	6.8	95	0.00
10		Alachlor	50.000	45.949	8.1	83	0.00
11		Heptachlor Epoxide	50.000	45.769	8.5	92	0.00
12		gamma-Chlordane (trans)	50.000	44.764	10.5	94	0.00
13		alpha-Chlordane (cis)	50.000	44.865	10.3	93	0.00
14		4,4'-DDE	50.000	46.864	6.3	92	0.00
15		Endosulfan I	50.000	43.950	12.1	93	0.00
16		Dieldrin	50.000	43.983	12.0	95	0.00
17		Endrin	50.000	44.318	11.4	96	0.00
18		4,4'-DDD	50.000	46.383	7.2	93	0.00
19		Endosulfan II	50.000	47.618	4.8	95	0.00
20		4,4'-DDT	50.000	45.830	8.3	96	0.00
21		Endrin Aldehyde	50.000	48.309	3.4	99	0.00
22		Methoxychlor	50.000	47.548	4.9	92	0.00
23		Endosulfan Sulfate	50.000	45.728	8.5	94	0.00
24		Endrin Ketone	50.000	45.715	8.6	93	0.00
25	s	Decachlorobiphenyl	50.000	49.603	0.8	100	0.00

Signal #2

1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	100	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	50.000	46.547	6.9	99	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 9 Jan 2016   5:58 pm
Operator : pest15:ss
Sample   : cicvpest,42e,,7095
Misc   : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 14   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:14:21 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:14:15 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3		Hexachlorobenzene	50.000	46.977	6.0	97	0.00
4		alpha-BHC	50.000	50.327	-0.7	94	0.00
5		gamma-BHC (lindane)	50.000	47.120	5.8	93	0.00
6		beta-BHC	50.000	45.555	8.9	94	0.00
7		delta-BHC	50.000	50.336	-0.7	102	0.00
8		Heptachlor	50.000	43.171	13.7	93	0.00
9		Aldrin	50.000	48.545	2.9	97	0.00
10		Alachlor	50.000	45.043	9.9	83	0.00
11		Heptachlor Epoxide	50.000	44.640	10.7	94	0.00
12		gamma-Chlordane (trans)	50.000	42.679	14.6	94	0.00
13		alpha-Chlordane (cis)	50.000	43.749	12.5	93	0.00
14		4,4'-DDE	50.000	45.248	9.5	92	0.00
15		Endosulfan I	50.000	42.570	14.9	94	0.00
16		Dieldrin	50.000	44.955	10.1	94	0.00
17		Endrin	50.000	45.275	9.5	97	0.00
18		4,4'-DDD	50.000	45.075	9.8	93	0.00
19		Endosulfan II	50.000	45.832	8.3	95	0.00
20		4,4'-DDT	50.000	43.463	13.1	94	0.00
21		Endrin Aldehyde	50.000	47.089	5.8	98	0.00
22		Methoxychlor	50.000	46.890	6.2	93	0.00
23		Endosulfan Sulfate	50.000	44.709	10.6	93	0.00
24		Endrin Ketone	50.000	44.533	10.9	92	0.00
25	s	Decachlorobiphenyl	50.000	49.675	0.7	99	0.00

Evaluate Continuing Calibration Report - Not Founds

26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	0	-2.05#
27	l1	chlordane-1	2500.000	0.000	100.0#	0	-3.50#
28	l1	chlordane-3	2500.000	0.000	100.0#	0	-3.92#
29	l1	chlordane-4	2500.000	0.000	100.0#	0	-4.39#

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 9 Jan 2016   5:58 pm
Operator : pest15:ss
Sample   : cicvpest,42e,,7095
Misc   : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 14   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:14:21 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:14:15 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
30	l1	chlordane-5	2500.000	0.000	100.0#	0	-4.49#
31	l2	toxaphene-1	5000.000	0.000	100.0#	0	-4.97#
32	l2	toxaphene-2	5000.000	0.000	100.0#	0	-5.06#
33	l2	toxaphene-5	5000.000	0.000	100.0#	0	-5.35#

Signal #2

26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	0	-2.02#
27	l1	chlordane-1	2500.000	0.000	100.0#	0	-3.66#
28	l1	chlordane-3	2500.000	0.000	100.0#	0	-4.18#
29	l1	chlordane-4	2500.000	0.000	100.0#	0	-4.68#
30	l1	chlordane-5	2500.000	0.000	100.0#	0	-4.79#
31	l2	toxaphene-1	5000.000	0.000	100.0#	0	-5.32#
32	l2	toxaphene-2	5000.000	0.000	100.0#	0	-5.45#
33	l2	toxaphene-5	5000.000	0.000	100.0#	0	-5.60#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:58 pm
Operator : pest15:ss
Sample : cicvpest,42e,,7095
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:14:21 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:14:15 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	2.010	1.982	97726215	62891165	25.000	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.514	2.597	224.2E6	136.7E6	46.869	46.547
	Spiked Amount 50.000	Range 30 - 150		Recovery =		93.74%	93.09%
25) s	Decachlor...	6.499	6.900	152.6E6	106.5E6	49.603	49.675
	Spiked Amount 50.000	Range 30 - 150		Recovery =		99.21%	99.35%
	Target Compounds						
3)	Hexachlor...	2.784	2.956	229.3E6	141.7E6	47.860	46.977
4)	alpha-BHC	2.905	3.062	275.3E6	174.7E6	49.292	50.327
5)	gamma-BHC...	3.137	3.353	249.5E6	160.5E6	46.654	47.120
6)	beta-BHC	3.200	3.417	118.0E6	76538223	45.733	45.555
7)	delta-BHC	3.339	3.670	275.3E6	180.6E6	48.951	50.336
8)	Heptachlor	3.510	3.729	241.3E6	156.7E6	43.174	43.171
9)	Aldrin	3.755	4.013	217.0E6	147.5E6	46.599	48.545
10)	Alachlor	3.865	3.908	34529275	23254547	45.949M4	45.043M3
11)	Heptachlo...	4.242	4.481	205.5E6	141.8E6	45.769M3	44.640
12)	gamma-Chl...	4.341	4.627	213.8E6	145.3E6	44.764	42.679M4
13)	alpha-Chl...	4.443	4.739	205.1E6	140.3E6	44.865M4	43.749
14)	4,4'-DDE	4.500	4.857	201.2E6	136.3E6	46.864	45.248
15)	Endosulfan I	4.548	4.787	189.1E6	126.1E6	43.950	42.570
16)	Dieldrin	4.728	4.992	211.5E6	141.9E6	43.983	44.955
17)	Endrin	4.900	5.215	201.4E6	135.5E6	44.318	45.275
18)	4,4'-DDD	4.947	5.279	169.3E6	112.8E6	46.383	45.075
19)	Endosulfa...	5.063	5.365	184.0E6	126.7E6	47.618	45.832
20)	4,4'-DDT	5.149	5.498	185.4E6	118.9E6	45.830	43.463
21)	Endrin Al...	5.359	5.598	154.6E6	109.2E6	48.309M4	47.089
22)	Methoxychlor	5.490	5.956	99122719	65530125	47.548	46.890
23)	Endosulfa...	5.659	5.786	170.0E6	120.7E6	45.728	44.709

Data Path : I:\Pest15\160109a\
Data File : 15160109a-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:58 pm
Operator : pest15:ss
Sample : cicvpest,42e,,7095
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:14:21 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:14:15 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
24)	Endrin Ke...	5.849	6.148	190.0E6	129.7E6	45.715	44.533
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

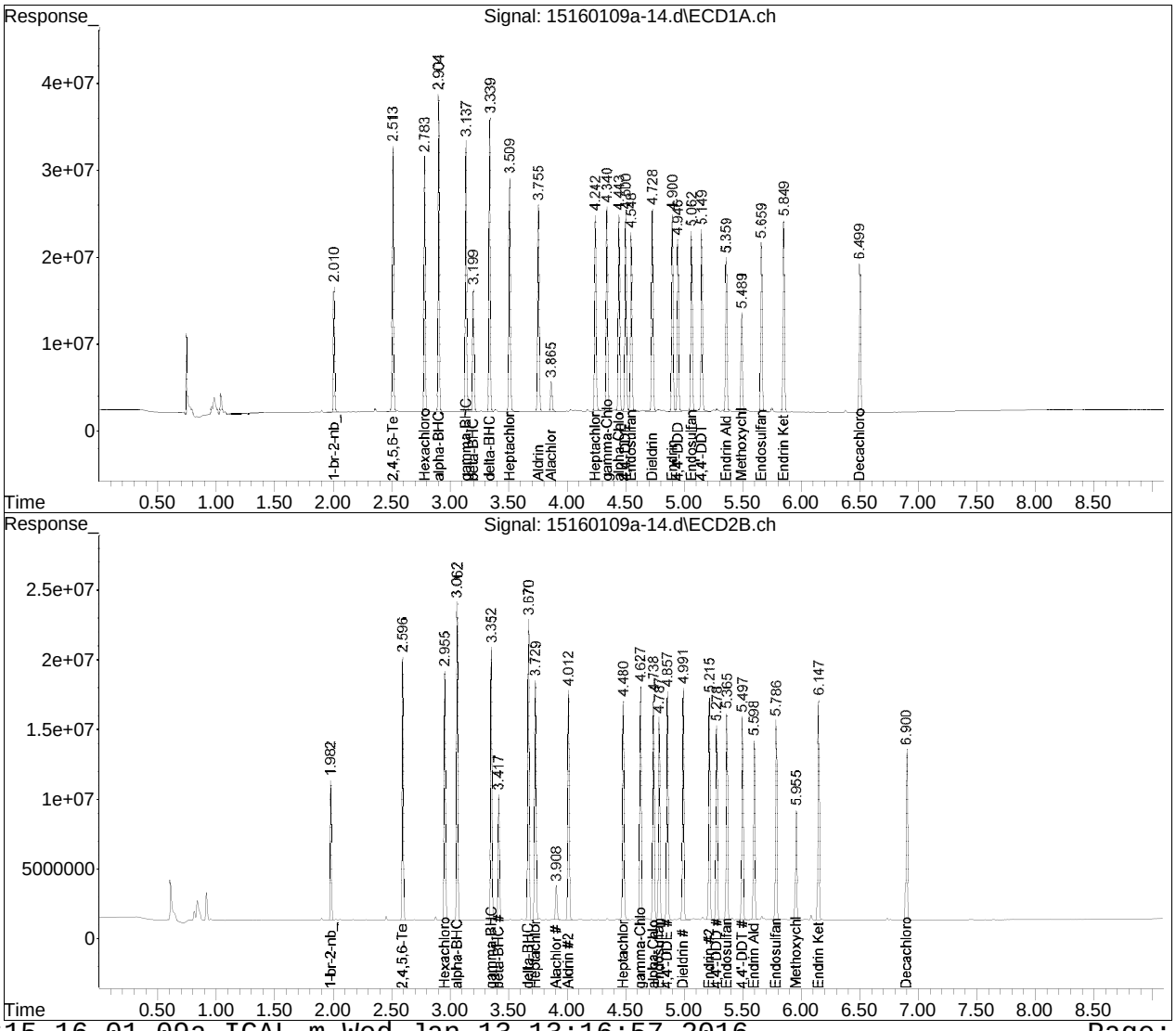
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-14.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 5:58 pm
Operator : pest15:ss
Sample : cicvpest,42e,,7095
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 13 13:14:21 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Wed Jan 13 13:14:15 2016
Response via : Initial Calibration
Integrator: ChemStation

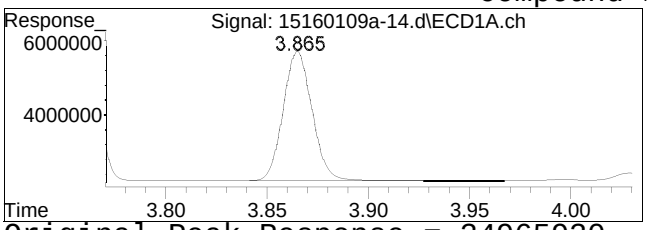
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

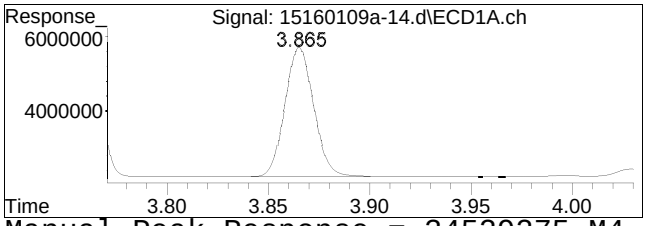


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-14.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:58 pm Instrument : Pest 15
Sample : cicvpest,42e,,7095 Quant Date : 1/13/2016 1:14 pm

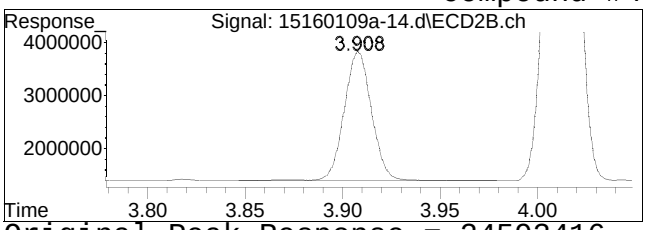
Compound #10: Alachlor

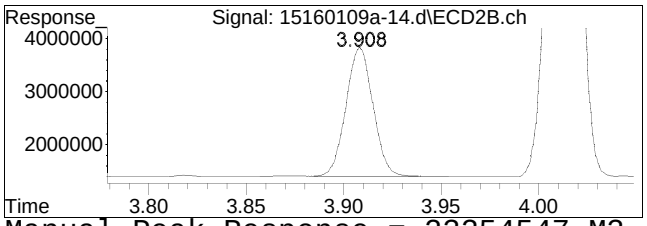




Original Peak Response = 34965930 Manual Peak Response = 34529275 M4
M4 = Poor automated baseline construction.

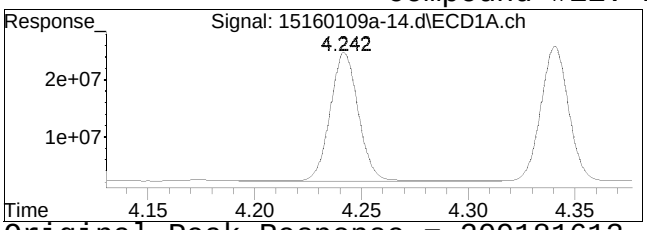
Compound #44: Alachlor #2

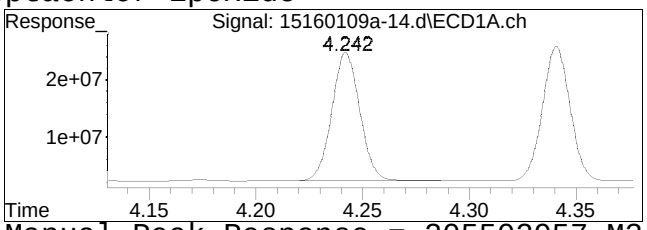




Original Peak Response = 24593416 Manual Peak Response = 23254547 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

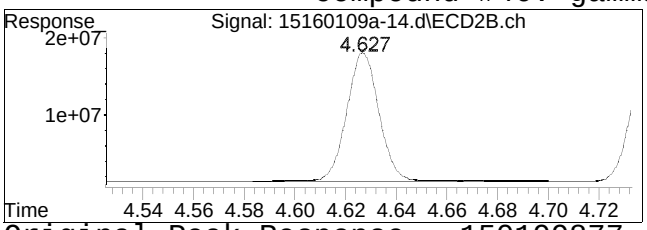
Compound #11: Heptachlor Epoxide

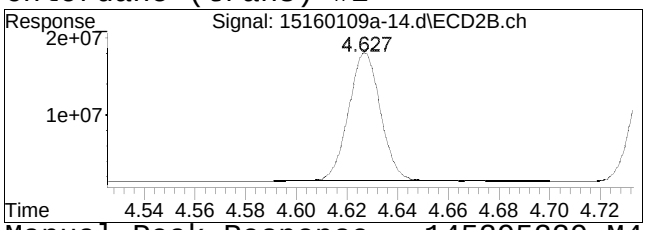




Original Peak Response = 209181613 Manual Peak Response = 205502957 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #46: gamma-Chlordane (trans) #2



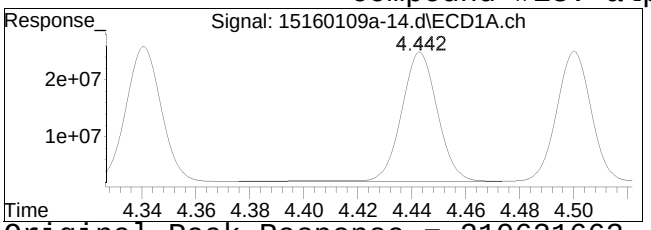


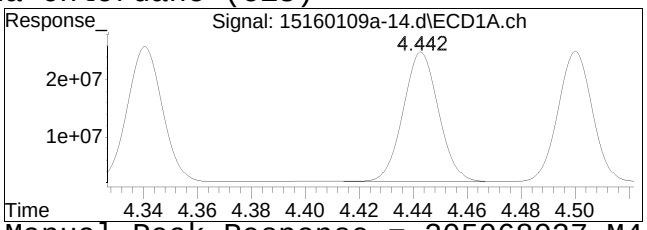
Original Peak Response = 150199877 Manual Peak Response = 145295229 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-14.d Operator : pest15:ss
Date Inj'd : 1/9/2016 5:58 pm Instrument : Pest 15
Sample : cicvpest,42e,,7095 Quant Date : 1/13/2016 1:14 pm

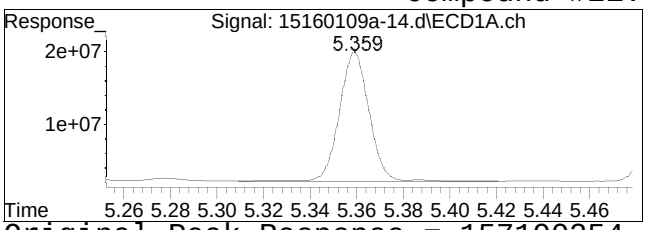
Compound #13: alpha-Chlordane (cis)

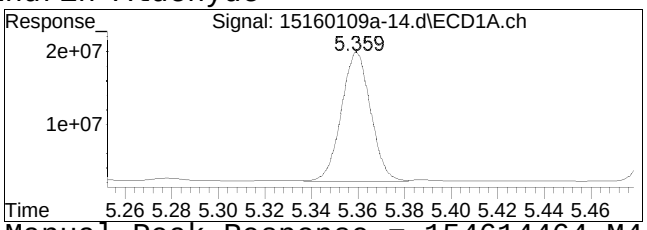




Original Peak Response = 210621663 Manual Peak Response = 205068037 M4
M4 = Poor automated baseline construction.

Compound #21: Endrin Aldehyde





Original Peak Response = 157190254 Manual Peak Response = 154614464 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:11 pm
Operator : pest15:ss
Sample : il1chlortox,42e,,7134
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:08:01 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.009	1.982	101.5E6	67868106	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:11 pm
Operator : pest15:ss
Sample : il1chlortox,42e,,7134
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:08:01 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.602	1079714	766530	6.683	6.879M2
28) l1	chlordane-3	3.862	4.132	1389376	1247943	7.887M3	10.300M3 #
29) l1	chlordane-4	4.341	4.627	4053696	5214770	6.124M3	12.030M3 #
30) l1	chlordane-5	4.441	4.738	8242777	2202323	8.228M3	6.325
Sum	chlordane-1			14765562	9431566	28.922	35.535
Average	chlordane-1					7.231	8.884
31) l2	toxaphene-1	4.924	5.269	2064667	759743	9.914M3	10.347M2
32) l2	toxaphene-2	5.014	5.399	1257637	836448	10.033M3	9.016M3
33) l2	toxaphene-5	5.297	5.598	996865	4366682	7.829M2	37.797 #
Sum	toxaphene-1			4319169	5962873	27.775	57.160
Average	toxaphene-1					9.258	19.053

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			4319169	5962873	27.775	57.160
Average	toxaphene-1					9.258	19.053

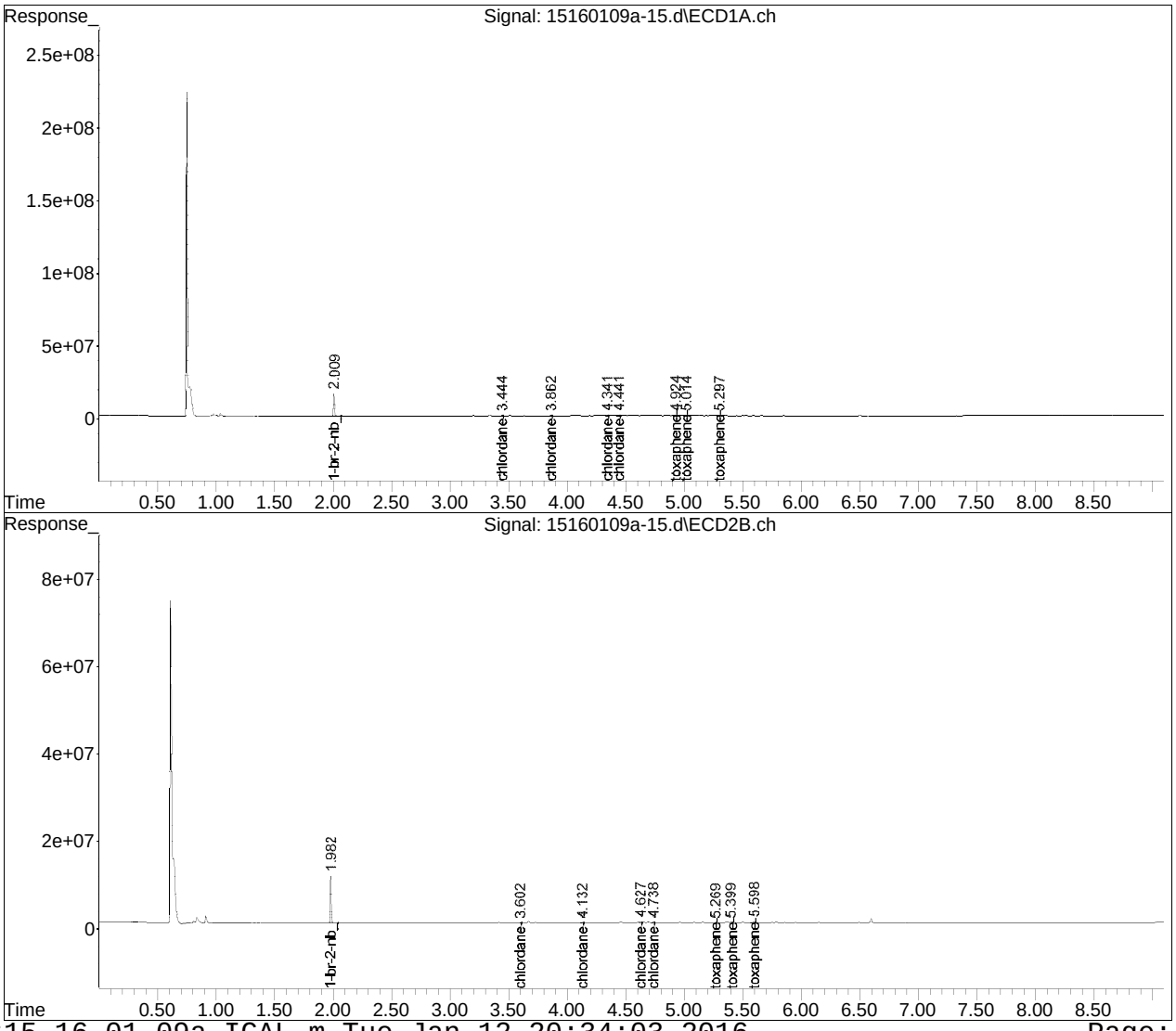
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-15.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:11 pm
Operator : pest15:ss
Sample : il1chlortox,42e,,7134
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:08:01 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

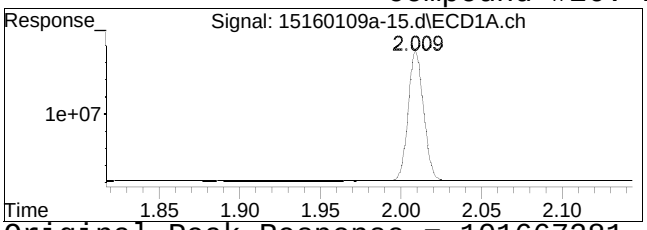


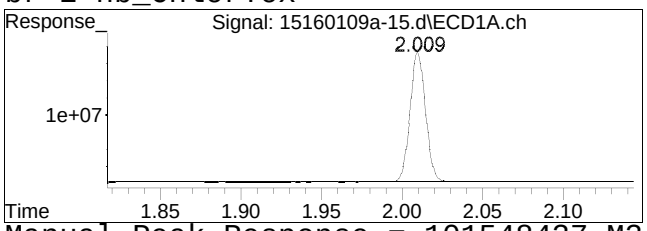
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-15.d
Date Inj'd : 1/9/2016 6:11 pm
Sample : il1chlortox,42e,,7134

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 6:50 pm

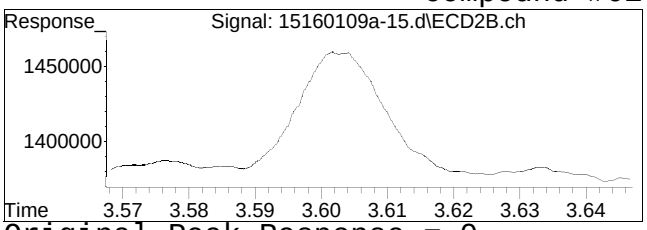
Compound #26: 1-br-2-nb_ChlorTox

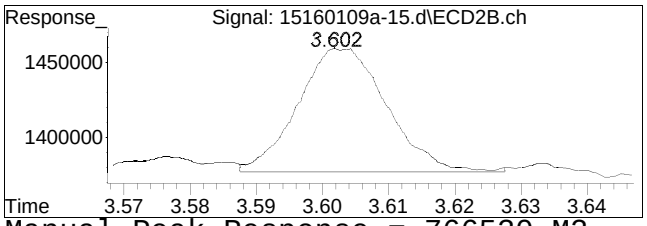




Original Peak Response = 101667281 Manual Peak Response = 101548437 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

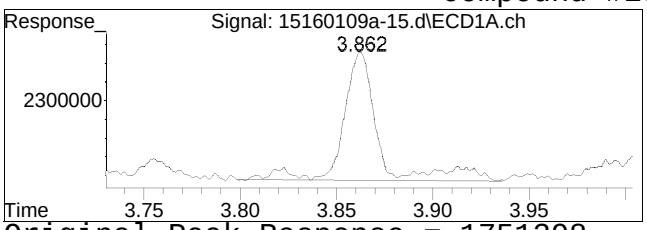
Compound #61: chlordane-1 #2

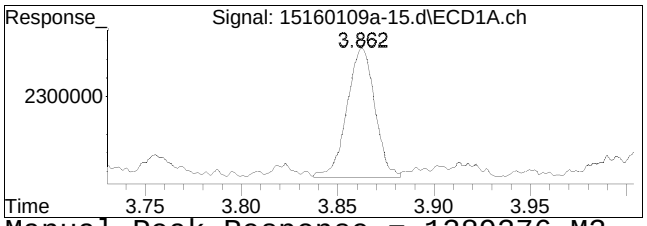




Original Peak Response = 0 Manual Peak Response = 766530 M2
M2 = Peak not found by automatic integration algorithm.

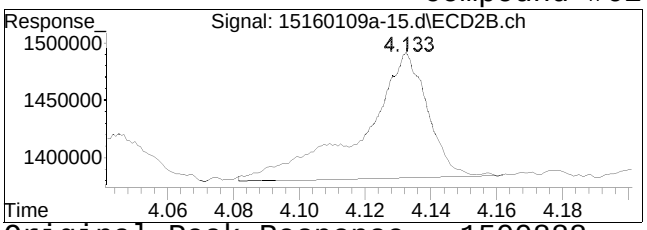
Compound #28: chlordane-3

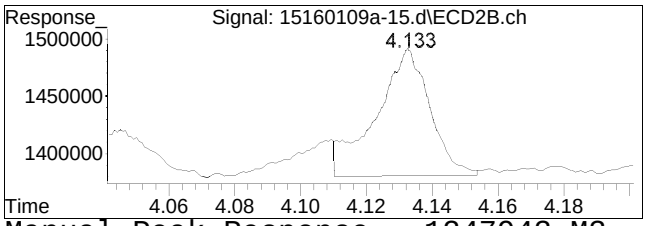




Original Peak Response = 1751398 Manual Peak Response = 1389376 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #62: chlordane-3 #2



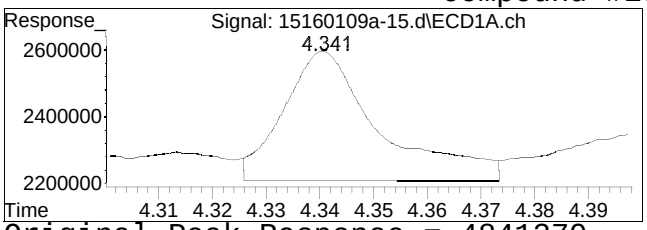


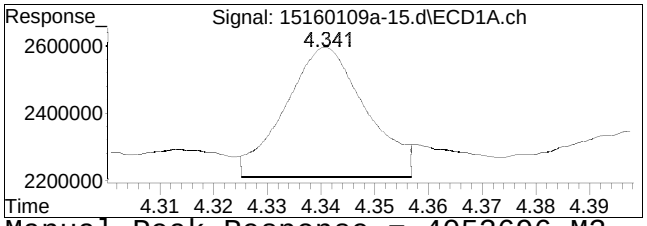
Original Peak Response = 1500888 Manual Peak Response = 1247943 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-15.d Operator : pest15:ss
Date Inj'd : 1/9/2016 6:11 pm Instrument : Pest 15
Sample : il1chlortox,42e,,7134 Quant Date : 1/12/2016 6:50 pm

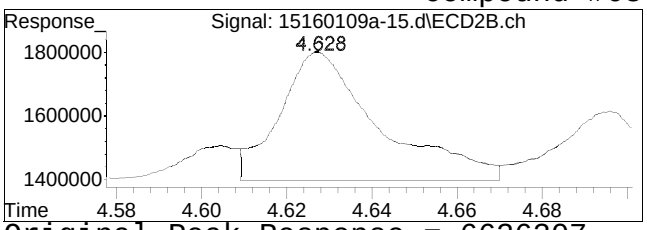
Compound #29: chlordane-4

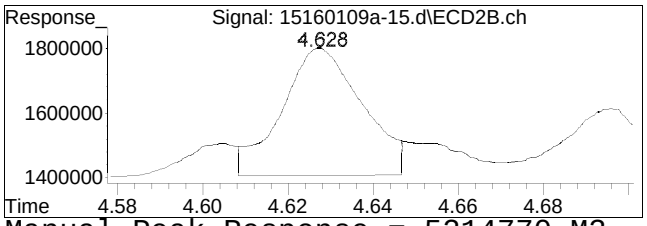




Original Peak Response = 4841370 Manual Peak Response = 4053696 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

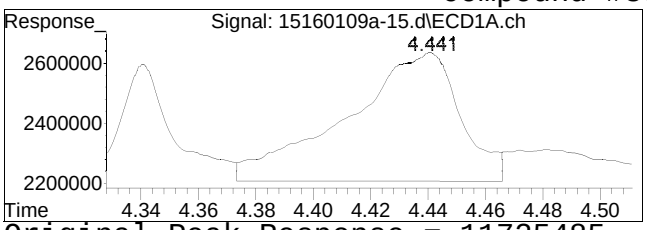
Compound #63: chlordane-4 #2

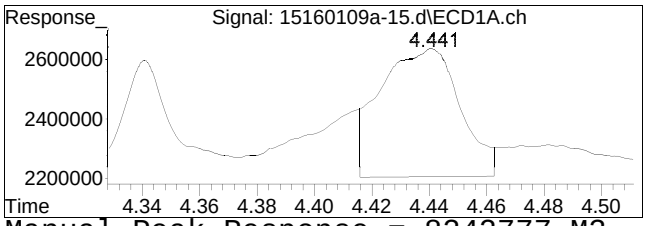




Original Peak Response = 6636307 Manual Peak Response = 5214770 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

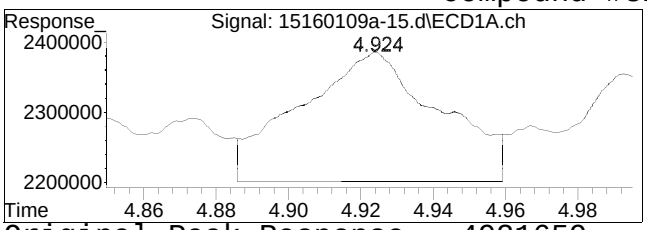
Compound #30: chlordane-5

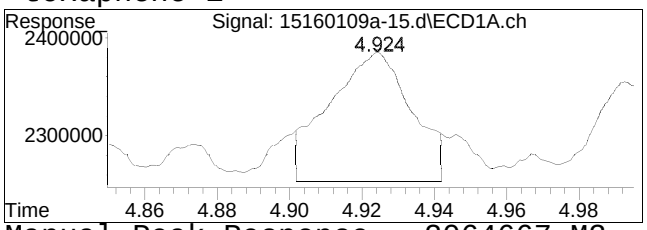




Original Peak Response = 11725485 Manual Peak Response = 8242777 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #31: toxaphene-1



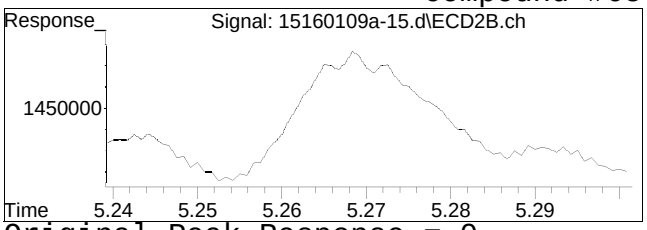


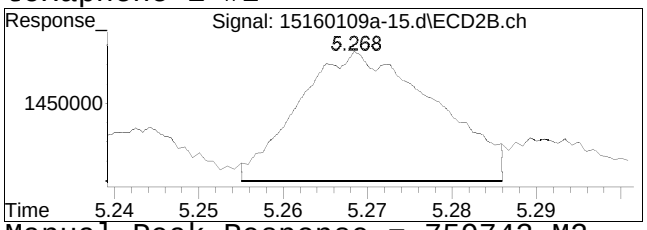
Original Peak Response = 4921659 Manual Peak Response = 2064667 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-15.d Operator : pest15:ss
Date Inj'd : 1/9/2016 6:11 pm Instrument : Pest 15
Sample : il1chlortox,42e,,7134 Quant Date : 1/12/2016 6:50 pm

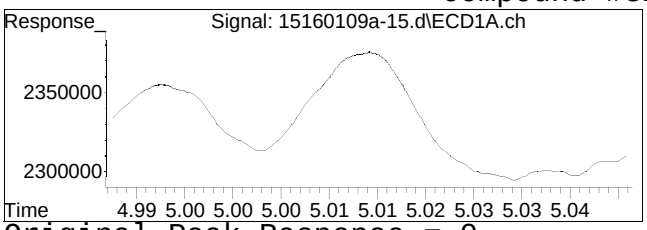
Compound #65: toxaphene-1 #2

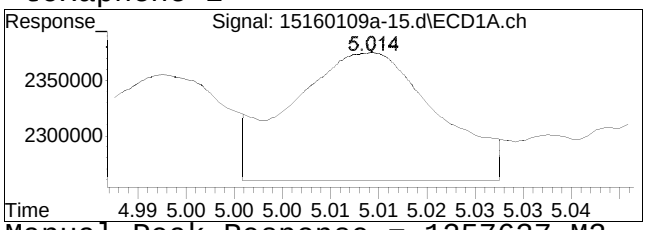




Original Peak Response = 0 Manual Peak Response = 759743 M2
M2 = Peak not found by automatic integration algorithm.

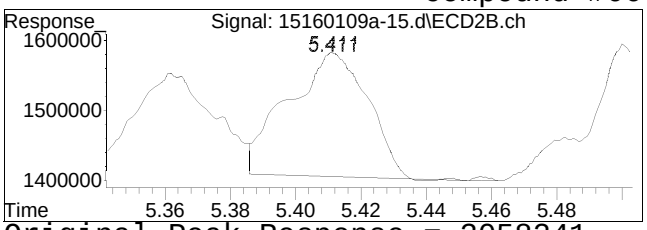
Compound #32: toxaphene-2

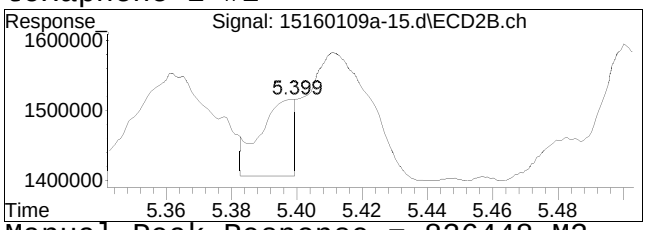




Original Peak Response = 0 Manual Peak Response = 1257637 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

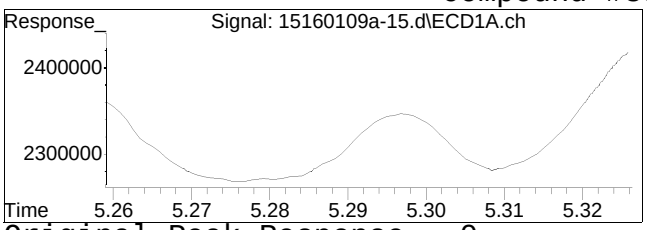
Compound #66: toxaphene-2 #2

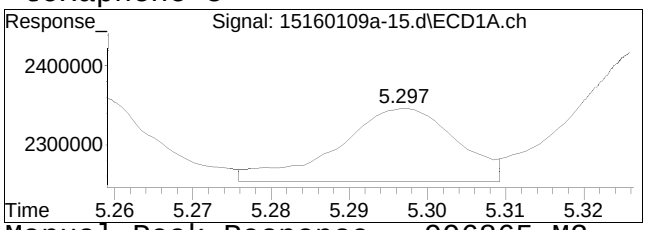




Original Peak Response = 3058241 Manual Peak Response = 836448 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #33: toxaphene-5





Original Peak Response = 0 Manual Peak Response = 996865 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:24 pm
Operator : pest15:ss
Sample : il2chlortox,42e,,7135
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:06:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.010	1.982	106.1E6	68080773	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160109a\
Data File : 15160109a-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:24 pm
Operator : pest15:ss
Sample : il2chlortox,42e,,7135
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:06:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.445	3.603	2159123	1386276	12.796	12.403
28) l1	chlordane-3	3.863	4.133	2757077	1882124	14.987	15.486M3
29) l1	chlordane-4	4.341	4.627	6893610	7235717	9.973M3	16.641M3
#							
30) l1	chlordane-5	4.441	4.739	14796198	3921260	14.142M3	11.226
Sum	chlordane-1			26606008	14425377	51.898	55.755
Average	chlordane-1					12.975	13.939
31) l2	toxaphene-1	4.924	5.268	4816660	1633840	22.146M3	22.183M2
32) l2	toxaphene-2	5.014	5.397	3071076	2022197	23.459M3	21.730M3
33) l2	toxaphene-5	5.297	5.598	3096475	3448264	23.286M4	29.754M3
#							
Sum	toxaphene-1			10984211	7104301	68.891	73.666
Average	toxaphene-1					22.964	24.555

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			10984211	7104301	68.891	73.666
Average	toxaphene-1					22.964	24.555

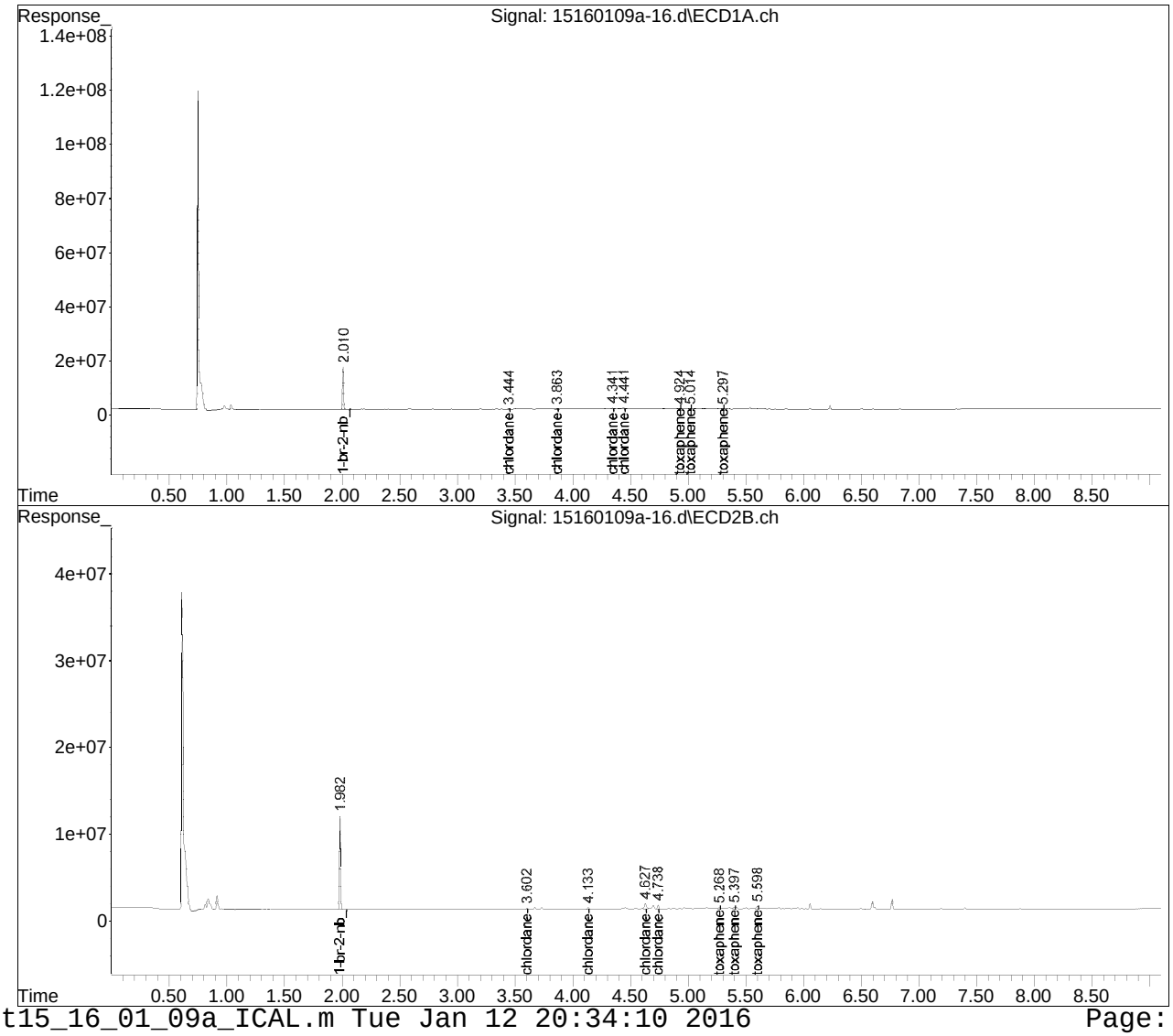
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-16.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:24 pm
Operator : pest15:ss
Sample : il2chlortox,42e,,7135
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:06:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

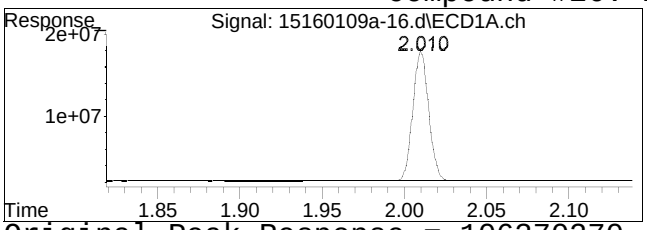
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

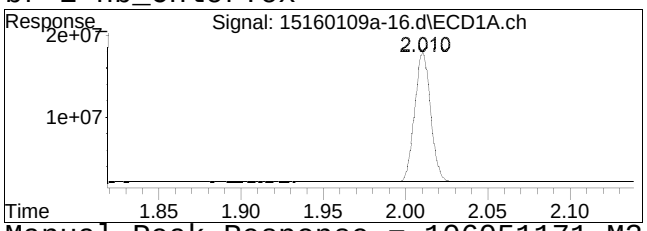


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-16.d Operator : pest15:ss
Date Inj'd : 1/9/2016 6:24 pm Instrument : Pest 15
Sample : il2chlortox,42e,,7135 Quant Date : 1/12/2016 6:50 pm

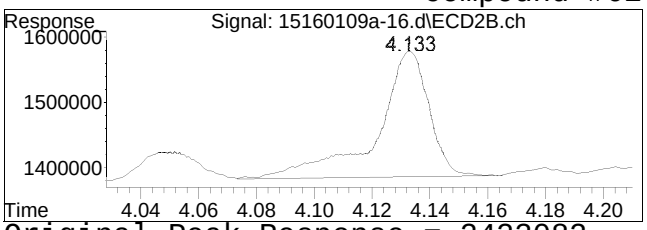
Compound #26: 1-br-2-nb_ChlorTox

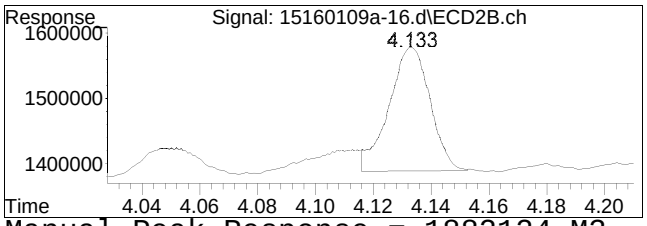




Original Peak Response = 106370270 Manual Peak Response = 106051171 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

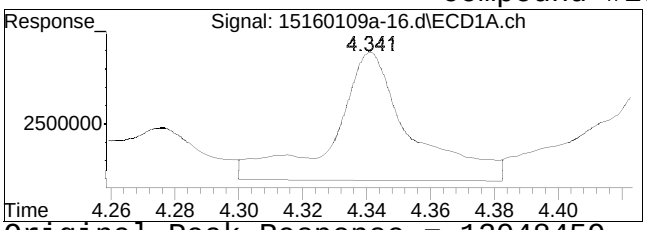
Compound #62: chlordane-3 #2

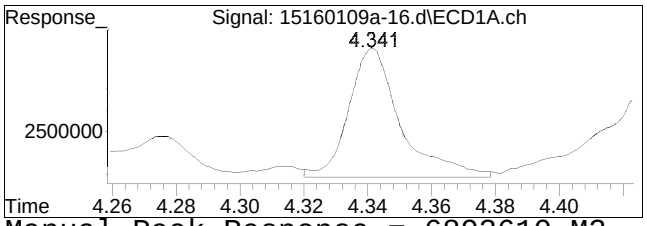




Original Peak Response = 2423082 Manual Peak Response = 1882124 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

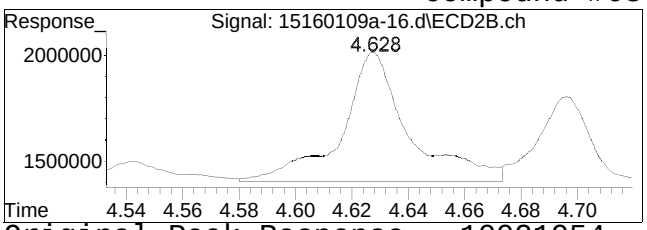
Compound #29: chlordane-4

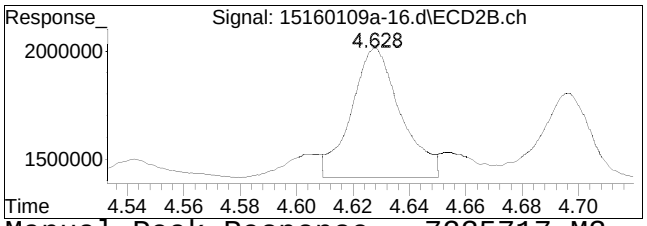




Original Peak Response = 12048459 Manual Peak Response = 6893610 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #63: chlordane-4 #2



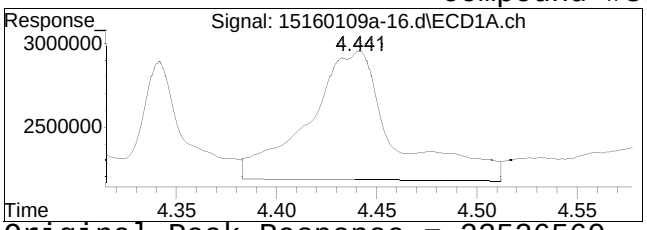


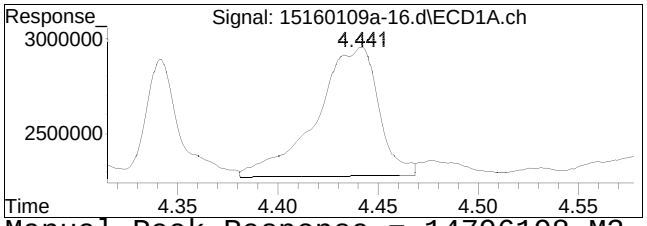
Original Peak Response = 10021954 Manual Peak Response = 7235717 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-16.d Operator : pest15:ss
Date Inj'd : 1/9/2016 6:24 pm Instrument : Pest 15
Sample : il2chlortox,42e,,7135 Quant Date : 1/12/2016 6:50 pm

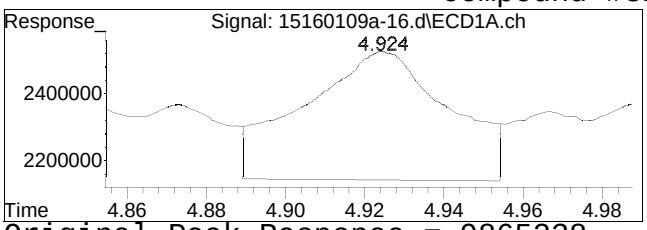
Compound #30: chlordane-5

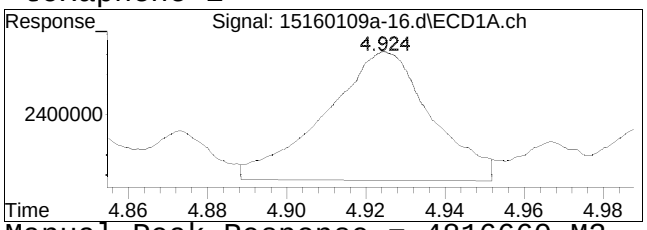




Original Peak Response = 23526560 Manual Peak Response = 14796198 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

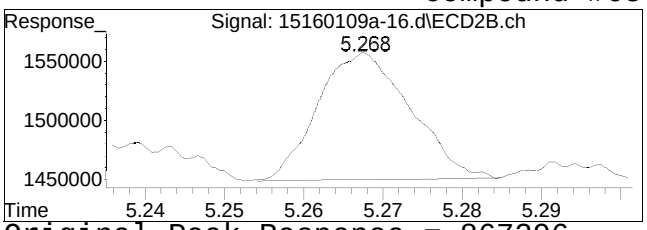
Compound #31: toxaphene-1

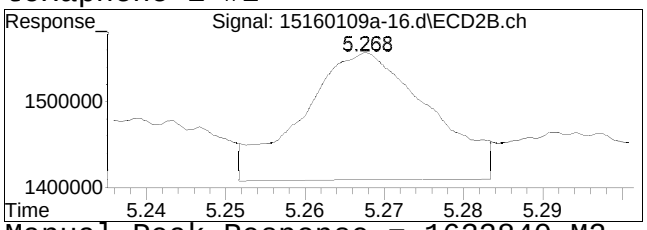




Original Peak Response = 9865238 Manual Peak Response = 4816660 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

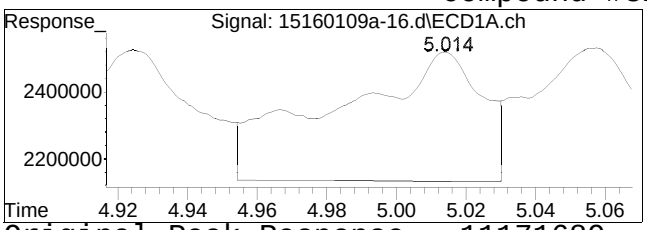
Compound #65: toxaphene-1 #2

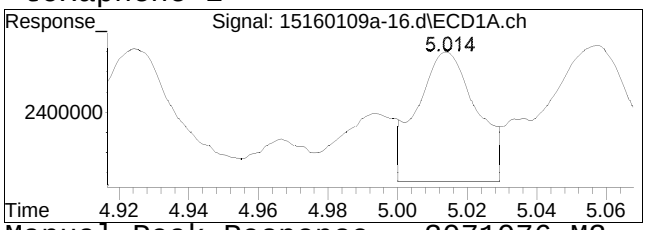




Original Peak Response = 867296 Manual Peak Response = 1633840 M2
M2 = Peak not found by automatic integration algorithm.

Compound #32: toxaphene-2





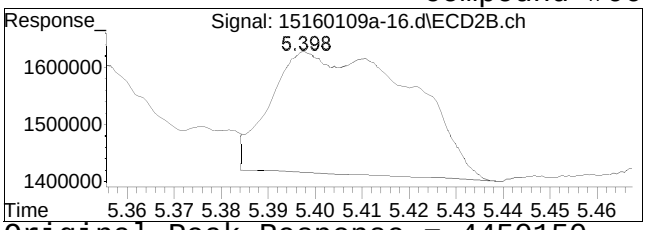
Original Peak Response = 11171689 Manual Peak Response = 3071076 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

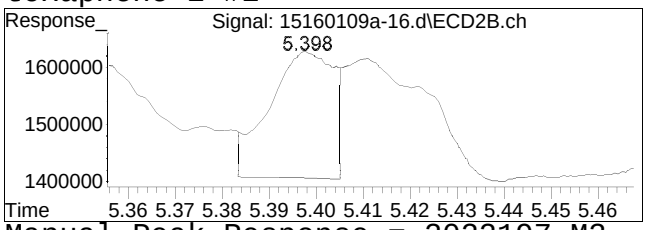
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-16.d
Date Inj'd : 1/9/2016 6:24 pm
Sample : il2chlortox,42e,,7135

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 6:50 pm

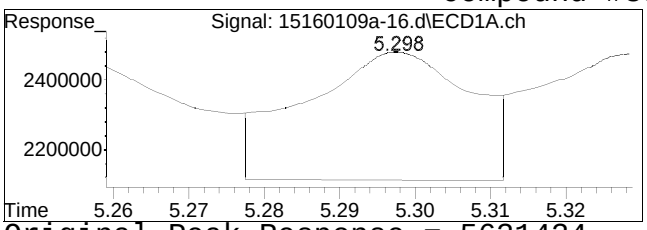
Compound #66: toxaphene-2 #2

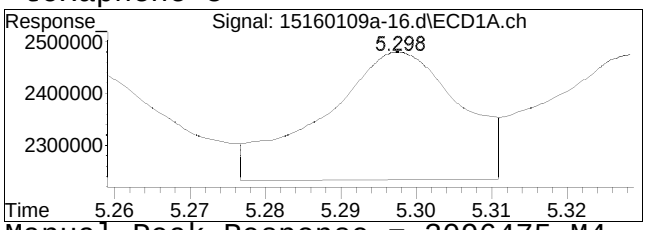




Original Peak Response = 4450150 Manual Peak Response = 2022197 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

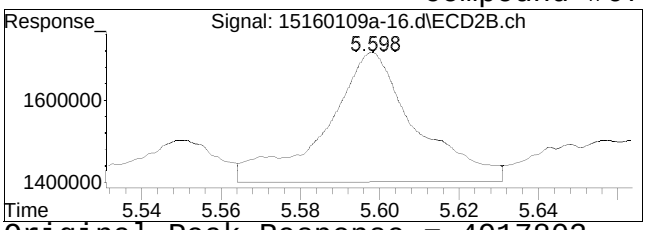
Compound #33: toxaphene-5

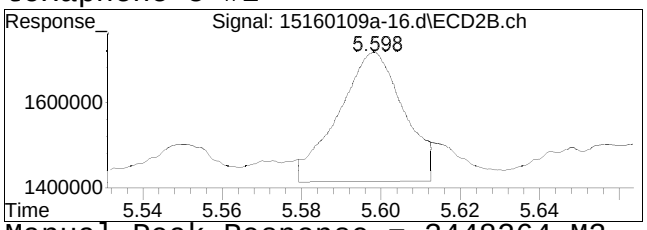




Original Peak Response = 5631434 Manual Peak Response = 3096475 M4
M4 = Poor automated baseline construction.

Compound #67: toxaphene-5 #2





Original Peak Response = 4917803 Manual Peak Response = 3448264 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:37 pm
Operator : pest15:ss
Sample : il3chlortox,42e,,7136
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:03:50 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.010	1.982	100.2E6	65116260	25.000	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:37 pm
Operator : pest15:ss
Sample : il3chlortox,42e,,7136
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:03:50 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.603	9125465	6184339	57.243	57.849
28) l1	chlordane-3	3.862	4.133	10777354	7607191	62.007	65.442M3
29) l1	chlordane-4	4.341	4.627	37577201	23943872	57.539	57.573
30) l1	chlordane-5	4.438	4.739	57194434	16845991	57.861	50.422
Sum	chlordane-1			114.7E6	54581393	234.650	231.287
Average	chlordane-1					58.663	57.822
31) l2	toxaphene-1	4.925	5.267	25020589	7243918	121.764	102.829
32) l2	toxaphene-2	5.013	5.398	14158071	10419509	114.468M3	117.060
33) l2	toxaphene-5	5.297	5.598	15072927	12407864	119.973	111.937
Sum	toxaphene-1			54251587	30071292	356.205	331.826
Average	toxaphene-1					118.735	110.609

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			54251587	30071292	356.205	331.826
Average	toxaphene-1					118.735	110.609

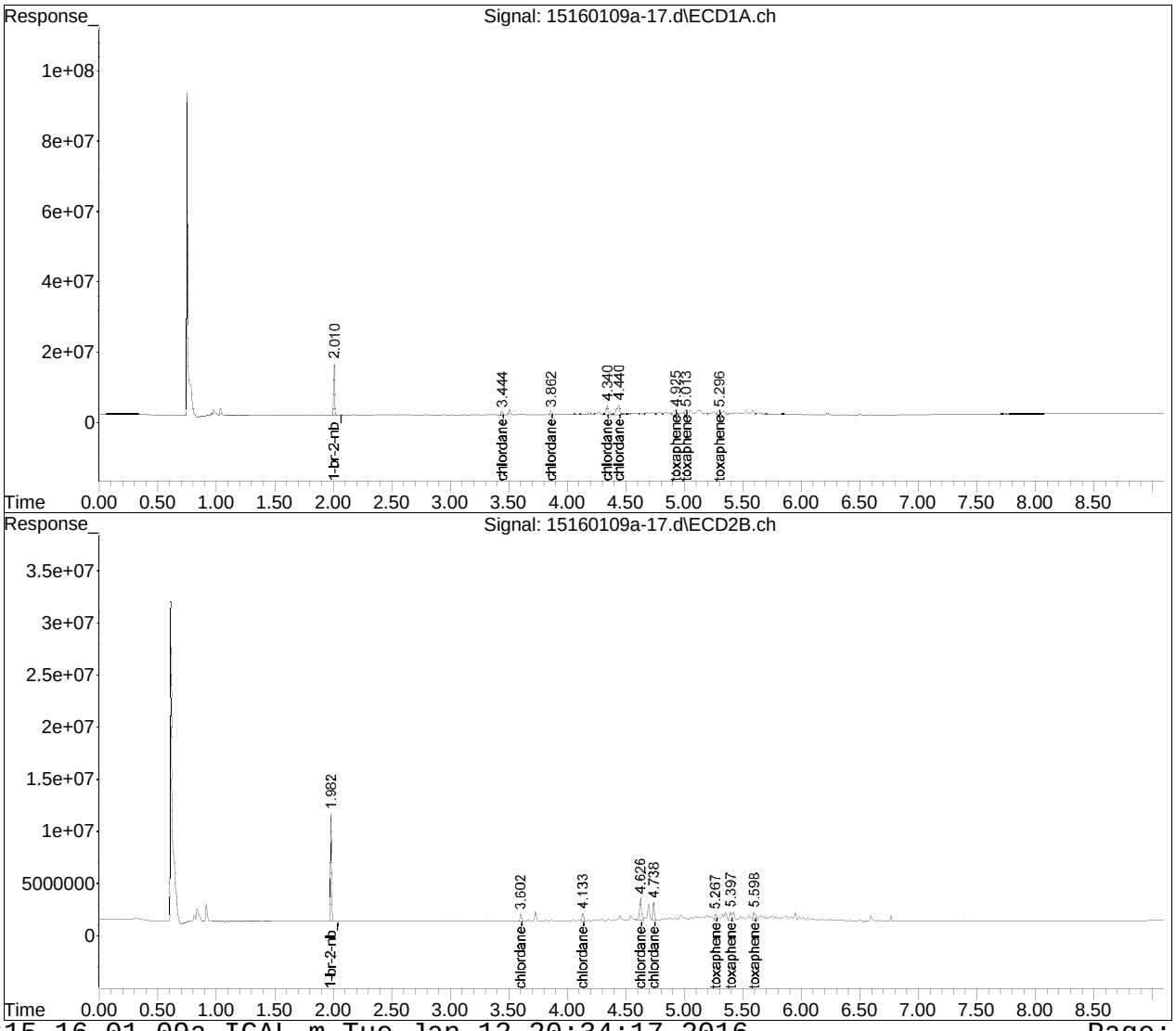
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:37 pm
Operator : pest15:ss
Sample : il3chlortox,42e,,7136
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:03:50 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

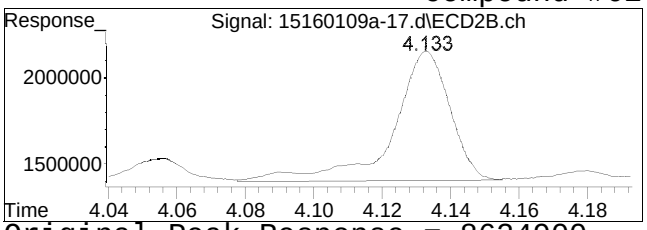
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

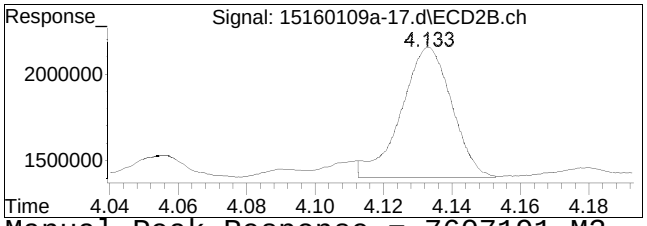


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-17.d Operator : pest15:ss
Date Inj'd : 1/9/2016 6:37 pm Instrument : Pest 15
Sample : il3chlortox,42e,,7136 Quant Date : 1/12/2016 6:50 pm

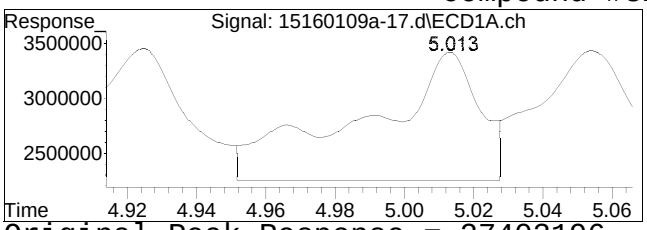
Compound #62: chlordane-3 #2

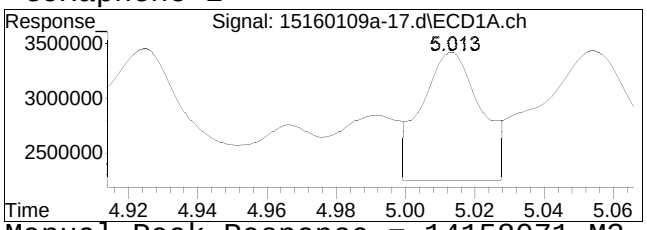




Original Peak Response = 8624900 Manual Peak Response = 7607191 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #32: toxaphene-2





Original Peak Response = 27403196 Manual Peak Response = 14158071 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:50 pm
Operator : pest15:ss
Sample : il4chlortox,42e,,7137
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:02:20 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.010	1.982	102.9E6	66695908	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160109a\
Data File : 15160109a-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:50 pm
Operator : pest15:ss
Sample : il4chlortox,42e,,7137
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:02:20 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.602	18836840	12014794	115.012	109.725
28) l1	chlordane-3	3.862	4.133	24639679	16005929	137.984	134.433
29) l1	chlordane-4	4.341	4.626	79907378	47093457	119.095	110.554
30) l1	chlordane-5	4.438	4.739	116.0E6	36350839	114.227	106.226
Sum	chlordane-1			239.4E6	111.5E6	486.318	460.939
Average	chlordane-1					121.580	115.235
31) l2	toxaphene-1	4.925	5.267	53709446	16682799	254.412	231.206
32) l2	toxaphene-2	5.013	5.398	28554060	21386868	224.707M3	234.585
33) l2	toxaphene-5	5.297	5.599	32761170	27436475	253.812	241.655
Sum	toxaphene-1			115.0E6	65506141	732.931	707.447
Average	toxaphene-1					244.310	235.816

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			115.0E6	65506141	732.931	707.447
Average	toxaphene-1					244.310	235.816

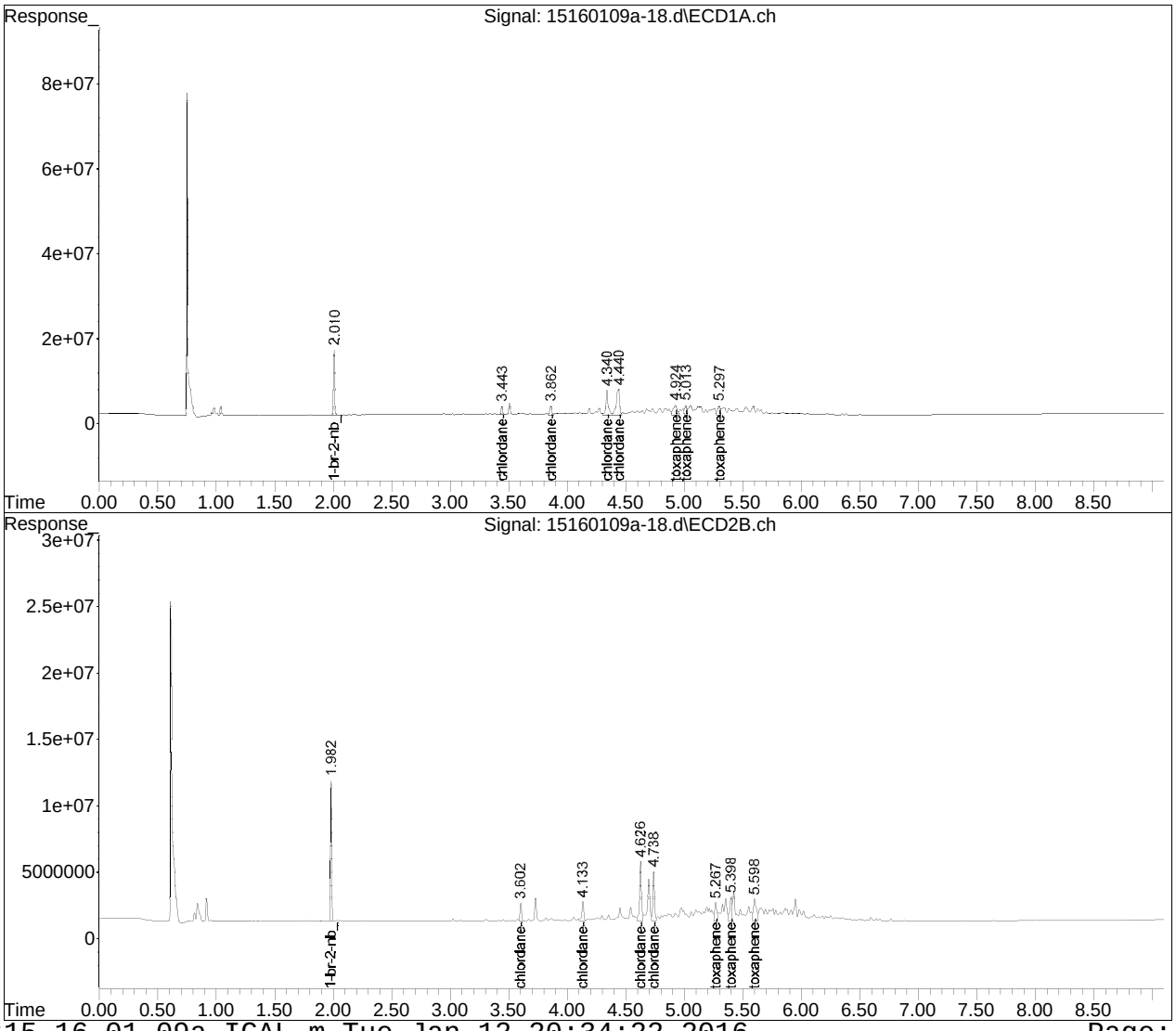
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 6:50 pm
Operator : pest15:ss
Sample : il4chlortox,42e,,7137
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:02:20 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

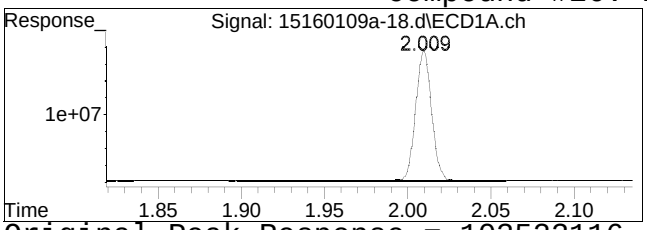


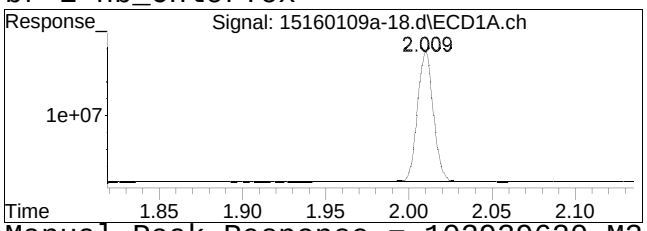
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-18.d
Date Inj'd : 1/9/2016 6:50 pm
Sample : il4chlortox,42e,,7137

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 6:50 pm

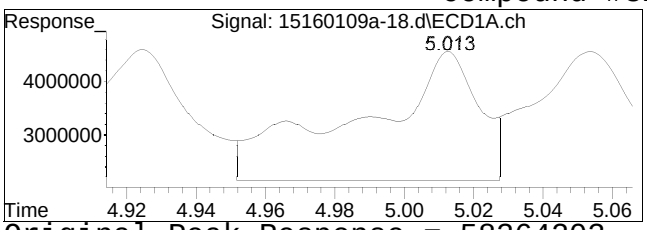
Compound #26: 1-br-2-nb_ChlorTox

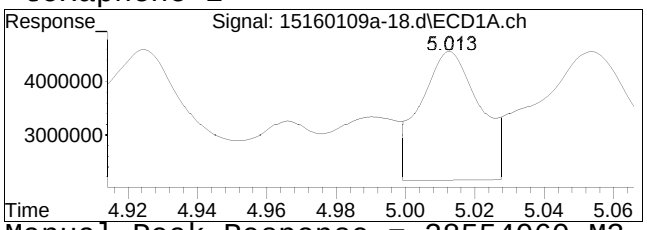




Original Peak Response = 103523116 Manual Peak Response = 102939620 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #32: toxaphene-2





Original Peak Response = 58364203 Manual Peak Response = 28554060 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:03 pm
Operator : pest15:ss
Sample : il5chlortox,42e,,7138
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:01:22 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.009	1.982	99704014	66150968	25.000M4	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160109a\
Data File : 15160109a-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:03 pm
Operator : pest15:ss
Sample : il5chlortox,42e,,7138
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:01:22 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.603	44056014	28185691	277.721	259.527
28) l1	chlordane-3	3.862	4.133	54235394	34854435	313.578	295.153
29) l1	chlordane-4	4.341	4.627	185.2E6	109.4E6	284.927	258.931
30) l1	chlordane-5	4.440	4.739	270.9E6	87710210	275.427M3	258.422
Sum	chlordane-1			554.4E6	260.1E6	1151.654	1072.033
Average	chlordane-1					287.913	268.008
31) l2	toxaphene-1	4.925	5.268	120.2E6	37775857	587.989	527.846
32) l2	toxaphene-2	5.013	5.398	67004665	48392147	544.407M3	535.169
33) l2	toxaphene-5	5.297	5.599	71936964	60747975	575.406	539.465
Sum	toxaphene-1			259.2E6	146.9E6	1707.802	1602.481
Average	toxaphene-1					569.267	534.160

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			259.2E6	146.9E6	1707.802	1602.481
Average	toxaphene-1					569.267	534.160

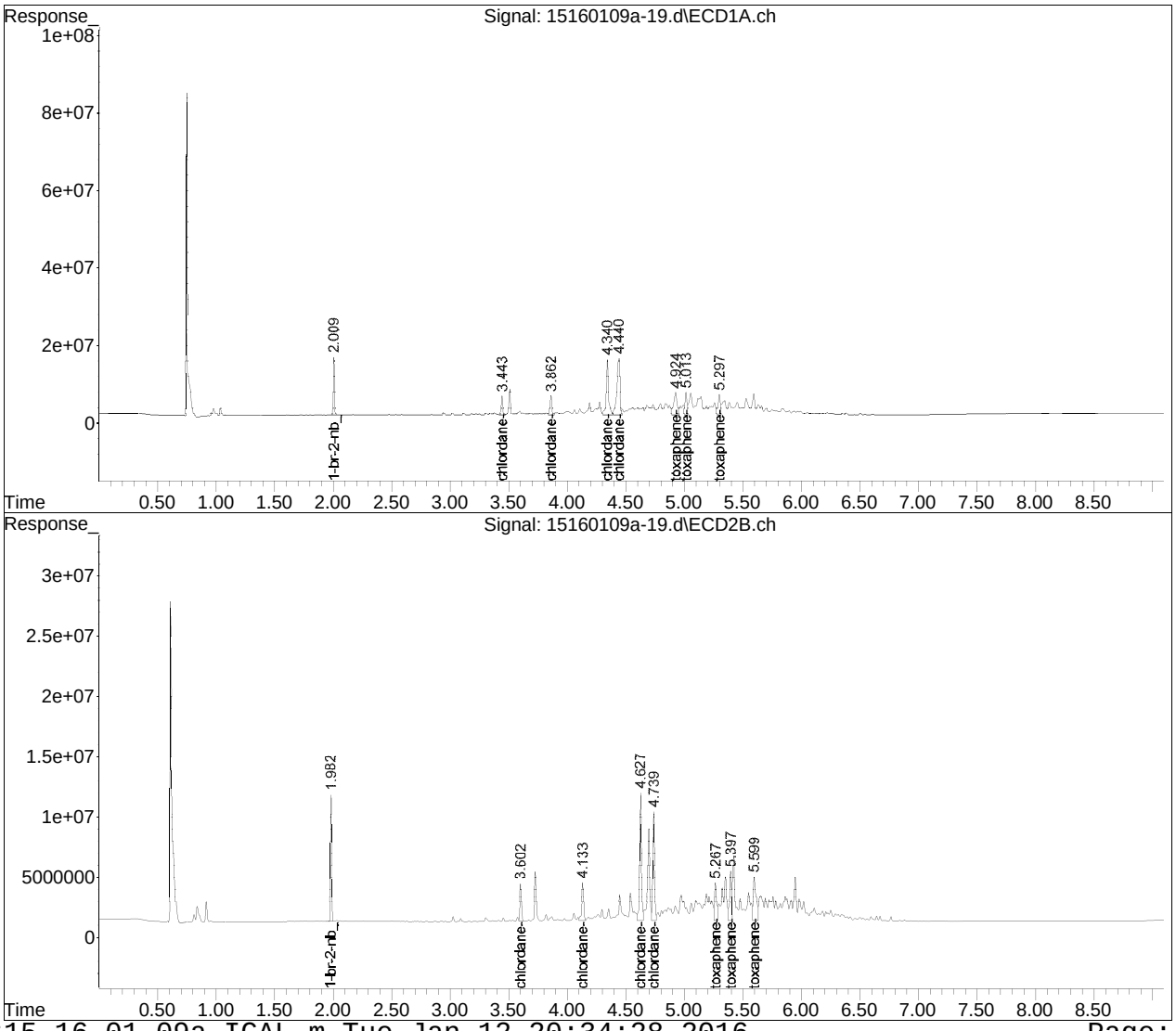
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:03 pm
Operator : pest15:ss
Sample : il5chlortox,42e,,7138
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:01:22 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

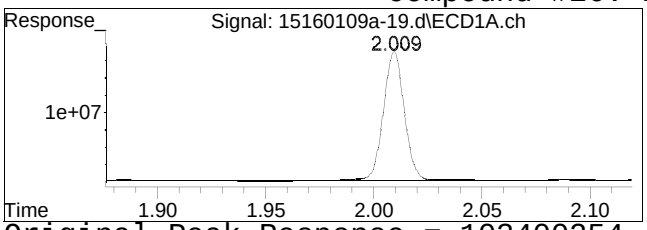


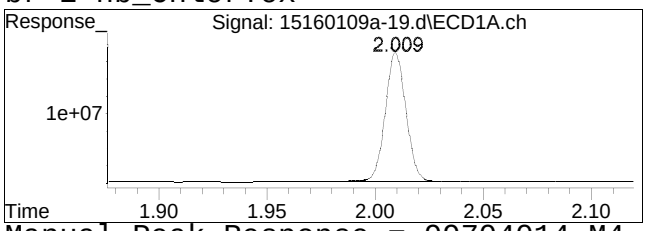
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-19.d
Date Inj'd : 1/9/2016 7:03 pm
Sample : il5chlortox,42e,,7138

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 6:50 pm

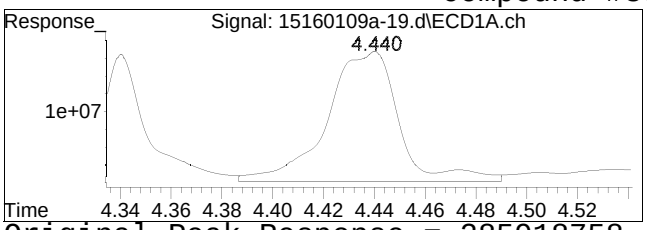
Compound #26: 1-br-2-nb_ChlorTox

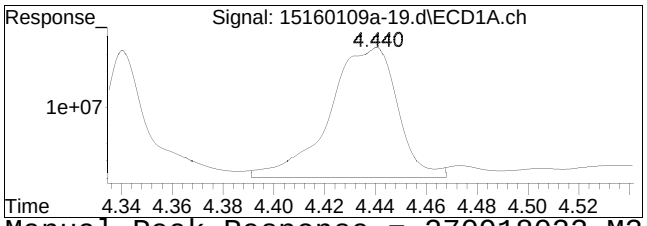




Original Peak Response = 103400254 Manual Peak Response = 99704014 M4
M4 = Poor automated baseline construction.

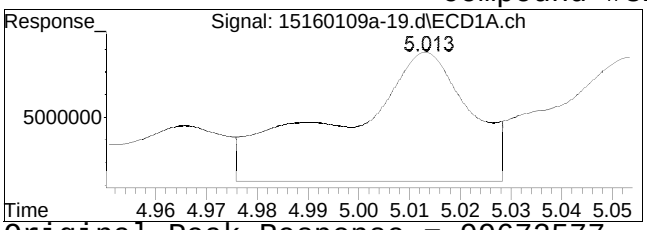
Compound #30: chlordane-5

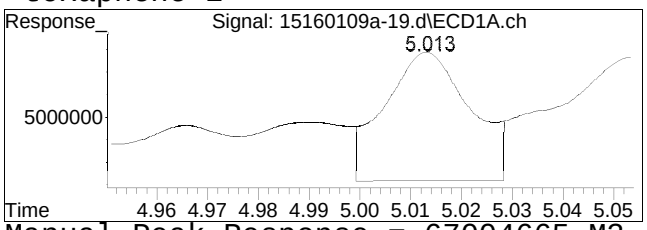




Original Peak Response = 285918758 Manual Peak Response = 270918022 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #32: toxaphene-2





Original Peak Response = 99672577 Manual Peak Response = 67004665 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:16 pm
Operator : pest15:ss
Sample : il6chlortox,42e,,7139
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:59:54 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.010	1.982	102.2E6	66703409	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:16 pm
Operator : pest15:ss
Sample : il6chlortox,42e,,7139
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:59:54 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.603	86689590	56311482	533.024	514.208
28) l1	chlordane-3	3.862	4.133	103.1E6	70108268	581.370	588.771
29) l1	chlordane-4	4.340	4.627	363.7E6	223.8E6	545.892	525.300
30) l1	chlordane-5	4.438	4.739	556.9E6	180.3E6	552.225	526.921
Sum	chlordane-1			1110.4E6	530.5E6	2212.512	2155.200
Average	chlordane-1					553.128	538.800
31) l2	toxaphene-1	4.925	5.267	228.7E6	76934126	1090.744	1066.106
32) l2	toxaphene-2	5.012	5.397	133.9E6	97115212	1061.449M3	1065.103
33) l2	toxaphene-5	5.297	5.598	138.8E6	120.8E6	1082.850	1064.212
Sum	toxaphene-1			501.4E6	294.9E6	3235.044	3195.421
Average	toxaphene-1					1078.348	1065.140

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			501.4E6	294.9E6	3235.044	3195.421
Average	toxaphene-1					1078.348	1065.140

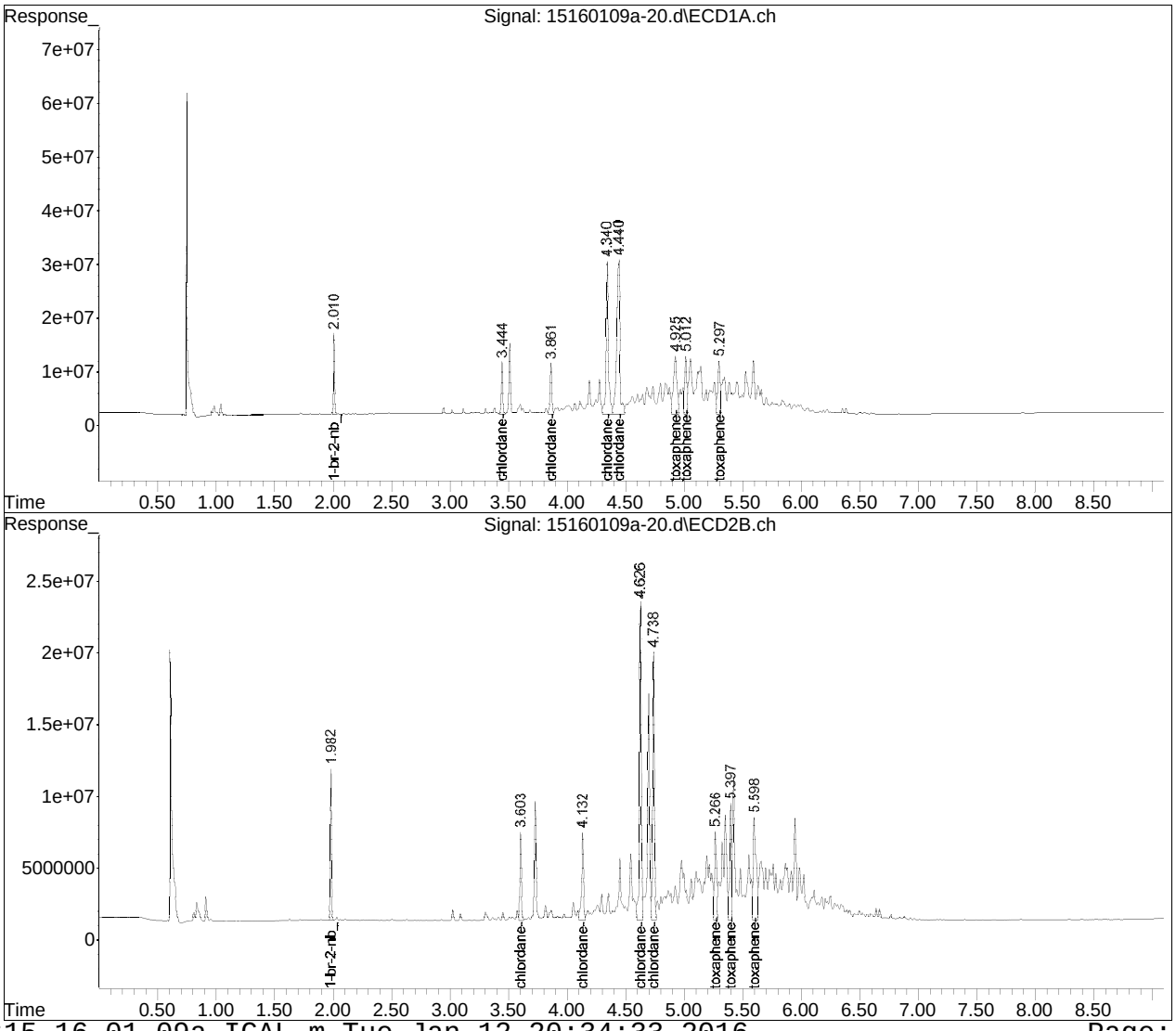
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:16 pm
Operator : pest15:ss
Sample : il6chlortox,42e,,7139
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:59:54 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

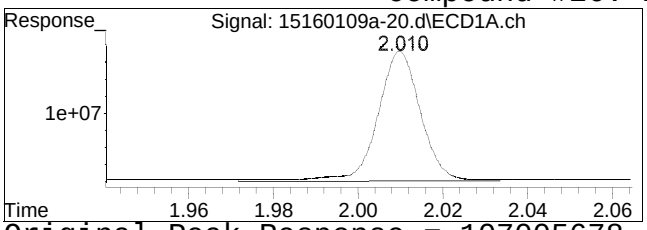
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

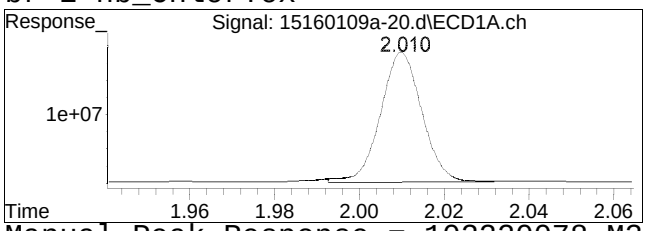


Manual Integration/Negative Proof Report

Data Path	: I:\Pest15\160109a\	QMethod	: pest15_16_01_09a_ICAL.
Data File	: 15160109a-20.d	Operator	: pest15:ss
Date Inj'd	: 1/9/2016 7:16 pm	Instrument	: Pest 15
Sample	: il6chlortox,42e,,7139	Quant Date	: 1/12/2016 6:50 pm

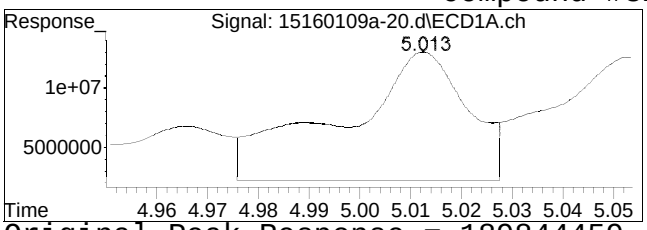
Compound #26: 1-br-2-nb_ChlorTox

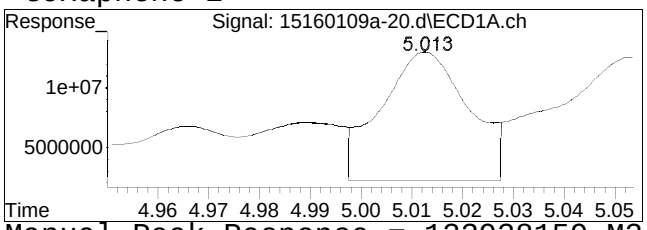




Original Peak Response = 107005678 Manual Peak Response = 102220078 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #32: toxaphene-2





Original Peak Response = 189844459 Manual Peak Response = 133938159 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:29 pm
Operator : pest15:ss
Sample : il7chlortox,42e,,7140
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:54:06 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.010	1.982	101.9E6	66749831	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160109a\
Data File : 15160109a-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:29 pm
Operator : pest15:ss
Sample : il7chlortox,42e,,7140
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:54:06 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.445	3.604	167.0E6	111.3E6	1030.251	1015.422
28) l1	chlordane-3	3.863	4.134	191.6E6	130.1E6	1084.144	1091.863
29) l1	chlordane-4	4.342	4.628	702.4E6	441.7E6	1058.008	1036.091
30) l1	chlordane-5	4.439	4.739	1021.7E6	354.1E6	1016.722	1033.995
Sum	chlordane-1			2082.7E6	1037.2E6	4189.125	4177.371
Average	chlordane-1					1047.281	1044.343
31) l2	toxaphene-1	4.925	5.268	437.6E6	148.6E6	2094.793	2057.219
32) l2	toxaphene-2	5.014	5.398	257.2E6	190.8E6	2045.337M3	2091.039
33) l2	toxaphene-5	5.298	5.600	268.9E6	236.2E6	2105.587M3	2078.444
Sum	toxaphene-1			963.7E6	575.5E6	6245.717	6226.703
Average	toxaphene-1					2081.906	2075.568

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			963.7E6	575.5E6	6245.717	6226.703
Average	toxaphene-1					2081.906	2075.568

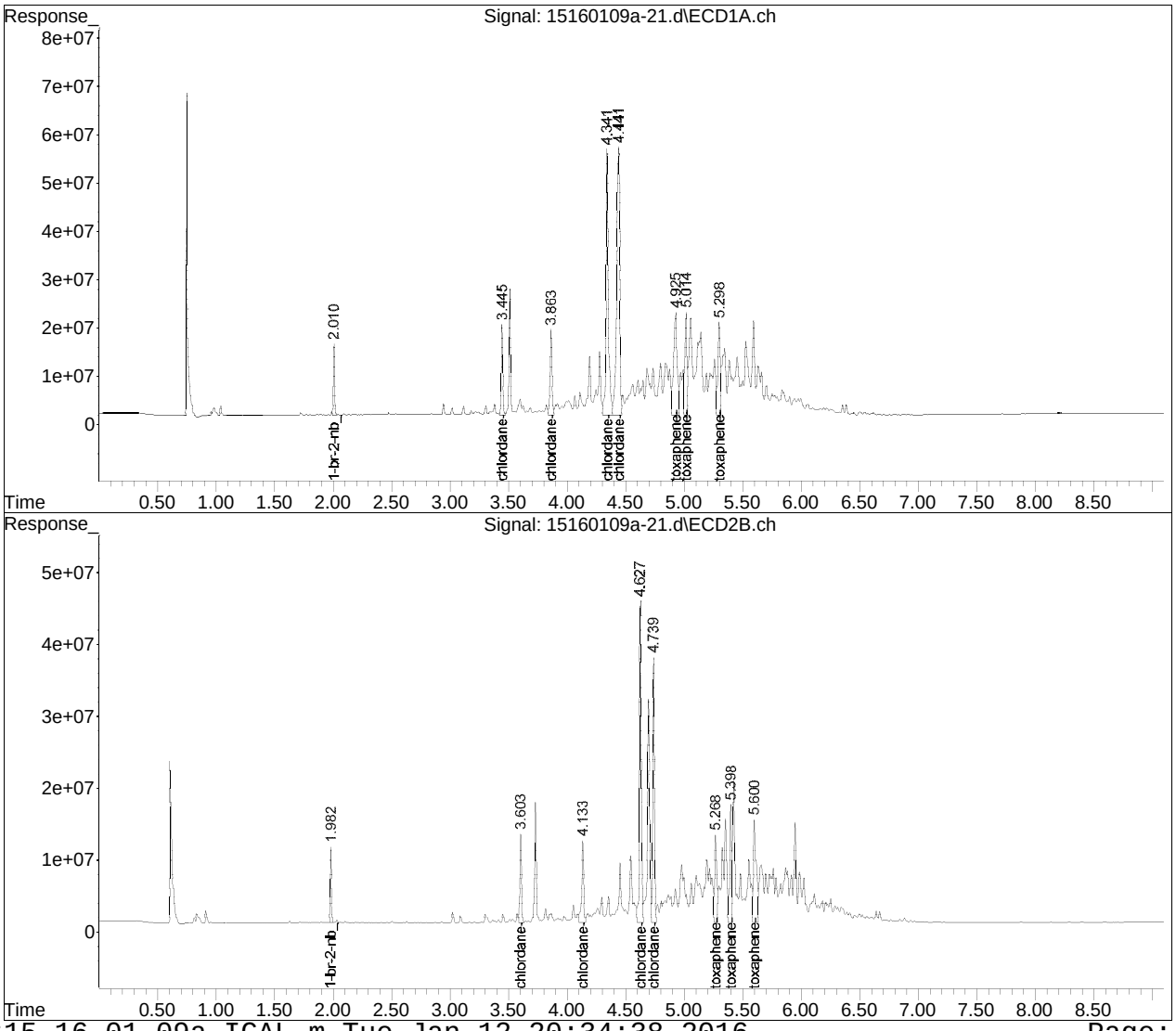
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:29 pm
Operator : pest15:ss
Sample : il7chlortox,42e,,7140
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:54:06 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

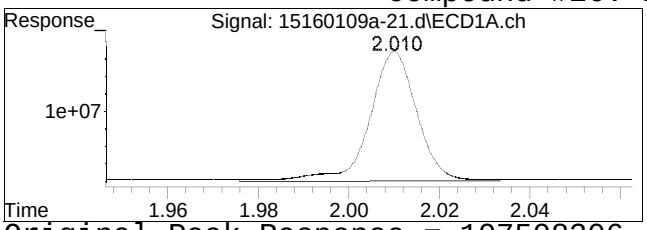


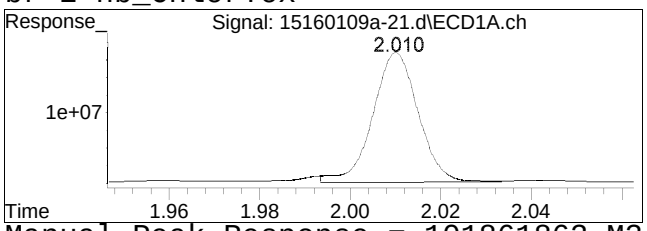
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-21.d
Date Inj'd : 1/9/2016 7:29 pm
Sample : il7chlortox,42e,,7140

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 6:50 pm

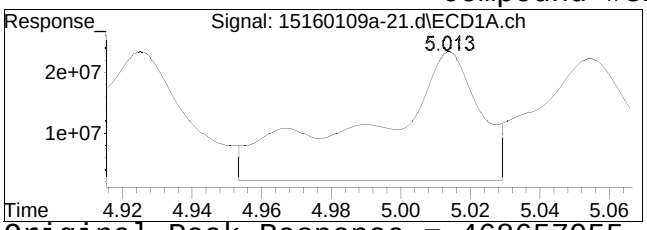
Compound #26: 1-br-2-nb_ChlorTox

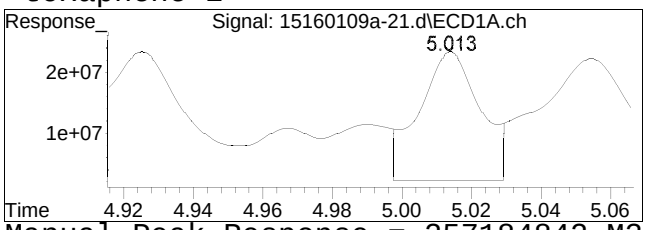




Original Peak Response = 107508306 Manual Peak Response = 101861863 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

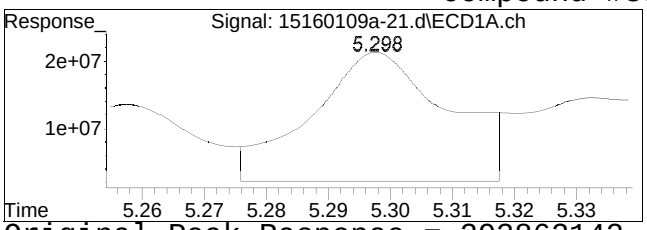
Compound #32: toxaphene-2

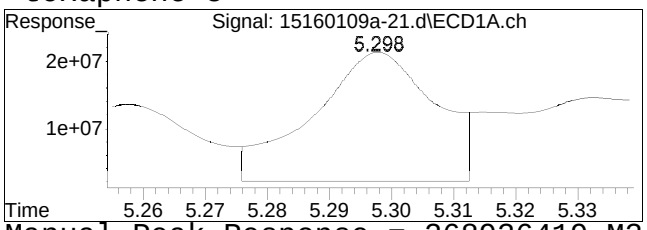




Original Peak Response = 468657055 Manual Peak Response = 257184842 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #33: toxaphene-5





Original Peak Response = 293862142 Manual Peak Response = 268936419 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:42 pm
Operator : pest15:ss
Sample : il8chlortox,42e,,7141
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:49:30 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:48:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.009	1.982	104.4E6	69796145	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:42 pm
Operator : pest15:ss
Sample : il8chlortox,42e,,7141
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:49:30 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:48:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.603	415.4E6	286.5E6	NoCal	NoCal
28) l1	chlordane-3	3.862	4.133	452.9E6	311.5E6	NoCal	NoCal
29) l1	chlordane-4	4.341	4.627	1701.7E6	1114.4E6	NoCal	NoCal
30) l1	chlordane-5	4.438	4.739	2575.7E6	895.3E6	NoCal	NoCal
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	4.925	5.268	1070.9E6	377.5E6	NoCal	NoCal
32) l2	toxaphene-2	5.014	5.398	644.6E6	477.0E6	NoCal	NoCal
33) l2	toxaphene-5	5.297	5.599	654.7E6	594.1E6	NoCal M3	NoCal
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

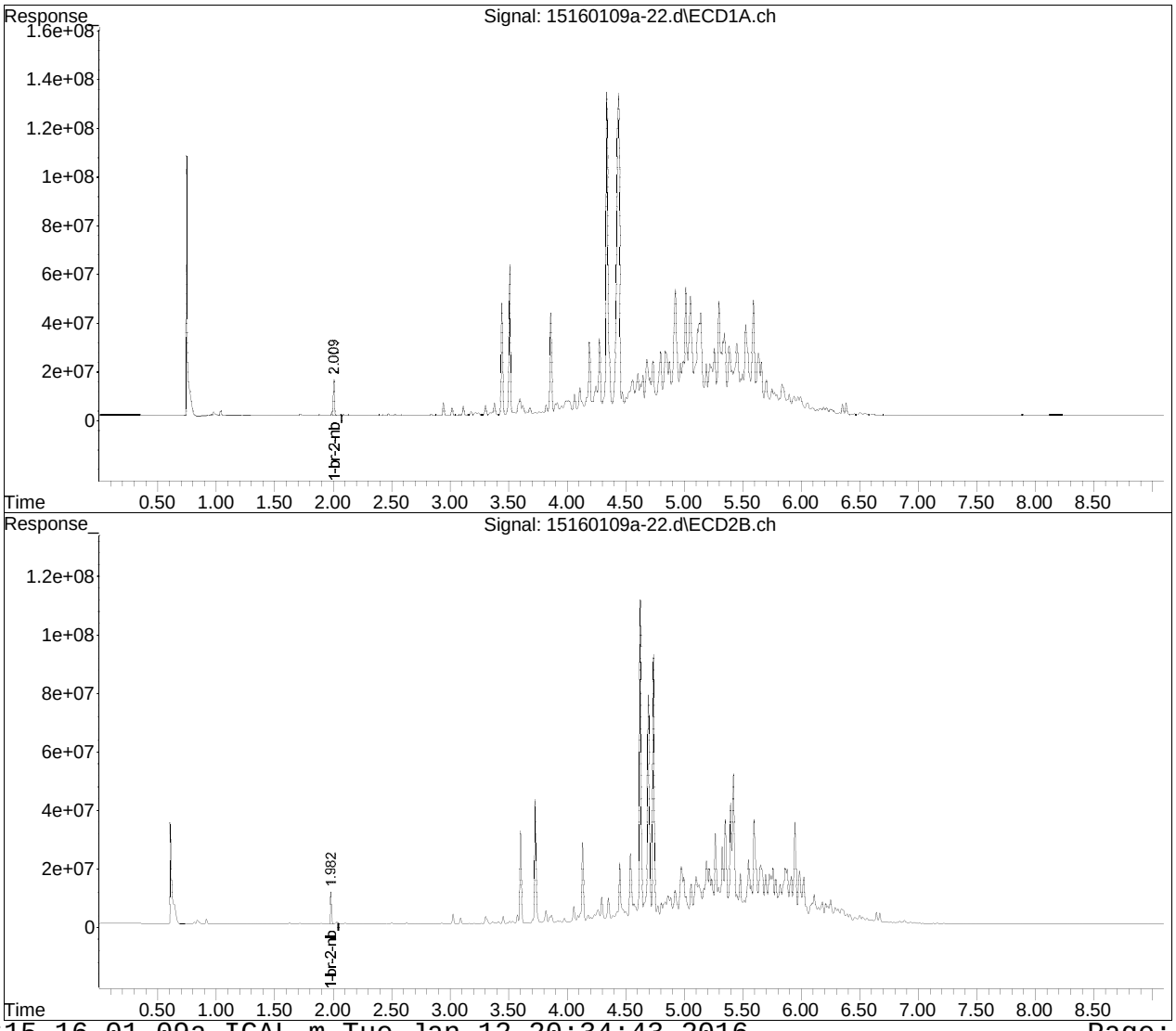
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:42 pm
Operator : pest15:ss
Sample : il8chlortox,42e,,7141
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:49:30 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:48:31 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

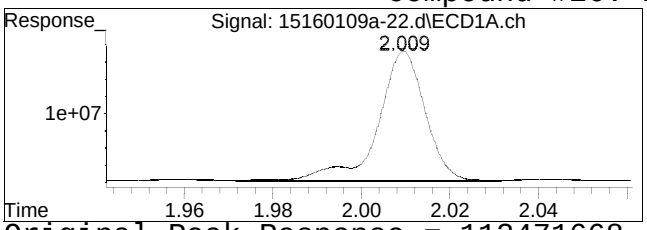


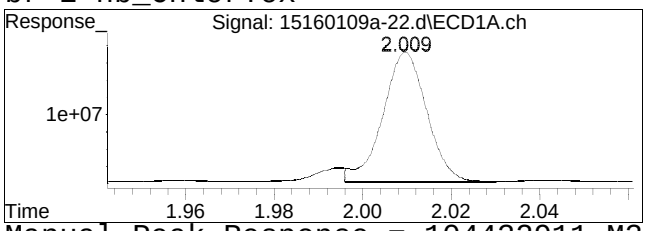
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-22.d
Date Inj'd : 1/9/2016 7:42 pm
Sample : il8chlortox,42e,,7141

QMethod : pest15_16_01_09a_ICAL.
Operator : pest15:ss
Instrument : Pest 15
Quant Date : 1/12/2016 6:48 pm

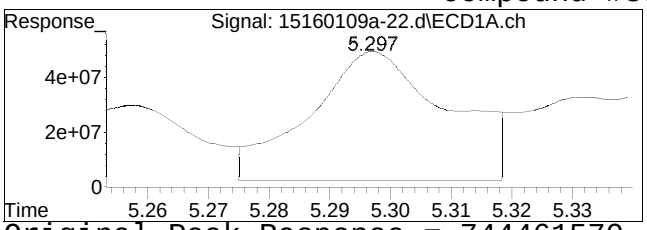
Compound #26: 1-br-2-nb_ChlorTox

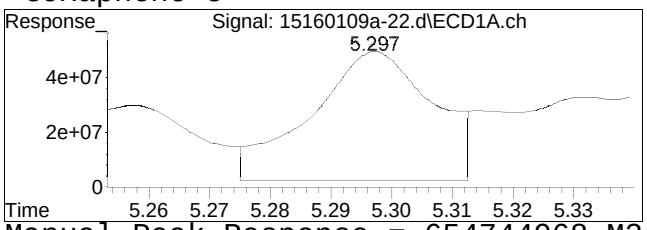




Original Peak Response = 112471668 Manual Peak Response = 104432911 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #33: toxaphene-5





Original Peak Response = 744461570 Manual Peak Response = 654744968 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:55 pm
Operator : pest15:ss
Sample : il9chlortox,42e,,7142
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:52:16 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.009	1.982	117.8E6	79949108	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160109a\
Data File : 15160109a-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:55 pm
Operator : pest15:ss
Sample : il9chlortox,42e,,7142
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:52:16 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.603	848.1E6	598.7E6	4522.993	4561.008
28) l1	chlordane-3	3.862	4.133	883.7E6	616.5E6	4322.713	4319.429
29) l1	chlordane-4	4.341	4.627	3340.7E6	2199.3E6	4349.327	4307.182
30) l1	chlordane-5	4.438	4.739	4777.3E6	1776.8E6	4109.176	4331.548
Sum	chlordane-1			9849.8E6	5191.3E6	17304.210	17519.166
Average	chlordane-1					4326.052	4379.792
31) l2	toxaphene-1	4.925	5.268	2134.7E6	776.1E6	8832.753	8972.788
32) l2	toxaphene-2	5.013	5.398	1234.8E6	977.6E6	8488.039M3	8945.610
33) l2	toxaphene-5	5.297	5.599	1302.3E6	1220.6E6	8813.148M3	8968.439
Sum	toxaphene-1			4671.8E6	2974.3E6	26133.941	26886.836
Average	toxaphene-1					8711.314	8962.279

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			4671.8E6	2974.3E6	26133.941	26886.836
Average	toxaphene-1					8711.314	8962.279

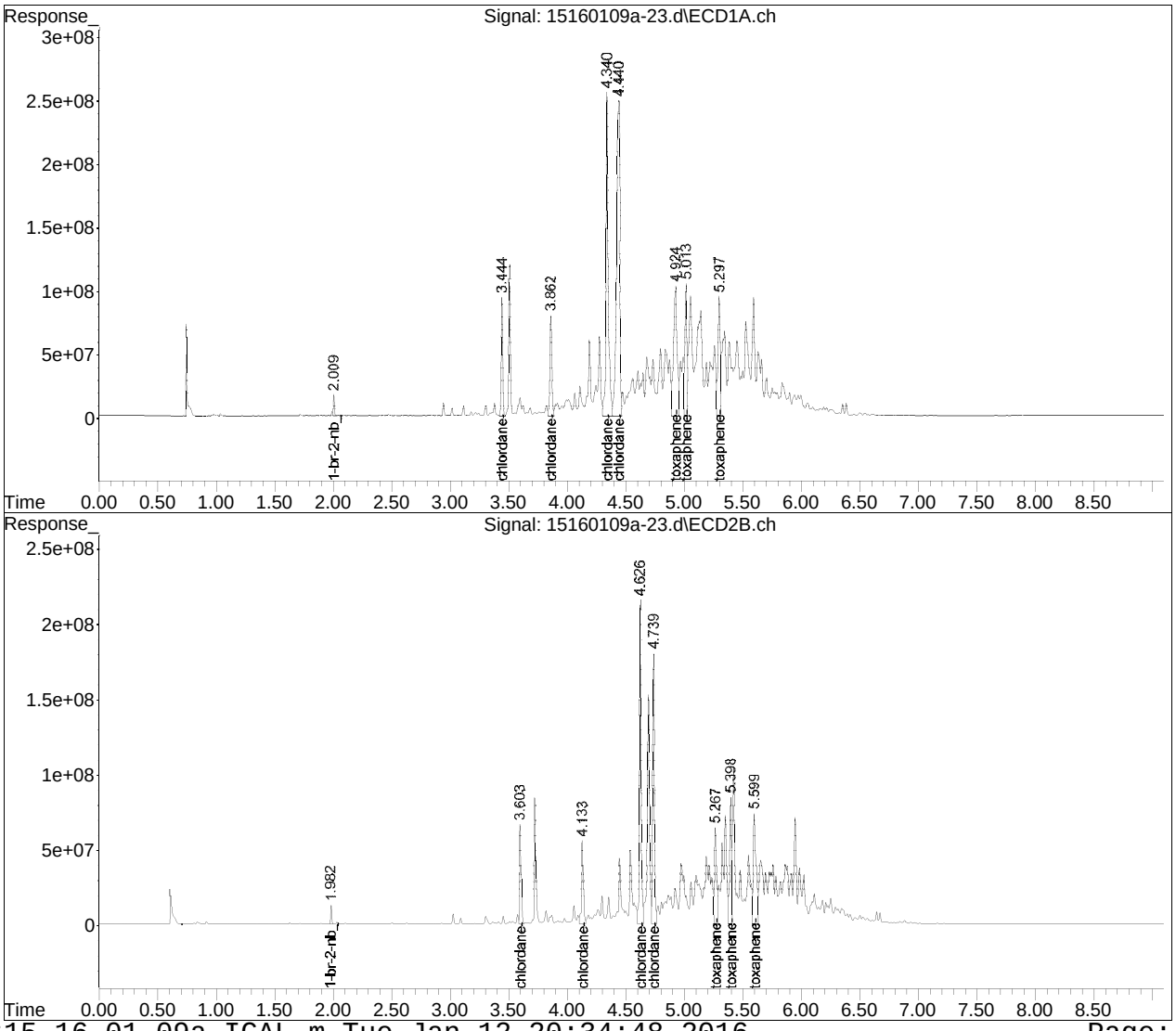
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 7:55 pm
Operator : pest15:ss
Sample : il9chlortox,42e,,7142
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 18:52:16 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 18:49:48 2016
Response via : Initial Calibration
Integrator: ChemStation

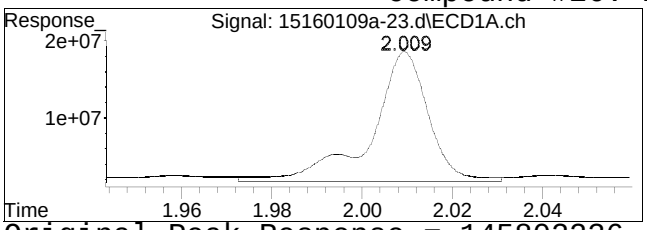
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

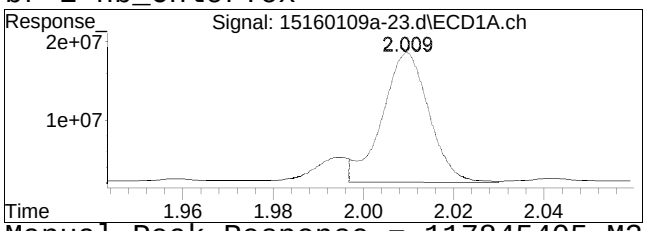


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-23.d Operator : pest15:ss
Date Inj'd : 1/9/2016 7:55 pm Instrument : Pest 15
Sample : il9chlortox,42e,,7142 Quant Date : 1/12/2016 6:51 pm

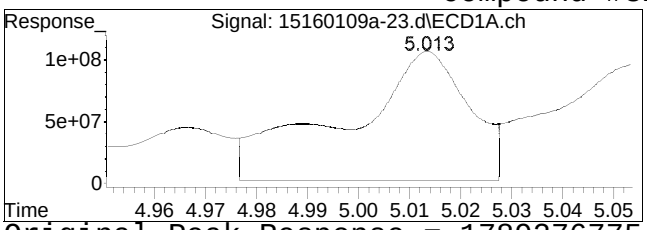
Compound #26: 1-br-2-nb_ChlorTox

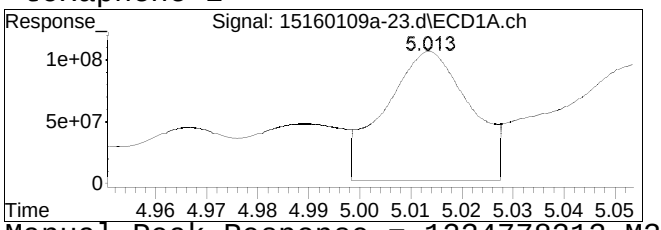




Original Peak Response = 145802236 Manual Peak Response = 117845405 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

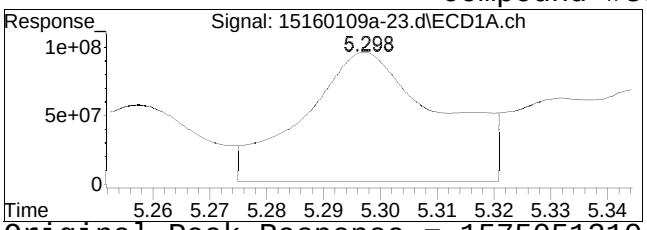
Compound #32: toxaphene-2

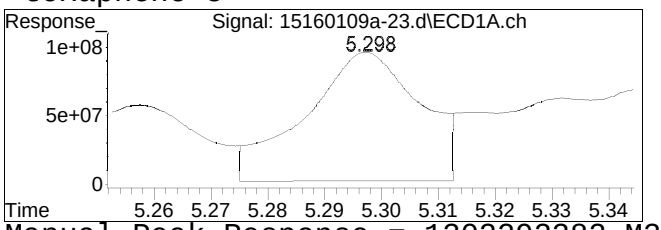




Original Peak Response = 1789276775 Manual Peak Response = 1234778313 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #33: toxaphene-5





Original Peak Response = 1575051210 Manual Peak Response = 1302292382 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 9 Jan 2016   8:08 pm
Operator : pest15:ss
Sample   : cicvchlortox,42e,,6968
Misc   : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 24   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:12:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	98	0.00
27	l1	chlordane-1	1000.000	889.388	11.1	94	0.00
28	l1	chlordane-3	1000.000	913.689	8.6	102	0.00
29	l1	chlordane-4	1000.000	991.578	0.8	100	0.00
30	l1	chlordane-5	1000.000	991.441	0.9	108	0.00
31	l2	toxaphene-1	2000.000	1587.681	20.6#	81	0.00
32	l2	toxaphene-2	2000.000	1966.076	1.7	99	0.00
33	l2	toxaphene-5	2000.000	2089.903	-4.5	107	0.00

Signal #2

26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	100	0.00
27	l1	chlordane-1	1000.000	891.797	10.8	95	0.00
28	l1	chlordane-3	1000.000	908.199	9.2	103	0.00
29	l1	chlordane-4	1000.000	934.917	6.5	103	0.00
30	l1	chlordane-5	1000.000	1010.243	-1.0	102	0.00
31	l2	toxaphene-1	2000.000	2384.689	-19.2	121	0.00
32	l2	toxaphene-2	2000.000	2075.100	-3.8	104	0.00
33	l2	toxaphene-5	2000.000	1916.136	4.2	102	0.00

Evaluate Continuing Calibration Report - Not Founds

1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	0	-2.01#
2	s	2,4,5,6-Tetrachloro-m-xylen	10.000	0.000	100.0#	0	-2.51#
3		Hexachlorobenzene	10.000	0.000	100.0#	0	-2.78#
4		alpha-BHC	10.000	0.000	100.0#	0	-2.90#
5		gamma-BHC (lindane)	10.000	0.000	100.0#	0	-3.13#
6		beta-BHC	10.000	0.000	100.0#	0	-3.20#
7		delta-BHC	10.000	0.000	100.0#	0	-3.34#

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 9 Jan 2016   8:08 pm
Operator : pest15:ss
Sample   : cicvchlortox,42e,,6968
Misc   : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 24   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:12:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
8		Heptachlor	10.000	0.000	100.0#	0	-3.51#
9		Aldrin	10.000	0.000	100.0#	0	-3.75#
10		Alachlor	10.000	0.000	100.0#	0	-3.86#
11		Heptachlor Epoxide	10.000	0.000	100.0#	0	-4.24#
12		gamma-Chlordane (trans)	10.000	0.000	100.0#	0	-4.34#
13		alpha-Chlordane (cis)	10.000	0.000	100.0#	0	-4.44#
14		4,4'-DDE	10.000	0.000	100.0#	0	-4.50#
15		Endosulfan I	10.000	0.000	100.0#	0	-4.55#
16		Dieldrin	10.000	0.000	100.0#	0	-4.73#
17		Endrin	10.000	0.000	100.0#	0	-4.90#
18		4,4'-DDD	10.000	0.000	100.0#	0	-4.94#
19		Endosulfan II	10.000	0.000	100.0#	0	-5.06#
20		4,4'-DDT	10.000	0.000	100.0#	0	-5.15#
21		Endrin Aldehyde	10.000	0.000	100.0#	0	-5.36#
22		Methoxychlor	10.000	0.000	100.0#	0	-5.49#
23		Endosulfan Sulfate	10.000	0.000	100.0#	0	-5.66#
24		Endrin Ketone	10.000	0.000	100.0#	0	-5.85#
25	s	Decachlorobiphenyl	10.000	0.000	100.0#	0	-6.50#

Signal #2

1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	0	-1.98#
2	s	2,4,5,6-Tetrachloro-m-xyl	10.000	0.000	100.0#	0	-2.60#
3		Hexachlorobenzene	10.000	0.000	100.0#	0	-2.96#
4		alpha-BHC	10.000	0.000	100.0#	0	-3.06#
5		gamma-BHC (lindane)	10.000	0.000	100.0#	0	-3.35#
6		beta-BHC	10.000	0.000	100.0#	0	-3.42#
7		delta-BHC	10.000	0.000	100.0#	0	-3.67#
8		Heptachlor	10.000	0.000	100.0#	0	-3.73#
9		Aldrin	10.000	0.000	100.0#	0	-4.01#

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160109a\
Data File : 15160109a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 9 Jan 2016   8:08 pm
Operator : pest15:ss
Sample   : cicvchlortox,42e,,6968
Misc   : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 24   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:12:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
10		Alachlor	10.000	0.000	100.0#	0	-3.91#
11		Heptachlor Epoxide	10.000	0.000	100.0#	0	-4.48#
12		gamma-Chlordane (trans)	10.000	0.000	100.0#	0	-4.63#
13		alpha-Chlordane (cis)	10.000	0.000	100.0#	0	-4.74#
14		4,4'-DDE	10.000	0.000	100.0#	0	-4.86#
15		Endosulfan I	10.000	0.000	100.0#	0	-4.79#
16		Dieldrin	10.000	0.000	100.0#	0	-4.99#
17		Endrin	10.000	0.000	100.0#	0	-5.21#
18		4,4'-DDD	10.000	0.000	100.0#	0	-5.28#
19		Endosulfan II	10.000	0.000	100.0#	0	-5.37#
20		4,4'-DDT	10.000	0.000	100.0#	0	-5.50#
21		Endrin Aldehyde	10.000	0.000	100.0#	0	-5.60#
22		Methoxychlor	10.000	0.000	100.0#	0	-5.96#
23		Endosulfan Sulfate	10.000	0.000	100.0#	0	-5.79#
24		Endrin Ketone	10.000	0.000	100.0#	0	-6.15#
25	s	Decachlorobiphenyl	10.000	0.000	100.0#	0	-6.90#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 8:08 pm
Operator : pest15:ss
Sample : cicvchlortox,42e,,6968
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:12:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	2.009	1.982	99814015	66613544	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 8:08 pm
Operator : pest15:ss
Sample : cicvchlortox,42e,,6968
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:12:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.444	3.603	157.0E6	105.6E6	889.388	891.797
28) l1	chlordane-3	3.862	4.133	194.8E6	133.5E6	913.689	908.199
29) l1	chlordane-4	4.341	4.627	703.0E6	457.1E6	991.578	934.917
30) l1	chlordane-5	4.437	4.739	1106.9E6	360.8E6	991.441	1010.243
Sum	chlordane-1			2161.8E6	1056.9E6	3786.096	3745.156
Average	chlordane-1					946.524	936.289
31) l2	toxaphene-1	4.924	5.268	353.4E6	179.0E6	1587.681	2384.689M3 #
32) l2	toxaphene-2	5.014	5.398	254.8E6	197.5E6	1966.076	2075.100
33) l2	toxaphene-5	5.297	5.599	287.8E6	241.6E6	2089.903M3	1916.136
Sum	toxaphene-1			895.9E6	618.1E6	5643.660	6375.924
Average	toxaphene-1					1881.220	2125.308

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			895.9E6	618.1E6	5643.660	6375.924
Average	toxaphene-1					1881.220	2125.308

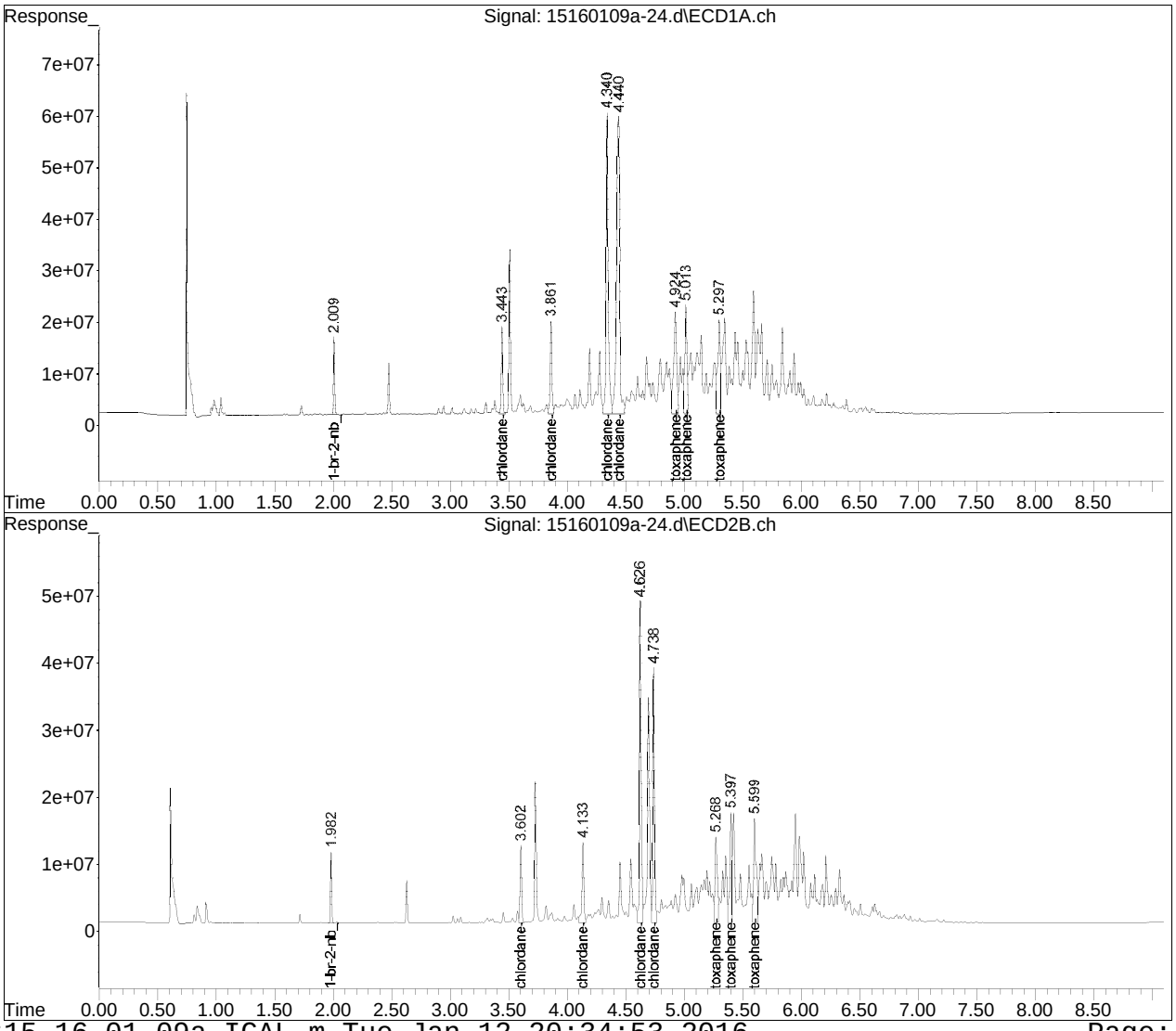
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160109a\
Data File : 15160109a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 9 Jan 2016 8:08 pm
Operator : pest15:ss
Sample : cicvchlortox,42e,,6968
Misc : WG856778,ical (Sig #1); (Sig #2)
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 12 19:12:49 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL.m
Quant Title : pest
QLast Update : Tue Jan 12 19:11:05 2016
Response via : Initial Calibration
Integrator: ChemStation

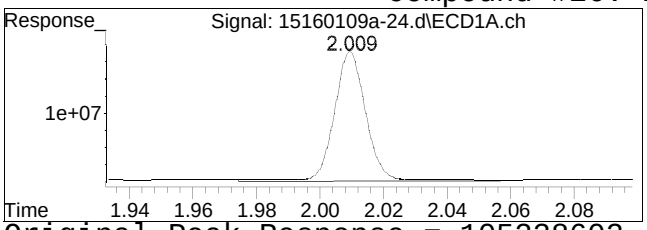
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

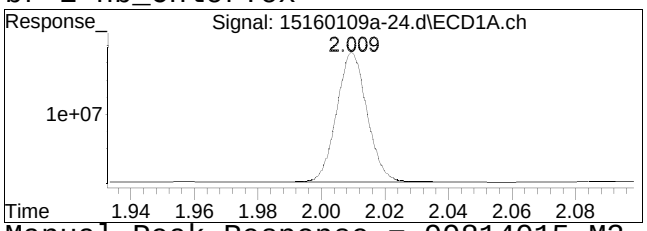


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160109a\ QMethod : pest15_16_01_09a_ICAL.
Data File : 15160109a-24.d Operator : pest15:ss
Date Inj'd : 1/9/2016 8:08 pm Instrument : Pest 15
Sample : cicvchlortox,42e,,6968 Quant Date : 1/12/2016 7:11 pm

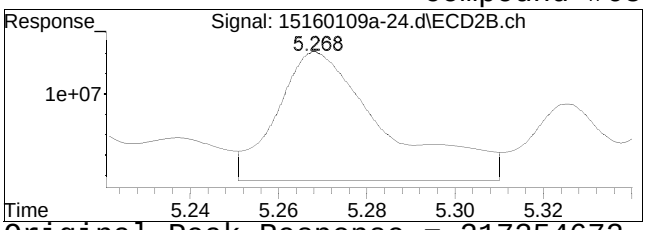
Compound #26: 1-br-2-nb_ChlorTox

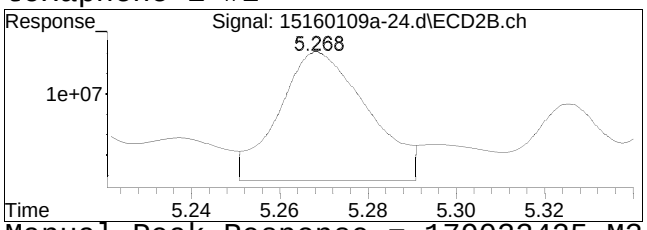




Original Peak Response = 105238602 Manual Peak Response = 99814015 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

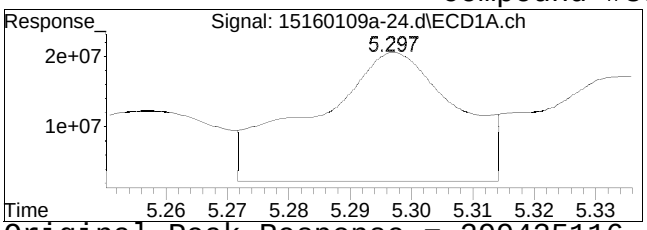
Compound #65: toxaphene-1 #2

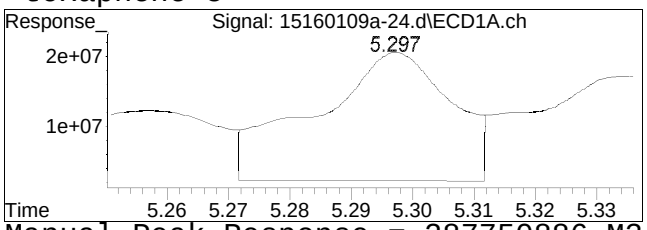




Original Peak Response = 217354672 Manual Peak Response = 179033425 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #33: toxaphene-5





Original Peak Response = 299435116 Manual Peak Response = 287750886 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Continuing Calibration

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763	
Project Name	: 450 UNION STREET	**Project Number**	: 170301202	
Instrument ID	: PEST15	**Calibration Date**	: 03/14/16 22:07	
Lab File ID	: 15160314e-02	**Init. Calib. Date(s)**	: 01/09/16	01/09/16
Sample No	: WG873703-1	**Init. Calib. Times**	: 15:47	19:55
Channel	: A			

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_Pesticides	25	25	0	0	20	98	0
2,4,5,6-Tetrachloro-m-xylen	50	40.696	0	18.6	20	83	-.01
Hexachlorobenzene	50	43.094	0	13.8	20	85	-.01
alpha-BHC	50	45.034	0	9.9	20	84	-.01
gamma-BHC (lindane)	50	43.724	0	12.6	20	85	-.01
beta-BHC	50	42.584	0	14.8	20	84	-.02
delta-BHC	50	40.953	0	18.1	20	82	-.02
Heptachlor	50	40.375	0	19.3	20	85	-.01
Aldrin	50	43.251	0	13.5	20	86	-.01
Alachlor	50	43.257	0	13.5	20	76	-.05
Heptachlor Epoxide	50	43.836	0	12.3	20	86	-.02
gamma-Chlordane (trans)	50	42.273	0	15.5	20	86	-.02
alpha-Chlordane (cis)	50	44.141	0	11.7	20	89	-.02
4,4'-DDE	50	44.502	0	11	20	85	-.02
Endosulfan I	50	41.689	0	16.6	20	86	-.02
Dieldrin	50	40.065	0	19.9	20	84	-.02
Endrin	50	41.801	0	16.4	20	88	-.02
4,4'-DDD	50	44.781	0	10.4	20	87	-.02
Endosulfan II	50	44.371	0	11.3	20	86	-.02
4,4'-DDT	50	43.81	0	12.4	20	89	-.02
Endrin Aldehyde	50	46.496	0	7	20	92	-.02
Methoxychlor	50	48.363	0	3.3	20	91	-.02
Endosulfan Sulfate	50	40.414	0	19.2	20	81	-.02
Endrin Ketone	50	44.877	0	10.2	20	89	-.02
Decachlorobiphenyl	50	44.515	0	11	20	87	-.01

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	Lab Number	: L1606763	
Project Name	: 450 UNION STREET	Project Number	: 170301202	
Instrument ID	: PEST15	Calibration Date	: 03/14/16 22:07	
Lab File ID	: 15160314e-02	Init. Calib. Date(s)	: 01/09/16	01/09/16
Sample No	: WG873703-1	Init. Calib. Times	: 15:47	19:55
Channel	: B			

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_Pesticides	25	25	0	0	20	93	0
2,4,5,6-Tetrachloro-m-xyl	50	45.13	0	9.7	20	89	0
Hexachlorobenzene	50	48.146	0	3.7	20	91	0
alpha-BHC	50	52.021	0	-4	20	90	0
gamma-BHC (lindane)	50	49.464	0	1.1	20	90	0
beta-BHC	50	46.925	0	6.2	20	89	-.01
delta-BHC	50	46.701	0	6.6	20	87	-.01
Heptachlor	50	43.724	0	12.6	20	87	0
Aldrin	50	49.454	0	1.1	20	91	0
Alachlor	50	48.055	0	3.9	20	81	-.04
Heptachlor Epoxide	50	46.5	0	7	20	90	-.01
gamma-Chlordane (trans)	50	45.451	0	9.1	20	92	-.01
alpha-Chlordane (cis)	50	45.635	0	8.7	20	90	-.01
4,4'-DDE	50	47.573	0	4.9	20	90	-.01
Endosulfan I	50	45.237	0	9.5	20	93	-.01
Dieldrin	50	46.745	0	6.5	20	90	-.01
Endrin	50	45.851	0	8.3	20	91	-.01
4,4'-DDD	50	47.14	0	5.7	20	90	-.01
Endosulfan II	50	45.824	0	8.4	20	87	-.01
4,4'-DDT	50	44.019	0	12	20	87	-.01
Endrin Aldehyde	50	46.741	0	6.5	20	89	-.01
Methoxychlor	50	47.872	0	4.3	20	88	-.01
Endosulfan Sulfate	50	47.766	0	4.5	20	92	-.02
Endrin Ketone	50	48.289	0	3.4	20	92	-.01
Decachlorobiphenyl	50	51.563	0	-3.1	20	94	0
1-br-2-nb_ChlorTox	25	25	0	0	20	0	-1.99
chlordane-1	2500	0	0	100*	20	0	-3.41
chlordane-3	2500	0	0	100*	20	0	-3.83
chlordane-4	2500	0	0	100*	20	0	-4.31
chlordane-5	2500	0	0	100*	20	0	-4.41
toxaphene-1	5000	0	0	100*	20	0	-4.9
toxaphene-2	5000	0	0	100*	20	0	-4.98
toxaphene-5	5000	0	0	100*	20	0	-5.27

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763	
Project Name	: 450 UNION STREET	**Project Number**	: 170301202	
Instrument ID	: PEST15	**Calibration Date**	: 03/14/16 22:20	
Lab File ID	: 15160314e-03	**Init. Calib. Date(s)**	: 01/09/16	01/09/16
Sample No	: WG873703-2	**Init. Calib. Times**	: 15:47	19:55
Channel	: A			

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_ChlorTox	25	25	0	0	20	100	0
chlordane-1	1000	818.628	0	18.1	20	89	0
chlordane-3	1000	775.161	0	22.5*	20	88	-.01
chlordane-4	1000	856.933	0	14.3	20	89	-.01
chlordane-5	1000	803.726	0	19.6	20	90	-.01
toxaphene-1	2000	1836.388	0	8.2	20	96	-.01
toxaphene-2	2000	1865.437	0	6.7	20	96	-.01
toxaphene-5	2000	2064.865	0	-3.2	20	108	-.01

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	Lab Number	: L1606763	
Project Name	: 450 UNION STREET	Project Number	: 170301202	
Instrument ID	: PEST15	Calibration Date	: 03/14/16 22:20	
Lab File ID	: 15160314e-03	Init. Calib. Date(s)	: 01/09/16	01/09/16
Sample No	: WG873703-2	Init. Calib. Times	: 15:47	19:55
Channel	: B			

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_ChlorTox	25	25	0	0	20	92	0
chlordane-1	1000	911.209	0	8.9	20	90	0
chlordane-3	1000	818.999	0	18.1	20	86	0
chlordane-4	1000	868.039	0	13.2	20	89	0
chlordane-5	1000	932.748	0	6.7	20	87	0
toxaphene-1	2000	2089.605	0	-4.5	20	98	0
toxaphene-2	2000	2019.705	0	-1	20	93	0
toxaphene-5	2000	1947.94	0	2.6	20	96	0
1-br-2-nb_Pesticides	25	25	0	0	20	0	-2
2,4,5,6-Tetrachloro-m-xylen	10	0	0	100*	20	0	-2.5
Hexachlorobenzene	10	0	0	100*	20	0	-2.76
alpha-BHC	10	0	0	100*	20	0	-2.88
gamma-BHC (lindane)	10	0	0	100*	20	0	-3.11
beta-BHC	10	0	0	100*	20	0	-3.18
delta-BHC	10	0	0	100*	20	0	-3.32
Heptachlor	10	0	0	100*	20	0	-3.48
Aldrin	10	0	0	100*	20	0	-3.72
Alachlor	10	0	0	100*	20	0	-3.88
Heptachlor Epoxide	10	0	0	100*	20	0	-4.21
gamma-Chlordane (trans)	10	0	0	100*	20	0	-4.31
alpha-Chlordane (cis)	10	0	0	100*	20	0	-4.42
4,4'-DDE	10	0	0	100*	20	0	-4.48
Endosulfan I	10	0	0	100*	20	0	-4.52
Dieldrin	10	0	0	100*	20	0	-4.7
Endrin	10	0	0	100*	20	0	-4.87
4,4'-DDD	10	0	0	100*	20	0	-4.93
Endosulfan II	10	0	0	100*	20	0	-5.04
4,4'-DDT	10	0	0	100*	20	0	-5.13
Endrin Aldehyde	10	0	0	100*	20	0	-5.34
Methoxychlor	10	0	0	100*	20	0	-5.48
Endosulfan Sulfate	10	0	0	100*	20	0	-5.64
Endrin Ketone	10	0	0	100*	20	0	-5.82
Decachlorobiphenyl	10	0	0	100*	20	0	-6.47
2,4,5,6-Tetrachloro-m-xyl	10	0	0	100*	20	0	-2.57

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160314e\
Data File : 15160314e-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 14 Mar 2016 10:20 pm
Operator : pest15:am
Sample   : wg873703-2,42e,,ct cc 7226 (Sig #1); ct cc 7226 (Sig #2)
Misc   : wg873703,ical11928
ALS Vial : 3   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 07:15:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	100	0.00
27	l1	chlordane-1	1000.000	818.628	18.1	89	0.00
28	l1	chlordane-3	1000.000	775.161	22.5#	88	-0.01
29	l1	chlordane-4	1000.000	856.933	14.3	89	-0.01
30	l1	chlordane-5	1000.000	803.726	19.6	90	-0.01
31	l2	toxaphene-1	2000.000	1836.388	8.2	96	-0.01
32	l2	toxaphene-2	2000.000	1865.437	6.7	96	-0.01
33	l2	toxaphene-5	2000.000	2064.865	-3.2	108	-0.01

Signal #2

26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	92	0.00
27	l1	chlordane-1	1000.000	911.209	8.9	90	0.00
28	l1	chlordane-3	1000.000	818.999	18.1	86	0.00
29	l1	chlordane-4	1000.000	868.039	13.2	89	0.00
30	l1	chlordane-5	1000.000	932.748	6.7	87	0.00
31	l2	toxaphene-1	2000.000	2089.605	-4.5	98	0.00
32	l2	toxaphene-2	2000.000	2019.705	-1.0	93	0.00
33	l2	toxaphene-5	2000.000	1947.940	2.6	96	0.00

Evaluate Continuing Calibration Report - Not Founds

1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	0	-2.00#
2	s	2,4,5,6-Tetrachloro-m-xylen	10.000	0.000	100.0#	0	-2.50#
3		Hexachlorobenzene	10.000	0.000	100.0#	0	-2.76#
4		alpha-BHC	10.000	0.000	100.0#	0	-2.88#
5		gamma-BHC (lindane)	10.000	0.000	100.0#	0	-3.11#
6		beta-BHC	10.000	0.000	100.0#	0	-3.18#
7		delta-BHC	10.000	0.000	100.0#	0	-3.32#

Data Path : I:\Pest15\160314e\
Data File : 15160314e-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 14 Mar 2016 10:20 pm
Operator : pest15:am
Sample   : wg873703-2,42e,,ct cc 7226 (Sig #1); ct cc 7226 (Sig #2)
Misc   : wg873703,ical11928
ALS Vial : 3   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 07:15:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
8		Heptachlor	10.000	0.000	100.0#	0	-3.48#
9		Aldrin	10.000	0.000	100.0#	0	-3.72#
10		Alachlor	10.000	0.000	100.0#	0	-3.88#
11		Heptachlor Epoxide	10.000	0.000	100.0#	0	-4.21#
12		gamma-Chlordane (trans)	10.000	0.000	100.0#	0	-4.31#
13		alpha-Chlordane (cis)	10.000	0.000	100.0#	0	-4.42#
14		4,4'-DDE	10.000	0.000	100.0#	0	-4.48#
15		Endosulfan I	10.000	0.000	100.0#	0	-4.52#
16		Dieldrin	10.000	0.000	100.0#	0	-4.70#
17		Endrin	10.000	0.000	100.0#	0	-4.87#
18		4,4'-DDD	10.000	0.000	100.0#	0	-4.93#
19		Endosulfan II	10.000	0.000	100.0#	0	-5.04#
20		4,4'-DDT	10.000	0.000	100.0#	0	-5.13#
21		Endrin Aldehyde	10.000	0.000	100.0#	0	-5.34#
22		Methoxychlor	10.000	0.000	100.0#	0	-5.48#
23		Endosulfan Sulfate	10.000	0.000	100.0#	0	-5.64#
24		Endrin Ketone	10.000	0.000	100.0#	0	-5.82#
25	s	Decachlorobiphenyl	10.000	0.000	100.0#	0	-6.47#

Signal #2

1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	0	-1.96#
2	s	2,4,5,6-Tetrachloro-m-xyl	10.000	0.000	100.0#	0	-2.57#
3		Hexachlorobenzene	10.000	0.000	100.0#	0	-2.93#
4		alpha-BHC	10.000	0.000	100.0#	0	-3.03#
5		gamma-BHC (lindane)	10.000	0.000	100.0#	0	-3.32#
6		beta-BHC	10.000	0.000	100.0#	0	-3.39#
7		delta-BHC	10.000	0.000	100.0#	0	-3.64#
8		Heptachlor	10.000	0.000	100.0#	0	-3.69#
9		Aldrin	10.000	0.000	100.0#	0	-3.97#

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160314e\
Data File : 15160314e-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 14 Mar 2016 10:20 pm
Operator : pest15:am
Sample   : wg873703-2,42e,,ct cc 7226 (Sig #1); ct cc 7226 (Sig #2)
Misc   : wg873703,ical11928
ALS Vial : 3   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 07:15:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
10		Alachlor	10.000	0.000	100.0#	0	-3.91#
11		Heptachlor Epoxide	10.000	0.000	100.0#	0	-4.44#
12		gamma-Chlordane (trans)	10.000	0.000	100.0#	0	-4.59#
13		alpha-Chlordane (cis)	10.000	0.000	100.0#	0	-4.70#
14		4,4'-DDE	10.000	0.000	100.0#	0	-4.82#
15		Endosulfan I	10.000	0.000	100.0#	0	-4.75#
16		Dieldrin	10.000	0.000	100.0#	0	-4.95#
17		Endrin	10.000	0.000	100.0#	0	-5.18#
18		4,4'-DDD	10.000	0.000	100.0#	0	-5.25#
19		Endosulfan II	10.000	0.000	100.0#	0	-5.33#
20		4,4'-DDT	10.000	0.000	100.0#	0	-5.46#
21		Endrin Aldehyde	10.000	0.000	100.0#	0	-5.57#
22		Methoxychlor	10.000	0.000	100.0#	0	-5.93#
23		Endosulfan Sulfate	10.000	0.000	100.0#	0	-5.75#
24		Endrin Ketone	10.000	0.000	100.0#	0	-6.11#
25	s	Decachlorobiphenyl	10.000	0.000	100.0#	0	-6.86#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:20 pm
Operator : pest15:am
Sample : wg873703-2,42e,,ct cc 7226 (Sig #1); ct cc 7226 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 07:15:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
26) i	1-br-2-nb...	1.986	1.958	102.2E6	61657863	25.000M3	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
25) s	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 30 - 150	Recovery	=	0.00%#	0.00%#
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:20 pm
Operator : pest15:am
Sample : wg873703-2,42e,,ct cc 7226 (Sig #1); ct cc 7226 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 07:15:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
27) l1	chlordane-1	3.403	3.555	148.0E6	99835274	818.628	911.209
28) l1	chlordane-3	3.817	4.083	169.2E6	111.4E6	775.161	818.999
29) l1	chlordane-4	4.297	4.578	622.1E6	392.8E6	856.933	868.039
30) l1	chlordane-5	4.396	4.690	918.8E6	308.3E6	803.726	932.748
Sum	chlordane-1			1858.1E6	912.4E6	3254.448	3530.995
Average	chlordane-1					813.612	882.749
31) l2	toxaphene-1	4.882	5.220	418.5E6	145.2E6	1836.388M4	2089.605M4
32) l2	toxaphene-2	4.969	5.349	247.5E6	177.9E6	1865.437M4	2019.705M4
33) l2	toxaphene-5	5.253	5.552	291.1E6	227.3E6	2064.865M4	1947.940M4
Sum	toxaphene-1			957.1E6	550.5E6	5766.690	6057.251
Average	toxaphene-1					1922.230	2019.084

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			957.1E6	550.5E6	5766.690	6057.251
Average	toxaphene-1					1922.230	2019.084

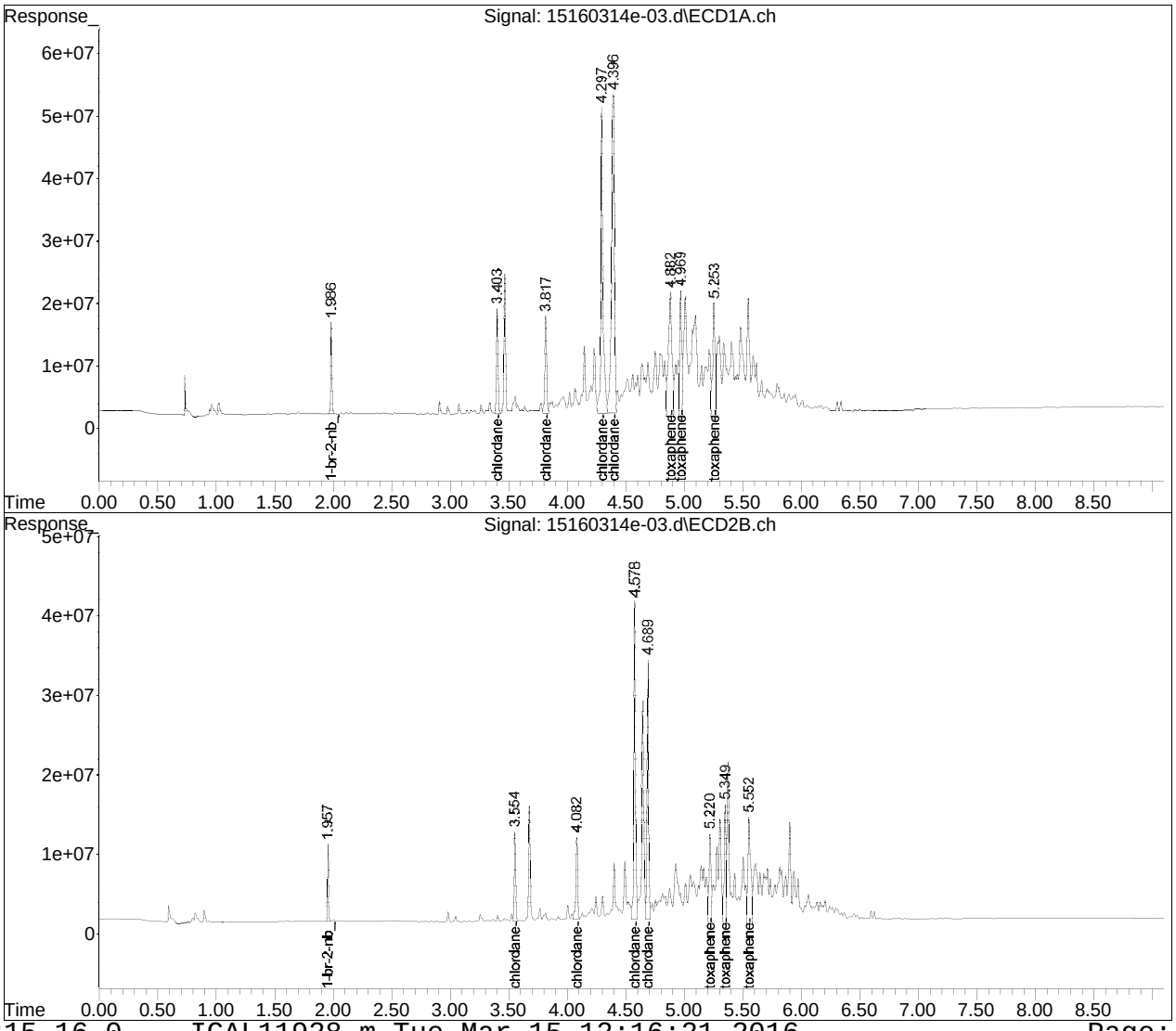
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:20 pm
Operator : pest15:am
Sample : wg873703-2,42e,,ct cc 7226 (Sig #1); ct cc 7226 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 07:15:03 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

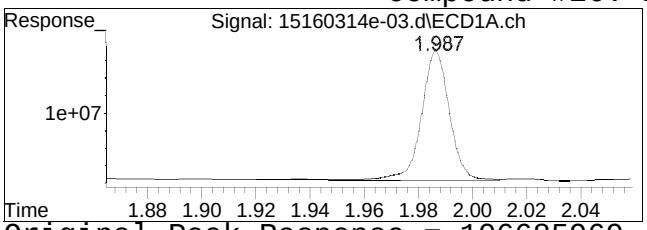
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

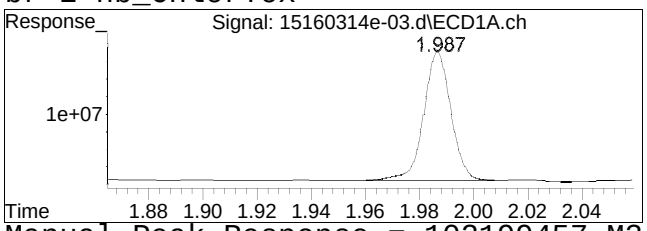


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160314e\ QMethod : pest15_16_01_09a_ICAL1
Data File : 15160314e-03.d Operator : pest15:am
Date Inj'd : 3/14/2016 10:20 pm Instrument : Pest 15
Sample : wg873703-2,42e,,ct cc 7226 Quant Date : 3/14/2016 10:30 pm

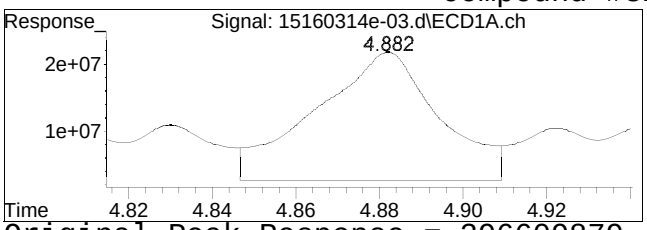
Compound #26: 1-br-2-nb_ChlorTox

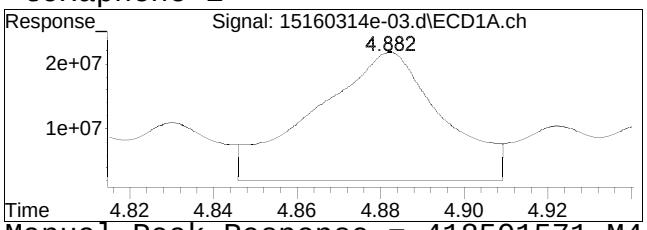




Original Peak Response = 106685969 Manual Peak Response = 102199457 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

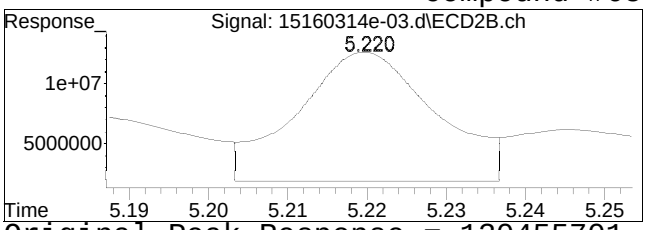
Compound #31: toxaphene-1

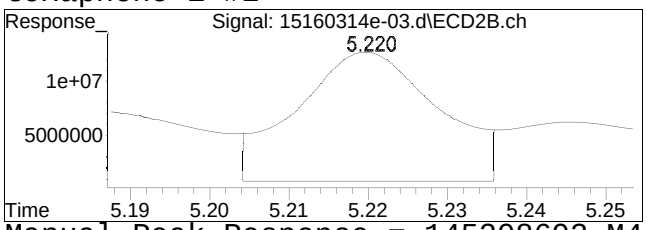




Original Peak Response = 396609879 Manual Peak Response = 418501571 M4
M4 = Poor automated baseline construction.

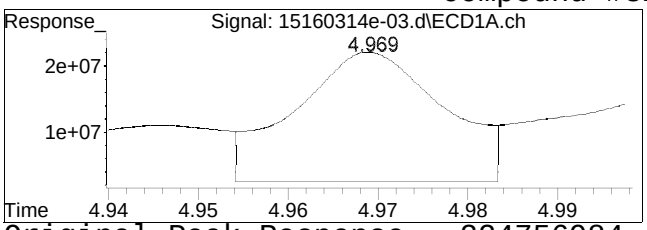
Compound #65: toxaphene-1 #2

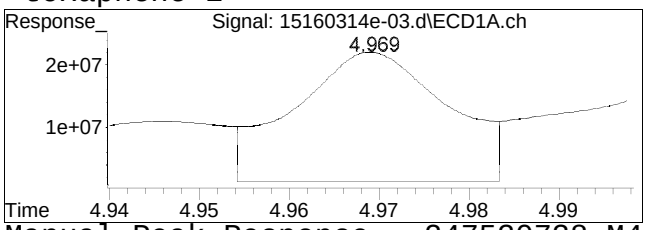




Original Peak Response = 130455701 Manual Peak Response = 145208693 M4
M4 = Poor automated baseline construction.

Compound #32: toxaphene-2



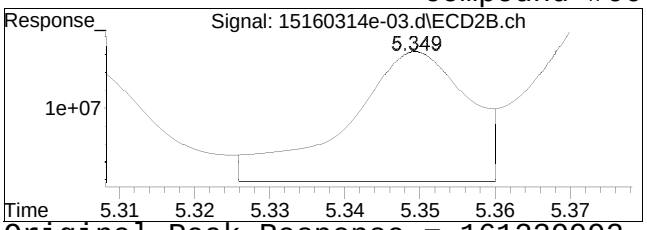


Original Peak Response = 224756984 Manual Peak Response = 247530738 M4
M4 = Poor automated baseline construction.

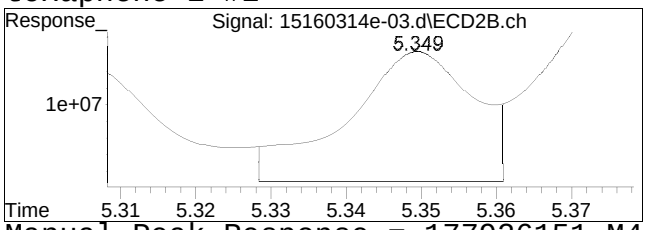
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160314e\ QMethod : pest15_16_01_09a_ICAL1
Data File : 15160314e-03.d Operator : pest15:am
Date Inj'd : 3/14/2016 10:20 pm Instrument : Pest 15
Sample : wg873703-2,42e,,ct cc 7226 Quant Date : 3/14/2016 10:30 pm

Compound #66: toxaphene-2 #2

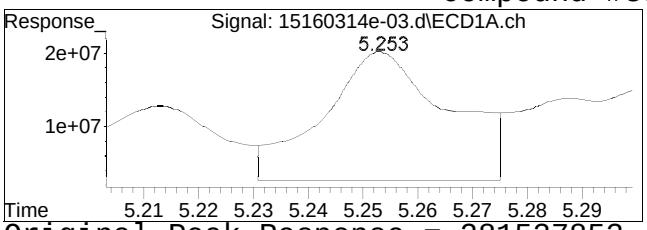


Original Peak Response = 161239992

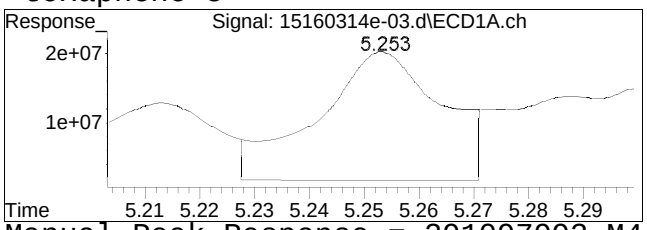


Manual Peak Response = 177926151 M4
M4 = Poor automated baseline construction.

Compound #33: toxaphene-5

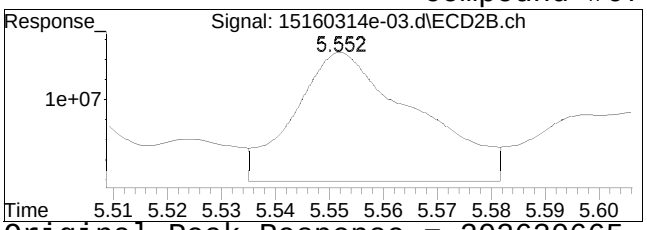


Original Peak Response = 281537853

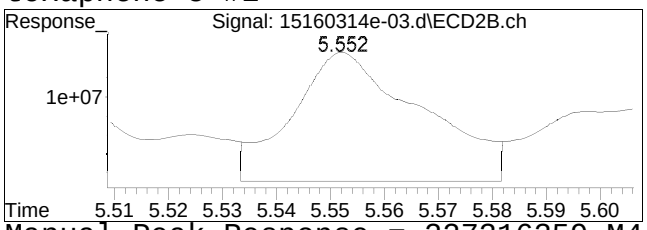


Manual Peak Response = 291097993 M4
M4 = Poor automated baseline construction.

Compound #67: toxaphene-5 #2



Original Peak Response = 202630665



Manual Peak Response = 227316359 M4
M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160314e\
Data File : 15160314e-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 14 Mar 2016 10:07 pm
Operator : pest15:am
Sample   : wg873703-1,42e,,pest cc 7240 (Sig #1); pest cc 7240 (Sig #2)
Misc   : wg873703,ical11928
ALS Vial : 2   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:20:13 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	98	0.00
2	s	2,4,5,6-Tetrachloro-m-xylen	50.000	40.696	18.6	83	-0.01
3		Hexachlorobenzene	50.000	43.094	13.8	85	-0.01
4		alpha-BHC	50.000	45.034	9.9	84	-0.01
5		gamma-BHC (lindane)	50.000	43.724	12.6	85	-0.01
6		beta-BHC	50.000	42.584	14.8	84	-0.02
7		delta-BHC	50.000	40.953	18.1	82	-0.02
8		Heptachlor	50.000	40.375	19.3	85	-0.01
9		Aldrin	50.000	43.251	13.5	86	-0.01
10		Alachlor	50.000	43.257	13.5	76	-0.05
11		Heptachlor Epoxide	50.000	43.836	12.3	86	-0.02
12		gamma-Chlordane (trans)	50.000	42.273	15.5	86	-0.02
13		alpha-Chlordane (cis)	50.000	44.141	11.7	89	-0.02
14		4,4'-DDE	50.000	44.502	11.0	85	-0.02
15		Endosulfan I	50.000	41.689	16.6	86	-0.02
16		Dieldrin	50.000	40.065	19.9	84	-0.02
17		Endrin	50.000	41.801	16.4	88	-0.02
18		4,4'-DDD	50.000	44.781	10.4	87	-0.02
19		Endosulfan II	50.000	44.371	11.3	86	-0.02
20		4,4'-DDT	50.000	43.810	12.4	89	-0.02
21		Endrin Aldehyde	50.000	46.496	7.0	92	-0.02
22		Methoxychlor	50.000	48.363	3.3	91	-0.02
23		Endosulfan Sulfate	50.000	40.414	19.2	81	-0.02
24		Endrin Ketone	50.000	44.877	10.2	89	-0.02
25	s	Decachlorobiphenyl	50.000	44.515	11.0	87	-0.01
Signal #2							
1	i	1-br-2-nb_Pesticides	25.000	25.000	0.0	93	0.00
2	s	2,4,5,6-Tetrachloro-m-xyl	50.000	45.130	9.7	89	0.00

Evaluate Continuing Calibration Report

Data Path : I:\Pest15\160314e\
Data File : 15160314e-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 14 Mar 2016 10:07 pm
Operator : pest15:am
Sample   : wg873703-1,42e,,pest cc 7240 (Sig #1); pest cc 7240 (Sig #2)
Misc   : wg873703,ical11928
ALS Vial : 2   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:20:13 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3		Hexachlorobenzene	50.000	48.146	3.7	91	0.00
4		alpha-BHC	50.000	52.021	-4.0	90	0.00
5		gamma-BHC (lindane)	50.000	49.464	1.1	90	0.00
6		beta-BHC	50.000	46.925	6.2	89	-0.01
7		delta-BHC	50.000	46.701	6.6	87	-0.01
8		Heptachlor	50.000	43.724	12.6	87	0.00
9		Aldrin	50.000	49.454	1.1	91	0.00
10		Alachlor	50.000	48.055	3.9	81	-0.04
11		Heptachlor Epoxide	50.000	46.500	7.0	90	-0.01
12		gamma-Chlordane (trans)	50.000	45.451	9.1	92	-0.01
13		alpha-Chlordane (cis)	50.000	45.635	8.7	90	-0.01
14		4,4'-DDE	50.000	47.573	4.9	90	-0.01
15		Endosulfan I	50.000	45.237	9.5	93	-0.01
16		Dieldrin	50.000	46.745	6.5	90	-0.01
17		Endrin	50.000	45.851	8.3	91	-0.01
18		4,4'-DDD	50.000	47.140	5.7	90	-0.01
19		Endosulfan II	50.000	45.824	8.4	87	-0.01
20		4,4'-DDT	50.000	44.019	12.0	87	-0.01
21		Endrin Aldehyde	50.000	46.741	6.5	89	-0.01
22		Methoxychlor	50.000	47.872	4.3	88	-0.01
23		Endosulfan Sulfate	50.000	47.766	4.5	92	-0.02
24		Endrin Ketone	50.000	48.289	3.4	92	-0.01
25	s	Decachlorobiphenyl	50.000	51.563	-3.1	94	0.00

Evaluate Continuing Calibration Report - Not Founds

26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	0	-1.99#
27	l1	chlordane-1	2500.000	0.000	100.0#	0	-3.41#
28	l1	chlordane-3	2500.000	0.000	100.0#	0	-3.83#
29	l1	chlordane-4	2500.000	0.000	100.0#	0	-4.31#

Data Path : I:\Pest15\160314e\
Data File : 15160314e-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 14 Mar 2016 10:07 pm
Operator : pest15:am
Sample   : wg873703-1,42e,,pest cc 7240 (Sig #1); pest cc 7240 (Sig #2)
Misc   : wg873703,ical11928
ALS Vial : 2   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:20:13 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
30	l1	chlordane-5	2500.000	0.000	100.0#	0	-4.41#
31	l2	toxaphene-1	5000.000	0.000	100.0#	0	-4.90#
32	l2	toxaphene-2	5000.000	0.000	100.0#	0	-4.98#
33	l2	toxaphene-5	5000.000	0.000	100.0#	0	-5.27#

Signal #2

26	i	1-br-2-nb_ChlorTox	25.000	25.000	0.0	0	-1.96#
27	l1	chlordane-1	2500.000	0.000	100.0#	0	-3.56#
28	l1	chlordane-3	2500.000	0.000	100.0#	0	-4.09#
29	l1	chlordane-4	2500.000	0.000	100.0#	0	-4.59#
30	l1	chlordane-5	2500.000	0.000	100.0#	0	-4.70#
31	l2	toxaphene-1	5000.000	0.000	100.0#	0	-5.23#
32	l2	toxaphene-2	5000.000	0.000	100.0#	0	-5.36#
33	l2	toxaphene-5	5000.000	0.000	100.0#	0	-5.56#

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

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:07 pm
Operator : pest15:am
Sample : wg873703-1,42e,,pest cc 7240 (Sig #1); pest cc 7240 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:20:13 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	1.986	1.958	95088052	58009717	25.000M4	25.000
26) i	1-br-2-nb...	0.000	0.000	0	0	N.D. d	N.D. d
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.485	2.563	189.4E6	122.2E6	40.696	45.130
	Spiked Amount 50.000	Range 30 - 150		Recovery =		81.39%	90.26%
25) s	Decachlor...	6.455	6.852	133.5E6	101.8E6	44.515	51.563
	Spiked Amount 50.000	Range 30 - 150		Recovery =		89.03%	103.13%
	Target Compounds						
3)	Hexachlor...	2.751	2.917	201.2E6	134.0E6	43.094	48.146
4)	alpha-BHC	2.870	3.021	244.7E6	166.5E6	45.034	52.021
5)	gamma-BHC...	3.100	3.308	227.5E6	155.4E6	43.724	49.464
6)	beta-BHC	3.164f	3.374	107.0E6	72700939	42.584	46.925
7)	delta-BHC	3.301f	3.625	224.1E6	154.6E6	40.953M2	46.701
8)	Heptachlor	3.468	3.678	219.6E6	146.3E6	40.375	43.724
9)	Aldrin	3.711	3.962	195.9E6	138.6E6	43.251	49.454
10)	Alachlor	3.835f	3.870f	31733869	22803383	43.257M2	48.055M2
11)	Heptachlo...	4.197f	4.431	191.6E6	136.3E6	43.836	46.500
12)	gamma-Chl...	4.297f	4.578	196.4E6	142.7E6	42.273	45.451
13)	alpha-Chl...	4.399f	4.689	196.3E6	135.1E6	44.141	45.635
14)	4,4'-DDE	4.458f	4.810	185.9E6	132.2E6	44.502	47.573
15)	Endosulfan I	4.503f	4.738	174.5E6	123.6E6	41.689	45.237
16)	Dieldrin	4.684f	4.943	187.5E6	136.1E6	40.065	46.745
17)	Endrin	4.856f	5.167	184.9E6	126.6E6	41.801	45.851
18)	4,4'-DDD	4.905f	5.233	159.1E6	108.8E6	44.781	47.140
19)	Endosulfa...	5.020f	5.318	167.0E6	116.8E6	44.371	45.824
20)	4,4'-DDT	5.107f	5.452	172.4E6	111.1E6	43.810	44.019
21)	Endrin Al...	5.315f	5.552	144.9E6	100.0E6	46.496	46.741
22)	Methoxychlor	5.452f	5.912	98050549	61685864	48.363	47.872
23)	Endosulfa...	5.615f	5.740f	146.3E6	119.0E6	40.414	47.766

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:07 pm
Operator : pest15:am
Sample : wg873703-1,42e,,pest cc 7240 (Sig #1); pest cc 7240 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:20:13 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
24)	Endrin Ke...	5.804f	6.100	181.5E6	129.8E6	44.877	48.289
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

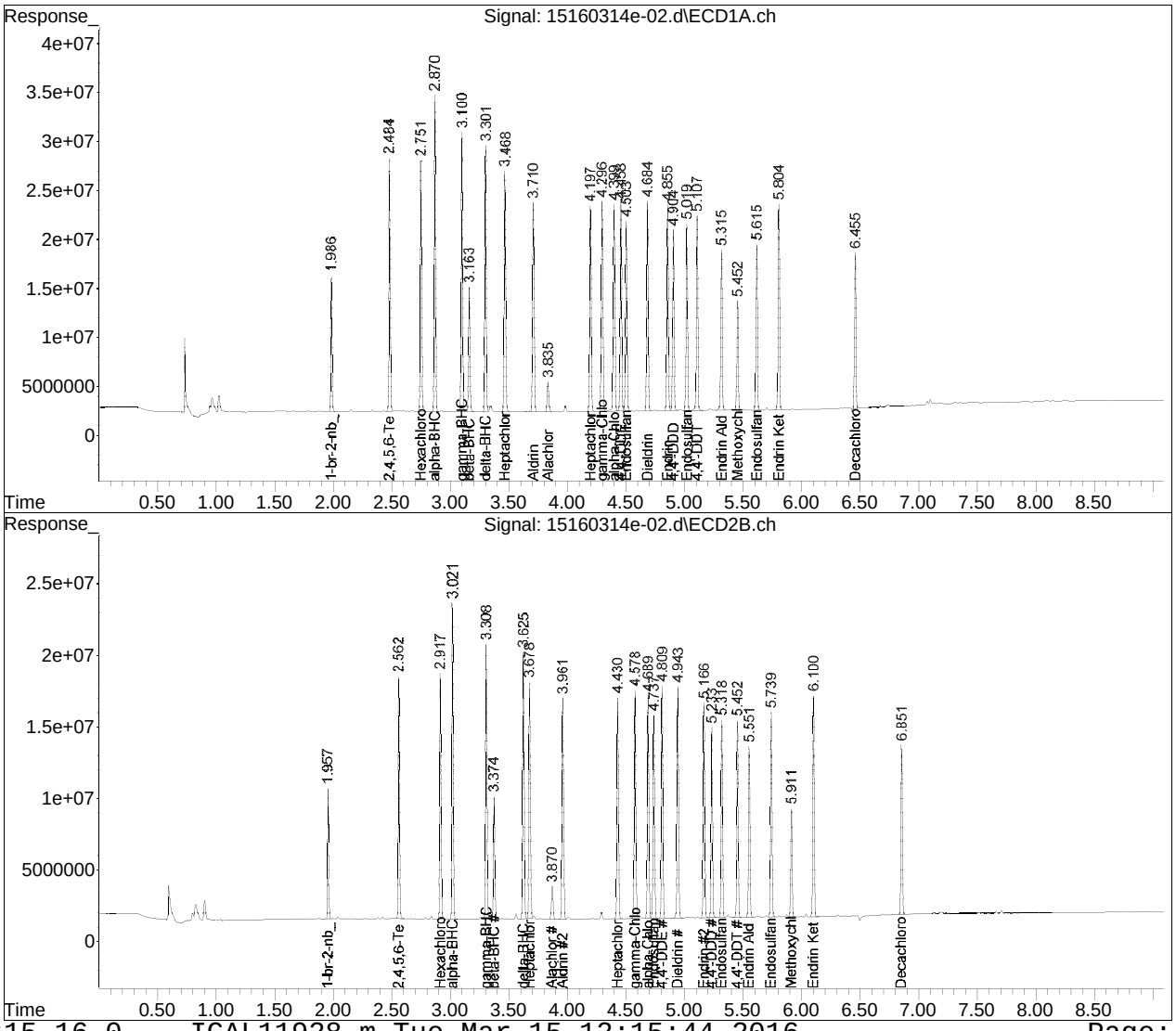
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:07 pm
Operator : pest15:am
Sample : wg873703-1,42e,,pest cc 7240 (Sig #1); pest cc 7240 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:20:13 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

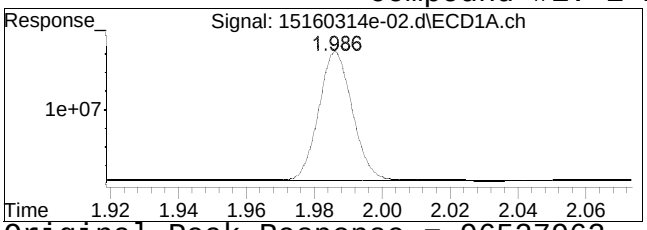
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



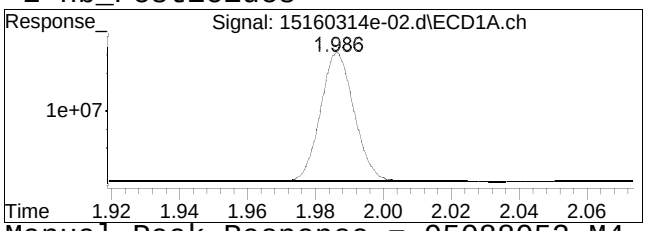
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160314e\ QMethod : pest15_16_01_09a_ICAL1
Data File : 15160314e-02.d Operator : pest15:am
Date Inj'd : 3/14/2016 10:07 pm Instrument : Pest 15
Sample : wg873703-1,42e,,pest cc 724 Quant Date : 3/14/2016 10:19 pm

Compound #1: 1-br-2-nb_Pesticides

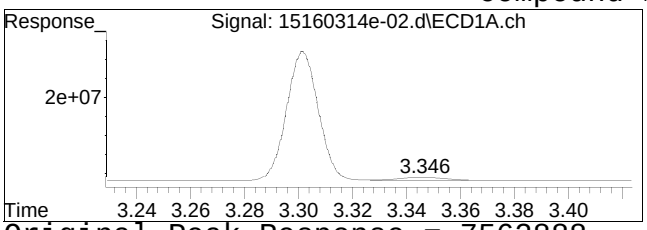


Original Peak Response = 96527962

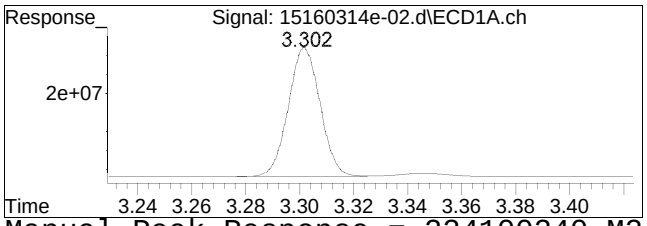


Manual Peak Response = 95088052 M4
M4 = Poor automated baseline construction.

Compound #7: delta-BHC

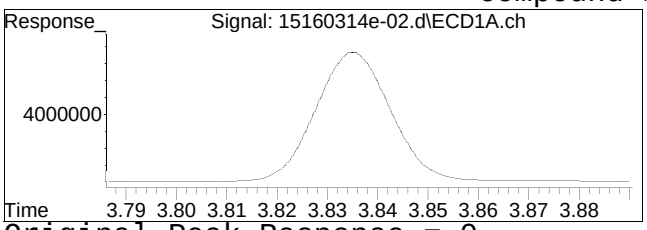


Original Peak Response = 7562888

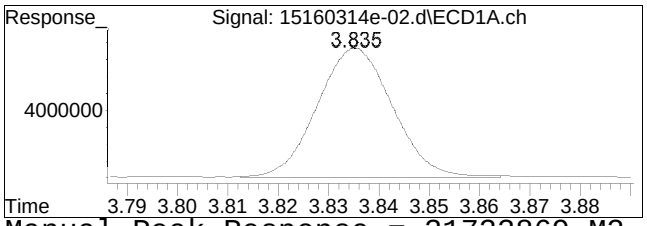


Manual Peak Response = 224100240 M2
M2 = Peak not found by automatic integration algorithm.

Compound #10: Alachlor

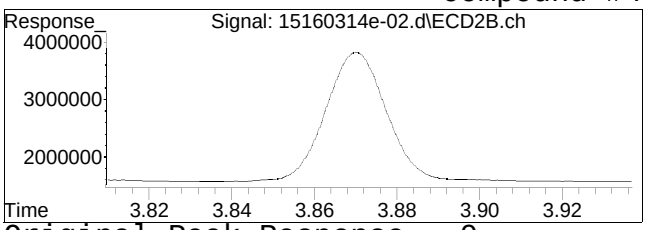


Original Peak Response = 0

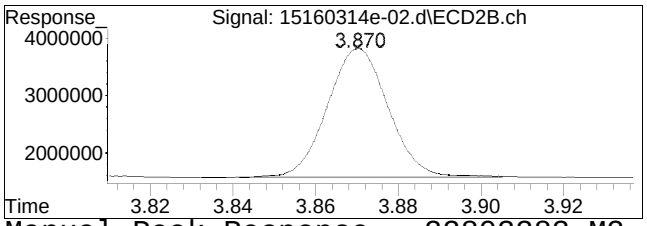


Manual Peak Response = 31733869 M2
M2 = Peak not found by automatic integration algorithm.

Compound #44: Alachlor #2



Original Peak Response = 0



Manual Peak Response = 22803383 M2
M2 = Peak not found by automatic integration algorithm.

Degradation Check Standard

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-01.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 9:54 pm
Operator : pest15:am
Sample : PEM15160314e01,42ee,,deg std 7227 (Sig #1); deg std 7227 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:16:01 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : DEG - DDT/Endrin degradation check

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	1.988	1.958	96893899	58575232	25.000	25.000
	System Monitoring Compounds						
	Target Compounds						
14)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.
17)	Endrin	4.857f	5.167	197.1E6	136.9E6	43.731	49.103
18)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.
20)	4,4'-DDT	5.108f	5.452	380.0E6	250.7E6	94.680	98.248
21)	Endrin Al...	0.000	0.000	0	0	N.D.	N.D.
24)	Endrin Ke...	5.804f	6.099	1720848	1070314	0.136M3	0.456M2
#							
	Sum chlordane-1			0	0	N.D.	N.D.
	Average chlordane-1					0.000	0.000
	Sum toxaphene-1			0	0	N.D.	N.D.
	Average toxaphene-1					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						
	Sum toxaphene-1			0	0	N.D.	N.D.
	Average toxaphene-1					0.000	0.000

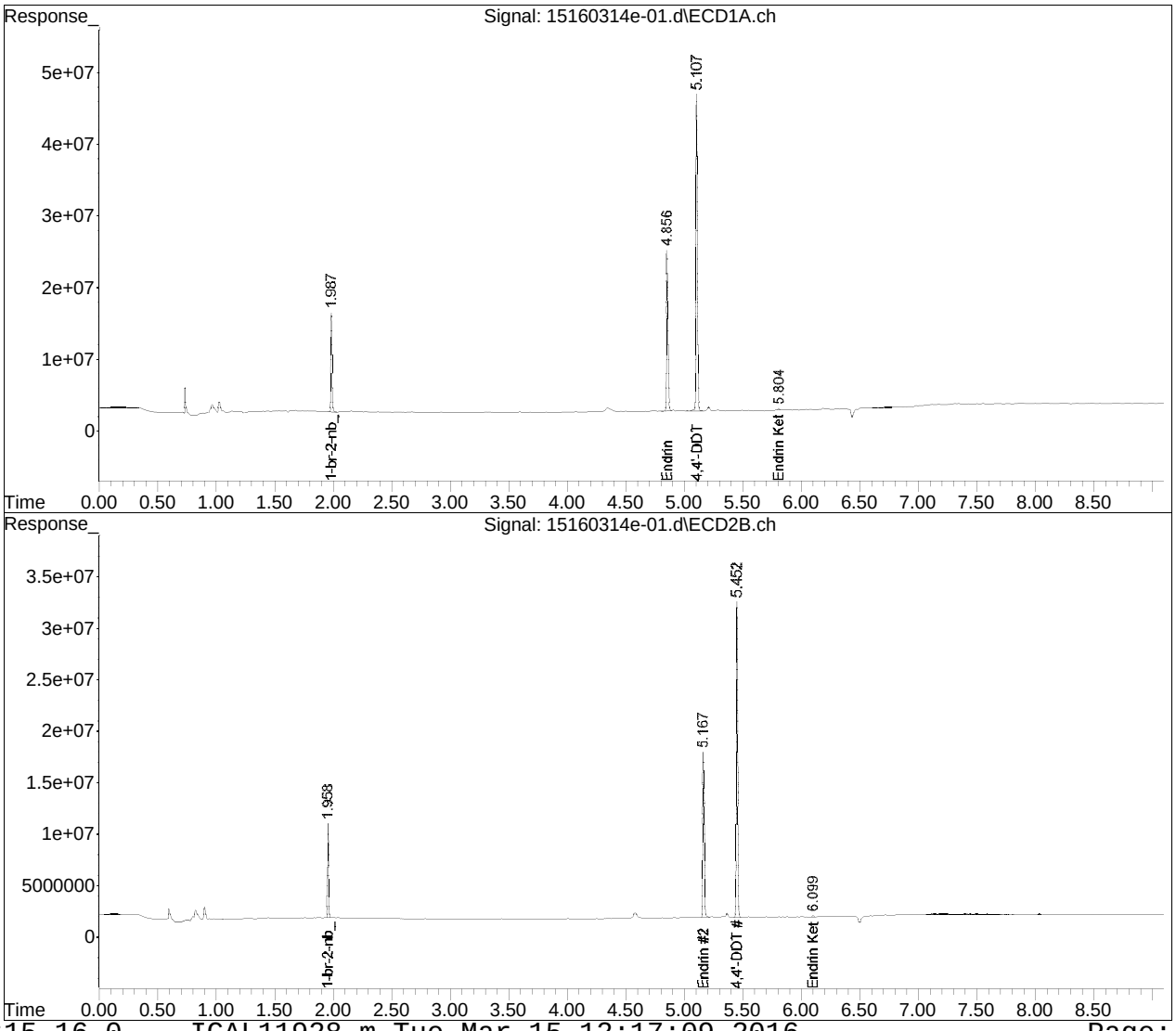
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : DEG - DDT/Endrin degradation checkiewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-01.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 9:54 pm
Operator : pest15:am
Sample : PEM15160314e01,42ee,,deg std 7227 (Sig #1); deg std 7227 (Sig #2)
Misc : wg873703,ical11928
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 14 22:16:01 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Mon Mar 14 20:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation

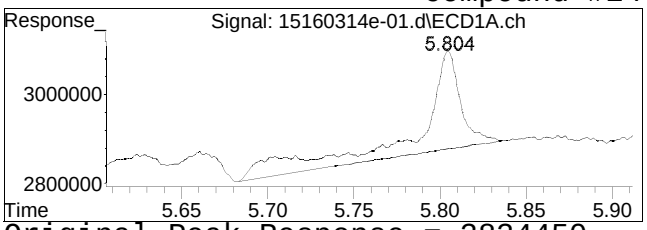
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

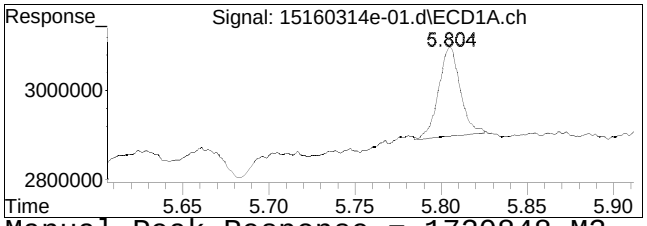


Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160314e\ QMethod : pest15_16_01_09a_ICAL1
Data File : 15160314e-01.d Operator : pest15:am
Date Inj'd : 3/14/2016 9:54 pm Instrument : Pest 15
Sample : PEM15160314e01,42ee,,deg st Quant Date : 3/14/2016 10:15 pm

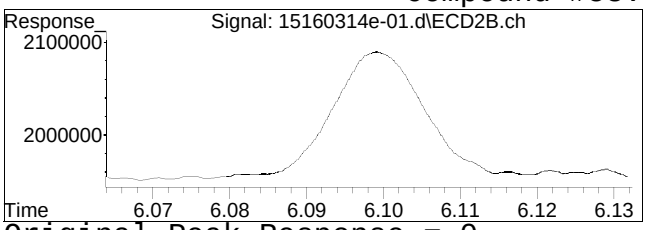
Compound #24: Endrin Ketone

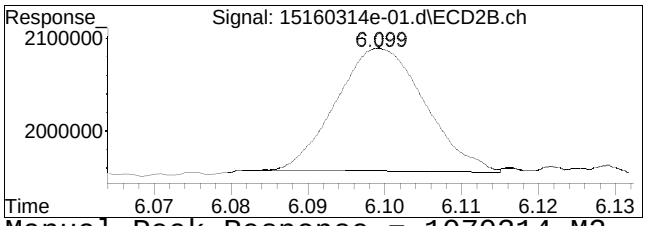




Original Peak Response = 3834450 Manual Peak Response = 1720848 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Compound #58: Endrin Ketone #2





Original Peak Response = 0 Manual Peak Response = 1070314 M2
M2 = Peak not found by automatic integration algorithm.

RT Shift Summary

GC Organics Indentification Summary
Form 10

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1606763**
Project Name	**: 450 UNION STREET**	**Project Number**	**: 170301202**

No Detections Found

Pesticides Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:42 pm
Operator : pest15:am
Sample : wg873613-1,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:50:46 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	1.992	1.959	89007353	54727863	25.000M4	25.000M4
26) i	1-br-2-nb...	1.992	1.959	89007353	54727863	25.000M4	25.000M4
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.493	2.565	139.8E6	87169090	32.101M4	34.121M4
	Spiked Amount	50.000	Range 30 - 150		Recovery =	64.20%	68.24%
25) s	Decachlor...	6.467	6.857	137.4E6	101.4E6	49.058M4	54.489M4
	Spiked Amount	50.000	Range 30 - 150		Recovery =	98.12%	108.98%
	Target Compounds						
3)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
4)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
6)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
9)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
10)	Alachlor	0.000	0.000	0	0	N.D. d	N.D. d
11)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
12)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
13)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
14)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
15)	Endosulfan I	0.000	0.000	0	0	N.D. d	N.D. d
16)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
17)	Endrin	0.000	0.000	0	0	N.D.	N.D.
18)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d

Data Path : I:\Pest15\160314e\
Data File : 15160314e-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:42 pm
Operator : pest15:am
Sample : wg873613-1,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:50:46 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
21)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
22)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
23)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
27) l1	chlordane-1	0.000	0.000	0	0	N.D. d	N.D. d
28) l1	chlordane-3	0.000	0.000	0	0	N.D. d	N.D. d
29) l1	chlordane-4	0.000	0.000	0	0	N.D. d	N.D. d
30) l1	chlordane-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	chlordane-1			0	0	N.D.	N.D.
Average	chlordane-1					0.000	0.000
31) l2	toxaphene-1	0.000	0.000	0	0	N.D. d	N.D. d
32) l2	toxaphene-2	0.000	0.000	0	0	N.D. d	N.D. d
33) l2	toxaphene-5	0.000	0.000	0	0	N.D. d	N.D. d
Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum	toxaphene-1			0	0	N.D.	N.D.
Average	toxaphene-1					0.000	0.000

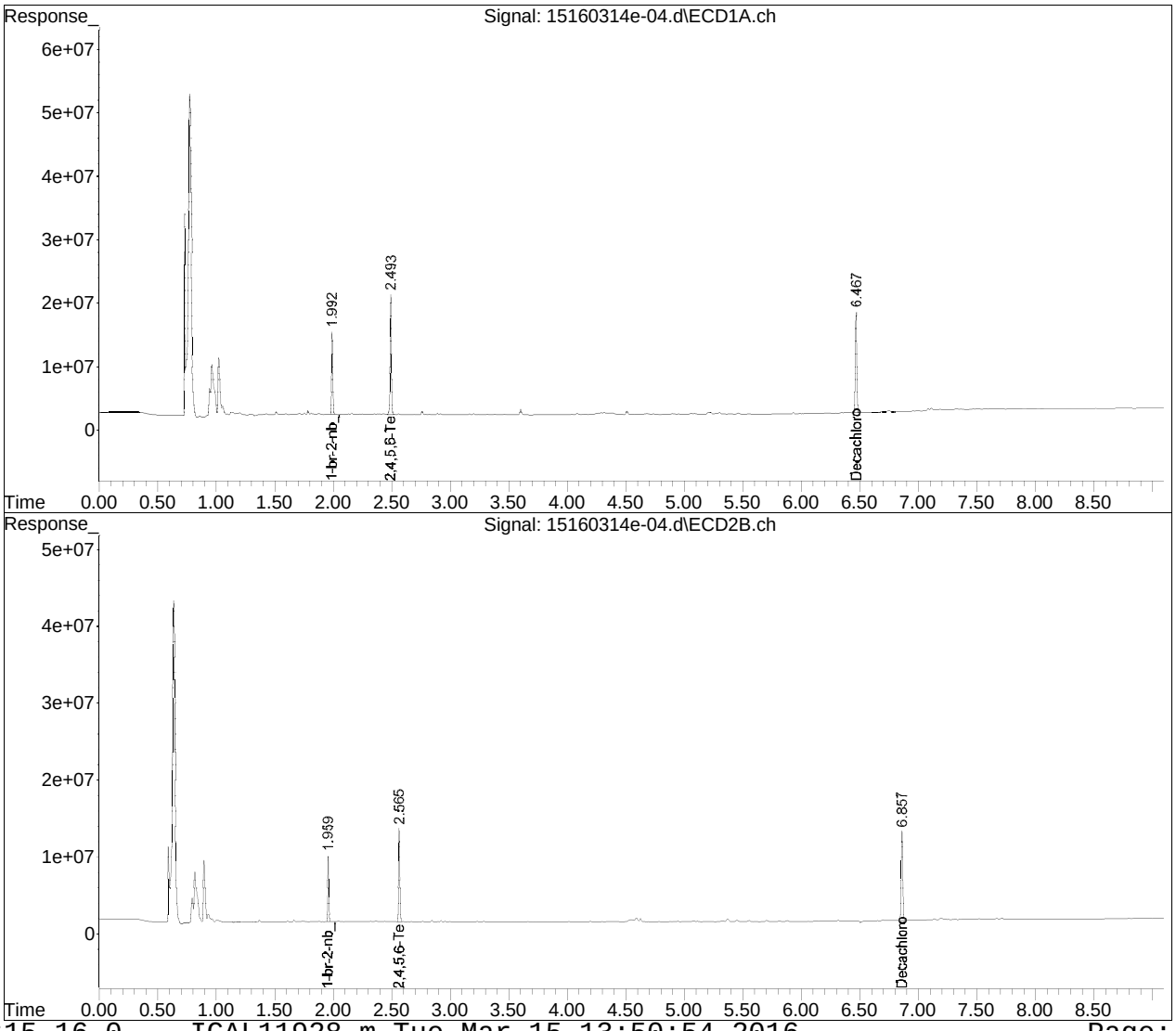
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:42 pm
Operator : pest15:am
Sample : wg873613-1,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:50:46 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

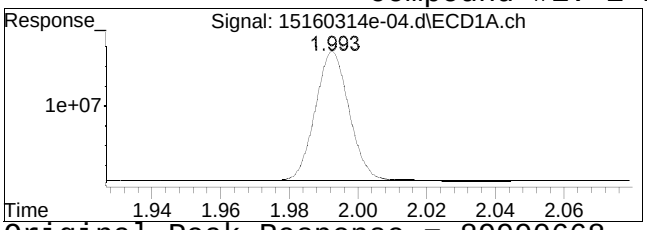


Manual Integration/Negative Proof Report

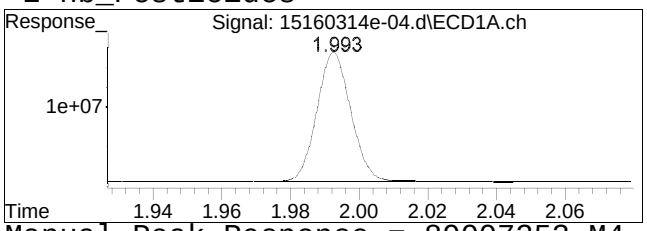
Data Path : I:\Pest15\160314e\
Data File : 15160314e-04.d
Date Inj'd : 3/14/2016 10:42 pm
Sample : wg873613-1,42e,,

QMethod : pest15_16_01_09a_ICAL1
Operator : pest15:am
Instrument : Pest 15
Quant Date : 3/15/2016 1:48 pm

Compound #1: 1-br-2-nb_Pesticides



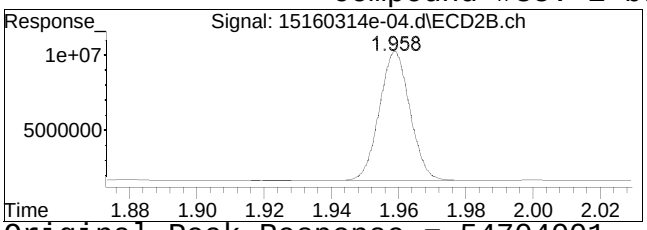
Original Peak Response = 89990668



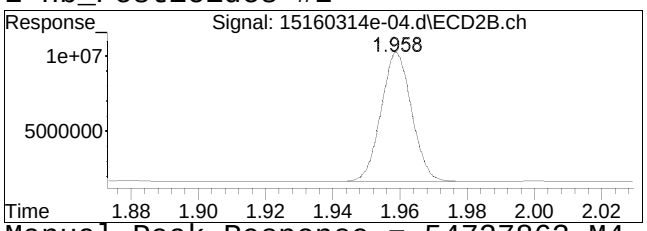
Manual Peak Response = 89007353 M4

M4 = Poor automated baseline construction.

Compound #35: 1-br-2-nb_Pesticides #2



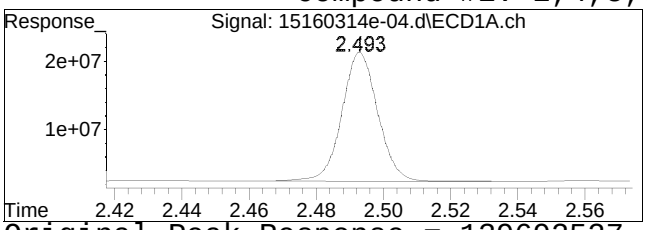
Original Peak Response = 54704001



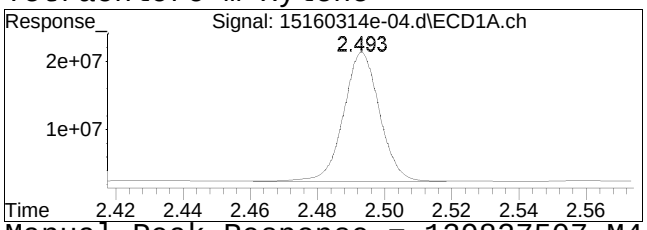
Manual Peak Response = 54727863 M4

M4 = Poor automated baseline construction.

Compound #2: 2,4,5,6-Tetrachloro-m-xylene



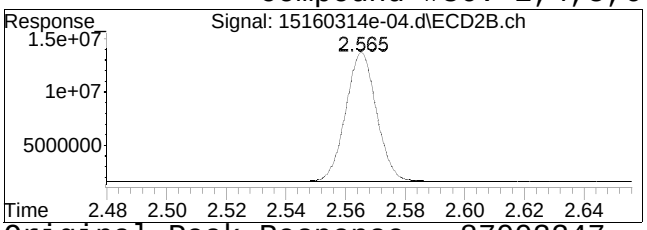
Original Peak Response = 139692527



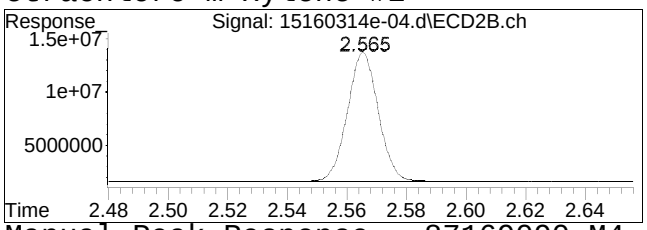
Manual Peak Response = 139827507 M4

M4 = Poor automated baseline construction.

Compound #36: 2,4,5,6-Tetrachloro-m-xylene #2



Original Peak Response = 87003247



Manual Peak Response = 87169090 M4

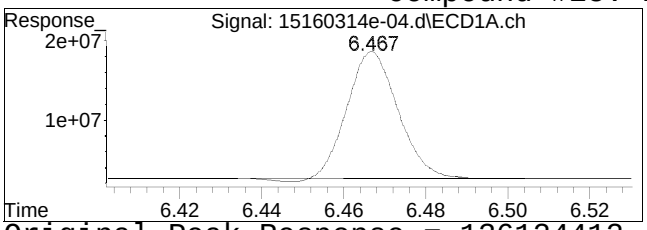
M4 = Poor automated baseline construction.

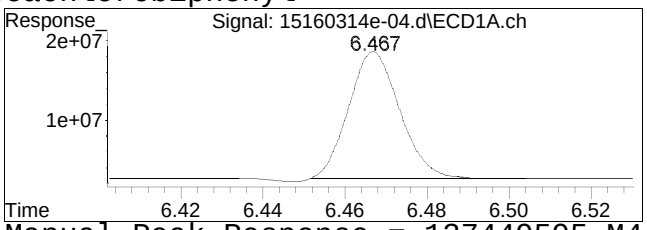
Manual Integration/Negative Proof Report

Data Path : I:\Pest15\160314e\
Data File : 15160314e-04.d
Date Inj'd : 3/14/2016 10:42 pm
Sample : wg873613-1,42e,,

QMethod : pest15_16_01_09a_ICAL1
Operator : pest15:am
Instrument : Pest 15
Quant Date : 3/15/2016 1:48 pm

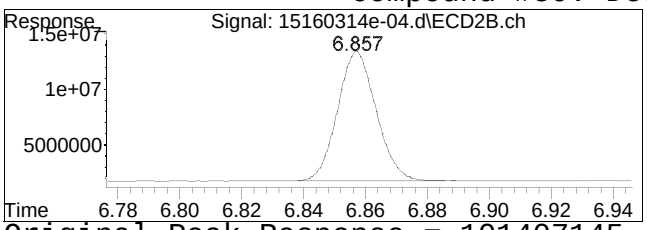
Compound #25: Decachlorobiphenyl

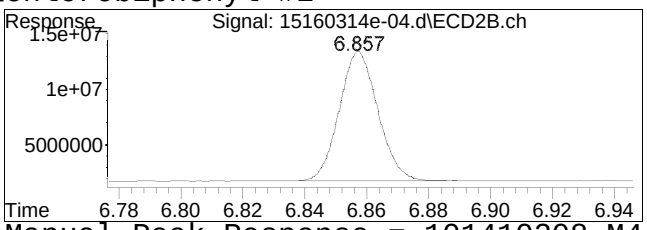




Original Peak Response = 136124412 Manual Peak Response = 137449595 M4
M4 = Poor automated baseline construction.

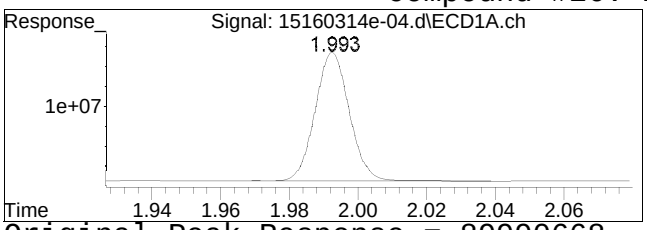
Compound #59: Decachlorobiphenyl #2

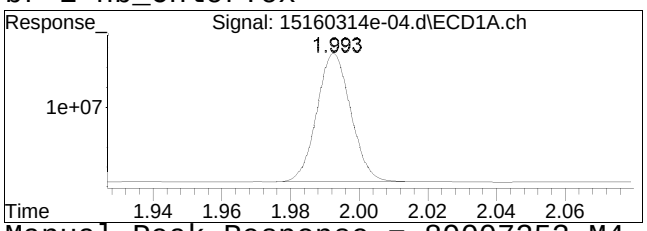




Original Peak Response = 101407145 Manual Peak Response = 101410208 M4
M4 = Poor automated baseline construction.

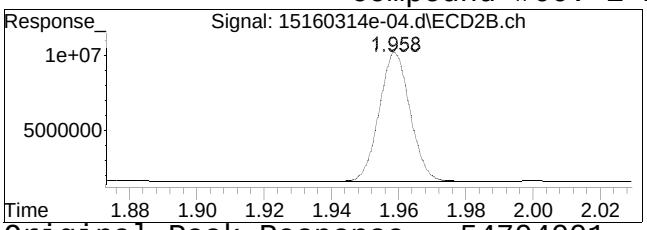
Compound #26: 1-br-2-nb_ChlorTox

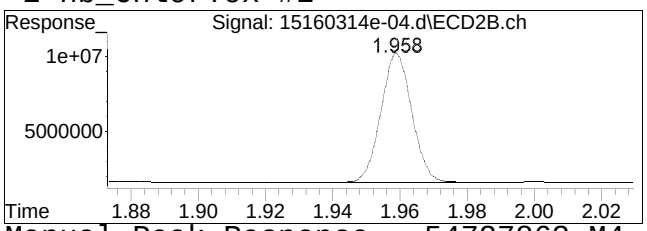




Original Peak Response = 89990668 Manual Peak Response = 89007353 M4
M4 = Poor automated baseline construction.

Compound #60: 1-br-2-nb_ChlorTox #2





Original Peak Response = 54704001 Manual Peak Response = 54727863 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:55 pm
Operator : pest15:am
Sample : wg873613-2,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:51:09 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : 1_LCS_MS_pest - pest spk

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	1.988	1.958	85949700	51902970	25.000	25.000
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.487	2.564	144.4E6	90889026	34.326	37.514
	Spiked Amount 50.000	Range 30 - 150		Recovery =		68.65%	75.03%
25) s	Decachlor...	6.458	6.853	157.0E6	111.6E6	58.197	63.425
	Spiked Amount 50.000	Range 30 - 150		Recovery =		116.39%	126.85%
	Target Compounds						
3)	Hexachlor...	2.754	2.918	211.0E6	140.1E6	50.104	56.324
4)	alpha-BHC	2.873	3.023	269.8E6	182.3E6	54.927	63.651
5)	gamma-BHC...	3.103	3.309	248.4E6	168.8E6	52.814	60.061
6)	beta-BHC	3.166	3.376	119.6E6	77721765	52.810	56.150
7)	delta-BHC	3.305	3.627	258.1E6	176.5E6	52.185	59.609
8)	Heptachlor	3.471	3.680	219.6E6	146.8E6	44.683	49.013
9)	Aldrin	3.714	3.963	196.7E6	138.1E6	48.047	55.088
10)	Alachlor	3.839	3.872	34788930	25235892	53.017	60.073
11)	Heptachlo...	4.201	4.432	209.6E6	148.1E6	53.182	56.506
12)	gamma-Chl...	4.300	4.580	216.5E6	155.0E6	51.513	55.175
13)	alpha-Chl...	4.403	4.691	215.1E6	147.3E6	53.482	55.550
14)	4,4'-DDE	4.461	4.811	206.5E6	144.2E6	54.677	58.002
15)	Endosulfan I	4.507	4.740	195.1E6	135.3E6	51.559	55.369
16)	Dieldrin	4.688	4.944	217.3E6	153.9E6	51.373	59.058
17)	Endrin	4.859	5.169	212.9E6	144.8E6	53.246	58.601
18)	4,4'-DDD	4.908	5.236	181.7E6	121.7E6	56.571	58.917
19)	Endosulfa...	5.023	5.320	191.8E6	132.7E6	56.580	58.280
20)	4,4'-DDT	5.110	5.454	194.8E6	125.1E6	54.757	55.395
21)	Endrin Al...	5.318	5.554	158.2E6	108.6E6	56.311	56.848
22)	Methoxychlor	5.455	5.913	110.4E6	69670290	60.587	60.676
23)	Endosulfa...	5.619	5.742	156.9E6	129.1E6	48.021	57.924
24)	Endrin Ke...	5.808	6.102	200.4E6	144.7E6	54.871	60.173
	Sum chlordane-1			0	0	N.D.	N.D.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:55 pm
Operator : pest15:am
Sample : wg873613-2,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:51:09 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : 1_LCS_MS_pest - pest spk

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average chlordane-1					0.000	0.000
Sum toxaphene-1			0	0	N.D.	N.D.
Average toxaphene-1					0.000	0.000
SemiQuant Compounds - Not Calibrated on this Instrument						
Sum toxaphene-1			0	0	N.D.	N.D.
Average toxaphene-1					0.000	0.000

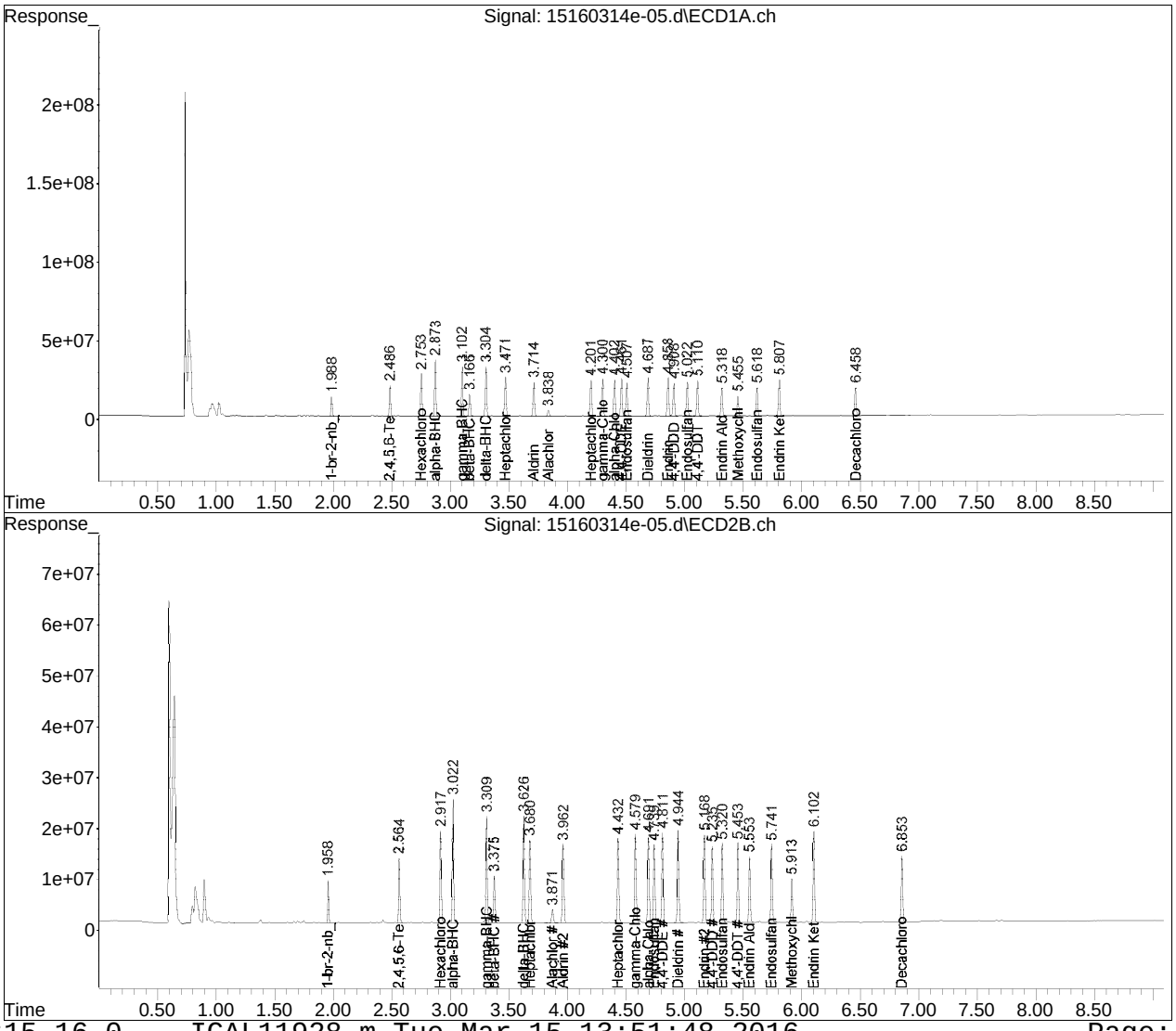
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : 1_LCS_MS_pest - pest spk (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 10:55 pm
Operator : pest15:am
Sample : wg873613-2,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:51:09 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration/Negative Proof Report

Data Path	: I:\Pest15\160314e\	QMethod	: pest15_16_01_09a_ICAL1
Data File	: 15160314e-05.d	Operator	: pest15:am
Date Inj'd	: 3/14/2016 10:55 pm	Instrument	: Pest 15
Sample	: wg873613-2,42e,,	Quant Date	: 3/15/2016 1:51 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 11:08 pm
Operator : pest15:am
Sample : wg873613-3,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:52:12 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : 1_LCS_MS_pest - pest spk

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Internal Standards						
1) i	1-br-2-nb...	1.987	1.958	94581078	58256308	25.000M4	25.000M4
	System Monitoring Compounds						
2) s	2,4,5,6-T...	2.486	2.564	155.0E6	97943093	33.485	36.017
	Spiked Amount	50.000	Range 30 - 150		Recovery =	66.97%	72.03%
25) s	Decachlor...	6.457	6.853	164.5E6	115.7E6	55.382	58.490
	Spiked Amount	50.000	Range 30 - 150		Recovery =	110.76%	116.98%
	Target Compounds						
3)	Hexachlor...	2.753	2.918	235.4E6	157.1E6	50.793	56.274
4)	alpha-BHC	2.872	3.023	297.7E6	202.2E6	55.084	62.894
5)	gamma-BHC...	3.102	3.309	272.7E6	187.1E6	52.692	59.293
6)	beta-BHC	3.166	3.376	130.7E6	85526177	52.405	55.042
7)	delta-BHC	3.304	3.626	286.1E6	198.5E6	52.569	59.722
8)	Heptachlor	3.470	3.680	249.1E6	169.2E6	46.058	50.343
9)	Aldrin	3.713	3.963	224.7E6	159.9E6	49.869	56.836
10)	Alachlor	3.837	3.871	37668818	27624495	52.126	58.521
11)	Heptachlo...	4.200	4.432	230.9E6	166.0E6	53.242	56.436
12)	gamma-Chl...	4.299	4.579	239.2E6	173.5E6	51.718	55.019
13)	alpha-Chl...	4.402	4.691	236.2E6	163.9E6	53.376	55.073
14)	4,4'-DDE	4.460	4.810	227.1E6	161.4E6	54.649	57.823
15)	Endosulfan I	4.506	4.739	214.0E6	151.2E6	51.404	55.116
16)	Dieldrin	4.687	4.944	239.2E6	170.7E6	51.409	58.380
17)	Endrin	4.858	5.168	234.8E6	161.2E6	53.376	58.139
18)	4,4'-DDD	4.907	5.235	197.7E6	134.7E6	55.954	58.138
19)	Endosulfa...	5.022	5.320	211.3E6	147.3E6	56.619	57.639
20)	4,4'-DDT	5.109	5.454	213.7E6	138.8E6	54.568	54.736
21)	Endrin Al...	5.318	5.553	170.9E6	121.4E6	55.245	56.600
22)	Methoxychlor	5.454	5.913	118.6E6	75910726	59.118	58.874
23)	Endosulfa...	5.617	5.741	171.2E6	140.9E6	47.588	56.343
24)	Endrin Ke...	5.807	6.102	206.9E6	157.5E6	51.466	58.329

Quantitation Report (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 11:08 pm
Operator : pest15:am
Sample : wg873613-3,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:52:12 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : 1_LCS_MS_pest - pest spk

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum chlordane-1			0	0	N.D.	N.D.
Average chlordane-1					0.000	0.000
Sum toxaphene-1			0	0	N.D.	N.D.
Average toxaphene-1					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

Sum toxaphene-1			0	0	N.D.	N.D.
Average toxaphene-1					0.000	0.000

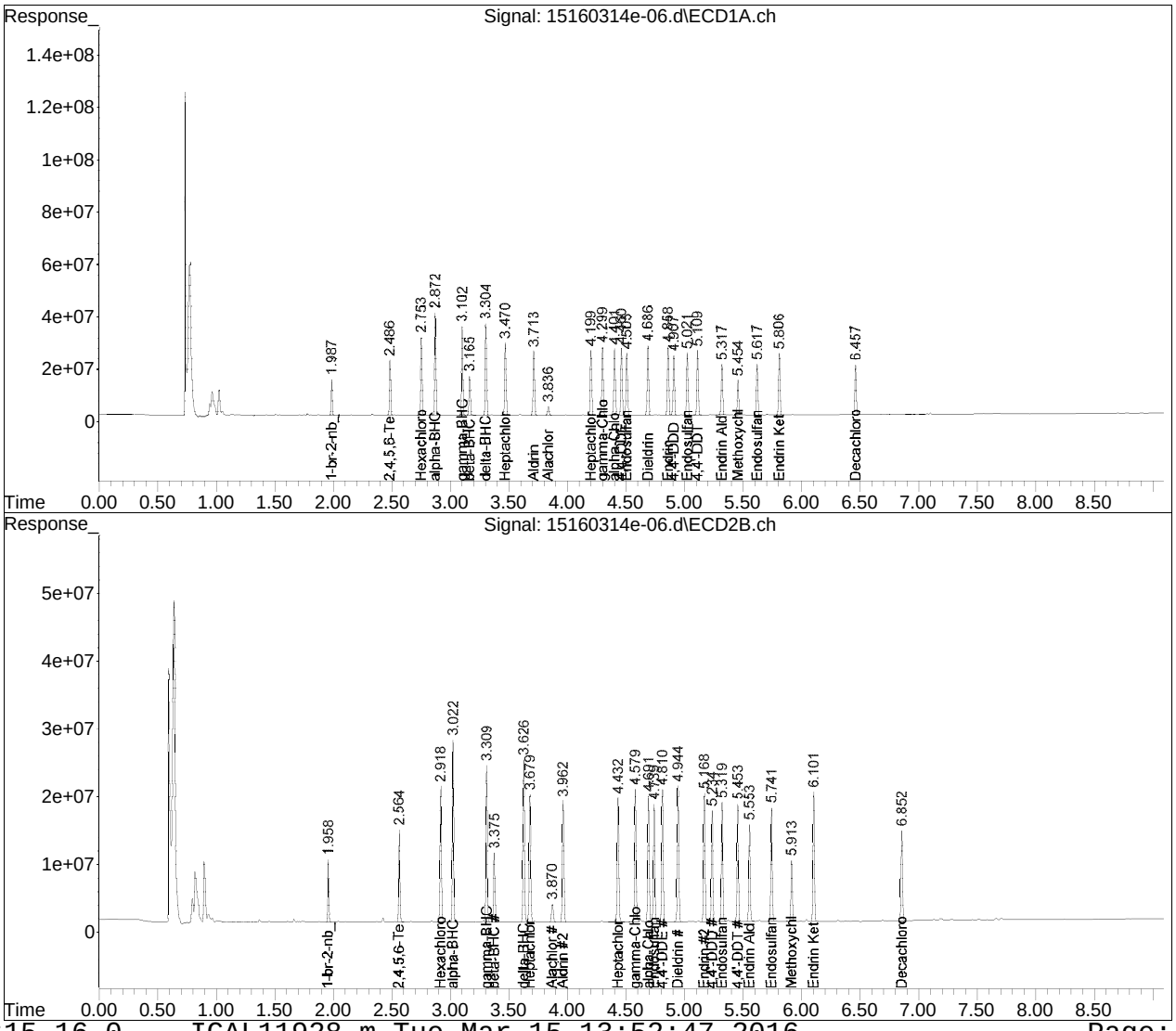
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sub List : 1_LCS_MS_pest - pest spk (QT Reviewed)

Data Path : I:\Pest15\160314e\
Data File : 15160314e-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2016 11:08 pm
Operator : pest15:am
Sample : wg873613-3,42e,,
Misc : wg873703,wg873613,ical11928
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Mar 15 13:52:12 2016
Quant Method : I:\Pest15\methods\pest15_16_01_09a_ICAL11928.m
Quant Title : pest
QLast Update : Tue Mar 15 13:48:16 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

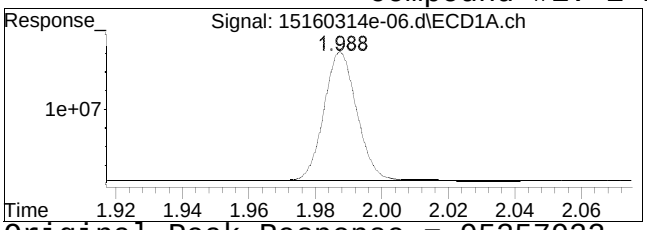


Manual Integration/Negative Proof Report

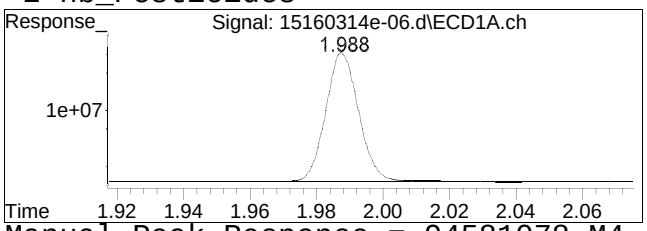
Data Path : I:\Pest15\160314e\
Data File : 15160314e-06.d
Date Inj'd : 3/14/2016 11:08 pm
Sample : wg873613-3,42e,,

QMethod : pest15_16_01_09a_ICAL1
Operator : pest15:am
Instrument : Pest 15
Quant Date : 3/15/2016 1:51 pm

Compound #1: 1-br-2-nb_Pesticides



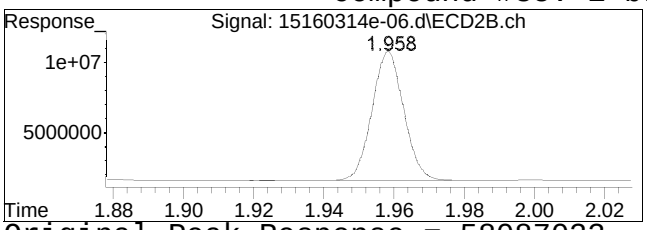
Original Peak Response = 95357932



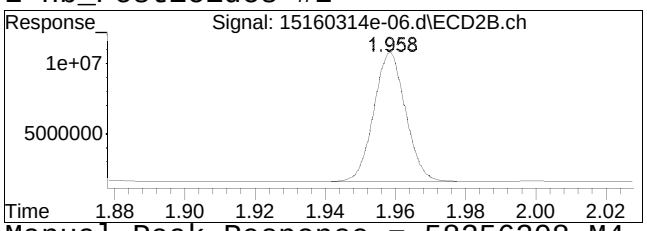
Manual Peak Response = 94581078 M4

M4 = Poor automated baseline construction.

Compound #35: 1-br-2-nb_Pesticides #2



Original Peak Response = 58087033



Manual Peak Response = 58256308 M4

M4 = Poor automated baseline construction.

Calculation of PCB Aroclors & Pesticides

Aqueous Concentration Formula:
Amt * DF*(Vt/Vp)*(1000/Vo)*(Ve/1000)

Where:
DF = Dilution Factor
Vt = Extract Final Volume (mL)
Vp = Aliquot Cleaned (mL)
Vo = Volume of Sample (mL)
Ve = Extraction Lab Final Volume (mL)

Soil Concentration Formula:
Amt * DF * (Vt/Vp)*(1000/Wt)*(Ve/1000)* (100/TS)

Where:
DF = Dilution Factor
Vt = Extract Final Volume (mL)
Vp = Aliquot Cleaned (mL)
Wt = Weight of Sample (g)
Ve = Extraction Lab Final Volume (mL)
TS = Total Solids

Sequence Name: C:\msdchem\1\sequence\160109a.s
Comment:
Operator: pest15:amLOADED
Data Path: C:\MSDCHEM\1\DATA\160109A\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run	Sequence Barcode Options
(X) Full Method	(X) On Mismatch, Inject Anyway
( ) Reprocessing Only	( ) On Mismatch, Don't Inject
	( ) Barcode Disabled

Line		Sample Name/Misc Info		
1) Sample	1	15160109a-01	PEST	prime
2) Sample	2	15160109a-02	PEST	hex blank
3) Sample	3	15160109a-03	PEST	deg std 7175
4) Sample	4	15160109a-04	PEST	il1pest,42e,,7145
5) Sample	5	15160109a-05	PEST	il2pest,42e,,7146
6) Sample	6	15160109a-06	PEST	il3pest,42e,,7147
7) Sample	7	15160109a-07	PEST	il4pest,42e,,7148
8) Sample	8	15160109a-08	PEST	il5pest,42e,,7149
9) Sample	9	15160109a-09	PEST	il6pest,42e,,7150
10) Sample	10	15160109a-10	PEST	il7pest,42e,,7151
11) Sample	11	15160109a-11	PEST	il8pest,42e,,7152
12) Sample	12	15160109a-12	PEST	il9pest,42e,,7153
13) Sample	13	15160109a-13	PEST	il10pest,42e,,7154
14) Sample	14	15160109a-14	PEST	cicvpest,42e,,7095
15) Sample	15	15160109a-15	PEST	il1chlortox,42e,,7134
16) Sample	16	15160109a-16	PEST	il2chlortox,42e,,7135
17) Sample	17	15160109a-17	PEST	il3chlortox,42e,,7136
18) Sample	18	15160109a-18	PEST	il4chlortox,42e,,7137
19) Sample	19	15160109a-19	PEST	il5chlortox,42e,,7138
20) Sample	20	15160109a-20	PEST	il6chlortox,42e,,7139
21) Sample	21	15160109a-21	PEST	il7chlortox,42e,,7140
22) Sample	22	15160109a-22	PEST	il8chlortox,42e,,7141
23) Sample	23	15160109a-23	PEST	il9chlortox,42e,,7142
24) Sample	24	15160109a-24	PEST	cicvchlortox,42e,,6968
25) Sample	25	15160109a-25	PEST	deg std 7175
26) Sample	26	15160109a-26	PEST	pest cc 7176
27) Sample	27	15160109a-27	PEST	ct cc 7174

Sequence Name: C:\msdchem\1\sequence\160314e.s
Comment:
Operator: pest15:ssLOADED
Data Path: C:\MSDCHEM\1\DATA\160314E\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

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

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name	Misc Info	
1)	Sample 1	15160314e-01	PEST	deg std 7227
2)	Sample 2	15160314e-02	PEST	pest cc 7240
3)	Sample 3	15160314e-03	PEST	ct cc 7226
4)	Sample 4	15160314e-04	PEST	wg873613-1,42e,,
5)	Sample 5	15160314e-05	PEST	wg873613-2,42e,,
6)	Sample 6	15160314e-06	PEST	wg873613-3,42e,,
7)	Sample 7	15160314e-07	PEST	l1606372-01,42e,,
8)	Sample 8	15160314e-08	PEST	l1606534-01,42e,,
9)	Sample 9	15160314e-09	PEST	l1606583-01,42e,,
10)	Sample 10	15160314e-10	PEST	l1606583-02,42e,,
11)	Sample 11	15160314e-11	PEST	l1606583-03,42e,,
12)	Sample 12	15160314e-12	PEST	l1606583-04,42e,,
13)	Sample 13	15160314e-13	PEST	l1606583-05,42e,,
14)	Sample 14	15160314e-14	PEST	l1606583-06,42e,,
15)	Sample 15	15160314e-15	PEST	l1606583-10,42e,,
16)	Sample 16	15160314e-16	PEST	l1606763-01,42e,,
17)	Sample 17	15160314e-17	PEST	wg873439-1,42e,,t
18)	Sample 18	15160314e-18	PEST	wg873439-2,42e,,t
19)	Sample 19	15160314e-19	PEST	wg873439-3,42e,,t
20)	Sample 20	15160314e-20	PEST	l1606711-01,42e,,t
21)	Sample 21	15160314e-21	PEST	l1606711-04,42e,,t
22)	Sample 22	15160314e-22	PEST	l1606711-07,42e,,t
23)	Sample 23	15160314e-23	PEST	l1606711-10,42e,,t
24)	Sample 24	15160314e-24	PEST	pest cc 7240
25)	Sample 25	15160314e-25	PEST	l1606711-13,42e,,t
26)	Sample 26	15160314e-26	PEST	wg873304-1,42e,,
27)	Sample 27	15160314e-27	PEST	wg873304-2,42e,,
28)	Sample 28	15160314e-28	PEST	wg873304-3,42e,,
29)	Sample 29	15160314e-29	PEST	l1606176-01,42e,,
30)	Sample 30	15160314e-30	PEST	l1606176-02,42e,,
31)	Sample 31	15160314e-31	PEST	l1606176-03,42e,,
32)	Sample 32	15160314e-32	PEST	l1606176-04,42e,,
33)	Sample 33	15160314e-33	PEST	l1606176-05,42e,,
34)	Sample 34	15160314e-34	PEST	l1606176-06,42e,,
35)	Sample 35	15160314e-35	PEST	l1606176-07,42e,,
36)	Sample 36	15160314e-36	PEST	l1606549-01,42e,,
37)	Sample 37	15160314e-37	PEST	l1606711-01,42e,,
38)	Sample 38	15160314e-38	PEST	l1606711-04,42e,,
39)	Sample 39	15160314e-39	PEST	l1606711-07,42e,,
40)	Sample 40	15160314e-40	PEST	l1606711-10,42e,,
41)	Sample 41	15160314e-41	PEST	l1606711-13,42e,,
42)	Sample 42	15160314e-42	PEST	l1606726-01,42e,,

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 23 2016, 02:28 pm

Work Group: WG873613 for Department: 2 Organic Preparation

Created: 14-MAR-16 Due: Operator: SMB

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1606372-01	RISER RINSE (R2180)	S	NYTCL-8081	WATER	DONE	U	0314	0318	S0	Amber-A.5
L1606534-01	AUGER RINSE	S	NYTCL-8081	WATER	DONE	U	0315	0317	S0	Amber-A.5
L1606583-01	MW14_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606583-02	MW16_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606583-03	MW17_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606583-04	MW11_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606583-05	MW15_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606583-06	DUP01_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606583-10	FB01_030816	S	NYTCL-8081	WATER	DONE	U	0315	0315	S0	Amber-A.5
L1606763-01	MW12_030916	S	NYTCL-8081	WATER	DONE	U	0316	0316	S0	Amber-A.5
WG873613-1	Laboratory Method Bl	S	NYTCL-8081	WATER	DONE	U				
WG873613-2	Laboratory Control S	S	NYTCL-8081	WATER	DONE	U				
WG873613-3	LCS Duplicate	S	NYTCL-8081	WATER	DONE	U				

Comments:

WG873613-3 WG873613-2

ORGANIC ELN REPORT

Workgroup: WG873613

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP470
Surrogate Type: Pesticide/PCB **Lot #:** PP7220
Spike Type: Pesticide **Lot #:** PP7133
Spike Verify by: SMB
Lims Spikelot: PEST_1107
Additional Reagents/Stds

Conc.Method: S-EVAP/N-EVAP
Solvent Type: Hexane
Lot #: DP 283
Additional Reagents/Stds

Cleanup 1
Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**
Additional Reagents/Stds

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
WG873613-1 BLANK	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N 3
WG873613-2 LCS	03/14/16 14:10	Sarah Barr	500	>5/<9	.125	.125	03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N 3
WG873613-3 LCSD	03/14/16 14:10	Sarah Barr	500	>5/<9	.125	.125	03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N 3
L1606372-01 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N 3
L1606534-01 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N 3
L1606583-01 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N 3

Reported: 23-MAR-16 02:28 PM

ORGANIC ELN REPORT

Workgroup: WG873613

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1606583-02 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3
L1606583-03 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3
L1606583-04 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3
L1606583-05 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3
L1606583-06 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3
L1606583-10 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3
L1606763-01 WATER	03/14/16 14:10	Sarah Barr	500	>5/<9	.125		03/14/16 17:40	Caleb Agyepong	5	S-EVAP E&A,N3

Metals

Inorganic Data
(ICPMS Analysis)

Form 1
METALS

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873478-1	Date Collected	: NA
Client ID	: WG873478-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/14/16 18:54
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: TT
Lab File ID	: wg873553.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 03/14/16

		mg/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
7429-90-5	Aluminum, Total	ND	0.010	0.002	U
7440-36-0	Antimony, Total	ND	0.0020	0.0001	U
7440-38-2	Arsenic, Total	ND	0.0005	0.0001	U
7440-39-3	Barium, Total	0.0001	0.0005	0.0001	J
7440-41-7	Beryllium, Total	ND	0.0005	0.0002	U
7440-43-9	Cadmium, Total	ND	0.0002	0.0001	U
7440-70-2	Calcium, Total	ND	0.100	0.032	U
7440-47-3	Chromium, Total	0.0009	0.0010	0.0003	J
7440-48-4	Cobalt, Total	ND	0.0005	0.0001	U
7440-50-8	Copper, Total	ND	0.0010	0.0003	U
7439-89-6	Iron, Total	ND	0.050	0.012	U
7439-92-1	Lead, Total	ND	0.0010	0.0001	U
7439-95-4	Magnesium, Total	ND	0.070	0.022	U
7439-96-5	Manganese, Total	ND	0.0010	0.0003	U
7440-02-0	Nickel, Total	0.0022	0.0030	0.0001	J
7440-09-7	Potassium, Total	ND	0.100	0.019	U
7782-49-2	Selenium, Total	ND	0.005	0.001	U
7440-22-4	Silver, Total	ND	0.0004	0.0001	U
7440-23-5	Sodium, Total	ND	0.100	0.016	U
7440-28-0	Thallium, Total	ND	0.0005	0.0001	U
7440-62-2	Vanadium, Total	ND	0.0050	0.0006	U
7440-66-6	Zinc, Total	ND	0.0100	0.0026	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: WG873478-3	**Date Collected**	: 03/08/16 09:35
Client ID	: WG873478-3 DUP	**Date Received**	: 03/08/16
Sample Location	:	**Date Analyzed**	: 03/14/16 19:19
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020A	**Analyst**	: TT
Lab File ID	: wg873553.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 03/14/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-23-5	Sodium, Total	48.4	2.00	0.322	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: WG873478-3	**Date Collected**	: 03/08/16 09:35
Client ID	: WG873478-3 DUP	**Date Received**	: 03/08/16
Sample Location	:	**Date Analyzed**	: 03/14/16 19:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020A	**Analyst**	: TT
Lab File ID	: wg873553.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 03/14/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-43-9	Cadmium, Total	ND	0.0002	0.0001	U
7439-89-6	Iron, Total	0.056	0.050	0.012	
7439-92-1	Lead, Total	0.0003	0.0010	0.0001	J
7439-96-5	Manganese, Total	0.1062	0.0010	0.0003	
7440-09-7	Potassium, Total	4.61	0.100	0.019	

Form 1
METALS

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/15/16 14:18
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: TT
Lab File ID	: wg873934.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 03/14/16

		mg/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
7440-36-0	Antimony, Total	0.0011	0.0020	0.0001	J
7440-38-2	Arsenic, Total	0.0172	0.0005	0.0001	
7440-39-3	Barium, Total	0.1720	0.0005	0.0001	
7440-41-7	Beryllium, Total	0.0005	0.0005	0.0002	J
7440-43-9	Cadmium, Total	0.0002	0.0002	0.0001	
7440-47-3	Chromium, Total	0.0149	0.0010	0.0003	
7440-48-4	Cobalt, Total	0.0088	0.0005	0.0001	
7440-50-8	Copper, Total	0.0568	0.0010	0.0003	
7439-89-6	Iron, Total	26.1	0.050	0.012	
7439-92-1	Lead, Total	0.0687	0.0010	0.0001	
7439-95-4	Magnesium, Total	14.9	0.070	0.022	
7440-02-0	Nickel, Total	0.0764	0.0030	0.0001	
7440-09-7	Potassium, Total	12.1	0.100	0.019	
7782-49-2	Selenium, Total	0.004	0.005	0.001	J
7440-22-4	Silver, Total	ND	0.0004	0.0001	U
7440-28-0	Thallium, Total	0.0001	0.0005	0.0001	J
7440-62-2	Vanadium, Total	0.0175	0.0050	0.0006	
7440-66-6	Zinc, Total	0.1286	0.0100	0.0026	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: L1606763-01	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916	**Date Received**	: 03/09/16
Sample Location	: 450 UNION STREET	**Date Analyzed**	: 03/15/16 14:21
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020A	**Analyst**	: TT
Lab File ID	: wg873934.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 03/14/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	5.98	0.200	0.034	
7440-70-2	Calcium, Total	105	2.00	0.640	
7439-96-5	Manganese, Total	0.9535	0.0200	0.0060	
7440-23-5	Sodium, Total	70.6	2.00	0.322	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: L1606763-01	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916	**Date Received**	: 03/09/16
Sample Location	: 450 UNION STREET	**Date Analyzed**	: 03/16/16 12:38
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020A	**Analyst**	: TT
Lab File ID	: wg874341.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 03/15/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-70-2	Calcium, Dissolved	110	2.00	0.640	
7439-96-5	Manganese, Dissolved	0.6026	0.0200	0.0060	
7440-23-5	Sodium, Dissolved	73.8	2.00	0.322	

Form 1
METALS

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: L1606763-01	Date Collected	: 03/09/16 11:40
Client ID	: MW12_030916	Date Received	: 03/09/16
Sample Location	: 450 UNION STREET	Date Analyzed	: 03/16/16 12:34
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: TT
Lab File ID	: wg874341.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 03/15/16

		mg/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
7429-90-5	Aluminum, Dissolved	0.004	0.010	0.002	J
7440-36-0	Antimony, Dissolved	0.0008	0.0020	0.0001	J
7440-38-2	Arsenic, Dissolved	0.0098	0.0005	0.0001	
7440-39-3	Barium, Dissolved	0.0901	0.0005	0.0001	
7440-41-7	Beryllium, Dissolved	ND	0.0005	0.0002	U
7440-43-9	Cadmium, Dissolved	0.0001	0.0002	0.0001	J
7440-47-3	Chromium, Dissolved	0.00090	0.0010	0.0003	J
7440-48-4	Cobalt, Dissolved	0.0012	0.0005	0.0001	
7440-50-8	Copper, Dissolved	0.0011	0.0010	0.0003	
7439-89-6	Iron, Dissolved	11.4	0.050	0.012	
7439-92-1	Lead, Dissolved	ND	0.0010	0.0001	U
7439-95-4	Magnesium, Dissolved	10.4	0.070	0.022	
7440-02-0	Nickel, Dissolved	0.0460	0.0020	0.0001	
7440-09-7	Potassium, Dissolved	10.5	0.100	0.019	
7782-49-2	Selenium, Dissolved	ND	0.005	0.001	U
7440-22-4	Silver, Dissolved	ND	0.0004	0.0001	U
7440-28-0	Thallium, Dissolved	ND	0.0005	0.0001	U
7440-62-2	Vanadium, Dissolved	ND	0.0050	0.0006	U
7440-66-6	Zinc, Dissolved	0.0376	0.0100	0.0026	

Form 1
METALS

Client	: Langan Engineering & Environmental	Lab Number	: L1606763
Project Name	: 450 UNION STREET	Project Number	: 170301202
Lab ID	: WG873887-1	Date Collected	: NA
Client ID	: WG873887-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/16/16 12:13
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: TT
Lab File ID	: wg874341.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 03/15/16

		mg/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
7429-90-5	Aluminum, Dissolved	ND	0.010	0.002	U
7440-36-0	Antimony, Dissolved	0.0003	0.0020	0.0001	J
7440-38-2	Arsenic, Dissolved	ND	0.0005	0.0001	U
7440-39-3	Barium, Dissolved	ND	0.0005	0.0001	U
7440-41-7	Beryllium, Dissolved	ND	0.0005	0.0002	U
7440-43-9	Cadmium, Dissolved	ND	0.0002	0.0001	U
7440-70-2	Calcium, Dissolved	ND	0.100	0.032	U
7440-47-3	Chromium, Dissolved	0.0007	0.0010	0.0003	J
7440-48-4	Cobalt, Dissolved	ND	0.0005	0.0001	U
7440-50-8	Copper, Dissolved	ND	0.0010	0.0003	U
7439-89-6	Iron, Dissolved	ND	0.050	0.012	U
7439-92-1	Lead, Dissolved	ND	0.0010	0.0001	U
7439-95-4	Magnesium, Dissolved	ND	0.070	0.022	U
7439-96-5	Manganese, Dissolved	ND	0.0010	0.0003	U
7440-02-0	Nickel, Dissolved	0.0019	0.0020	0.0001	J
7440-09-7	Potassium, Dissolved	ND	0.100	0.019	U
7782-49-2	Selenium, Dissolved	ND	0.005	0.001	U
7440-22-4	Silver, Dissolved	ND	0.0004	0.0001	U
7440-23-5	Sodium, Dissolved	ND	0.100	0.016	U
7440-28-0	Thallium, Dissolved	ND	0.0005	0.0001	U
7440-62-2	Vanadium, Dissolved	ND	0.0050	0.0006	U
7440-66-6	Zinc, Dissolved	ND	0.0100	0.0026	U

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)							
Lab ID :	R846568-14			R846568-5			R846568-10		R846568-12		
Date Analyzed :	03/14/16 11:46			03/14/16 12:18			03/14/16 13:18		03/14/16 13:55		
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum	100.0000	109.0000	109	100.0000	106.0000	106	98.0000	98	95.5000	96
Antimony	100.0000	106.0000	106	100.0000	105.0000	105	104.0000	104	98.1000	98
Arsenic	100.0000	102.0000	102	100.0000	102.0000	102	102.0000	102	98.3000	98
Barium	100.0000	104.0000	104	100.0000	106.0000	106	104.0000	104	100.0000	100
Beryllium	100.0000	106.0000	106	100.0000	104.0000	104	104.0000	104	106.0000	106
Cadmium	100.0000	106.0000	106	100.0000	104.0000	104	105.0000	105	100.0000	100
Calcium	10000.0000	10600.0000	106	10000.0000	10200.0000	102	9900.0000	99	9300.0000	93
Chromium	100.0000	105.0000	105	100.0000	102.0000	102	103.0000	103	95.8000	96
Cobalt	100.0000	108.0000	108	100.0000	105.0000	105	107.0000	107	101.0000	101
Copper	100.0000	108.0000	108	100.0000	107.0000	107	107.0000	107	103.0000	103
Iron	10000.0000	10500.0000	105	10000.0000	10200.0000	102	10400.0000	104	9670.0000	97
Lead	100.0000	106.0000	106	100.0000	105.0000	105	107.0000	107	105.0000	105
Magnesium	10000.0000	10400.0000	104	10000.0000	10300.0000	103	10200.0000	102	9390.0000	94
Manganese	100.0000	103.0000	103	100.0000	95.8000	96	101.0000	101	91.6000	92
Nickel	100.0000	106.0000	106	100.0000	105.0000	105	108.0000	108	102.0000	102
Potassium	10000.0000	10400.0000	104	10000.0000	10400.0000	104	10000.0000	100	9740.0000	97
Selenium	100.0000	107.0000	107	100.0000	98.4000	98	109.0000	109	101.0000	101
Silver	100.0000	106.0000	106	100.0000	109.0000	109	110.0000	110	107.0000	107
Sodium	10000.0000	10100.0000	101	10000.0000	9940.0000	99	9920.0000	99	9180.0000	92
Thallium	100.0000	104.0000	104	100.0000	104.0000	104	103.0000	103	100.0000	100
Vanadium	100.0000	106.0000	106	100.0000	104.0000	104	99.9000	100	97.4000	97
Zinc	100.0000	108.0000	108	100.0000	106.0000	106	107.0000	107	102.0000	102

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)							
Lab ID :				R846568-15			R846568-17		R846568-19		
Date Analyzed :				03/14/16 15:16			03/14/16 16:24		03/14/16 17:24		
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**	
Aluminum				100.0000	102.0000	102	110.0000	110	103.0000	103	
Antimony				100.0000	101.0000	101	103.0000	103	103.0000	103	
Arsenic				100.0000	99.2000	99	97.4000	97	101.0000	101	
Barium				100.0000	104.0000	104	102.0000	102	105.0000	105	
Beryllium				100.0000	103.0000	103	93.2000	93	90.2000	90	
Cadmium				100.0000	106.0000	106	107.0000	107	104.0000	104	
Calcium				10000.0000	9880.0000	99	10500.0000	105	10200.0000	102	
Chromium				100.0000	106.0000	106	105.0000	105	106.0000	106	
Cobalt				100.0000	105.0000	105	105.0000	105	113.0000	113	
Copper				100.0000	106.0000	106	107.0000	107	111.0000	111	
Iron				10000.0000	10200.0000	102	10500.0000	105	10900.0000	109	
Lead				100.0000	107.0000	107	103.0000	103	105.0000	105	
Magnesium				10000.0000	10100.0000	101	10400.0000	104	10200.0000	102	
Manganese				100.0000	100.0000	100	103.0000	103	103.0000	103	
Nickel				100.0000	105.0000	105	107.0000	107	110.0000	110	
Potassium				10000.0000	10200.0000	102	10600.0000	106	10700.0000	107	
Selenium				100.0000	104.0000	104	95.1000	95	99.0000	99	
Silver				100.0000	109.0000	109	109.0000	109	110.0000	110	
Sodium				10000.0000	9730.0000	97	10300.0000	103	10100.0000	101	
Thallium				100.0000	103.0000	103	103.0000	103	106.0000	106	
Vanadium				100.0000	104.0000	104	102.0000	102	102.0000	102	
Zinc				100.0000	102.0000	102	99.8000	100	102.0000	102	

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)							
Lab ID :				R846568-21			R846568-23		R846568-25		
Date Analyzed :				03/14/16 18:02			03/14/16 18:47		03/14/16 19:25		
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**	
Aluminum				100.0000	105.0000	105	106.0000	106	96.5000	96	
Antimony				100.0000	104.0000	104	101.0000	101	100.0000	100	
Arsenic				100.0000	98.9000	99	100.0000	100	96.2000	96	
Barium				100.0000	104.0000	104	105.0000	105	98.1000	98	
Beryllium				100.0000	90.0000	90	97.2000	97	96.4000	96	
Cadmium				100.0000	109.0000	109	104.0000	104	101.0000	101	
Calcium				10000.0000	10800.0000	108	9850.0000	98	10200.0000	102	
Chromium				100.0000	109.0000	109	100.0000	100	99.5000	100	
Cobalt				100.0000	110.0000	110	106.0000	106	102.0000	102	
Copper				100.0000	109.0000	109	108.0000	108	103.0000	103	
Iron				10000.0000	10700.0000	107	10500.0000	105	10100.0000	101	
Lead				100.0000	105.0000	105	105.0000	105	106.0000	106	
Magnesium				10000.0000	10200.0000	102	10500.0000	105	10000.0000	100	
Manganese				100.0000	105.0000	105	101.0000	101	95.0000	95	
Nickel				100.0000	108.0000	108	107.0000	107	101.0000	101	
Potassium				10000.0000	10800.0000	108	10100.0000	101	10100.0000	101	
Selenium				100.0000	98.8000	99	95.9000	96	91.3000	91	
Silver				100.0000	108.0000	108	109.0000	109	106.0000	106	
Sodium				10000.0000	9890.0000	99	10400.0000	104	9740.0000	97	
Thallium				100.0000	106.0000	106	104.0000	104	101.0000	101	
Vanadium				100.0000	106.0000	106	98.8000	99	98.9000	99	
Zinc				100.0000	104.0000	104	101.0000	101	98.9000	99	

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R846931-1			R846931-5			R846931-7			
Date Analyzed :	03/15/16 13:23			03/15/16 13:44			03/15/16 14:24			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum	100.0000	106.0000	106	100.0000	104.0000	104	95.6000	96		
Antimony	100.0000	104.0000	104	100.0000	103.0000	103	102.0000	102		
Arsenic	100.0000	102.0000	102	100.0000	106.0000	106	101.0000	101		
Barium	100.0000	100.0000	100	100.0000	102.0000	102	97.2000	97		
Beryllium	100.0000	108.0000	108	100.0000	105.0000	105	99.4000	99		
Cadmium	100.0000	104.0000	104	100.0000	105.0000	105	102.0000	102		
Calcium	10000.0000	10200.0000	102	10000.0000	10300.0000	103	9900.0000	99		
Chromium	100.0000	107.0000	107	100.0000	104.0000	104	101.0000	101		
Cobalt	100.0000	108.0000	108	100.0000	107.0000	107	105.0000	105		
Copper	100.0000	106.0000	106	100.0000	107.0000	107	107.0000	107		
Iron	10000.0000	10500.0000	105	10000.0000	10700.0000	107	10600.0000	106		
Lead	100.0000	101.0000	101	100.0000	101.0000	101	102.0000	102		
Magnesium	10000.0000	10600.0000	106	10000.0000	10700.0000	107	10000.0000	100		
Manganese	100.0000	104.0000	104	100.0000	102.0000	102	100.0000	100		
Nickel	100.0000	108.0000	108	100.0000	102.0000	102	106.0000	106		
Potassium	10000.0000	10600.0000	106	10000.0000	10500.0000	105	10300.0000	103		
Selenium	100.0000	104.0000	104	100.0000	105.0000	105	97.0000	97		
Silver	100.0000	108.0000	108	100.0000	108.0000	108	107.0000	107		
Sodium	10000.0000	10700.0000	107	10000.0000	10800.0000	108	10300.0000	103		
Thallium	100.0000	104.0000	104	100.0000	104.0000	104	104.0000	104		
Vanadium	100.0000	105.0000	105	100.0000	104.0000	104	101.0000	101		
Zinc	100.0000	102.0000	102	100.0000	106.0000	106	99.2000	99		

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R847304-1			R847304-5			R847304-7			
Date Analyzed :	03/16/16 11:34			03/16/16 12:06			03/16/16 12:44			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum	100.0000	108.0000	108	100.0000	101.0000	101	98.6000	99		
Antimony	100.0000	104.0000	104	100.0000	97.4000	97	92.1000	92		
Arsenic	100.0000	95.8000	96	100.0000	92.6000	93	92.1000	92		
Barium	100.0000	101.0000	101	100.0000	95.8000	96	93.8000	94		
Beryllium	100.0000	96.9000	97	100.0000	97.4000	97	95.6000	96		
Cadmium	100.0000	102.0000	102	100.0000	97.9000	98	92.9000	93		
Calcium	10000.0000	10300.0000	103	10000.0000	9700.0000	97	9640.0000	96		
Chromium	100.0000	102.0000	102	100.0000	97.1000	97	93.9000	94		
Cobalt	100.0000	103.0000	103	100.0000	101.0000	101	96.2000	96		
Copper	100.0000	101.0000	101	100.0000	97.9000	98	94.5000	94		
Iron	10000.0000	10300.0000	103	10000.0000	9600.0000	96	9300.0000	93		
Lead	100.0000	100.0000	100	100.0000	96.0000	96	91.8000	92		
Magnesium	10000.0000	10800.0000	108	10000.0000	10200.0000	102	9590.0000	96		
Manganese	100.0000	100.0000	100	100.0000	94.2000	94	91.1000	91		
Nickel	100.0000	103.0000	103	100.0000	101.0000	101	98.3000	98		
Potassium	10000.0000	10800.0000	108	10000.0000	10400.0000	104	9850.0000	98		
Selenium	100.0000	92.7000	93	100.0000	94.8000	95	93.1000	93		
Silver	100.0000	102.0000	102	100.0000	100.0000	100	96.7000	97		
Sodium	10000.0000	10400.0000	104	10000.0000	9890.0000	99	9410.0000	94		
Thallium	100.0000	103.0000	103	100.0000	97.9000	98	95.0000	95		
Vanadium	100.0000	102.0000	102	100.0000	95.7000	96	91.0000	91		
Zinc	100.0000	99.4000	99	100.0000	94.5000	94	93.8000	94		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :	R846568-2		R846568-6		R846568-11		R846568-13		WG873478-1	
Date Analyzed :	03/14/16 11:49		03/14/16 12:21		03/14/16 13:21		03/14/16 13:58		03/14/16 18:54	
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Aluminum	1.69	U	1.69	U	1.69	U	2.31	J	0.002	U
Antimony	0.492	J	0.134	J	0.0699	U	0.0741	J	0.0001	U
Arsenic	0.134	J	0.123	U	0.123	U	0.123	U	0.0001	U
Barium	0.0625	U	0.0625	U	0.0710	J	0.0850	J	0.0001	J
Beryllium	0.150	U	0.150	U	0.150	U	0.150	U	0.0002	U
Cadmium	0.0500	U	0.0500	U	0.0500	U	0.0726	J	0.0001	U
Calcium	32.0	U	32.0	U	32.0	U	32.0	U	0.032	U
Chromium	0.253	U	0.253	U	0.253	U	0.253	U	0.0009	J
Cobalt	0.0621	U	0.0621	U	0.0621	U	0.0812	J	0.0001	U
Copper	0.262	U	0.262	U	0.262	U	0.262	U	0.0003	U
Iron	12.0	U	12.0	U	12.0	U	12.0	U	0.012	U
Lead	0.129	U	0.129	U	0.129	U	0.129	U	0.0001	U
Magnesium	22.3	U	22.3	U	22.3	U	22.3	U	0.022	U
Manganese	0.529	J	0.309	J	0.307	J	0.736	J	0.0003	U
Nickel	0.0865	U	0.0865	U	0.0865	U	0.215	J	0.0022	J
Potassium	19.3	U	19.3	U	19.3	U	19.3	U	0.019	U
Selenium	1.00	U	1.00	U	1.00	U	1.00	U	0.001	U
Silver	0.0779	U	0.0779	U	0.0779	U	0.0779	U	0.0001	U
Sodium	16.1	U	16.1	U	16.1	U	16.1	U	0.016	U
Thallium	0.0566	U	0.0566	U	0.0566	U	0.0860	J	0.0001	U
Vanadium	0.551	U	0.551	U	0.551	U	0.551	U	0.0006	U
Zinc	2.56	U	2.56	U	2.56	U	2.56	U	0.0026	U

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R846568-16		R846568-18		R846568-20			
Date Analyzed :			03/14/16 15:19		03/14/16 16:27		03/14/16 17:28			
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Aluminum			1.69	U	1.69	U	1.69	U		
Antimony			0.0954	J	0.0916	J	0.0699	U		
Arsenic			0.123	U	0.123	U	0.123	U		
Barium			0.0625	U	0.0625	U	0.0625	U		
Beryllium			0.150	U	0.150	U	0.150	U		
Cadmium			0.0500	U	0.0500	U	0.0500	U		
Calcium			32.0	U	32.0	U	32.0	U		
Chromium			0.253	U	0.253	U	0.253	U		
Cobalt			0.0621	U	0.0621	U	0.0621	U		
Copper			0.262	U	0.262	U	0.262	U		
Iron			12.0	U	12.0	U	12.0	U		
Lead			0.129	U	0.129	U	0.129	U		
Magnesium			22.3	U	22.3	U	22.3	U		
Manganese			0.686	J	0.696	J	0.346	J		
Nickel			0.0865	U	0.0865	U	0.0865	U		
Potassium			19.3	U	19.3	U	19.3	U		
Selenium			1.00	U	1.00	U	1.00	U		
Silver			0.0779	U	0.0779	U	0.0779	U		
Sodium			16.1	U	16.1	U	16.1	U		
Thallium			0.0566	U	0.0566	U	0.0566	U		
Vanadium			0.551	U	0.551	U	0.551	U		
Zinc			2.56	U	2.56	U	2.56	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R846568-22		R846568-24		R846568-26			
Date Analyzed :			03/14/16 18:05		03/14/16 18:51		03/14/16 19:28			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			1.69	U	1.69	U	1.69	U		
Antimony			0.238	J	0.0699	U	0.141	J		
Arsenic			0.123	U	0.123	U	0.123	U		
Barium			0.124	J	0.0625	J	0.0625	U		
Beryllium			0.150	U	0.150	U	0.150	U		
Cadmium			0.0500	U	0.0500	U	0.0500	U		
Calcium			61.1	J	32.0	U	32.0	U		
Chromium			0.253	U	0.253	U	0.253	U		
Cobalt			0.0848	J	0.0621	U	0.0621	U		
Copper			0.262	U	0.262	U	0.262	U		
Iron			12.0	U	12.0	U	12.0	U		
Lead			0.129	U	0.129	U	0.129	U		
Magnesium			22.3	U	22.3	U	22.3	U		
Manganese			0.386	J	0.545	J	0.405	J		
Nickel			0.202	J	0.0865	U	0.0865	U		
Potassium			21.4	J	19.3	U	19.3	U		
Selenium			1.00	U	1.00	U	1.00	U		
Silver			0.0779	U	0.0779	U	0.0779	U		
Sodium			104.		16.1	U	16.1	U		
Thallium			0.0658	J	0.0566	U	0.0566	U		
Vanadium			0.551	U	0.551	U	0.551	U		
Zinc			2.56	U	2.56	U	2.56	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R846931-2		R846931-6		R846931-8					
Date Analyzed	:	03/15/16 13:26		03/15/16 13:47		03/15/16 14:27					
Parameter		ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum		1.69	U	1.69	U	1.69	U				
Antimony		0.351	J	0.526		0.0946	J				
Arsenic		0.137	J	0.135	J	0.123	U				
Barium		0.0625	U	0.0625	U	0.0625	U				
Beryllium		0.150	U	0.150	U	0.150	U				
Cadmium		0.0500	U	0.0500	U	0.0500	U				
Calcium		32.0	U	32.0	U	32.0	U				
Chromium		0.253	U	0.253	U	0.253	U				
Cobalt		0.0621	U	0.0621	U	0.0621	U				
Copper		0.262	U	0.262	U	0.262	U				
Iron		12.0	U	12.0	U	12.0	U				
Lead		0.129	U	0.129	U	0.129	U				
Magnesium		22.3	U	22.3	U	22.3	U				
Manganese		0.321	J	0.302	U	0.472	J				
Nickel		0.0865	U	0.0924	J	0.134	J				
Potassium		19.3	U	19.3	U	19.3	U				
Selenium		1.00	U	1.00	U	1.00	U				
Silver		0.0779	U	0.0779	U	0.0779	U				
Sodium		16.1	U	16.1	U	16.1	U				
Thallium		0.0566	U	0.0566	U	0.0566	U				
Vanadium		0.551	U	0.551	U	0.551	U				
Zinc		2.56	U	2.56	U	2.56	U				

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :	R847304-2		R847304-6		R847304-8				WG873887-1	
Date Analyzed :	03/16/16 11:37		03/16/16 12:09		03/16/16 12:47				03/16/16 12:13	
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Aluminum	1.69	U	1.69	U	1.69	U			0.002	U
Antimony	0.515		0.360	J	0.113	J			0.0003	J
Arsenic	0.234	J	0.185	J	0.123	U			0.0001	U
Barium	0.0625	U	0.0625	U	0.0625	U			0.0001	U
Beryllium	0.150	U	0.150	U	0.150	U			0.0002	U
Cadmium	0.0500	U	0.0500	U	0.0500	U			0.0001	U
Calcium	32.0	U	32.0	U	32.0	U			0.032	U
Chromium	0.253	U	0.253	U	0.253	U			0.0007	J
Cobalt	0.0621	U	0.0621	U	0.0621	U			0.0001	U
Copper	0.262	U	0.262	U	0.262	U			0.0003	U
Iron	12.0	U	12.0	U	12.0	U			0.012	U
Lead	0.129	U	0.129	U	0.129	U			0.0001	U
Magnesium	22.3	U	22.3	U	22.3	U			0.022	U
Manganese	0.302	U	0.302	U	0.302	U			0.0003	U
Nickel	0.156	J	0.152	J	0.0865	U			0.0019	J
Potassium	19.3	U	19.3	U	19.3	U			0.019	U
Selenium	1.13	J	1.00	U	1.00	U			0.001	U
Silver	0.0779	U	0.0779	U	0.0779	U			0.0001	U
Sodium	16.1	U	16.1	U	16.1	U			0.016	U
Thallium	0.0566	U	0.0566	U	0.0566	U			0.0001	U
Vanadium	0.551	U	0.551	U	0.551	U			0.0006	U
Zinc	2.56	U	2.56	U	2.56	U			0.0026	U

Form 4a
Interference Check Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Concentration Units**	: ug/l

	True		Initial Found				Final Found			
Lab ID :			R846568-3		R846568-4					
Analysis Date :			03/14/16 12:09		03/14/16 12:12					
Analyte	**Sol. A**	**Sol. AB**	**Sol. A**	**%R**	**Sol. AB**	**%R**	**Sol. A**	**%R**	**Sol. AB**	**%R**
Aluminum	20000	20000	19600	98	19300	96				
Antimony			0.381							
Arsenic		20	0.231		19.4	97				
Barium			0.0803							
Beryllium			0.0112							
Cadmium		20	0.138		20.7	104				
Calcium	60000	60000	60300	100	57500	96				
Chromium		40	0.153		39.9	100				
Cobalt		40	0.242		40.6	102				
Copper		40	0.296		41.0	102				
Iron	50000	50000	50300	101	50100	100				
Lead			0.101							
Magnesium	20000	20000	20400	102	19300	96				
Manganese		40	0.439		39.9	100				
Nickel		40	0.0688		38.8	97				
Potassium	20000	20000	20300	102	19300	96				
Selenium		20	0.0941		21.1	106				
Silver		10	0.104		10.4	104				
Sodium	50000	50000	50800	102	48400	97				
Thallium			-0.0124							
Vanadium		40	0.0100		40.2	100				
Zinc		20	-0.488		18.5	92				

Form 4a
Interference Check Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Concentration Units**	: ug/l

	True		Initial Found				Final Found			
Lab ID :			R846931-3		R846931-4					
Analysis Date :			03/15/16 13:32		03/15/16 13:35					
Analyte	**Sol. A**	**Sol. AB**	**Sol. A**	**%R**	**Sol. AB**	**%R**	**Sol. A**	**%R**	**Sol. AB**	**%R**
Aluminum	20000	20000	19700	98	18100	90				
Antimony			0.505							
Arsenic		20	0.285		19.9	100				
Barium			0.0538							
Beryllium			0.0215							
Cadmium		20	0.188		20.5	102				
Calcium	60000	60000	59900	100	57900	96				
Chromium		40	0.200		39.3	98				
Cobalt		40	0.285		38.4	96				
Copper		40	0.314		40.6	102				
Iron	50000	50000	50800	102	49600	99				
Lead			0.0940							
Magnesium	20000	20000	21000	105	19200	96				
Manganese		40	-0.0628		38.6	96				
Nickel		40	0.0454		39.2	98				
Potassium	20000	20000	20700	104	19700	98				
Selenium		20	-0.508		19.1	96				
Silver		10	0.0991		10.0	100				
Sodium	50000	50000	48200	96	43600	87				
Thallium			0.00969							
Vanadium		40	0.00974		40.2	100				
Zinc		20	-0.216		19.5	98				

Form 4a
Interference Check Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Concentration Units**	: ug/l

	True		Initial Found				Final Found			
Lab ID :			R847304-3		R847304-4					
Analysis Date :			03/16/16 11:53		03/16/16 11:56					
Analyte	**Sol. A**	**Sol. AB**	**Sol. A**	**%R**	**Sol. AB**	**%R**	**Sol. A**	**%R**	**Sol. AB**	**%R**
Aluminum	20000	20000	20300	102	19900	100				
Antimony			0.441							
Arsenic		20	0.358		19.7	98				
Barium			0.142							
Beryllium			0.0204							
Cadmium		20	0.217		20.1	100				
Calcium	60000	60000	63400	106	62300	104				
Chromium		40	0.185		40.4	101				
Cobalt		40	0.260		40.2	100				
Copper		40	0.473		40.6	102				
Iron	50000	50000	51000	102	50700	101				
Lead			0.104							
Magnesium	20000	20000	21400	107	21000	105				
Manganese		40	0.127		40.0	100				
Nickel		40	0.222		40.7	102				
Potassium	20000	20000	21600	108	21300	106				
Selenium		20	1.17		17.4	87				
Silver		10	0.106		9.96	100				
Sodium	50000	50000	48600	97	45300	91				
Thallium			0.00330							
Vanadium		40	0.0276		41.7	104				
Zinc		20	-0.196		19.5	98				

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L1606591-02		
Matrix Spike	: WG873478-4	**MS Analysis Date**	: 03/14/16 19:22
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Total	0.015	2	2.02	100					75-125	20
Antimony, Total	0.0012	0.5	0.4901	98					75-125	20
Arsenic, Total	0.0003J	0.12	0.1240	103					75-125	20
Barium, Total	0.0324	2	2.046	101					75-125	20
Beryllium, Total	ND	0.05	0.0457	91					75-125	20
Cadmium, Total	ND	0.051	0.0561	110					75-125	20
Calcium, Total	61.3	10	76.4	151 Q					75-125	20
Chromium, Total	0.0012	0.2	0.2021	100					75-125	20
Cobalt, Total	0.0003	0.5	0.5268	105					75-125	20
Copper, Total	0.0039	0.25	0.2658	105					75-125	20
Iron, Total	0.048J	1	1.05	105					75-125	20
Lead, Total	0.0007J	0.51	0.5412	106					75-125	20
Magnesium, Total	87.8	10	112.	242 Q					75-125	20
Manganese, Total	0.1064	0.5	0.6155	102					75-125	20
Nickel, Total	0.0034	0.5	0.5230	104					75-125	20
Potassium, Total	4.31	10	14.9	106					75-125	20
Selenium, Total	ND	0.12	0.129	108					75-125	20
Silver, Total	ND	0.05	0.0503	101					75-125	20
Sodium, Total	49.7	10	59.5	98					75-125	20
Thallium, Total	ND	0.12	0.1265	105					75-125	20
Vanadium, Total	ND	0.5	0.5299	106					75-125	20
Zinc, Total	0.0163	0.5	0.5032	97					75-125	20

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L1600003-77		
Matrix Spike	: WG873887-3	**MS Analysis Date**	: 03/16/16 12:22
Matrix Spike Dup	: WG873887-4	**MSD Analysis Date**	: 03/16/16 12:25

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Dissolved	0.092J	2	2.48	124	2	2.42	121	2	75-125	20
Antimony, Dissolved	0.0244J	0.5	0.5809	116	0.5	0.5697	114	2	75-125	20
Arsenic, Dissolved	0.0043J	0.12	0.1356	113	0.12	0.1377	115	2	75-125	20
Barium, Dissolved	0.1875	2	2.509	116	2	2.510	116	0	75-125	20
Beryllium, Dissolved	ND	0.05	0.0632	126 Q	0.05	0.0564	113	11	75-125	20
Cadmium, Dissolved	0.0045	0.051	0.0688	126 Q	0.051	0.0631	115	9	75-125	20
Calcium, Dissolved	147.	10	171.	240 Q	10	173.	260 Q	1	75-125	20
Chromium, Dissolved	ND	0.2	0.2262	113	0.2	0.2290	114	1	75-125	20
Cobalt, Dissolved	0.0235	0.5	0.5828	112	0.5	0.5930	114	2	75-125	20
Copper, Dissolved	ND	0.25	0.3037	121	0.25	0.3000	120	1	75-125	20
Iron, Dissolved	ND	1	1.20	120	1	1.18	118	2	75-125	20
Lead, Dissolved	ND	0.51	0.6044	118	0.51	0.5923	116	2	75-125	20
Magnesium, Dissolved	25.0	10	39.0	140 Q	10	39.8	148 Q	2	75-125	20
Manganese, Dissolved	3.533	0.5	4.492	192 Q	0.5	4.566	207 Q	2	75-125	20
Nickel, Dissolved	0.0086J	0.5	0.6058	121	0.5	0.5999	120	1	75-125	20
Potassium, Dissolved	23.8	10	37.6	138 Q	10	39.0	152 Q	4	75-125	20
Selenium, Dissolved	ND	0.12	0.168	140 Q	0.12	0.156	130 Q	7	75-125	20
Silver, Dissolved	ND	0.05	0.0580	116	0.05	0.0574	115	1	75-125	20
Sodium, Dissolved	525.	10	580.	550 Q	10	586.	610 Q	1	75-125	20
Thallium, Dissolved	ND	0.12	0.1392	116	0.12	0.1408	117	1	75-125	20
Vanadium, Dissolved	5.246	0.5	6.500	251 Q	0.5	6.528	256 Q	0	75-125	20
Zinc, Dissolved	ND	0.5	0.5772	115	0.5	0.6109	122	6	75-125	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 03/14/16 19:13
Dup Sample ID	: WG873478-3	**DUP Analysis Date**	: 03/14/16 19:19

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Sodium, Total	49.7	48.4	3	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 03/14/16 19:09
Dup Sample ID	: WG873478-3	**DUP Analysis Date**	: 03/14/16 19:16

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Cadmium, Total	ND	ND	NC	20
Iron, Total	0.048J	0.056	NC	20
Lead, Total	0.0007J	0.0003J	NC	20
Manganese, Total	0.1064	0.1062	0	20
Potassium, Total	4.31	4.61	7	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG873478-2	**LCS Analysis Date**	: 03/14/16 19:06
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Total	2.00	1.82	91.					80-120	20
Antimony, Total	0.500	0.454	91.					80-120	20
Arsenic, Total	0.120	0.104	86.					80-120	20
Barium, Total	2.00	1.86	93.					80-120	20
Beryllium, Total	0.0500	0.0456	91.					80-120	20
Cadmium, Total	0.0510	0.0502	98.					80-120	20
Calcium, Total	10.0	9.36	94.					80-120	20
Chromium, Total	0.200	0.180	90.					80-120	20
Cobalt, Total	0.500	0.456	91.					80-120	20
Copper, Total	0.250	0.233	93.					80-120	20
Iron, Total	1.00	0.952	95.					80-120	20
Lead, Total	0.510	0.511	100.					80-120	20
Magnesium, Total	10.0	9.51	95.					80-120	20
Manganese, Total	0.500	0.461	92.					80-120	20
Nickel, Total	0.500	0.477	95.					80-120	20
Potassium, Total	10.0	9.40	94.					80-120	20
Selenium, Total	0.120	0.0970	81.					80-120	20
Silver, Total	0.0500	0.0451	90.					80-120	20
Sodium, Total	10.0	9.44	94.					80-120	20
Thallium, Total	0.120	0.110	92.					80-120	20
Vanadium, Total	0.500	0.459	92.					80-120	20
Zinc, Total	0.500	0.487	97.					80-120	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG873887-2	**LCS Analysis Date**	: 03/16/16 12:16
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Dissolved	2.00	2.08	104.					80-120	20
Antimony, Dissolved	0.500	0.486	97.					80-120	20
Arsenic, Dissolved	0.120	0.119	99.					80-120	20
Barium, Dissolved	2.00	2.01	100.					80-120	20
Beryllium, Dissolved	0.0500	0.0493	99.					80-120	20
Cadmium, Dissolved	0.0510	0.0539	106.					80-120	20
Calcium, Dissolved	10.0	10.5	105.					80-120	20
Chromium, Dissolved	0.200	0.206	103.					80-120	20
Cobalt, Dissolved	0.500	0.518	104.					80-120	20
Copper, Dissolved	0.250	0.258	103.					80-120	20
Iron, Dissolved	1.00	0.992	99.					80-120	20
Lead, Dissolved	0.510	0.532	104.					80-120	20
Magnesium, Dissolved	10.0	10.7	107.					80-120	20
Manganese, Dissolved	0.500	0.509	102.					80-120	20
Nickel, Dissolved	0.500	0.536	107.					80-120	20
Potassium, Dissolved	10.0	10.9	109.					80-120	20
Selenium, Dissolved	0.120	0.120	100.					80-120	20
Silver, Dissolved	0.0500	0.0521	104.					80-120	20
Sodium, Dissolved	10.0	10.3	103.					80-120	20
Thallium, Dissolved	0.120	0.125	104.					80-120	20
Vanadium, Dissolved	0.500	0.528	106.					80-120	20
Zinc, Dissolved	0.500	0.499	100.					80-120	20

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L1606763**
Project Name	:	**450 UNION STREET**	**Project Number**	:	**170301202**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
WG873478-1	03/14/16 08:45	-	50
WG873478-2	03/14/16 08:45	-	50
WG873478-3	03/14/16 08:45	-	50
WG873478-4	03/14/16 08:45	-	50

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L1606763**
Project Name	:	**450 UNION STREET**	**Project Number**	:	**170301202**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L1606763-01	03/14/16 08:45	-	50

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L1606763**
Project Name	:	**450 UNION STREET**	**Project Number**	:	**170301202**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L1606763-01	03/15/16 11:40	-	50
WG873887-1	03/15/16 11:40	-	50
WG873887-2	03/15/16 11:40	-	50
WG873887-3	03/15/16 11:40	-	50
WG873887-4	03/15/16 11:40	-	50

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	:	**Analysis Method**	:
Start Date	: 03/14/16 10:37	**End Date**	: 03/14/16 19:28

Sample Number	Dilution Factor	Analysis Time	Aluminum, Total	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Manganese, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Thallium, Total	Vanadium, Total	Zinc, Total
R846568-1 TUNE		10:37:00																						
R846568-14 ICV	1	11:46:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-2 ICB	1	11:49:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-3 ICSA	1	12:09:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-4 ICSAB	1	12:12:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-5 CCV	1	12:18:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-6 CCB	1	12:21:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-10 CCV	1	13:18:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-11 CCB	1	13:21:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-12 CCV	1	13:55:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-13 CCB	1	13:58:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-15 CCV	1	15:16:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-16 CCB	1	15:19:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-17 CCV	1	16:24:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-18 CCB	1	16:27:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-19 CCV	1	17:24:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-20 CCB	1	17:28:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-21 CCV	1	18:02:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-22 CCB	1	18:05:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-23 CCV	1	18:47:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-24 CCB	1	18:51:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873478-1 BLANK	1	18:54:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873478-2 LCS	5	19:06:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873478-3 DUP	1	19:16:06						X					X	X		X		X						
WG873478-3 DUP	20	19:19:10																			X			
WG873478-4 MS	20	19:22:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846568-25 CCV	1	19:25:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	:	**Analysis Method**	:
Start Date	: 03/14/16 10:37	**End Date**	: 03/14/16 19:28

Sample Number	Dilution Factor	Analysis Time	Aluminum, Total	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Manganese, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Thallium, Total	Vanadium, Total	Zinc, Total
R846568-26 CCB	1	19:28:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020A
Start Date	: 03/15/16 11:19	**End Date**	: 03/15/16 14:27

Sample Number	Dilution Factor	Analysis Time	Aluminum, Total	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Manganese, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Thallium, Total	Vanadium, Total	Zinc, Total
R846931-32 TUNE		11:19:00																						
R846931-1 ICV	1	13:23:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846931-2 ICB	1	13:26:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846931-3 ICSA	1	13:32:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846931-4 ICSAB	1	13:35:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846931-5 CCV	1	13:44:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846931-6 CCB	1	13:47:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L1606763-01	1	14:18:27		X	X	X	X	X		X	X	X	X	X	X		X	X	X	X		X	X	X
L1606763-01	20	14:21:31	X						X							X					X			
R846931-7 CCV	1	14:24:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R846931-8 CCB	1	14:27:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020A
Start Date	: 03/16/16 10:52	**End Date**	: 03/16/16 12:47

Sample Number	Dilution Factor	Analysis Time	Aluminum, Dissolved	Antimony, Dissolved	Arsenic, Dissolved	Barium, Dissolved	Beryllium, Dissolved	Cadmium, Dissolved	Calcium, Dissolved	Chromium, Dissolved	Cobalt, Dissolved	Copper, Dissolved	Iron, Dissolved	Lead, Dissolved	Magnesium, Dissolved	Manganese, Dissolved	Nickel, Dissolved	Potassium, Dissolved	Selenium, Dissolved	Silver, Dissolved	Sodium, Dissolved	Thallium, Dissolved	Vanadium, Dissolved	Zinc, Dissolved
R847304-23 TUNE		10:52:00																						
R847304-1 ICV	1	11:34:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R847304-2 ICB	1	11:37:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R847304-3 ICSA	1	11:53:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R847304-4 ICSAB	1	11:56:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R847304-5 CCV	1	12:06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R847304-6 CCB	1	12:09:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873887-1 BLANK	1	12:13:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873887-2 LCS	5	12:16:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873887-3 MS	20	12:22:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG873887-4 MSD	20	12:25:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L1606763-01	1	12:34:55	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X		X	X	X
L1606763-01	20	12:38:00							X							X					X			
R847304-7 CCV	1	12:44:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R847304-8 CCB	1	12:47:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 14
ICP-MS Tune

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab Sample ID	: R846568-1	**Analysis Date**	: 03/14/16 10:37
ICP-MS Instrument	: ICPMSQ		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.953	0.6779	0.9
115 In	114.9229	0.7176	0.6
7 Li	7.0096	0.7311	1.9
238 U	238.0547	0.7025	0.6

Form 14
ICP-MS Tune

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab Sample ID	: R846931-32	**Analysis Date**	: 03/15/16 11:19
ICP-MS Instrument	: ICPMSQ		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9558	0.6788	1.8
115 In	114.9263	0.7223	1.1
7 Li	7.0099	0.7292	1.6
238 U	238.0571	0.7027	1.2

Form 14
ICP-MS Tune

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab Sample ID	: R847304-23	**Analysis Date**	: 03/16/16 10:52
ICP-MS Instrument	: ICPMSQ		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9549	0.6802	1.3
115 In	114.926	0.7213	0.6
7 Li	7.0123	0.729	0.9
238 U	238.057	0.7056	0.8

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	:	**Analysis Method**	:
Start Date	: 03/14/16	**End Date**	: 03/14/16

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R846568-14 ICV	11:46:47	98	94	98	98	93
R846568-2 ICB	11:49:55	98	94	96	94	95
R846568-3 ICSA	12:09:33	89	80	84	84	82
R846568-4 ICSAB	12:12:40	90	80	83	82	84
R846568-5 CCV	12:18:49	95	89	90	94	89
R846568-6 CCB	12:21:56	94	88	88	93	91
R846568-10 CCV	13:18:29	95	86	87	88	85
R846568-11 CCB	13:21:36	95	84	91	90	87
R846568-12 CCV	13:55:20	89	88	87	91	93
R846568-13 CCB	13:58:27	92	84	88	91	93
R846568-15 CCV	15:16:39	96	88	90	91	89
R846568-16 CCB	15:19:46	96	89	88	89	90
R846568-17 CCV	16:24:33	118	87	90	87	83
R846568-18 CCB	16:27:40	116	88	86	87	82
R846568-19 CCV	17:24:58	136	100	98	99	93
R846568-20 CCB	17:28:05	135	98	98	101	98
R846568-21 CCV	18:02:20	131	93	94	92	92
R846568-22 CCB	18:05:28	130	99	98	97	95
R846568-23 CCV	18:47:18	117	104	99	97	94
R846568-24 CCB	18:51:27	116	97	98	96	94
WG873478-1 BLANK	18:54:35	111	91	91	93	92
WG873478-2 LCS	19:06:54	113	93	95	93	94
WG873478-3 DUP	19:16:06	121	92	90	88	80
WG873478-3 DUP	19:19:10	124	97	98	96	91
WG873478-4 MS	19:22:14	127	98	97	98	90
R846568-25 CCV	19:25:19	117	97	96	96	90
R846568-26 CCB	19:28:26	114	92	93	90	90

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020A
Start Date	: 03/15/16	**End Date**	: 03/15/16

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R846931-1 ICV	13:23:01	86	82	90	92	93
R846931-2 ICB	13:26:08	85	84	85	88	90
R846931-3 ICSA	13:32:23	79	71	79	79	81
R846931-4 ICSAB	13:35:29	86	78	81	81	85
R846931-5 CCV	13:44:44	86	85	86	89	90
R846931-6 CCB	13:47:52	86	85	88	85	90
L1606763-01	14:18:27	100	79	85	83	86
L1606763-01	14:21:31	104	85	87	89	95
R846931-7 CCV	14:24:36	98	83	87	87	88
R846931-8 CCB	14:27:43	97	84	84	85	88

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020A
Start Date	: 03/16/16	**End Date**	: 03/16/16

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R847304-1 ICV	11:34:09	113	108	111	105	97
R847304-2 ICB	11:37:16	114	117	113	109	104
R847304-3 ICSA	11:53:50	105	100	102	95	92
R847304-4 ICSAB	11:56:56	104	94	100	98	95
R847304-5 CCV	12:06:12	110	108	112	107	102
R847304-6 CCB	12:09:19	111	108	111	108	105
WG873887-1 BLANK	12:13:34	114	110	108	105	105
WG873887-2 LCS	12:16:36	107	103	107	107	102
WG873887-3 MS	12:22:42	109	112	115	108	104
WG873887-4 MSD	12:25:45	112	111	113	110	104
L1606763-01	12:34:55	119	108	105	105	95
L1606763-01	12:38:00	115	118	118	113	107
R847304-7 CCV	12:44:09	112	114	114	114	108
R847304-8 CCB	12:47:17	117	122	118	119	113

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 2	
Analyst:	BM
Date:	2/3, 2/8-9, 2/17/2011
Instrument ID:	ICPMS
Column ID:	N/A
Prep Method:	EPA 3005A
Prep Chemist:	BM

Method: EPA 6020A / 200.8 — 2011

ICP-MS — Trace Elements — Liquid

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07							
			Date Analyzed	2/3/2011	2/3/2011	2/3/2011	2/8/2011	2/8/2011	2/9/2011	2/9/2011	T value used for calculating MDL: 3.143						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment	
1	Beryllium	9	0.10	0.10	0.10	0.10	0.12	0.11	0.10	0.09	0.10	103%	0.010	0.030	0.5		
2	Magnesium	24	100	109.5	105.0	113.7	102.8	90.6	109.5	107.5	105.52	106%	7.441	23.386	100		
3	Aluminum	27	10.0	10.0	10.1	10.0	9.4	8.9	10.6	10.6	9.94	99%	0.619	1.946	10.0		
4	Potassium	39	100	97.7	87.6	102.6	116.0	104.5	105.6	100.9	102.12	102%	8.600	27.030	100		
5	Calcium	44	100	108.5	102.5	113.1	107.4	97.1	108.1	108.8	106.50	107%	5.170	16.250	100		
6	Iron	57	50.0	51.0	49.6	45.8	58.1	54.5	49.4	52.9	51.60	103%	3.974	12.490	50.0		
7	Cobalt	59	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.11	107%	0.008	0.024	0.5		
8	Nickel	60	0.50	0.51	0.51	0.50	0.48	0.46	0.51	0.54	0.50	100%	0.025	0.080	0.5		
9	Copper	65	0.50	0.60	0.57	0.55	0.51	0.50	0.56	0.55	0.55	110%	0.034	0.108	0.5		
10	Zinc	66	5.00	5.82	5.39	5.75	5.80	5.58	5.18	5.32	5.55	111%	0.256	0.803	5.0		
11	Molybdenum	98	1.00	1.12	1.09	1.18	1.18	1.07	1.06	1.06	1.11	111%	0.053	0.167	1.0		
12	Silver	107	0.20	0.26	0.26	0.24	0.22	0.21	0.21	0.20	0.23	114%	0.025	0.078	0.5		
13	Cadmium	111	0.20	0.20	0.19	0.20	0.23	0.22	0.20	0.21	0.21	104%	0.014	0.043	0.5		
14	Antimony	121	0.20	0.21	0.21	0.19	0.24	0.30	0.24	0.22	0.23	115%	0.036	0.112	0.5		
15	Thallium	205	0.10	0.08	0.10	0.10	0.10	0.10	0.10	0.11	0.10	99%	0.009	0.028	0.5		

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07							
			Date Analyzed	2/8/2011	2/8/2011	2/9/2011	2/9/2011	2/17/2011	2/17/2011	2/17/2011	T value used for calculating MDL: 3.143						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment	
16	Sodium	23	100	110.5	97.4	98.5	97.0	99.0	100.3	98.7	100.18	100%	4.680	14.711	100		

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
			Date Analyzed	2/3/2011	2/3/2011	2/8/2011	2/9/2011	2/9/2011	2/17/2011	2/17/2011	2/17/2011						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
20	Arsenic	75	0.50	0.45	0.42	0.58	0.49	0.56	0.48	0.51	0.47	0.50	99%	0.054	0.161	0.5	

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.896					
			Date Analyzed	2/3/2011	2/3/2011	2/8/2011	2/8/2011	2/9/2011	2/9/2011	2/17/2011	2/17/2011	2/17/2011						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
17	Vanadium	51	0.50	0.56	0.61	0.49	0.50	0.49	0.50	0.51	0.52	0.51	0.52	104%	0.040	0.114	0.5	
18	Chromium	52	0.50	0.45	0.42	0.49	0.45	0.54	0.58	0.52	0.54	0.51	0.50	100%	0.052	0.150	0.5	
19	Manganese	55	1.00	1.04	0.97	1.06	1.11	1.13	1.09	1.06	1.10	1.08	1.07	107%	0.047	0.136	0.5	

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.896					
			Date Analyzed	2/3/2011	2/3/2011	2/8/2011	2/8/2011	2/9/2011	2/9/2011	2/17/2011	2/17/2011	2/17/2011						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
22	Barium	137	0.20	0.21	0.18	0.18	0.17	0.25	0.24	0.20	0.21	0.20	0.20	102%	0.027	0.078	0.5	

Comments: Mixed Acid Digestion

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 2 of 2	
Analyst:	BM
Date:	2/3, 2/8-9, 2/17/2011
Instrument ID:	ICPMS
Column ID:	N/A
Prep Method:	EPA 3005A
Prep Chemist:	BM

Method: EPA 6020A / 200.8 **2011**

ICP-MS | Trace Elements | Liquid

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10						
			Date Analyzed	2/3/2011	2/3/2011	2/3/2011	2/8/2011	2/8/2011	2/9/2011	2/9/2011	2/17/2011	2/17/2011	2/17/2011	T value used for calculating MDL: 2.821					
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
21	Selenium	82	1.00	1.10	1.02	0.88	1.18	0.89	1.00	0.97	1.09	1.06	1.10	1.03	103%	0.096	0.272	1.0	
23	Lead	208	0.20	0.39	0.19	0.19	0.23	0.20	0.22	0.21	0.21	0.21	0.21	0.23	113%	0.059	0.166	0.5	

Comments: Mixed Acid Digestion

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	JK
Date:	10/24-25, 10/27, 11/3, 11/14, 11/17, 11/21/2011
Instrument ID:	ICPMSX
Column ID:	N/A
Prep Method:	EPA 3005A
Prep Chemist:	JK

Method: EPA 6020A / 200.8 **2011**

ICP-MS Trace Elements Liquid

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08							
			Date Analyzed	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	T value used for calculating MDL: 2.998						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment	
1	Zinc	66	10	9.013	9.201	8.634	9.215	9.869	8.833	9.46	9.514	9.217	92%	0.397	1.189	5.0		

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10							
			Date Analyzed	10/24/2011	10/24/2011	10/24/2011	10/24/2011	10/25/2011	10/25/2011	10/25/2011	10/27/2011	10/27/2011	10/27/2011	T value used for calculating MDL: 2.821						
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment	
2	Beryllium	9	0.2	0.252	0.175	0.138	0.175	0.237	0.185	0.138	0.147	0.150	0.115	0.171	86%	0.044	0.124	0.5		
3	Sodium	23	25	51.79	52.02	51.04	47.28	44.18	41.33	41.44	45.31	40.17	44.42	45.90	184%	4.467	12.601	100		
4	Magnesium	24	2.5	2.447	2.326	2.479	2.513	2.912	2.564	2.743	3.178	3.069	2.945	2.718	109%	0.293	0.828	100		
5	Aluminum	27	4	4.175	4.146	4.208	4.286	4.182	4.098	3.982	5.630	5.454	4.896	4.506	113%	0.600	1.692	10.0		
6	Potassium	39	25	46.76	43.09	41.93	40.67	44.52	39.90	42.53	36.23	34.74	35.47	40.58	162%	4.017	11.333	100		
7	Chromium	52	0.25	0.343	0.352	0.399	0.427	0.331	0.312	0.349	0.301	0.399	0.284	0.350	140%	0.046	0.131	0.5		
8	Manganese	55	0.25	0.166	0.157	0.145	0.152	0.154	0.143	0.135	0.205	0.282	0.147	0.169	67%	0.044	0.125	0.5		
9	Iron	57	50	49.30	55.83	45.56	46.59	53.03	59.30	55.21	50.84	50.79	54.01	52.05	104%	4.271	12.049	50		
10	Cobalt	59	0.1	0.095	0.094	0.107	0.103	0.088	0.101	0.103	0.087	0.100	0.096	0.097	97%	0.00659	0.019	0.5		
11	Selenium	78	0.5	0.531	0.550	0.565	0.645	0.534	0.557	0.620	0.460	0.337	0.455	0.525	105%	0.089	0.251	1.0		
12	Molybdenum	95	0.25	0.229	0.185	0.241	0.243	0.240	0.243	0.233	0.281	0.263	0.234	0.239	96%	0.025	0.069	1.0		
13	Silver	107	0.2	0.222	0.212	0.210	0.204	0.176	0.189	0.184	0.192	0.201	0.186	0.198	99%	0.015	0.041	0.5		
14	Cadmium	111	0.1	0.091	0.082	0.106	0.116	0.115	0.071	0.102	0.108	0.086	0.128	0.101	101%	0.018	0.050	0.5		
15	Barium	137	0.1	0.104	0.120	0.125	0.100	0.107	0.096	0.114	0.120	0.114	0.115	0.112	112%	0.009	0.027	0.5		
16	Thallium	205	0.05	0.061	0.054	0.053	0.056	0.063	0.062	0.057	0.055	0.054	0.051	0.0566	113%	0.004	0.012	0.5		
17	Lead	208	0.2	0.222	0.239	0.311	0.216	0.232	0.225	0.227	0.235	0.235	0.224	0.237	118%	0.027	0.076	0.5		

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	MDL 11						
			Date Analyzed	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/17/2011	11/21/2011	T value used for calculating MDL: 2.764					
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
18	Arsenic	75	0.5	0.400	0.480	0.408	0.493	0.433	0.455	0.508	0.540	0.433	0.506	0.468	0.466	93%	0.044	0.123	0.5	

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	MDL 11	MDL 12						
			Date Analyzed	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/17/2011	11/21/2011	T value used for calculating MDL: 2.718					
No.	Analytes	Mass	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
19	Calcium	44	50	58.7	50.9	49.5	37.7	39.0	36.1	35.1	28.4	23.0	21.9	46.6	26.2	37.8	76%	11.600	32.071	100	11/14/2011
20	Vanadium	51	0.8	0.962	1.004	1.067	1.053	1.017	0.973	1.051	1.005	0.950	1.028	0.923	0.921	1.0	125%	0.050	0.136	0.5	11/14/2011
21	Nickel	60	0.2	0.185	0.193	0.252	0.167	0.224	0.220	0.228	0.231	0.183	0.223	0.183	0.221	0.209	105%	0.026	0.070	0.5	11/14/2011
22	Copper	65	0.2	0.214	0.229	0.247	0.255	0.227	0.241	0.189	0.219	0.205	0.199	0.237	0.251	0.226	113%	0.021	0.058	0.5	11/14/2011
23	Antimony	121	0.2	0.239	0.230	0.241	0.246	0.210	0.224	0.237	0.236	0.235	0.226	0.212	0.199	0.228	114%	0.014	0.039	0.5	11/14/2011

Comments:

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	JK
Date:	10/24-25, 10/27, 11/3, 11/14/2011
Instrument ID:	ICPMSX
Column ID:	N/A
Prep Method:	EPA 3005A
Prep Chemist:	JK

Method: EPA 6020A 2011

ICP-MS Trace Elements Soil

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
			Date Analyzed	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011	11/3/2011						
No.	Analytes	Mass	Target conc. (ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	Mean (ug/Kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/Kg)	Current RL (ug/Kg)	Comment
14	Zinc	66	0.50	0.451	0.460	0.432	0.461	0.493	0.442	0.473	0.476	0.46	92%	0.0198	0.0595	0.25	

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	T value used for calculating MDL: 2.896					
			Date Analyzed	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011	11/14/2011						
No.	Analytes	Mass	Target conc. (ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	Mean (ug/Kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/Kg)	Current RL (ug/Kg)	Comment
15	Arsenic	75	0.025	0.0200	0.0240	0.0204	0.0247	0.0217	0.0228	0.0254	0.0270	0.0217	0.02	92%	0.00237	0.00686	0.025	

Table (MDL)			Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
			Date Analyzed	10/24/2011	10/24/2011	10/24/2011	10/24/2011	10/25/2011	10/25/2011	10/25/2011	10/27/2011	10/27/2011	10/27/2011						
No.	Analytes	Mass	Target conc. (ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	Mean (ug/Kg)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/Kg)	Current RL (ug/Kg)	Comment
1	Beryllium	9	0.010	0.01260	0.00875	0.00690	0.00875	0.01185	0.00925	0.00690	0.00735	0.00750	0.00575	0.00856	86%	0.00220	0.00622	0.025	
2	Sodium	23	1.25	2.590	2.601	2.552	2.364	2.209	2.067	2.072	2.266	2.009	2.221	2.295	184%	0.223	0.630	5.00	
3	Magnesium	24	0.1250	0.1224	0.1163	0.1240	0.1257	0.1456	0.1282	0.1372	0.1589	0.1535	0.1473	0.1359	109%	0.0147	0.0414	5.00	
4	Aluminum	27	0.200	0.2088	0.2073	0.2104	0.2143	0.2091	0.2049	0.1991	0.2815	0.2727	0.2448	0.2253	113%	0.0300	0.0846	0.50	
5	Potassium	39	1.25	2.338	2.155	2.097	2.034	2.226	1.995	2.127	1.812	1.737	1.774	2.029	162%	0.201	0.567	5.00	
6	Calcium	44	2.50	2.937	2.543	2.475	1.885	1.952	1.804	1.754	1.419	1.148	1.096	1.901	76%	0.605	1.708	5.00	11/14/2011
7	Vanadium	51	0.040	0.0481	0.0502	0.0534	0.0527	0.0509	0.0487	0.0526	0.0503	0.0475	0.0514	0.0506	126%	0.0020	0.0057	0.025	11/14/2011
8	Chromium	52	0.0125	0.01715	0.01760	0.01995	0.02135	0.01655	0.01560	0.01745	0.01505	0.01995	0.01420	0.01749	140%	0.002	0.00654	0.025	
9	Manganese	55	0.0125	0.00830	0.00785	0.00725	0.00760	0.00770	0.00715	0.00675	0.01025	0.01410	0.00735	0.00843	67%	0.002	0.00624	0.025	
10	Iron	57	2.50	2.4650	2.7915	2.2780	2.3295	2.6515	2.9650	2.7605	2.5420	2.5395	2.7005	2.6023	104%	0.2136	0.6024	2.50	
11	Cobalt	59	0.0050	0.00475	0.00470	0.00535	0.00515	0.00440	0.00505	0.00515	0.00435	0.00500	0.00480	0.00487	97%	0.00033	0.00093	0.025	
12	Nickel	60	0.010	0.00925	0.00965	0.01260	0.00835	0.01120	0.01100	0.01140	0.01155	0.00915	0.01115	0.01053	105%	0.00134	0.00379	0.025	11/14/2011
13	Copper	65	0.010	0.01070	0.01145	0.01235	0.01275	0.01135	0.01205	0.00945	0.01095	0.01025	0.00995	0.01113	111%	0.00107	0.00302	0.025	11/14/2011
16	Selenium	82	0.0250	0.02655	0.02750	0.02825	0.03225	0.02670	0.02785	0.03100	0.02300	0.01685	0.02275	0.02627	105%	0.00445	0.01255	0.050	
17	Molybdenum	98	0.0125	0.01145	0.00925	0.01205	0.01215	0.01200	0.01215	0.01165	0.01405	0.01315	0.01170	0.01196	96%	0.00123	0.00347	0.050	
18	Silver	107	0.010	0.01110	0.01060	0.01050	0.01020	0.00880	0.00945	0.00920	0.00960	0.01005	0.00930	0.00988	99%	0.00073	0.00205	0.025	
19	Cadmium	111	0.0050	0.00455	0.00410	0.00530	0.00580	0.00575	0.00355	0.00510	0.00540	0.00430	0.00640	0.00503	101%	0.00088	0.00249	0.025	
20	Antimony	121	0.010	0.01195	0.01150	0.01205	0.01230	0.01050	0.01120	0.01185	0.01180	0.01175	0.01130	0.01162	116%	0.00052	0.00146	0.025	11/14/2011
21	Barium	137	0.0050	0.00520	0.00600	0.00625	0.00500	0.00535	0.00480	0.00570	0.00600	0.00570	0.00575	0.00558	112%	0.00047	0.00133	0.025	
22	Thallium	205	0.0025	0.00305	0.00270	0.00265	0.00280	0.00315	0.00310	0.00285	0.00275	0.00270	0.00255	0.00283	113%	0.00020	0.00058	0.025	
23	Lead	208	0.010	0.01110	0.01195	0.01555	0.01080	0.01160	0.01125	0.01135	0.01175	0.01175	0.01120	0.01183	118%	0.00135	0.00382	0.025	

Comments: _____

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	BM
Date:	9/16, 9/17/14
Instrument ID:	ICP-MSQ
Column ID:	N/A
Prep Method:	EPA 3005A
Prep Chemist:	BM

Method: EPA 6020A / 200.8 — 2014

ICP/MS — **Metals** — **Liquid/Soil**

Initial Weight/Volume: 0.5ml
Final Volume: 50ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	9/16/2014	9/16/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
1	Beryllium	0.500	0.460	0.530	0.530	0.540	0.590	0.470	0.570	0.527	105%	0.0479	0.150	0.500	
2	Sodium	100	74.9	76.3	80.6	66.0	67.4	71.0	71.4	72.5	73%	5.11	16.1	100	
3	Magnesium	70.0	56.6	57.0	59.6	69.5	70.8	73.0	69.4	65.1	93%	7.09	22.3	70	
4	Potassium	100	89.2	83.7	92.3	79.4	75.8	77.3	80.8	82.7	83%	6.14	19.3	100	
5	Calcium	100	86.2	84.1	95.1	86.0	89.9	93.7	89.2	89.2	89%	4.09	12.9	100	
6	Vanadium	5.00	5.30	4.85	5.26	5.11	5.04	4.86	5.06	5.07	101%	0.175	0.551	5.00	
7	Chromium	1.00	1.12	1.11	1.15	0.990	1.00	0.960	0.970	1.04	104%	0.0804	0.253	1.00	
8	Manganese	0.500	0.490	0.500	0.570	0.300	0.460	0.330	0.460	0.444	89%	0.0961	0.302	1.00	
9	Iron	50.0	38.1	36.2	42.7	36.9	36.9	36.3	36.2	37.6	75%	2.34	7.35	50.0	
10	Cobalt	0.500	0.390	0.380	0.430	0.380	0.380	0.380	0.370	0.387	77%	0.0198	0.0621	0.500	
11	Nickel	0.500	0.320	0.320	0.350	0.380	0.380	0.380	0.370	0.357	71%	0.0275	0.0865	0.500	
12	Copper	1.00	0.950	0.950	0.990	0.790	0.840	0.800	0.820	0.877	88%	0.0832	0.262	1.00	
13	Zinc	10.0	10.8	8.65	11.3	10.3	10.7	10.2	10.4	10.3	103%	0.815	2.56	10.0	
14	Arsenic	0.500	0.570	0.520	0.520	0.580	0.530	0.520	0.530	0.539	108%	0.0254	0.0800	0.500	
15	Molybdenum	0.500	0.470	0.410	0.500	0.420	0.430	0.400	0.400	0.433	87%	0.0382	0.120	0.500	
16	Silver	0.400	0.350	0.360	0.380	0.320	0.320	0.320	0.320	0.339	85%	0.0248	0.0779	0.400	
17	Cadmium	0.200	0.200	0.210	0.230	0.210	0.220	0.210	0.190	0.210	105%	0.0129	0.0406	0.200	
18	Tin	0.500	0.410	0.470	0.450	0.400	0.400	0.370	0.400	0.414	83%	0.0341	0.107	1.00	
19	Antimony	0.500	0.390	0.430	0.440	0.400	0.420	0.390	0.440	0.416	83%	0.0223	0.0699	0.500	
20	Barium	0.500	0.460	0.450	0.490	0.430	0.450	0.440	0.470	0.456	91%	0.0199	0.0625	0.500	
21	Thallium	0.500	0.490	0.460	0.500	0.450	0.470	0.460	0.480	0.473	95%	0.0180	0.0566	0.500	
22	Lead	1.00	1.02	1.02	1.06	0.940	0.980	0.960	0.980	0.994	99%	0.0412	0.129	1.00	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 3.143					
		Date Analyzed	9/16/2014	9/16/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/26/2014						
No.	Analytes	Target conc. (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	Mean (ug/l)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/l)	Current RL (ug/l)	Comment
23	Aluminum	10.0	10.0	9.54	9.59	8.71	9.35	9.01	9.53	9.40	94%	0.43	1.35	10.0	
24	Selenium	5.00	4.35	4.08	4.51	4.68	5.07	4.31	4.65	4.52	90%	0.319	1.00	5.00	

Comments: _____

QA Officer: for JT Date Effective: 9/29/14

Performance Report: 2016-03-14 10:37

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Signal **Result: Passed**

Runs: 5

Sweeps: 10

Analyte			Dwell time [s]		Result
137Ba			0.1		**Passed**
	Stability Test	Limit:	0	Result: 1.5 %	
	Sensitivity Test		4,634.0		0.0
137Ba++			0.1		**Passed**
	Stability Test	Limit:	0	Result: 14.8 %	
	Sensitivity Test		128.0		0.0
137Ba++/137Ba			0.1		**Passed**
	Stability Test	Limit:	0	Result: 15.6 %	
	Sensitivity Test		0.0276	Less than	0.03
140Ce			0.1		**Passed**
	Stability Test	Limit:	2	Result: 1.2 %	
	Sensitivity Test		41,728.0		0.0
140Ce.16O			0.1		**Passed**
	Stability Test	Limit:	2	Result: 5.5 %	
	Sensitivity Test		551.0		0.0
140Ce.16O/140Ce			0.1		**Passed**
	Stability Test	Limit:	0	Result: 6.0 %	
	Sensitivity Test		0.0132	Less than	0.025

Performance Report: 2016-03-14 10:37

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Bkg4.5			0.1			**Passed**
	Stability Test	Limit:	0	Result: NaN		
	Sensitivity Test		0.0 CPS	Less than	2.0 CPS	
7Li			0.1			**Passed**
	Stability Test	Limit:	5	Result: 1.9 %		
	Sensitivity Test		15,127.0 CPS	Greater than	500.0 CPS	
59Co			0.1			**Passed**
	Stability Test	Limit:	5	Result: 0.9 %		
	Sensitivity Test		31,261.0 CPS	Greater than	1,000.0 CPS	
115In			0.1			**Passed**
	Stability Test	Limit:	5	Result: 0.6 %		
	Sensitivity Test		39,698.0 CPS	Greater than	5,000.0 CPS	
Bkg220.7			0.1			**Passed**
	Stability Test	Limit:	0	Result: NaN		
	Sensitivity Test		0.0 CPS	Less than	2.0 CPS	
238U			0.1			**Passed**
	Stability Test	Limit:	5	Result: 0.6 %		
	Sensitivity Test		51,123.0 CPS	Greater than	2,000.0 CPS	

Performance Report: 2016-03-14 10:37

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

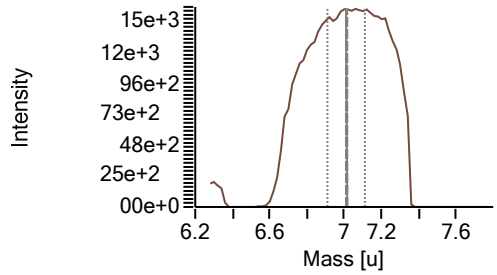
Masscalibration Result: Passed The mass calibration verification has passed

Sweeps:	10	Channels:	75
Measurement width [u]:	1.5	Point spacing [u]:	0.02
		Dwell time [s]:	0.04

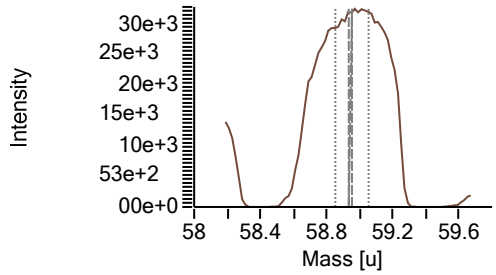
Analyte	Centroid Mass [u]	Peak width [u]:	Error [u]:	Peak width [u]		Result:
				Min.	Max.	
7Li	7.0096	0.7311	0.00643	0.65	0.85	Passed
59Co	58.9530	0.6779	0.01980	0.65	0.85	Passed
115In	114.9229	0.7176	0.01903	0.65	0.85	Passed
238U	238.0547	0.7025	0.00393	0.65	0.85	Passed

Peaks

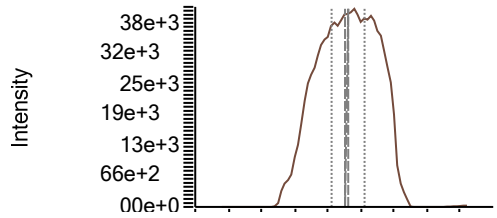
7Li



59Co

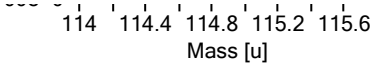


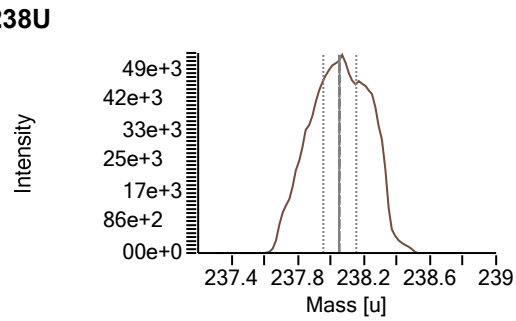
115In



Performance Report: 2016-03-14 10:37

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.





TuneSettings

Parameter	Value
Additional Gas Flow 1	60.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
CCT Entry Lens	-110.01
Angular Deflection	-364.99
Deflection Entry Lens	-35.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Positive	0.00
Spray Chamber Temperature	2.70
Peristaltic Pump Speed	20.00
Cool Flow	14.00
Sampling Depth	5.00
Plasma Power	1550.00

Performance Report: 2016-03-14 10:37

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Auxilliary Flow	0.80
Nebulizer Flow	0.26
Torch Horizontal Position	-0.94
Torch Vertical Position	-0.42
Extraction Lens 2	-140.70
CCT Focus Lens	1.44
CCT Bias	-2.01
CCT Exit Lens	-160.01
Focus Lens	18.79
D1 Lens	-200.05
D2 Lens	-80.00
Quad Entry Lens	-19.61
Pole Bias	1.00
CCT1 Flow	0.00
CCT2 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Shut-Off Valve	0.00
Virtual CCT Mass to Dac Factor	130.00
Virtual CCT Mass to Dac Offset	-220.00
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass Maximum Dac Limit Set	4095.00

Vacuum Check

Parameter	Value	Rating
Analyzer Pressure	1.92E-07	Vacuum ok

Performance Report: 2016-03-14 10:37

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Interface Pressure	1.65E+00	

Detector Voltages

Counting	1300.0
Analog	-1800.0

Performance Report: 2016-03-15 11:19

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Signal **Result: Passed**

Runs: 5

Sweeps: 10

Analyte			Dwell time [s]		Result
137Ba			0.1		**Passed**
	Stability Test	Limit:	0	Result: 1.6 %	
	Sensitivity Test		4,457.0		0.0
137Ba++			0.1		**Passed**
	Stability Test	Limit:	0	Result: 7.5 %	
	Sensitivity Test		110.0		0.0
137Ba++/137Ba			0.1		**Passed**
	Stability Test	Limit:	0	Result: 9.0 %	
	Sensitivity Test		0.0248	Less than	0.03
140Ce			0.1		**Passed**
	Stability Test	Limit:	2	Result: 1.3 %	
	Sensitivity Test		39,697.0		0.0
140Ce.16O			0.1		**Passed**
	Stability Test	Limit:	2	Result: 3.2 %	
	Sensitivity Test		768.0		0.0
140Ce.16O/140Ce			0.1		**Passed**
	Stability Test	Limit:	0	Result: 4.0 %	
	Sensitivity Test		0.0194	Less than	0.025

Performance Report: 2016-03-15 11:19

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Bkg4.5			0.1			**Passed**
	Stability Test	Limit:	0	Result: 223.6 %		
	Sensitivity Test		0.2 CPS	Less than	2.0 CPS	
7Li			0.1			**Passed**
	Stability Test	Limit:	5	Result: 1.6 %		
	Sensitivity Test		14,766.0 CPS	Greater than	500.0 CPS	
59Co			0.1			**Passed**
	Stability Test	Limit:	5	Result: 1.8 %		
	Sensitivity Test		29,855.0 CPS	Greater than	1,000.0 CPS	
115In			0.1			**Passed**
	Stability Test	Limit:	5	Result: 1.1 %		
	Sensitivity Test		37,013.0 CPS	Greater than	5,000.0 CPS	
Bkg220.7			0.1			**Passed**
	Stability Test	Limit:	0	Result: NaN		
	Sensitivity Test		0.0 CPS	Less than	2.0 CPS	
238U			0.1			**Passed**
	Stability Test	Limit:	5	Result: 1.2 %		
	Sensitivity Test		49,576.0 CPS	Greater than	2,000.0 CPS	

Performance Report: 2016-03-15 11:19

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

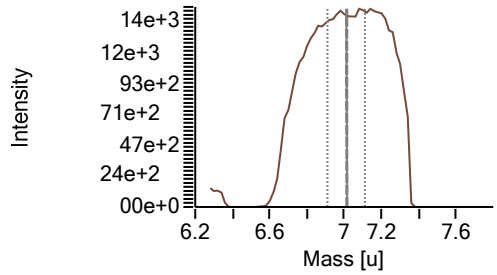
Masscalibration Result: Passed The mass calibration verification has passed

Sweeps:	10	Channels:	75
Measurement width [u]:	1.5	Point spacing [u]:	0.02
		Dwell time [s]:	0.04

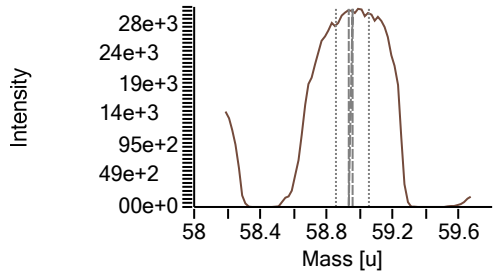
Analyte	Centroid Mass [u]	Peak width [u]:	Error [u]:	Peak width [u]		Result:
				Min.	Max.	
7Li	7.0099	0.7292	0.00607	0.65	0.85	Passed
59Co	58.9558	0.6788	0.02261	0.65	0.85	Passed
115In	114.9263	0.7223	0.02242	0.65	0.85	Passed
238U	238.0571	0.7027	0.00629	0.65	0.85	Passed

Peaks

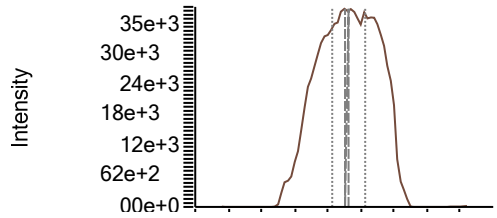
7Li



59Co

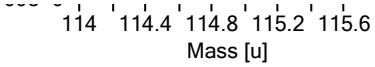


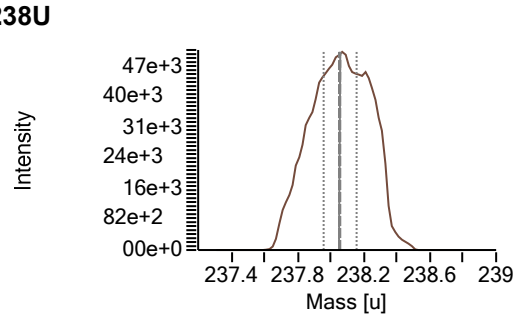
115In



Performance Report: 2016-03-15 11:19

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.





TuneSettings

Parameter	Value
Additional Gas Flow 1	60.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
CCT Entry Lens	-110.01
Angular Deflection	-364.99
Deflection Entry Lens	-35.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Positive	0.00
Spray Chamber Temperature	2.70
Peristaltic Pump Speed	20.00
Cool Flow	14.00
Sampling Depth	5.00
Plasma Power	1550.00

Performance Report: 2016-03-15 11:19

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Auxilliary Flow	0.80
Nebulizer Flow	0.25
Torch Horizontal Position	-0.94
Torch Vertical Position	-0.42
Extraction Lens 2	-140.70
CCT Focus Lens	1.44
CCT Bias	-2.01
CCT Exit Lens	-160.01
Focus Lens	18.79
D1 Lens	-200.05
D2 Lens	-80.00
Quad Entry Lens	-19.61
Pole Bias	1.00
CCT1 Flow	0.00
CCT2 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Shut-Off Valve	0.00
Virtual CCT Mass to Dac Factor	130.00
Virtual CCT Mass to Dac Offset	-220.00
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass Maximum Dac Limit Set	4095.00

Vacuum Check

Parameter	Value	Rating
Analyzer Pressure	1.88E-07	Vacuum ok

Performance Report: 2016-03-15 11:19

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Interface Pressure	1.65E+00	

Detector Voltages

Counting	1300.0
Analog	-1800.0

Performance Report: 2016-03-16 10:52

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Signal **Result: Passed**

Runs: 5

Sweeps: 10

Analyte			Dwell time [s]		Result
137Ba			0.1		**Passed**
	Stability Test	Limit:	0	Result: 2.2 %	
	Sensitivity Test		5,058.0		0.0
137Ba++			0.1		**Passed**
	Stability Test	Limit:	0	Result: 14.3 %	
	Sensitivity Test		94.0		0.0
137Ba++/137Ba			0.1		**Passed**
	Stability Test	Limit:	0	Result: 15.3 %	
	Sensitivity Test		0.0186	Less than	0.03
140Ce			0.1		**Passed**
	Stability Test	Limit:	2	Result: 0.8 %	
	Sensitivity Test		44,050.0		0.0
140Ce.16O			0.1		**Passed**
	Stability Test	Limit:	2	Result: 3.8 %	
	Sensitivity Test		1,031.0		0.0
140Ce.16O/140Ce			0.1		**Passed**
	Stability Test	Limit:	0	Result: 3.3 %	
	Sensitivity Test		0.0234	Less than	0.025

Performance Report: 2016-03-16 10:52

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Bkg4.5			0.1			**Passed**
	Stability Test	Limit:	0	Result: NaN		
	Sensitivity Test		0.0 CPS	Less than	2.0 CPS	
7Li			0.1			**Passed**
	Stability Test	Limit:	5	Result: 0.9 %		
	Sensitivity Test		15,239.0 CPS	Greater than	500.0 CPS	
59Co			0.1			**Passed**
	Stability Test	Limit:	5	Result: 1.3 %		
	Sensitivity Test		30,579.0 CPS	Greater than	1,000.0 CPS	
115In			0.1			**Passed**
	Stability Test	Limit:	5	Result: 0.6 %		
	Sensitivity Test		41,993.0 CPS	Greater than	5,000.0 CPS	
Bkg220.7			0.1			**Passed**
	Stability Test	Limit:	0	Result: NaN		
	Sensitivity Test		0.0 CPS	Less than	2.0 CPS	
238U			0.1			**Passed**
	Stability Test	Limit:	5	Result: 0.8 %		
	Sensitivity Test		59,868.0 CPS	Greater than	2,000.0 CPS	

Performance Report: 2016-03-16 10:52

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

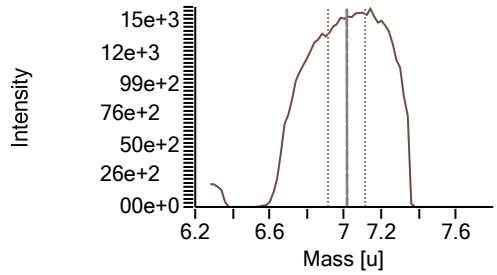
Masscalibration Result: Passed The mass calibration verification has passed

Sweeps:	10	Channels:	75
Measurement width [u]:	1.5	Point spacing [u]:	0.02
		Dwell time [s]:	0.04

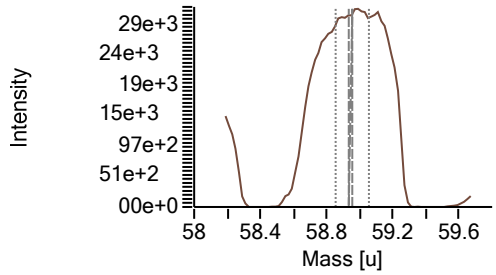
Analyte	Centroid Mass [u]	Peak width [u]:	Error [u]:	Peak width [u]		Result:
				Min.	Max.	
7Li	7.0123	0.7290	0.00368	0.65	0.85	Passed
59Co	58.9549	0.6802	0.02173	0.65	0.85	Passed
115In	114.9260	0.7213	0.02209	0.65	0.85	Passed
238U	238.0570	0.7056	0.00619	0.65	0.85	Passed

Peaks

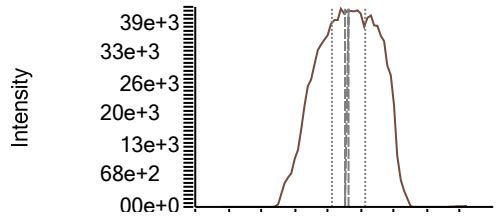
7Li



59Co

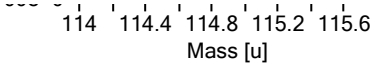


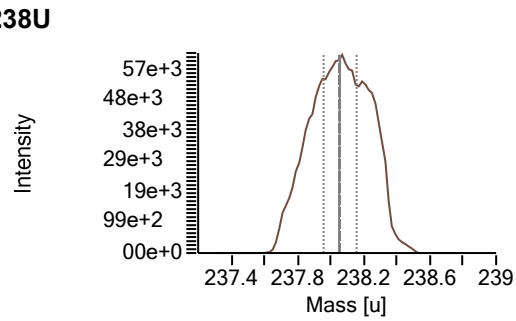
115In



Performance Report: 2016-03-16 10:52

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.





TuneSettings

Parameter	Value
Additional Gas Flow 1	60.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
CCT Entry Lens	-110.01
Angular Deflection	-364.99
Deflection Entry Lens	-35.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Positive	0.00
Spray Chamber Temperature	2.70
Peristaltic Pump Speed	20.00
Cool Flow	14.00
Sampling Depth	5.00
Plasma Power	1550.00

Performance Report: 2016-03-16 10:52

Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Auxilliary Flow	0.80
Nebulizer Flow	0.25
Torch Horizontal Position	-0.94
Torch Vertical Position	-0.42
Extraction Lens 2	-140.70
CCT Focus Lens	1.44
CCT Bias	-2.01
CCT Exit Lens	-160.01
Focus Lens	18.79
D1 Lens	-200.05
D2 Lens	-80.00
Quad Entry Lens	-19.61
Pole Bias	1.00
CCT1 Flow	0.00
CCT2 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Shut-Off Valve	0.00
Virtual CCT Mass to Dac Factor	130.00
Virtual CCT Mass to Dac Offset	-220.00
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass Maximum Dac Limit Set	4095.00

Vacuum Check

Parameter	Value	Rating
Analyzer Pressure	1.88E-07	Vacuum ok

Performance Report: 2016-03-16 10:52

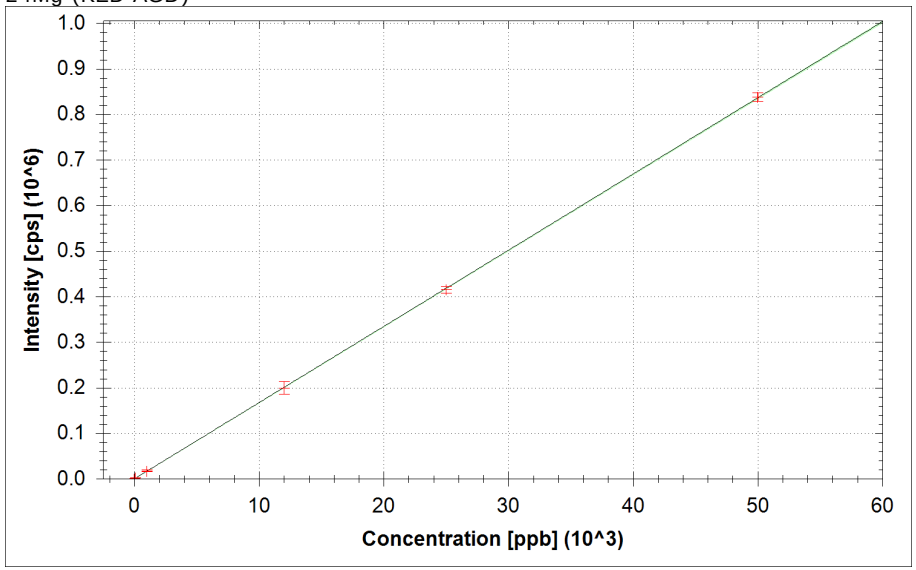
Instrument:	iCAP Q
Operator:	ALPHALAB\a1metalsinstrument
Template:	STD AGD
Serial Number:	SN02236R
Last Autotune:	Autotune-SourceTune High Matrix Alpha Custom-20160301-161654874.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Interface Pressure	1.65E+00	

Detector Voltages

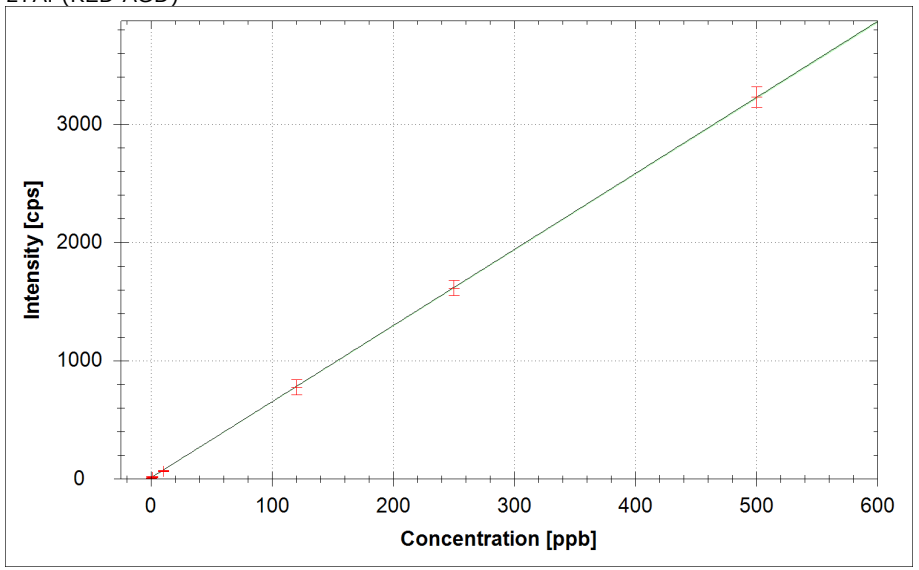
Counting	1300.0
Analog	-1800.0

24Mg (KED AGD)



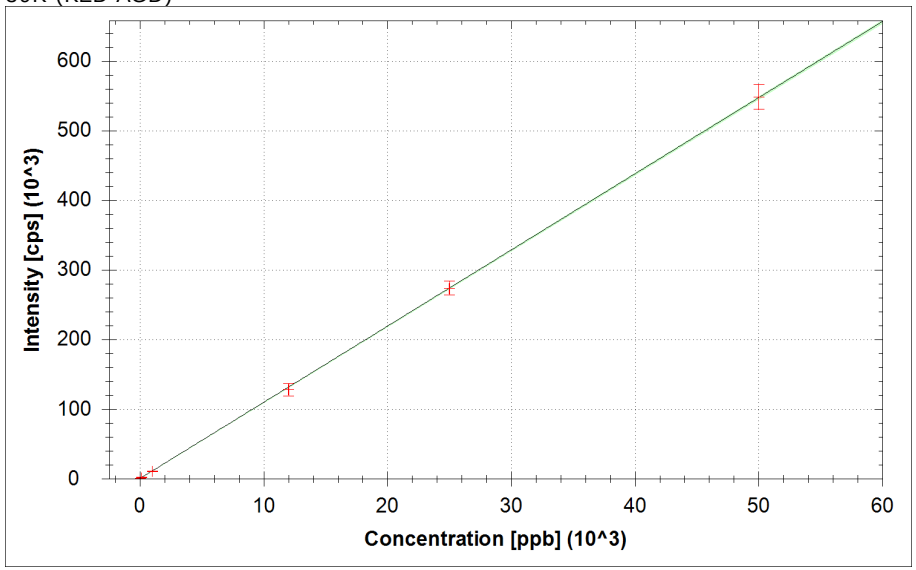
f(x) = 16.7204*x + 23.4670
R^2 = 1.0000
BEC = 1.403 ppb
LoD = 4.5229 ppb

27Al (KED AGD)



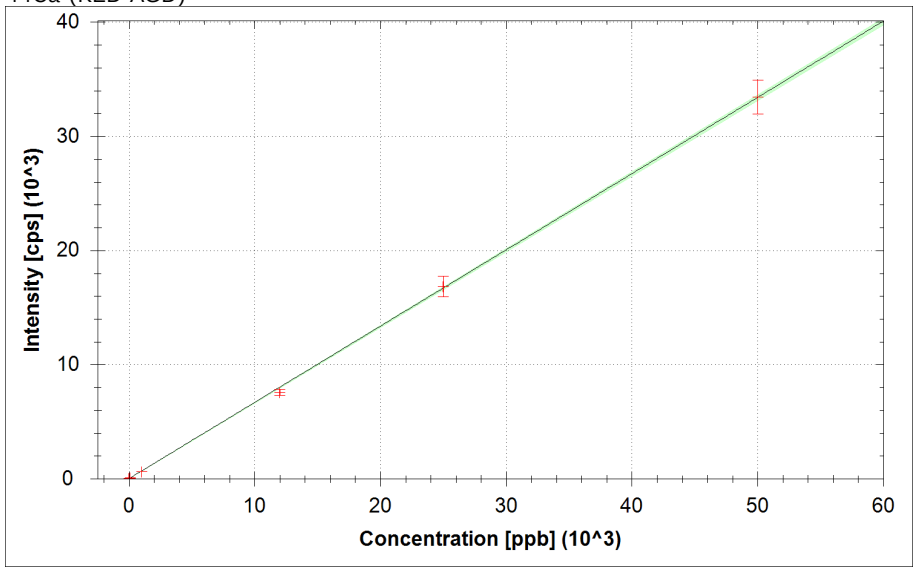
f(x) = 6.4283*x + 10.6996
R^2 = 1.0000
BEC = 1.664 ppb
LoD = 2.7238 ppb

39K (KED AGD)



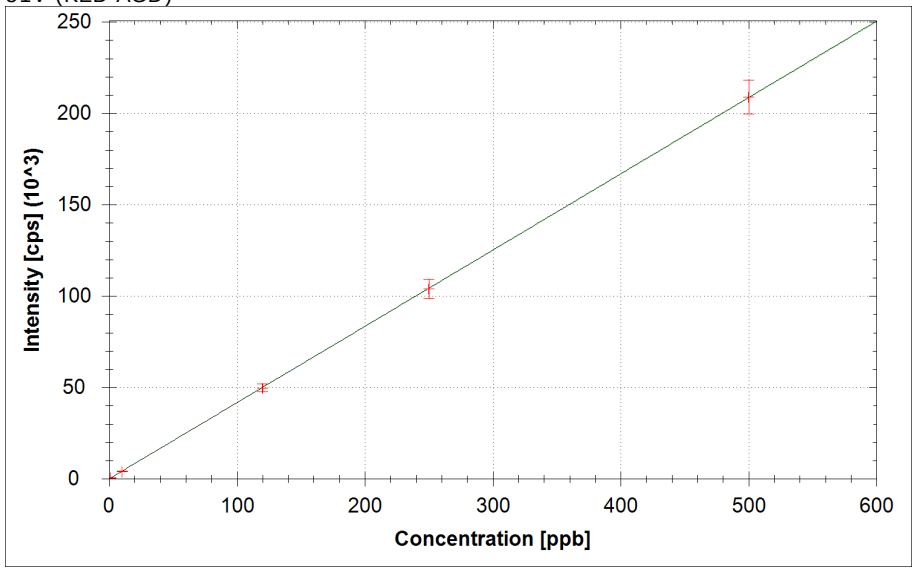
f(x) = 10.9311*x + 581.0238
R^2 = 0.9999
BEC = 53.153 ppb
LoD = 15.6404 ppb

44Ca (KED AGD)



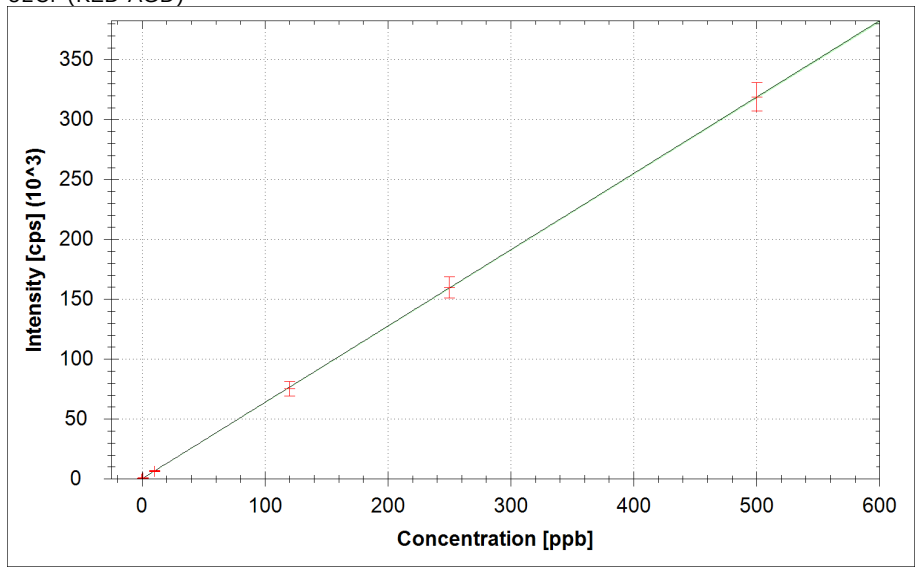
f(x) = 0.6675*x + 14.6864
R^2 = 0.9997
BEC = 22.001 ppb
LoD = 33.1703 ppb

51V (KED AGD)



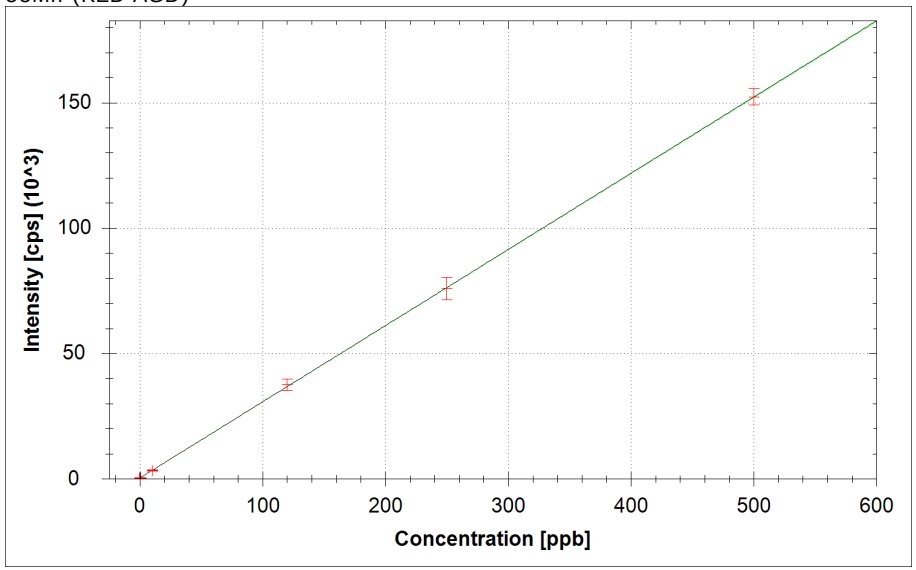
f(x) = 417.1696*x
R^2 = 1.0000
BEC = 0.000 ppb
LoD = 0.0000 ppb

52Cr (KED AGD)



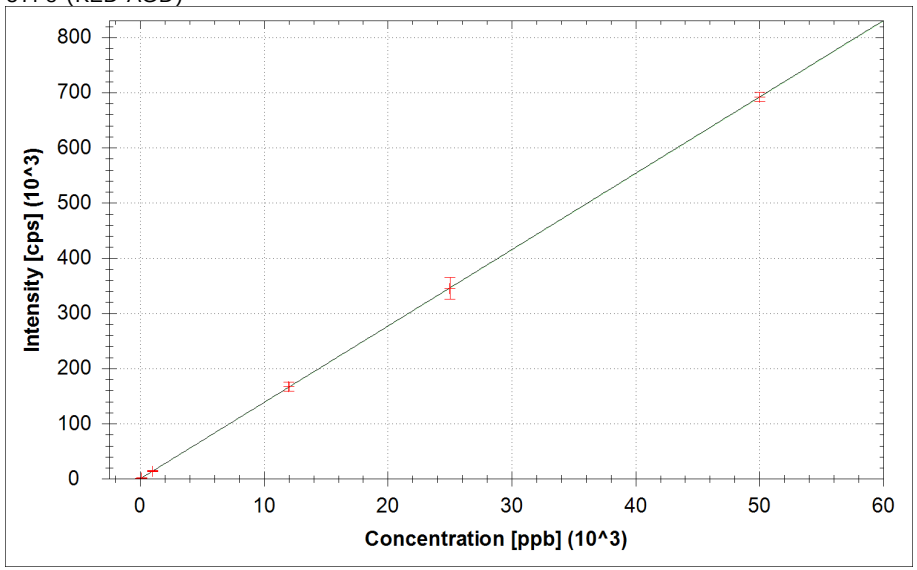
f(x) = 637.0080*x + 47.0956
R^2 = 1.0000
BEC = 0.074 ppb
LoD = 0.0787 ppb

55Mn (KED AGD)



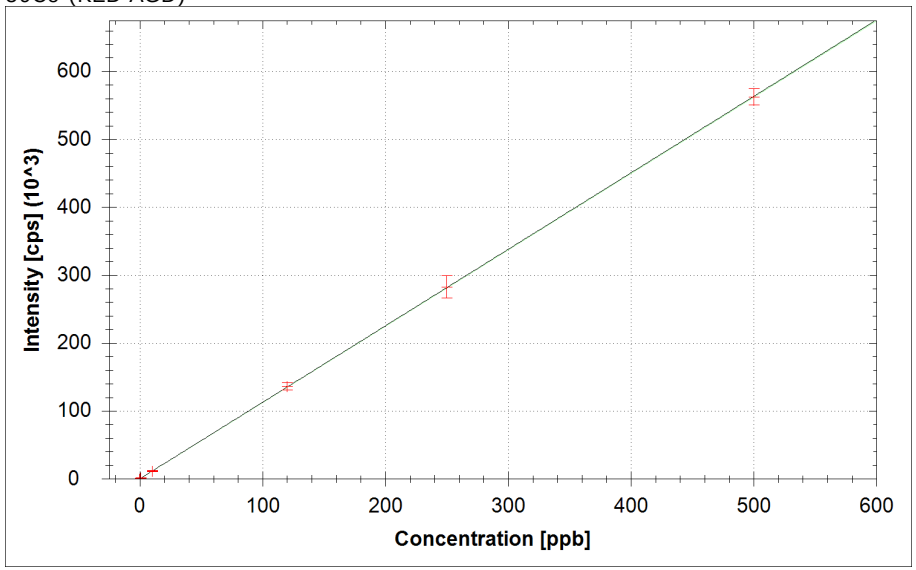
f(x) = 303.7053*x + 314.4999
R^2 = 1.0000
BEC = 1.036 ppb
LoD = 0.9330 ppb

57Fe (KED AGD)



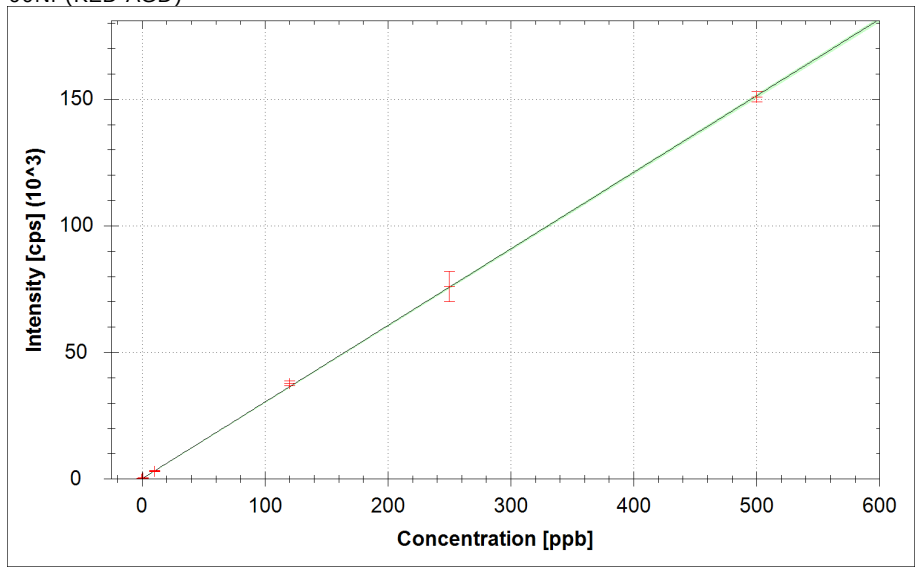
f(x) = 13.8409*x + 16.5485
R^2 = 1.0000
BEC = 1.196 ppb
LoD = 3.3372 ppb

59Co (KED AGD)



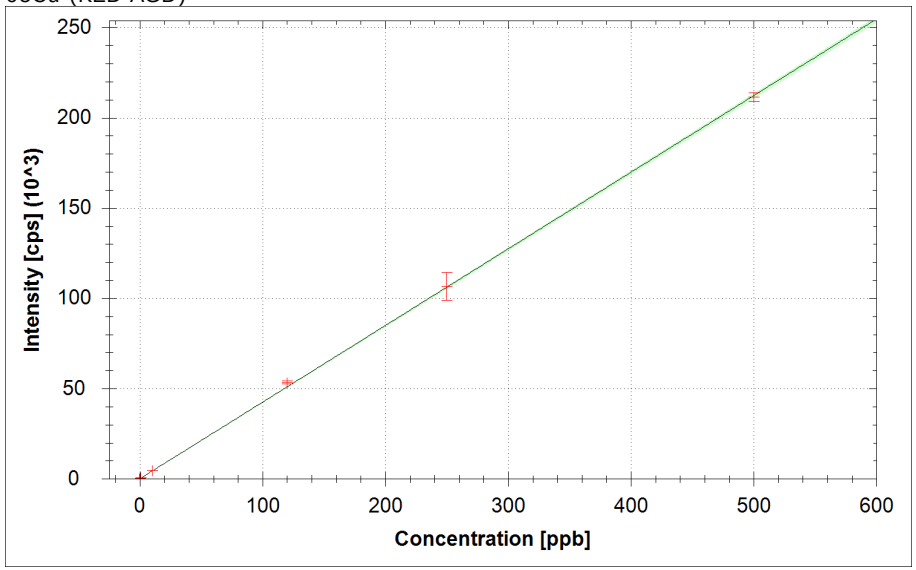
f(x) = 1126.0733*x + 13.3856
R^2 = 1.0000
BEC = 0.012 ppb
LoD = 0.0159 ppb

60Ni (KED AGD)



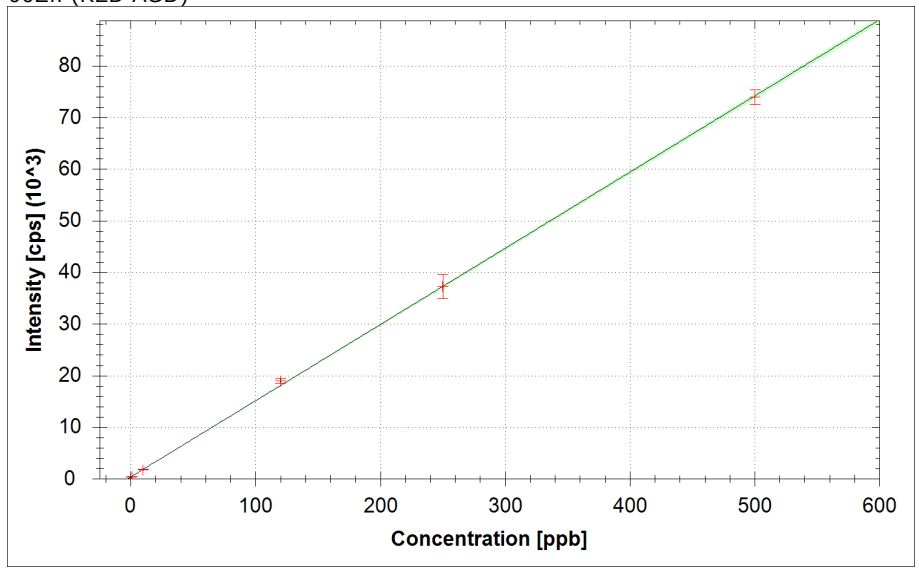
f(x) = 302.4925*x + 40.1939
R^2 = 0.9999
BEC = 0.133 ppb
LoD = 0.1080 ppb

65Cu (KED AGD)



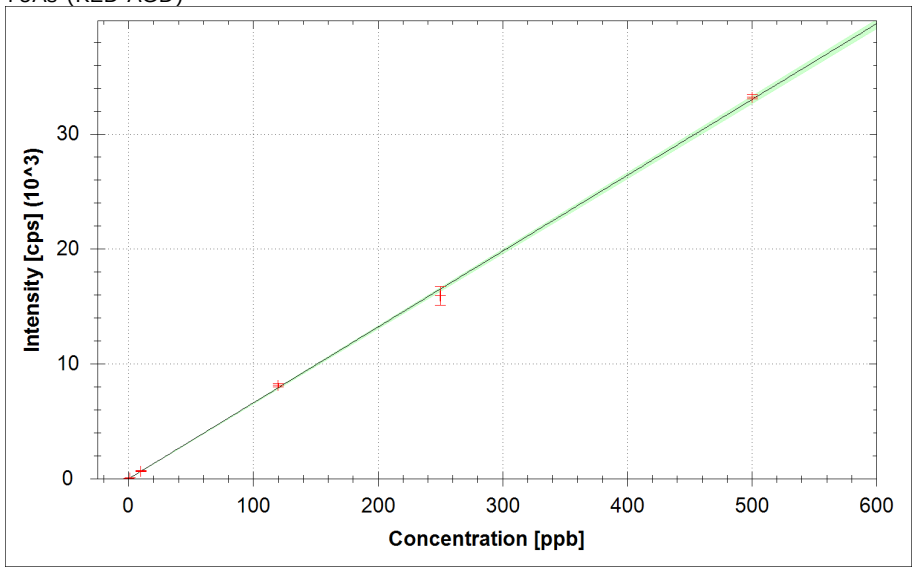
f(x) = 424.4085*x + 19.5136
R^2 = 0.9998
BEC = 0.046 ppb
LoD = 0.1807 ppb

66Zn (KED AGD)



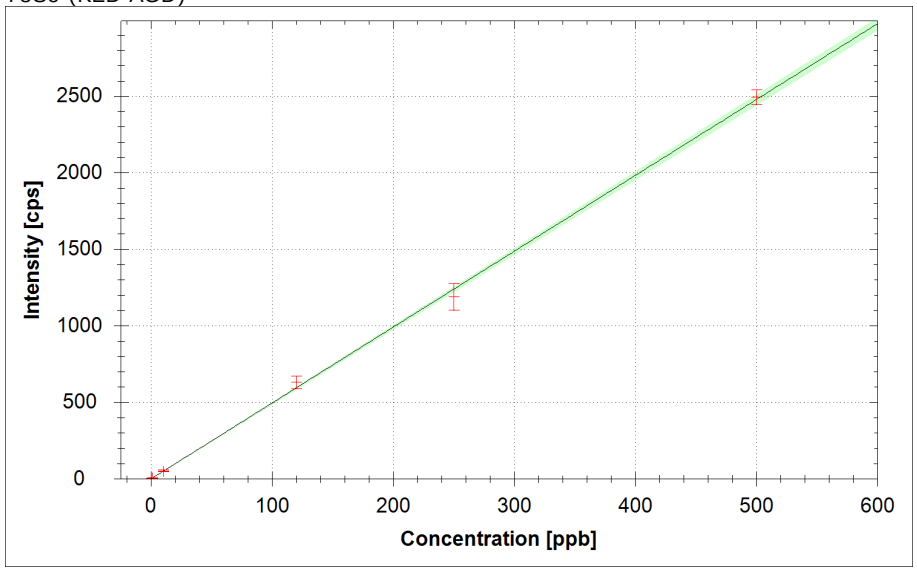
f(x) = 147.5633*x + 361.9796
R^2 = 0.9998
BEC = 2.453 ppb
LoD = 0.2753 ppb

75As (KED AGD)



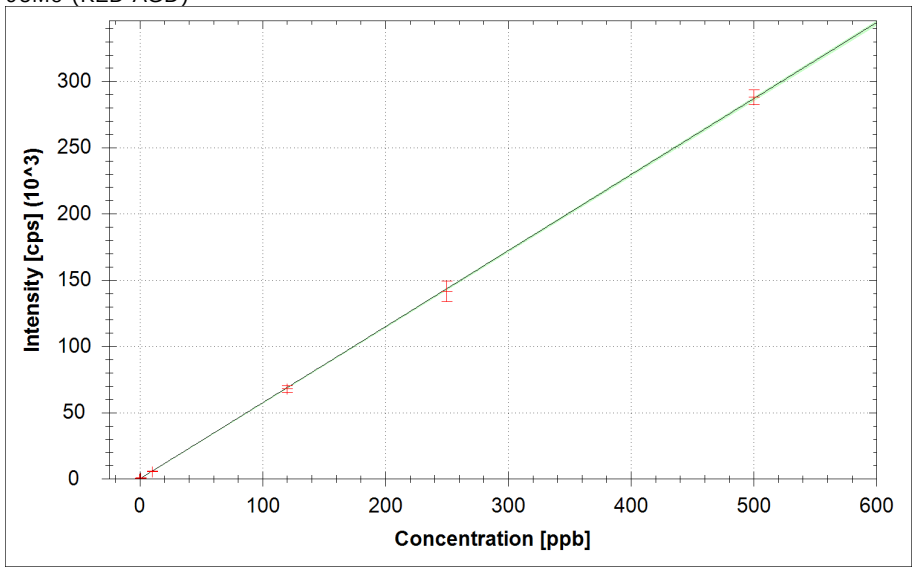
f(x) = 65.9857*x + 1.6670
R^2 = 0.9995
BEC = 0.025 ppb
LoD = 0.0328 ppb

78Se (KED AGD)



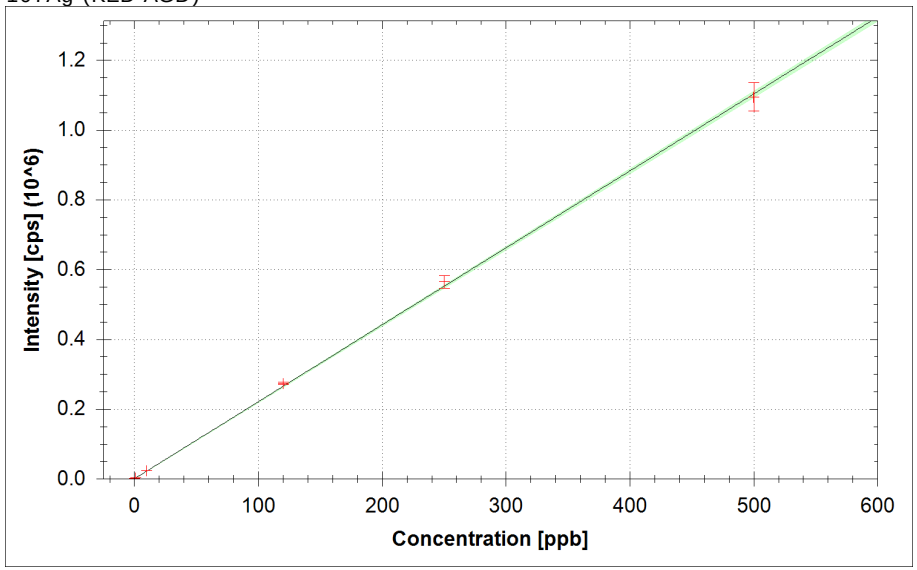
f(x) = 4.9540*x + 0.3779
R^2 = 0.9992
BEC = 0.076 ppb
LoD = 0.3237 ppb

95Mo (KED AGD)



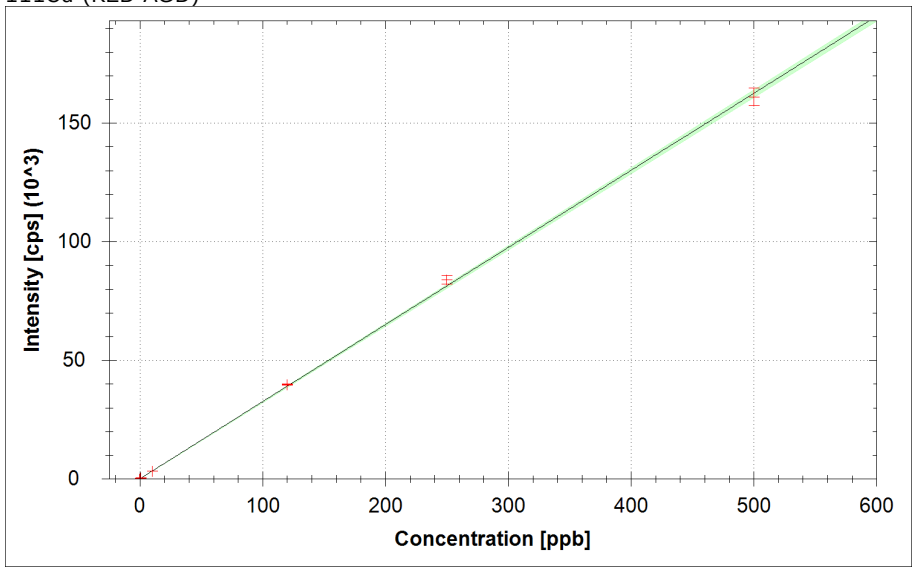
f(x) = 573.7055*x + 6.7144
R^2 = 0.9999
BEC = 0.012 ppb
LoD = 0.0304 ppb

107Ag (KED AGD)



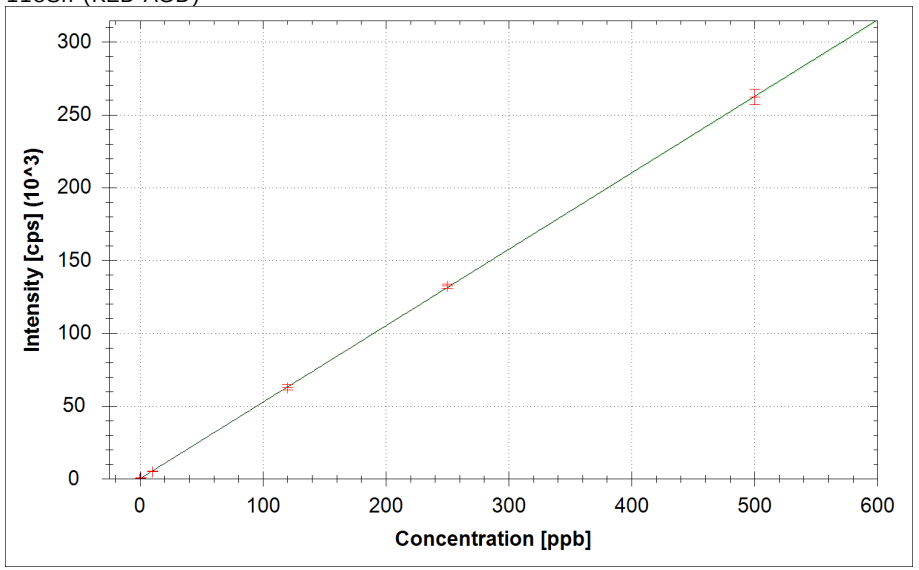
f(x) = 2205.6079*x + 33.3412
R^2 = 0.9997
BEC = 0.015 ppb
LoD = 0.0157 ppb

111Cd (KED AGD)



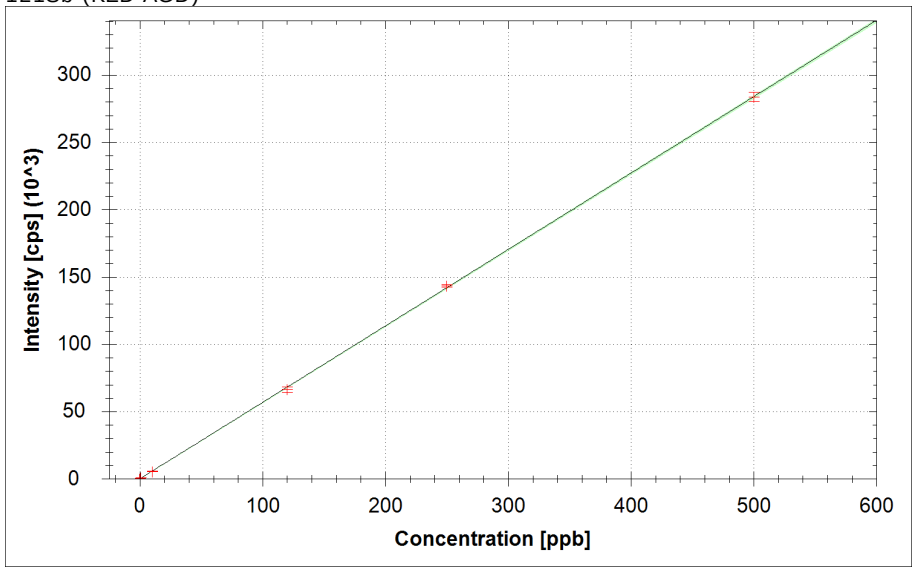
f(x) = 324.9500*x + 10.6850
R^2 = 0.9996
BEC = 0.033 ppb
LoD = 0.0127 ppb

118Sn (KED AGD)



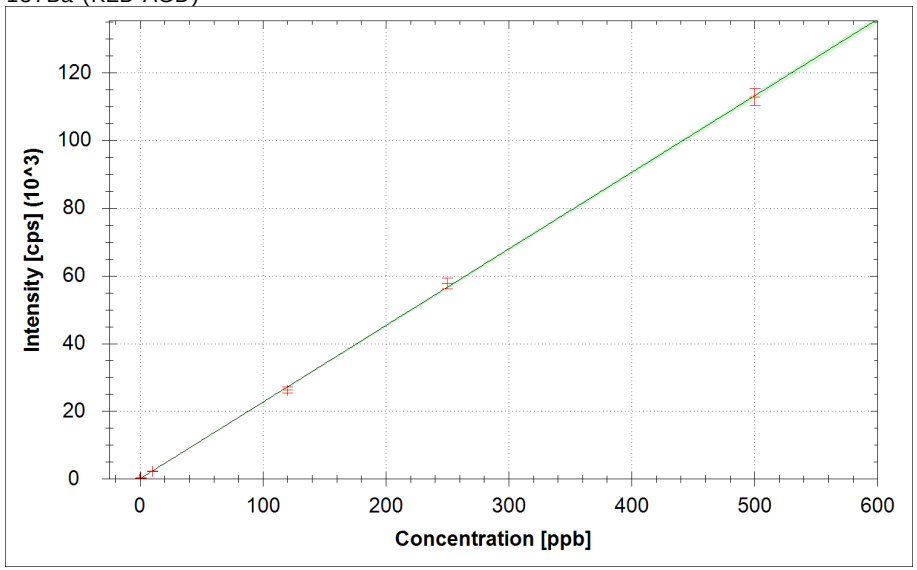
f(x) = 524.9148*x + 69.9763
R^2 = 1.0000
BEC = 0.133 ppb
LoD = 0.0556 ppb

121Sb (KED AGD)



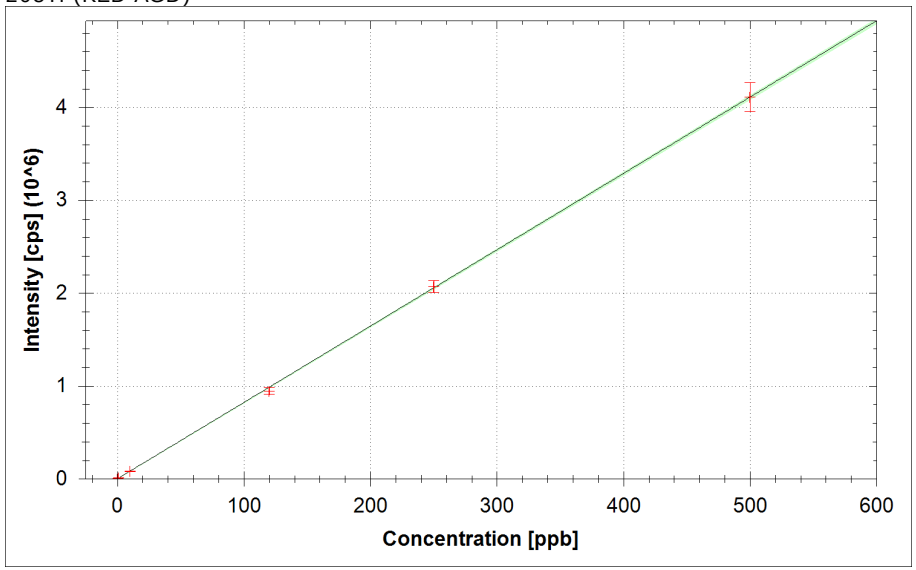
f(x) = 567.7411*x + 13.2620
R^2 = 0.9999
BEC = 0.023 ppb
LoD = 0.0288 ppb

137Ba (KED AGD)



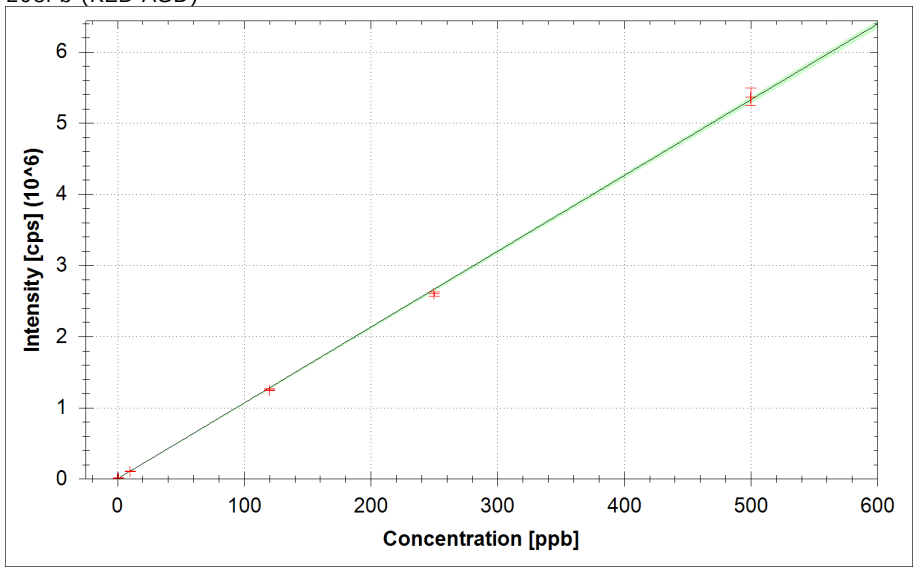
f(x) = 226.2623*x + 10.0130
R^2 = 0.9998
BEC = 0.044 ppb
LoD = 0.1335 ppb

205Tl (KED AGD)



f(x) = 8219.3503*x + 289.3720
R^2 = 0.9999
BEC = 0.035 ppb
LoD = 0.0243 ppb

208Pb (KED AGD)



f(x) = 10649.3020*x + 353.5196
R^2 = 0.9997
BEC = 0.033 ppb
LoD = 0.0048 ppb

Standards:

Analysis Index: 3
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 3/14/2016 11:25:18 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 50000
Rack: 0
Vial: 2

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	100.607 %		
6Li (KED AGD)	96.593 %		
9Be (STD AGD)	0.197 ppb	7.7 %	0.200 ppb
23Na (KED AGD)	24.631 ppb	50.6 %	20.000 ppb
24Mg (KED AGD)	19.719 ppb	24.8 %	20.000 ppb
27Al (KED AGD)	-0.064 ppb	1,527.5 %	0.200 ppb
39K (KED AGD)	29.661 ppb	13.1 %	20.000 ppb
44Ca (KED AGD)	23.135 ppb	50.8 %	20.000 ppb
45Sc (KED AGD)	99.551 %		
45Sc (STD AGD)	98.278 %		
51V (KED AGD)	0.235 ppb	64.0 %	0.200 ppb
52Cr (KED AGD)	0.293 ppb	42.3 %	0.200 ppb
55Mn (KED AGD)	-0.614 ppb	7.5 %	0.200 ppb
57Fe (KED AGD)	18.994 ppb	33.0 %	20.000 ppb
59Co (KED AGD)	0.226 ppb	13.8 %	0.200 ppb
60Ni (KED AGD)	0.298 ppb	16.2 %	0.200 ppb
65Cu (KED AGD)	0.490 ppb	17.5 %	0.200 ppb
66Zn (KED AGD)	-0.391 ppb	60.7 %	0.200 ppb
74Ge (KED AGD)	96.188 %		
75As (KED AGD)	0.186 ppb	19.3 %	0.200 ppb
78Se (KED AGD)	0.372 ppb	139.7 %	0.200 ppb
95Mo (KED AGD)	0.150 ppb	8.8 %	0.200 ppb
107Ag (KED AGD)	0.238 ppb	18.3 %	0.200 ppb
111Cd (KED AGD)	0.203 ppb	16.0 %	0.200 ppb
115In (KED AGD)	98.252 %		
118Sn (KED AGD)	0.181 ppb	36.4 %	0.200 ppb
121Sb (KED AGD)	0.176 ppb	39.7 %	0.200 ppb
137Ba (KED AGD)	0.290 ppb	40.7 %	0.200 ppb
159Tb (KED AGD)	97.415 %		
205Tl (KED AGD)	0.206 ppb	11.9 %	0.200 ppb
208Pb (KED AGD)	0.204 ppb	17.4 %	0.200 ppb
209Bi (KED AGD)	96.479 %		

Standards:

Analysis Index: 4
Analysis Name: 1.0/100 Cal
Analysis Type: STD
Analysis Started at: 3/14/2016 11:28:21 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 10000
Rack: 0
Vial: 3

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	101.853 %		
6Li (KED AGD)	94.790 %		
9Be (STD AGD)	1.036 ppb	5.0 %	1.000 ppb
23Na (KED AGD)	99.952 ppb	10.8 %	100.000 ppb
24Mg (KED AGD)	105.439 ppb	6.1 %	100.000 ppb
27Al (KED AGD)	0.482 ppb	112.3 %	1.000 ppb
39K (KED AGD)	106.190 ppb	18.3 %	100.000 ppb
44Ca (KED AGD)	93.150 ppb	35.3 %	100.000 ppb
45Sc (KED AGD)	94.439 %		
45Sc (STD AGD)	99.379 %		
51V (KED AGD)	1.092 ppb	21.0 %	1.000 ppb
52Cr (KED AGD)	1.098 ppb	20.8 %	1.000 ppb
55Mn (KED AGD)	0.257 ppb	136.5 %	1.000 ppb
57Fe (KED AGD)	98.401 ppb	4.8 %	100.000 ppb
59Co (KED AGD)	0.959 ppb	11.3 %	1.000 ppb
60Ni (KED AGD)	0.998 ppb	30.1 %	1.000 ppb
65Cu (KED AGD)	1.144 ppb	9.6 %	1.000 ppb
66Zn (KED AGD)	0.295 ppb	25.7 %	1.000 ppb
74Ge (KED AGD)	103.022 %		
75As (KED AGD)	1.111 ppb	6.4 %	1.000 ppb
78Se (KED AGD)	0.981 ppb	32.8 %	1.000 ppb
95Mo (KED AGD)	0.881 ppb	9.1 %	1.000 ppb
107Ag (KED AGD)	1.135 ppb	16.8 %	1.000 ppb
111Cd (KED AGD)	1.033 ppb	18.4 %	1.000 ppb
115In (KED AGD)	97.710 %		
118Sn (KED AGD)	1.124 ppb	6.3 %	1.000 ppb
121Sb (KED AGD)	1.183 ppb	11.2 %	1.000 ppb
137Ba (KED AGD)	1.176 ppb	23.4 %	1.000 ppb
159Tb (KED AGD)	94.761 %		
205Tl (KED AGD)	1.008 ppb	6.6 %	1.000 ppb
208Pb (KED AGD)	1.076 ppb	12.2 %	1.000 ppb
209Bi (KED AGD)	94.186 %		

Standards:

Analysis Index: 5
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 3/14/2016 11:31:25 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 1000
Rack: 0
Vial: 4

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	102.482 %		
6Li (KED AGD)	96.393 %		
9Be (STD AGD)	10.112 ppb	0.7 %	10.000 ppb
23Na (KED AGD)	993.159 ppb	6.1 %	1,000.000 ppb
24Mg (KED AGD)	1,036.235 ppb	11.0 %	1,000.000 ppb
27Al (KED AGD)	8.512 ppb	6.2 %	10.000 ppb
39K (KED AGD)	940.308 ppb	5.7 %	1,000.000 ppb
44Ca (KED AGD)	914.005 ppb	2.6 %	1,000.000 ppb
45Sc (KED AGD)	99.859 %		
45Sc (STD AGD)	100.688 %		
51V (KED AGD)	9.507 ppb	2.3 %	10.000 ppb
52Cr (KED AGD)	9.916 ppb	6.1 %	10.000 ppb
55Mn (KED AGD)	9.588 ppb	7.8 %	10.000 ppb
57Fe (KED AGD)	1,002.985 ppb	5.0 %	1,000.000 ppb
59Co (KED AGD)	10.327 ppb	6.6 %	10.000 ppb
60Ni (KED AGD)	10.161 ppb	7.7 %	10.000 ppb
65Cu (KED AGD)	10.681 ppb	1.9 %	10.000 ppb
66Zn (KED AGD)	9.594 ppb	5.9 %	10.000 ppb
74Ge (KED AGD)	101.055 %		
75As (KED AGD)	10.266 ppb	7.5 %	10.000 ppb
78Se (KED AGD)	10.304 ppb	9.6 %	10.000 ppb
95Mo (KED AGD)	9.514 ppb	5.0 %	10.000 ppb
107Ag (KED AGD)	10.607 ppb	1.6 %	10.000 ppb
111Cd (KED AGD)	9.998 ppb	3.3 %	10.000 ppb
115In (KED AGD)	102.974 %		
118Sn (KED AGD)	9.476 ppb	1.6 %	10.000 ppb
121Sb (KED AGD)	9.621 ppb	4.4 %	10.000 ppb
137Ba (KED AGD)	9.613 ppb	2.7 %	10.000 ppb
159Tb (KED AGD)	102.148 %		
205Tl (KED AGD)	9.720 ppb	1.2 %	10.000 ppb
208Pb (KED AGD)	9.738 ppb	1.8 %	10.000 ppb
209Bi (KED AGD)	101.242 %		

Standards:

Analysis Index: 6
Analysis Name: 120/12000
Analysis Type: STD
Analysis Started at: 3/14/2016 11:34:29 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 83.3333333
Rack: 0
Vial: 5

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	99.613 %		
6Li (KED AGD)	94.088 %		
9Be (STD AGD)	119.707 ppb	0.3 %	120.000 ppb
23Na (KED AGD)	11,524.533 ppb	5.5 %	12,000.000 ppb
24Mg (KED AGD)	11,930.310 ppb	7.1 %	12,000.000 ppb
27Al (KED AGD)	118.734 ppb	8.2 %	120.000 ppb
39K (KED AGD)	11,660.329 ppb	7.2 %	12,000.000 ppb
44Ca (KED AGD)	11,297.325 ppb	3.5 %	12,000.000 ppb
45Sc (KED AGD)	96.826 %		
45Sc (STD AGD)	98.027 %		
51V (KED AGD)	119.071 ppb	4.3 %	120.000 ppb
52Cr (KED AGD)	117.775 ppb	7.8 %	120.000 ppb
55Mn (KED AGD)	122.313 ppb	5.9 %	120.000 ppb
57Fe (KED AGD)	12,083.714 ppb	4.8 %	12,000.000 ppb
59Co (KED AGD)	121.059 ppb	3.9 %	120.000 ppb
60Ni (KED AGD)	124.418 ppb	2.6 %	120.000 ppb
65Cu (KED AGD)	125.582 ppb	1.8 %	120.000 ppb
66Zn (KED AGD)	125.964 ppb	2.3 %	120.000 ppb
74Ge (KED AGD)	95.331 %		
75As (KED AGD)	123.509 ppb	2.0 %	120.000 ppb
78Se (KED AGD)	127.202 ppb	6.5 %	120.000 ppb
95Mo (KED AGD)	118.041 ppb	3.9 %	120.000 ppb
107Ag (KED AGD)	123.825 ppb	1.2 %	120.000 ppb
111Cd (KED AGD)	122.262 ppb	0.6 %	120.000 ppb
115In (KED AGD)	99.131 %		
118Sn (KED AGD)	119.275 ppb	3.0 %	120.000 ppb
121Sb (KED AGD)	116.837 ppb	3.0 %	120.000 ppb
137Ba (KED AGD)	115.805 ppb	3.6 %	120.000 ppb
159Tb (KED AGD)	98.357 %		
205Tl (KED AGD)	114.929 ppb	3.8 %	120.000 ppb
208Pb (KED AGD)	117.237 ppb	1.1 %	120.000 ppb
209Bi (KED AGD)	97.960 %		

Standards:

Analysis Index: 7
Analysis Name: 250/25000
Analysis Type: STD
Analysis Started at: 3/14/2016 11:37:34 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 40
Rack: 0
Vial: 6

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	97.647 %		
6Li (KED AGD)	92.084 %		
9Be (STD AGD)	250.478 ppb	0.6 %	250.000 ppb
23Na (KED AGD)	24,642.320 ppb	1.3 %	25,000.000 ppb
24Mg (KED AGD)	24,803.965 ppb	1.7 %	25,000.000 ppb
27Al (KED AGD)	249.319 ppb	3.8 %	250.000 ppb
39K (KED AGD)	24,984.481 ppb	3.6 %	25,000.000 ppb
44Ca (KED AGD)	25,225.357 ppb	5.3 %	25,000.000 ppb
45Sc (KED AGD)	91.911 %		
45Sc (STD AGD)	96.488 %		
51V (KED AGD)	249.044 ppb	5.0 %	250.000 ppb
52Cr (KED AGD)	250.608 ppb	5.5 %	250.000 ppb
55Mn (KED AGD)	248.588 ppb	6.0 %	250.000 ppb
57Fe (KED AGD)	24,972.902 ppb	5.7 %	25,000.000 ppb
59Co (KED AGD)	251.001 ppb	5.9 %	250.000 ppb
60Ni (KED AGD)	250.944 ppb	7.9 %	250.000 ppb
65Cu (KED AGD)	250.800 ppb	7.3 %	250.000 ppb
66Zn (KED AGD)	249.759 ppb	6.3 %	250.000 ppb
74Ge (KED AGD)	97.797 %		
75As (KED AGD)	241.407 ppb	5.2 %	250.000 ppb
78Se (KED AGD)	239.816 ppb	7.5 %	250.000 ppb
95Mo (KED AGD)	246.547 ppb	5.5 %	250.000 ppb
107Ag (KED AGD)	255.902 ppb	3.2 %	250.000 ppb
111Cd (KED AGD)	258.262 ppb	2.1 %	250.000 ppb
115In (KED AGD)	93.313 %		
118Sn (KED AGD)	251.869 ppb	1.1 %	250.000 ppb
121Sb (KED AGD)	252.336 ppb	0.7 %	250.000 ppb
137Ba (KED AGD)	254.919 ppb	2.9 %	250.000 ppb
159Tb (KED AGD)	93.169 %		
205Tl (KED AGD)	252.103 ppb	3.1 %	250.000 ppb
208Pb (KED AGD)	243.844 ppb	1.2 %	250.000 ppb
209Bi (KED AGD)	93.146 %		

Standards:

Analysis Index: 8
Analysis Name: 500/50000
Analysis Type: STD
Analysis Started at: 3/14/2016 11:40:39 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 20
Rack: 0
Vial: 7

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	95.060 %		
6Li (KED AGD)	91.483 %		
9Be (STD AGD)	499.829 ppb	1.0 %	500.000 ppb
23Na (KED AGD)	50,293.087 ppb	1.1 %	50,000.000 ppb
24Mg (KED AGD)	50,114.008 ppb	1.1 %	50,000.000 ppb
27Al (KED AGD)	500.675 ppb	2.7 %	500.000 ppb
39K (KED AGD)	50,090.458 ppb	3.3 %	50,000.000 ppb
44Ca (KED AGD)	50,057.696 ppb	4.5 %	50,000.000 ppb
45Sc (KED AGD)	90.872 %		
45Sc (STD AGD)	94.117 %		
51V (KED AGD)	500.711 ppb	4.5 %	500.000 ppb
52Cr (KED AGD)	500.232 ppb	3.7 %	500.000 ppb
55Mn (KED AGD)	500.161 ppb	2.2 %	500.000 ppb
57Fe (KED AGD)	49,993.402 ppb	1.2 %	50,000.000 ppb
59Co (KED AGD)	499.239 ppb	2.1 %	500.000 ppb
60Ni (KED AGD)	498.464 ppb	1.4 %	500.000 ppb
65Cu (KED AGD)	498.246 ppb	1.1 %	500.000 ppb
66Zn (KED AGD)	498.699 ppb	1.9 %	500.000 ppb
74Ge (KED AGD)	91.636 %		
75As (KED AGD)	503.449 ppb	0.6 %	500.000 ppb
78Se (KED AGD)	503.358 ppb	1.9 %	500.000 ppb
95Mo (KED AGD)	502.206 ppb	1.9 %	500.000 ppb
107Ag (KED AGD)	496.119 ppb	3.7 %	500.000 ppb
111Cd (KED AGD)	495.326 ppb	2.3 %	500.000 ppb
115In (KED AGD)	94.116 %		
118Sn (KED AGD)	499.250 ppb	2.0 %	500.000 ppb
121Sb (KED AGD)	499.598 ppb	1.2 %	500.000 ppb
137Ba (KED AGD)	498.555 ppb	2.2 %	500.000 ppb
159Tb (KED AGD)	92.260 %		
205Tl (KED AGD)	500.171 ppb	3.8 %	500.000 ppb
208Pb (KED AGD)	503.746 ppb	2.3 %	500.000 ppb
209Bi (KED AGD)	88.570 %		

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 1 Analysis started at: 3/14/2016 11:19:09 AM Rack: 0
Analysis label: rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	99.188 %	87.374 %	0.000 ppb	6.037 ppb	0.507 ppb	-0.022 ppb	-0.933 ppb
Concentration per Run 1	100.480 %	88.677 %	0.005 ppb	5.108 ppb	1.113 ppb	-0.204 ppb	-2.112 ppb
Concentration per Run 2	97.435 %	87.475 %	-0.004 ppb	6.519 ppb	1.156 ppb	0.491 ppb	-0.200 ppb
Concentration per Run 3	99.649 %	85.972 %	-0.001 ppb	6.485 ppb	-0.748 ppb	-0.351 ppb	-0.486 ppb
Concentration RSD	1.6 %	1.6 %	5,756.6 %	13.3 %	214.3 %	2,081.8 %	110.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	4.183 ppb	100.084 %	98.430 %	0.008 ppb	0.037 ppb	-0.076 ppb	0.753 ppb
Concentration per Run 1	9.817 ppb	102.499 %	100.613 %	0.024 ppb	0.066 ppb	-0.184 ppb	1.692 ppb
Concentration per Run 2	10.111 ppb	100.477 %	96.832 %	0.000 ppb	0.053 ppb	-0.133 ppb	1.013 ppb
Concentration per Run 3	-7.379 ppb	97.275 %	97.846 %	0.000 ppb	-0.009 ppb	0.089 ppb	-0.447 ppb
Concentration RSD	239.4 %	2.6 %	2.0 %	173.2 %	109.6 %	190.5 %	145.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.009 ppb	-0.043 ppb	0.003 ppb	-0.108 ppb	95.655 %	-0.025 ppb	0.140 ppb
Concentration per Run 1	0.015 ppb	-0.033 ppb	-0.022 ppb	-0.026 ppb	96.677 %	-0.025 ppb	0.074 ppb
Concentration per Run 2	0.015 ppb	-0.099 ppb	0.052 ppb	-0.119 ppb	94.825 %	-0.025 ppb	0.052 ppb
Concentration per Run 3	-0.003 ppb	0.004 ppb	-0.021 ppb	-0.179 ppb	95.464 %	-0.025 ppb	0.294 ppb
Concentration RSD	111.9 %	122.8 %	1,565.9 %	71.5 %	1.0 %	0.0 %	96.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.029 ppb	0.004 ppb	0.000 ppb	102.213 %	-0.052 ppb	0.017 ppb	0.028 ppb
Concentration per Run 1	0.022 ppb	0.006 ppb	-0.004 ppb	108.207 %	-0.063 ppb	0.026 ppb	0.039 ppb
Concentration per Run 2	0.042 ppb	0.003 ppb	0.004 ppb	100.377 %	-0.038 ppb	0.029 ppb	0.000 ppb
Concentration per Run 3	0.024 ppb	0.003 ppb	-0.001 ppb	98.056 %	-0.056 ppb	-0.005 ppb	0.044 ppb
Concentration RSD	36.5 %	40.0 %	868.5 %	5.2 %	24.0 %	115.9 %	86.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.711 %	0.006 ppb	0.000 ppb	102.665 %
Concentration per Run 1	103.775 %	0.006 ppb	-0.008 ppb	107.584 %
Concentration per Run 2	99.207 %	0.019 ppb	0.009 ppb	101.835 %
Concentration per Run 3	102.150 %	-0.006 ppb	-0.003 ppb	98.575 %
Concentration RSD	2.3 %	196.2 %	1,939.0 %	4.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 2 Analysis started at: 3/14/2016 11:22:11 AM Rack: 4
Analysis label: Blank TT User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD			0.4 %	0.1 %	1.1 %	0.5 %	0.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD	0.5 %				0.4 %	0.3 %	0.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb
Concentration RSD	0.4 %	0.3 %	1.3 %	0.0 %		0.4 %	1.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD	0.9 %	0.3 %	0.1 %		0.1 %	0.4 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD		0.2 %	0.0 %	

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 3 Analysis started at: 3/14/2016 11:25:18 AM Rack: 0
Analysis label: 0.2/20 Cal User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.607 %	96.593 %	0.197 ppb	24.631 ppb	19.719 ppb	-0.064 ppb	29.661 ppb
Concentration per Run 1	100.411 %	82.364 %	0.182 ppb	38.636 ppb	24.545 ppb	1.056 ppb	30.290 ppb
Concentration per Run 2	100.570 %	110.321 %	0.196 ppb	14.802 ppb	14.767 ppb	-0.499 ppb	25.487 ppb
Concentration per Run 3	100.841 %	97.094 %	0.213 ppb	20.456 ppb	19.843 ppb	-0.750 ppb	33.207 ppb
Concentration RSD			7.7 %	50.6 %	24.8 %	1,527.5 %	13.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	23.135 ppb	99.551 %	98.278 %	0.235 ppb	0.293 ppb	-0.614 ppb	18.994 ppb
Concentration per Run 1	18.099 ppb	88.682 %	99.018 %	0.403 ppb	0.436 ppb	-0.667 ppb	26.234 ppb
Concentration per Run 2	14.735 ppb	103.679 %	97.376 %	0.185 ppb	0.214 ppb	-0.591 ppb	15.527 ppb
Concentration per Run 3	36.572 ppb	106.292 %	98.440 %	0.116 ppb	0.230 ppb	-0.584 ppb	15.220 ppb
Concentration RSD	50.8 %			64.0 %	42.3 %	7.5 %	33.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.226 ppb	0.298 ppb	0.490 ppb	-0.391 ppb	96.188 %	0.186 ppb	0.372 ppb
Concentration per Run 1	0.206 ppb	0.346 ppb	0.581 ppb	-0.139 ppb	90.801 %	0.225 ppb	0.971 ppb
Concentration per Run 2	0.211 ppb	0.250 ppb	0.477 ppb	-0.610 ppb	103.706 %	0.176 ppb	0.053 ppb
Concentration per Run 3	0.262 ppb	0.297 ppb	0.412 ppb	-0.422 ppb	94.058 %	0.156 ppb	0.092 ppb
Concentration RSD	13.8 %	16.2 %	17.5 %	60.7 %		19.3 %	139.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.150 ppb	0.238 ppb	0.203 ppb	98.252 %	0.181 ppb	0.176 ppb	0.290 ppb
Concentration per Run 1	0.164 ppb	0.287 ppb	0.239 ppb	87.854 %	0.257 ppb	0.237 ppb	0.306 ppb
Concentration per Run 2	0.137 ppb	0.207 ppb	0.193 ppb	106.571 %	0.135 ppb	0.192 ppb	0.165 ppb
Concentration per Run 3	0.150 ppb	0.218 ppb	0.177 ppb	100.332 %	0.152 ppb	0.100 ppb	0.399 ppb
Concentration RSD	8.8 %	18.3 %	16.0 %		36.4 %	39.7 %	40.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.415 %	0.206 ppb	0.204 ppb	96.479 %
Concentration per Run 1	88.610 %	0.233 ppb	0.234 ppb	87.605 %
Concentration per Run 2	104.706 %	0.184 ppb	0.165 ppb	101.831 %
Concentration per Run 3	98.929 %	0.201 ppb	0.215 ppb	100.001 %
Concentration RSD		11.9 %	17.4 %	

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Analysis index: 4 Analysis started at: 3/14/2016 11:28:21 AM Rack: 0
Analysis label: 1.0/100 Cal User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.853 %	94.790 %	1.036 ppb	99.952 ppb	105.439 ppb	0.482 ppb	106.190 ppb
Concentration per Run 1	101.809 %	97.395 %	0.980 ppb	106.478 ppb	99.594 ppb	1.014 ppb	125.009 ppb
Concentration per Run 2	100.915 %	95.591 %	1.047 ppb	87.437 ppb	104.452 ppb	-0.068 ppb	86.149 ppb
Concentration per Run 3	102.835 %	91.383 %	1.081 ppb	105.941 ppb	112.272 ppb	0.500 ppb	107.410 ppb
Concentration RSD			5.0 %	10.8 %	6.1 %	112.3 %	18.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	93.150 ppb	94.439 %	99.379 %	1.092 ppb	1.098 ppb	0.257 ppb	98.401 ppb
Concentration per Run 1	108.058 ppb	89.103 %	99.128 %	1.151 ppb	1.324 ppb	0.658 ppb	99.294 ppb
Concentration per Run 2	55.451 ppb	99.045 %	98.758 %	0.839 ppb	0.866 ppb	0.109 ppb	93.263 ppb
Concentration per Run 3	115.942 ppb	95.169 %	100.250 %	1.285 ppb	1.104 ppb	0.004 ppb	102.645 ppb
Concentration RSD	35.3 %			21.0 %	20.8 %	136.5 %	4.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.959 ppb	0.998 ppb	1.144 ppb	0.295 ppb	103.022 %	1.111 ppb	0.981 ppb
Concentration per Run 1	0.904 ppb	1.322 ppb	1.137 ppb	0.368 ppb	101.406 %	1.173 ppb	1.264 ppb
Concentration per Run 2	1.084 ppb	0.942 ppb	1.037 ppb	0.300 ppb	103.698 %	1.126 ppb	0.631 ppb
Concentration per Run 3	0.890 ppb	0.729 ppb	1.257 ppb	0.217 ppb	103.961 %	1.033 ppb	1.047 ppb
Concentration RSD	11.3 %	30.1 %	9.6 %	25.7 %		6.4 %	32.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.881 ppb	1.135 ppb	1.033 ppb	97.710 %	1.124 ppb	1.183 ppb	1.176 ppb
Concentration per Run 1	0.858 ppb	1.333 ppb	1.243 ppb	91.174 %	1.102 ppb	1.334 ppb	1.381 ppb
Concentration per Run 2	0.813 ppb	0.954 ppb	0.872 ppb	103.337 %	1.067 ppb	1.088 ppb	0.863 ppb
Concentration per Run 3	0.970 ppb	1.118 ppb	0.985 ppb	98.619 %	1.204 ppb	1.126 ppb	1.284 ppb
Concentration RSD	9.1 %	16.8 %	18.4 %		6.3 %	11.2 %	23.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.761 %	1.008 ppb	1.076 ppb	94.186 %
Concentration per Run 1	88.688 %	1.081 ppb	1.206 ppb	89.828 %
Concentration per Run 2	101.170 %	0.951 ppb	0.943 ppb	99.751 %
Concentration per Run 3	94.426 %	0.994 ppb	1.079 ppb	92.977 %
Concentration RSD		6.6 %	12.2 %	

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Analysis index: 5 Analysis started at: 3/14/2016 11:31:25 AM Rack: 0
Analysis label: 10/1000 Cal User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.482 %	96.393 %	10.112 ppb	993.159 ppb	1,036.235 ppb	8.512 ppb	940.308 ppb
Concentration per Run 1	102.253 %	90.481 %	10.026 ppb	1,062.266 ppb	1,164.958 ppb	8.165 ppb	971.758 ppb
Concentration per Run 2	101.523 %	101.603 %	10.170 ppb	953.131 ppb	945.861 ppb	9.118 ppb	970.748 ppb
Concentration per Run 3	103.671 %	97.094 %	10.138 ppb	964.079 ppb	997.885 ppb	8.253 ppb	878.418 ppb
Concentration RSD			0.7 %	6.1 %	11.0 %	6.2 %	5.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	914.005 ppb	99.859 %	100.688 %	9.507 ppb	9.916 ppb	9.588 ppb	1,002.985 ppb
Concentration per Run 1	937.286 ppb	98.792 %	99.115 %	9.275 ppb	10.391 ppb	10.424 ppb	1,048.827 ppb
Concentration per Run 2	889.191 ppb	100.477 %	101.208 %	9.544 ppb	10.116 ppb	9.343 ppb	1,010.970 ppb
Concentration per Run 3	915.536 ppb	100.309 %	101.740 %	9.701 ppb	9.241 ppb	8.997 ppb	949.158 ppb
Concentration RSD	2.6 %			2.3 %	6.1 %	7.8 %	5.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	10.327 ppb	10.161 ppb	10.681 ppb	9.594 ppb	101.055 %	10.266 ppb	10.304 ppb
Concentration per Run 1	11.023 ppb	11.053 ppb	10.448 ppb	10.186 ppb	99.800 %	11.117 ppb	11.126 ppb
Concentration per Run 2	10.308 ppb	9.578 ppb	10.838 ppb	9.540 ppb	101.717 %	10.051 ppb	10.577 ppb
Concentration per Run 3	9.651 ppb	9.851 ppb	10.756 ppb	9.057 ppb	101.646 %	9.631 ppb	9.211 ppb
Concentration RSD	6.6 %	7.7 %	1.9 %	5.9 %		7.5 %	9.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	9.514 ppb	10.607 ppb	9.998 ppb	102.974 %	9.476 ppb	9.621 ppb	9.613 ppb
Concentration per Run 1	9.015 ppb	10.561 ppb	9.669 ppb	106.691 %	9.440 ppb	9.160 ppb	9.328 ppb
Concentration per Run 2	9.566 ppb	10.798 ppb	9.990 ppb	101.432 %	9.642 ppb	9.995 ppb	9.677 ppb
Concentration per Run 3	9.962 ppb	10.462 ppb	10.334 ppb	100.801 %	9.346 ppb	9.709 ppb	9.834 ppb
Concentration RSD	5.0 %	1.6 %	3.3 %		1.6 %	4.4 %	2.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.148 %	9.720 ppb	9.738 ppb	101.242 %
Concentration per Run 1	103.657 %	9.768 ppb	9.743 ppb	103.196 %
Concentration per Run 2	100.442 %	9.809 ppb	9.913 ppb	98.946 %
Concentration per Run 3	102.346 %	9.583 ppb	9.558 ppb	101.585 %
Concentration RSD		1.2 %	1.8 %	

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Analysis index: 6 Analysis started at: 3/14/2016 11:34:29 AM Rack: 0
Analysis label: 120/12000 User name: ALPHALAB\a1metalsinstrument Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	99.613 %	94.088 %	119.707 ppb	11,524.533 ppb	11,930.310 ppb	118.734 ppb	11,660.329 ppb
Concentration per Run 1	99.281 %	95.591 %	119.264 ppb	11,503.213 ppb	11,813.789 ppb	114.784 ppb	10,868.178 ppb
Concentration per Run 2	98.700 %	100.100 %	119.925 ppb	10,904.191 ppb	11,143.168 ppb	111.555 ppb	11,570.600 ppb
Concentration per Run 3	100.860 %	86.573 %	119.931 ppb	12,166.197 ppb	12,833.972 ppb	129.862 ppb	12,542.208 ppb
Concentration RSD			0.3 %	5.5 %	7.1 %	8.2 %	7.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	11,297.325 ppb	96.826 %	98.027 %	119.071 ppb	117.775 ppb	122.313 ppb	12,083.714 ppb
Concentration per Run 1	11,138.363 ppb	101.910 %	97.254 %	114.300 ppb	112.565 ppb	118.436 ppb	12,091.163 ppb
Concentration per Run 2	11,007.216 ppb	100.224 %	96.613 %	118.416 ppb	112.353 ppb	117.852 ppb	11,501.949 ppb
Concentration per Run 3	11,746.396 ppb	88.344 %	100.215 %	124.496 ppb	128.406 ppb	130.651 ppb	12,658.030 ppb
Concentration RSD	3.5 %			4.3 %	7.8 %	5.9 %	4.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	121.059 ppb	124.418 ppb	125.582 ppb	125.964 ppb	95.331 %	123.509 ppb	127.202 ppb
Concentration per Run 1	119.848 ppb	124.433 ppb	124.851 ppb	126.677 ppb	94.594 %	126.354 ppb	130.355 ppb
Concentration per Run 2	117.029 ppb	121.158 ppb	123.826 ppb	122.800 ppb	96.958 %	122.168 ppb	117.875 ppb
Concentration per Run 3	126.301 ppb	127.664 ppb	128.070 ppb	128.416 ppb	94.441 %	122.004 ppb	133.376 ppb
Concentration RSD	3.9 %	2.6 %	1.8 %	2.3 %		2.0 %	6.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	118.041 ppb	123.825 ppb	122.262 ppb	99.131 %	119.275 ppb	116.837 ppb	115.805 ppb
Concentration per Run 1	121.723 ppb	122.711 ppb	121.484 ppb	100.274 %	117.581 ppb	115.720 ppb	113.925 ppb
Concentration per Run 2	112.805 ppb	123.249 ppb	122.573 ppb	100.638 %	116.922 ppb	114.010 ppb	112.910 ppb
Concentration per Run 3	119.595 ppb	125.515 ppb	122.729 ppb	96.483 %	123.320 ppb	120.781 ppb	120.581 ppb
Concentration RSD	3.9 %	1.2 %	0.6 %		3.0 %	3.0 %	3.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.357 %	114.929 ppb	117.237 ppb	97.960 %
Concentration per Run 1	98.947 %	119.998 ppb	118.736 ppb	96.729 %
Concentration per Run 2	98.649 %	111.907 ppb	116.368 ppb	99.065 %
Concentration per Run 3	97.474 %	112.883 ppb	116.608 ppb	98.085 %
Concentration RSD		3.8 %	1.1 %	

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Analysis index: 7 Analysis started at: 3/14/2016 11:37:34 AM Rack: 0
Analysis label: 250/25000 User name: ALPHALAB\a1metalsinstrument Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.647 %	92.084 %	250.478 ppb	24,642.320 ppb	24,803.965 ppb	249.319 ppb	24,984.481 ppb
Concentration per Run 1	97.170 %	93.487 %	249.039 ppb	25,015.709 ppb	25,241.058 ppb	259.152 ppb	25,386.057 ppb
Concentration per Run 2	98.092 %	93.186 %	252.028 ppb	24,480.376 ppb	24,764.758 ppb	240.026 ppb	25,625.210 ppb
Concentration per Run 3	97.679 %	89.579 %	250.367 ppb	24,430.874 ppb	24,406.079 ppb	248.779 ppb	23,942.175 ppb
Concentration RSD			0.6 %	1.3 %	1.7 %	3.8 %	3.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	25,225.357 ppb	91.911 %	96.488 %	249.044 ppb	250.608 ppb	248.588 ppb	24,972.902 ppb
Concentration per Run 1	26,554.928 ppb	89.355 %	96.215 %	262.357 ppb	265.000 ppb	263.404 ppb	26,613.446 ppb
Concentration per Run 2	25,255.064 ppb	90.114 %	97.307 %	247.351 ppb	249.562 ppb	248.634 ppb	24,246.249 ppb
Concentration per Run 3	23,866.079 ppb	96.264 %	95.942 %	237.424 ppb	237.261 ppb	233.727 ppb	24,059.010 ppb
Concentration RSD	5.3 %			5.0 %	5.5 %	6.0 %	5.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	251.001 ppb	250.944 ppb	250.800 ppb	249.759 ppb	97.797 %	241.407 ppb	239.816 ppb
Concentration per Run 1	267.868 ppb	272.249 ppb	271.738 ppb	267.647 ppb	93.876 %	255.737 ppb	259.927 ppb
Concentration per Run 2	240.557 ppb	247.879 ppb	242.377 ppb	243.206 ppb	100.454 %	232.863 ppb	233.769 ppb
Concentration per Run 3	244.577 ppb	232.706 ppb	238.286 ppb	238.423 ppb	99.063 %	235.621 ppb	225.752 ppb
Concentration RSD	5.9 %	7.9 %	7.3 %	6.3 %		5.2 %	7.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	246.547 ppb	255.902 ppb	258.262 ppb	93.313 %	251.869 ppb	252.336 ppb	254.919 ppb
Concentration per Run 1	262.271 ppb	264.281 ppb	264.281 ppb	93.453 %	254.632 ppb	254.435 ppb	262.704 ppb
Concentration per Run 2	239.973 ppb	247.887 ppb	256.450 ppb	93.454 %	249.349 ppb	251.265 ppb	248.124 ppb
Concentration per Run 3	237.398 ppb	255.539 ppb	254.057 ppb	93.031 %	251.626 ppb	251.307 ppb	253.928 ppb
Concentration RSD	5.5 %	3.2 %	2.1 %		1.1 %	0.7 %	2.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.169 %	252.103 ppb	243.844 ppb	93.146 %
Concentration per Run 1	95.875 %	258.098 ppb	247.012 ppb	94.493 %
Concentration per Run 2	92.577 %	254.904 ppb	243.471 ppb	92.339 %
Concentration per Run 3	91.054 %	243.307 ppb	241.049 ppb	92.606 %
Concentration RSD		3.1 %	1.2 %	

Alpha ICPMSQ Full

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Analysis index: 8 Analysis started at: 3/14/2016 11:40:39 AM Rack: 0
Analysis label: 500/50000 User name: ALPHALAB\a1metalsinstrument Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.060 %	91.483 %	499.829 ppb	50,293.087 ppb	50,114.008 ppb	500.675 ppb	50,090.458 ppb
Concentration per Run 1	95.825 %	88.677 %	498.703 ppb	50,246.221 ppb	50,705.189 ppb	510.381 ppb	49,449.778 ppb
Concentration per Run 2	94.851 %	93.487 %	495.493 ppb	50,846.193 ppb	49,569.449 ppb	485.015 ppb	48,877.709 ppb
Concentration per Run 3	94.504 %	92.284 %	505.292 ppb	49,786.847 ppb	50,067.385 ppb	506.630 ppb	51,943.888 ppb
Concentration RSD			1.0 %	1.1 %	1.1 %	2.7 %	3.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	50,057.696 ppb	90.872 %	94.117 %	500.711 ppb	500.232 ppb	500.161 ppb	49,993.402 ppb
Concentration per Run 1	48,211.300 ppb	95.590 %	94.634 %	480.252 ppb	478.642 ppb	494.862 ppb	49,320.414 ppb
Concentration per Run 2	49,422.732 ppb	90.198 %	94.889 %	497.375 ppb	509.747 ppb	493.035 ppb	50,193.241 ppb
Concentration per Run 3	52,539.055 ppb	86.828 %	92.827 %	524.506 ppb	512.306 ppb	512.585 ppb	50,466.550 ppb
Concentration RSD	4.5 %			4.5 %	3.7 %	2.2 %	1.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	499.239 ppb	498.464 ppb	498.246 ppb	498.699 ppb	91.636 %	503.449 ppb	503.358 ppb
Concentration per Run 1	487.278 ppb	490.889 ppb	495.784 ppb	506.794 ppb	92.947 %	506.102 ppb	496.616 ppb
Concentration per Run 2	507.381 ppb	500.352 ppb	504.318 ppb	488.316 ppb	89.902 %	503.813 ppb	514.068 ppb
Concentration per Run 3	503.058 ppb	504.151 ppb	494.637 ppb	500.987 ppb	92.059 %	500.431 ppb	499.388 ppb
Concentration RSD	2.1 %	1.4 %	1.1 %	1.9 %		0.6 %	1.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	502.206 ppb	496.119 ppb	495.326 ppb	94.116 %	499.250 ppb	499.598 ppb	498.555 ppb
Concentration per Run 1	496.287 ppb	494.462 ppb	501.479 ppb	95.806 %	510.350 ppb	504.542 ppb	511.332 ppb
Concentration per Run 2	512.996 ppb	515.419 ppb	502.223 ppb	91.971 %	491.423 ppb	501.164 ppb	491.964 ppb
Concentration per Run 3	497.336 ppb	478.475 ppb	482.276 ppb	94.572 %	495.977 ppb	493.089 ppb	492.368 ppb
Concentration RSD	1.9 %	3.7 %	2.3 %		2.0 %	1.2 %	2.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.260 %	500.171 ppb	503.746 ppb	88.570 %
Concentration per Run 1	94.306 %	521.522 ppb	516.955 ppb	88.010 %
Concentration per Run 2	91.074 %	493.112 ppb	496.369 ppb	89.329 %
Concentration per Run 3	91.399 %	485.878 ppb	497.914 ppb	88.370 %
Concentration RSD		3.8 %	2.3 %	

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 9 Analysis started at: 3/14/2016 11:43:45 AM Rack: 0
Analysis label: Rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.063 %	97.194 %	0.042 ppb	6.104 ppb	3.736 ppb	0.006 ppb	14.085 ppb
Concentration per Run 1	97.300 %	99.198 %	0.039 ppb	6.297 ppb	2.452 ppb	0.155 ppb	17.582 ppb
Concentration per Run 2	96.421 %	86.272 %	0.050 ppb	8.316 ppb	4.806 ppb	-0.205 ppb	12.022 ppb
Concentration per Run 3	97.469 %	106.112 %	0.038 ppb	3.697 ppb	3.949 ppb	0.067 ppb	12.652 ppb
Concentration RSD	0.6 %	10.4 %	15.1 %	37.9 %	31.9 %	3,318.9 %	21.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1.205 ppb	89.046 %	95.069 %	0.035 ppb	0.025 ppb	-0.286 ppb	4.372 ppb
Concentration per Run 1	0.597 ppb	85.901 %	96.590 %	0.027 ppb	0.015 ppb	-0.481 ppb	5.252 ppb
Concentration per Run 2	-9.296 ppb	87.165 %	95.410 %	0.000 ppb	0.049 ppb	0.056 ppb	5.940 ppb
Concentration per Run 3	12.313 ppb	94.073 %	93.208 %	0.077 ppb	0.010 ppb	-0.433 ppb	1.923 ppb
Concentration RSD	898.1 %	4.9 %	1.8 %	112.3 %	84.9 %	104.0 %	49.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.037 ppb	0.060 ppb	0.047 ppb	-0.163 ppb	94.122 %	0.652 ppb	-0.005 ppb
Concentration per Run 1	0.067 ppb	0.123 ppb	0.056 ppb	-0.122 ppb	94.952 %	0.513 ppb	-0.115 ppb
Concentration per Run 2	0.017 ppb	0.011 ppb	0.055 ppb	-0.220 ppb	96.741 %	0.739 ppb	0.285 ppb
Concentration per Run 3	0.027 ppb	0.046 ppb	0.031 ppb	-0.145 ppb	90.671 %	0.705 ppb	-0.184 ppb
Concentration RSD	71.6 %	95.6 %	29.8 %	31.7 %	3.3 %	18.7 %	5,301.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.222 ppb	0.083 ppb	0.032 ppb	95.868 %	0.033 ppb	2.030 ppb	0.033 ppb
Concentration per Run 1	1.243 ppb	0.088 ppb	0.005 ppb	96.739 %	0.084 ppb	1.913 ppb	0.048 ppb
Concentration per Run 2	1.430 ppb	0.066 ppb	0.052 ppb	94.372 %	0.049 ppb	2.464 ppb	0.003 ppb
Concentration per Run 3	0.993 ppb	0.094 ppb	0.038 ppb	96.494 %	-0.035 ppb	1.712 ppb	0.048 ppb
Concentration RSD	17.9 %	17.9 %	75.2 %	1.4 %	186.5 %	19.2 %	79.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.501 %	0.045 ppb	0.026 ppb	94.730 %
Concentration per Run 1	94.541 %	0.052 ppb	0.024 ppb	95.230 %
Concentration per Run 2	93.136 %	0.050 ppb	0.034 ppb	92.688 %
Concentration per Run 3	95.827 %	0.034 ppb	0.019 ppb	96.272 %
Concentration RSD	1.4 %	21.2 %	28.2 %	1.9 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 10 Analysis started at: 3/14/2016 11:46:47 AM Rack: 0
Analysis label: ICV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.953 %	95.190 %	105.938 ppb	10,148.677 ppb	10,450.625 ppb	109.318 ppb	10,413.956 ppb
Concentration per Run 1	98.291 %	96.794 %	106.551 ppb	10,450.922 ppb	10,980.700 ppb	108.805 ppb	10,590.093 ppb
Concentration per Run 2	97.537 %	97.996 %	105.447 ppb	9,754.446 ppb	9,826.699 ppb	108.069 ppb	10,261.934 ppb
Concentration per Run 3	98.031 %	90.781 %	105.816 ppb	10,240.662 ppb	10,544.475 ppb	111.081 ppb	10,389.841 ppb
Recovery Percentage 1			105.938 %	101.487 %	104.506 %	109.318 %	104.140 %
Concentration RSD	0.4 %	4.1 %	0.5 %	3.5 %	5.6 %	1.4 %	1.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,575.173 ppb	93.596 %	96.381 %	106.513 ppb	105.223 ppb	102.845 ppb	10,476.679 ppb
Concentration per Run 1	11,361.770 ppb	89.523 %	95.844 %	112.387 ppb	112.108 ppb	108.121 ppb	10,848.247 ppb
Concentration per Run 2	10,294.258 ppb	96.096 %	96.690 %	101.250 ppb	102.266 ppb	98.800 ppb	10,225.542 ppb
Concentration per Run 3	10,069.492 ppb	95.169 %	96.610 %	105.902 ppb	101.295 ppb	101.614 ppb	10,356.247 ppb
Recovery Percentage 1	105.752 %			106.513 %	105.223 %	102.845 %	104.767 %
Concentration RSD	6.5 %	3.8 %	0.5 %	5.3 %	5.7 %	4.6 %	3.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	107.616 ppb	106.564 ppb	108.426 ppb	108.037 ppb	97.814 %	101.839 ppb	106.810 ppb
Concentration per Run 1	109.386 ppb	109.536 ppb	112.148 ppb	108.742 ppb	98.098 %	103.411 ppb	104.644 ppb
Concentration per Run 2	106.420 ppb	107.256 ppb	107.118 ppb	104.948 ppb	100.770 %	95.914 ppb	106.707 ppb
Concentration per Run 3	107.043 ppb	102.899 ppb	106.011 ppb	110.422 ppb	94.575 %	106.193 ppb	109.078 ppb
Recovery Percentage 1	107.616 %	106.564 %	108.426 %	108.037 %		101.839 %	106.810 %
Concentration RSD	1.5 %	3.2 %	3.0 %	2.6 %	3.2 %	5.2 %	2.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	99.171 ppb	106.527 ppb	105.627 ppb	98.077 %	106.704 ppb	106.025 ppb	103.872 ppb
Concentration per Run 1	98.621 ppb	105.101 ppb	105.705 ppb	101.162 %	108.428 ppb	105.514 ppb	103.592 ppb
Concentration per Run 2	96.381 ppb	106.324 ppb	103.814 ppb	98.173 %	104.581 ppb	105.731 ppb	103.996 ppb
Concentration per Run 3	102.511 ppb	108.155 ppb	107.361 ppb	94.897 %	107.104 ppb	106.829 ppb	104.029 ppb
Recovery Percentage 1	99.171 %	106.527 %	105.627 %		106.704 %	106.025 %	103.872 %
Concentration RSD	3.1 %	1.4 %	1.7 %	3.2 %	1.8 %	0.7 %	0.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.875 %	104.383 ppb	106.328 ppb	92.878 %
Concentration per Run 1	96.642 %	104.510 ppb	106.638 ppb	93.076 %
Concentration per Run 2	97.502 %	104.469 ppb	106.756 ppb	93.407 %
Concentration per Run 3	93.482 %	104.169 ppb	105.591 ppb	92.150 %
Recovery Percentage 1		104.383 %	106.328 %	
Concentration RSD	2.2 %	0.2 %	0.6 %	0.7 %

Analysis index: 11 Analysis started at: 3/14/2016 11:49:55 AM Rack: 0
Analysis label: ICB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.544 %	98.798 %	0.018 ppb	0.942 ppb	1.306 ppb	0.111 ppb	4.399 ppb
Concentration per Run 1	98.175 %	92.585 %	0.018 ppb	2.333 ppb	3.611 ppb	0.060 ppb	-6.366 ppb
Concentration per Run 2	98.084 %	97.094 %	0.014 ppb	0.288 ppb	1.111 ppb	0.869 ppb	5.528 ppb
Concentration per Run 3	96.374 %	106.714 %	0.022 ppb	0.204 ppb	-0.804 ppb	-0.596 ppb	14.035 ppb
Recovery Percentage 1			3.587 %	0.942 %	1.866 %	1.110 %	4.399 %
Concentration RSD	1.0 %	7.3 %	21.1 %	128.0 %	169.5 %	660.9 %	232.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8.939 ppb	94.411 %	98.267 %	0.034 ppb	0.043 ppb	0.529 ppb	2.114 ppb
Concentration per Run 1	10.746 ppb	98.708 %	98.741 %	0.024 ppb	0.005 ppb	0.359 ppb	0.987 ppb
Concentration per Run 2	6.257 ppb	92.894 %	100.176 %	0.051 ppb	0.076 ppb	0.661 ppb	3.340 ppb
Concentration per Run 3	9.815 ppb	91.630 %	95.886 %	0.026 ppb	0.047 ppb	0.568 ppb	2.013 ppb
Recovery Percentage 1	8.939 %			0.677 %	4.272 %	52.919 %	4.227 %
Concentration RSD	26.5 %	4.0 %	2.2 %	43.8 %	82.8 %	29.2 %	55.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.016 ppb	0.019 ppb	0.028 ppb	0.196 ppb	95.783 %	0.134 ppb	-0.011 ppb
Concentration per Run 1	0.006 ppb	0.000 ppb	0.025 ppb	0.224 ppb	100.129 %	0.126 ppb	0.254 ppb
Concentration per Run 2	0.044 ppb	0.005 ppb	0.027 ppb	0.269 ppb	99.361 %	0.108 ppb	-0.120 ppb
Concentration per Run 3	-0.002 ppb	0.051 ppb	0.033 ppb	0.093 ppb	87.861 %	0.169 ppb	-0.167 ppb
Recovery Percentage 1	3.173 %	3.738 %	2.833 %	1.955 %	95.783 %	26.878 %	-0.215 %
Concentration RSD	153.5 %	152.2 %	15.9 %	46.9 %	7.2 %	23.0 %	2,149.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.627 ppb	0.033 ppb	0.013 ppb	94.104 %	0.137 ppb	0.492 ppb	0.033 ppb
Concentration per Run 1	0.555 ppb	0.036 ppb	0.005 ppb	96.683 %	0.064 ppb	0.613 ppb	0.092 ppb
Concentration per Run 2	0.637 ppb	0.028 ppb	0.013 ppb	94.129 %	0.150 ppb	0.314 ppb	0.050 ppb
Concentration per Run 3	0.688 ppb	0.035 ppb	0.021 ppb	91.501 %	0.198 ppb	0.550 ppb	-0.044 ppb
Recovery Percentage 1	20.893 %	8.225 %	6.494 %		4.582 %	24.618 %	6.552 %
Concentration RSD	10.7 %	13.7 %	61.5 %	2.8 %	49.7 %	32.0 %	213.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.801 %	0.032 ppb	0.012 ppb	95.211 %
Concentration per Run 1	97.561 %	0.031 ppb	0.020 ppb	98.763 %
Concentration per Run 2	92.905 %	0.027 ppb	0.010 ppb	94.487 %
Concentration per Run 3	96.937 %	0.038 ppb	0.005 ppb	92.382 %
Recovery Percentage 1		6.421 %	2.334 %	95.211 %
Concentration RSD	2.6 %	18.1 %	64.8 %	3.4 %

Analysis index: 12 Analysis started at: 3/14/2016 12:06:26 PM Rack: 4
Analysis label: LLCCV User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.437 %	94.890 %	0.514 ppb	118.083 ppb	81.653 ppb	11.248 ppb	119.206 ppb
Concentration per Run 1	94.965 %	105.211 %	0.489 ppb	109.463 ppb	83.079 ppb	11.549 ppb	124.945 ppb
Concentration per Run 2	96.404 %	88.677 %	0.474 ppb	127.358 ppb	90.985 ppb	12.202 ppb	128.068 ppb
Concentration per Run 3	94.940 %	90.781 %	0.578 ppb	117.427 ppb	70.894 ppb	9.993 ppb	104.604 ppb
Recovery Percentage 1			102.782 %	118.083 %	116.647 %	112.479 %	119.206 %
Concentration RSD	0.9 %	9.5 %	11.0 %	7.6 %	12.4 %	10.1 %	10.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	131.788 ppb	87.502 %	93.497 %	5.625 ppb	0.992 ppb	-0.035 ppb	45.313 ppb
Concentration per Run 1	134.448 ppb	88.934 %	93.418 %	5.590 ppb	0.935 ppb	0.197 ppb	51.893 ppb
Concentration per Run 2	157.757 ppb	85.901 %	94.010 %	5.593 ppb	1.179 ppb	-0.291 ppb	39.402 ppb
Concentration per Run 3	103.159 ppb	87.671 %	93.064 %	5.692 ppb	0.863 ppb	-0.012 ppb	44.644 ppb
Recovery Percentage 1	131.788 %			112.501 %	99.250 %	-7.055 %	90.626 %
Concentration RSD	20.8 %	1.7 %	0.5 %	1.0 %	16.7 %	694.7 %	13.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.566 ppb	0.572 ppb	2.622 ppb	12.606 ppb	91.010 %	0.459 ppb	5.028 ppb
Concentration per Run 1	0.628 ppb	0.588 ppb	2.878 ppb	12.565 ppb	94.377 %	0.497 ppb	4.587 ppb
Concentration per Run 2	0.435 ppb	0.420 ppb	2.542 ppb	11.904 ppb	93.355 %	0.482 ppb	5.229 ppb
Concentration per Run 3	0.635 ppb	0.708 ppb	2.446 ppb	13.348 ppb	85.298 %	0.397 ppb	5.266 ppb
Recovery Percentage 1	113.175 %	114.391 %	262.206 %	126.056 %		91.705 %	100.552 %
Concentration RSD	20.1 %	25.4 %	8.6 %	5.7 %	5.5 %	11.8 %	7.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.913 ppb	0.424 ppb	0.210 ppb	90.427 %	0.531 ppb	0.524 ppb	0.826 ppb
Concentration per Run 1	0.860 ppb	0.483 ppb	0.223 ppb	93.663 %	0.457 ppb	0.618 ppb	0.765 ppb
Concentration per Run 2	0.902 ppb	0.407 ppb	0.257 ppb	93.584 %	0.499 ppb	0.393 ppb	0.919 ppb
Concentration per Run 3	0.977 ppb	0.383 ppb	0.150 ppb	84.034 %	0.637 ppb	0.563 ppb	0.793 ppb
Recovery Percentage 1	91.283 %	106.027 %	104.954 %		106.244 %	104.881 %	165.147 %
Concentration RSD	6.5 %	12.3 %	26.0 %	6.1 %	17.7 %	22.3 %	10.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.942 %	0.475 ppb	1.121 ppb	91.309 %
Concentration per Run 1	92.057 %	0.512 ppb	1.166 ppb	91.334 %
Concentration per Run 2	89.879 %	0.468 ppb	1.074 ppb	92.125 %
Concentration per Run 3	84.889 %	0.446 ppb	1.122 ppb	90.469 %
Recovery Percentage 1		95.047 %	112.058 %	
Concentration RSD	4.1 %	7.1 %	4.1 %	0.9 %

Analysis index: 13 Analysis started at: 3/14/2016 12:09:33 PM Rack: 4
Analysis label: ICSA User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	89.222 %	84.168 %	0.011 ppb	50,786.223 ppb	20,356.567 ppb	19,614.392 ppb	20,269.475 ppb
Concentration per Run 1	89.803 %	84.469 %	0.015 ppb	52,051.964 ppb	20,334.694 ppb	19,677.306 ppb	20,879.165 ppb
Concentration per Run 2	89.913 %	82.665 %	0.011 ppb	50,857.531 ppb	20,667.314 ppb	19,895.477 ppb	20,323.848 ppb
Concentration per Run 3	87.952 %	85.370 %	0.008 ppb	49,449.173 ppb	20,067.693 ppb	19,270.394 ppb	19,605.411 ppb
Recovery Percentage 1				101.572 %	101.783 %	98.072 %	101.347 %
Concentration RSD	1.2 %	1.6 %	32.5 %	2.6 %	1.5 %	1.6 %	3.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	60,349.770 ppb	79.779 %	82.223 %	0.010 ppb	0.153 ppb	0.439 ppb	50,335.642 ppb
Concentration per Run 1	62,796.702 ppb	78.571 %	82.211 %	0.030 ppb	0.181 ppb	0.600 ppb	51,628.981 ppb
Concentration per Run 2	57,850.525 ppb	80.425 %	82.390 %	0.000 ppb	0.235 ppb	0.094 ppb	49,847.803 ppb
Concentration per Run 3	60,402.083 ppb	80.341 %	82.067 %	0.000 ppb	0.042 ppb	0.622 ppb	49,530.141 ppb
Recovery Percentage 1	100.583 %						100.671 %
Concentration RSD	4.1 %	1.3 %	0.2 %	173.2 %	65.1 %	68.1 %	2.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.242 ppb	0.069 ppb	0.296 ppb	-0.488 ppb	83.897 %	0.231 ppb	0.094 ppb
Concentration per Run 1	0.261 ppb	0.029 ppb	0.268 ppb	-0.470 ppb	84.283 %	0.199 ppb	0.552 ppb
Concentration per Run 2	0.226 ppb	0.108 ppb	0.295 ppb	-0.378 ppb	83.899 %	0.336 ppb	-0.150 ppb
Concentration per Run 3	0.238 ppb	0.069 ppb	0.325 ppb	-0.616 ppb	83.509 %	0.156 ppb	-0.120 ppb
Recovery Percentage 1							
Concentration RSD	7.4 %	57.4 %	9.6 %	24.6 %	0.5 %	40.8 %	422.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	389.515 ppb	0.104 ppb	0.138 ppb	83.604 %	-0.011 ppb	0.381 ppb	0.080 ppb
Concentration per Run 1	388.448 ppb	0.100 ppb	0.165 ppb	87.442 %	-0.024 ppb	0.302 ppb	0.165 ppb
Concentration per Run 2	387.848 ppb	0.085 ppb	0.111 ppb	80.744 %	-0.015 ppb	0.435 ppb	0.011 ppb
Concentration per Run 3	392.249 ppb	0.127 ppb	0.138 ppb	82.625 %	0.005 ppb	0.405 ppb	0.065 ppb
Recovery Percentage 1	97.379 %						
Concentration RSD	0.6 %	20.5 %	19.4 %	4.1 %	134.0 %	18.4 %	97.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	80.163 %	-0.012 ppb	0.101 ppb	82.036 %
Concentration per Run 1	81.377 %	-0.016 ppb	0.109 ppb	82.312 %
Concentration per Run 2	79.867 %	-0.022 ppb	0.098 ppb	81.751 %
Concentration per Run 3	79.244 %	0.000 ppb	0.096 ppb	82.045 %
Recovery Percentage 1				
Concentration RSD	1.4 %	92.9 %	7.1 %	0.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 14 Analysis started at: 3/14/2016 12:12:40 PM Rack: 4
Analysis label: ICSAB User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	89.792 %	86.272 %	0.019 ppb	48,447.723 ppb	19,290.886 ppb	19,338.801 ppb	19,320.977 ppb
Concentration per Run 1	88.710 %	84.469 %	0.019 ppb	48,419.411 ppb	18,713.368 ppb	19,317.321 ppb	18,635.784 ppb
Concentration per Run 2	89.923 %	85.972 %	0.024 ppb	47,369.857 ppb	19,339.919 ppb	18,650.680 ppb	19,781.069 ppb
Concentration per Run 3	90.742 %	88.377 %	0.013 ppb	49,553.900 ppb	19,819.370 ppb	20,048.403 ppb	19,546.077 ppb
Recovery Percentage 1				96.895 %	96.454 %	96.694 %	96.605 %
Concentration RSD	1.1 %	2.3 %	29.0 %	2.3 %	2.9 %	3.6 %	3.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	57,463.556 ppb	79.807 %	81.688 %	40.217 ppb	39.877 ppb	39.865 ppb	50,122.596 ppb
Concentration per Run 1	55,078.624 ppb	82.784 %	78.385 %	40.634 ppb	38.361 ppb	39.805 ppb	50,691.795 ppb
Concentration per Run 2	57,615.939 ppb	80.762 %	82.371 %	39.100 ppb	39.045 ppb	38.723 ppb	48,139.383 ppb
Concentration per Run 3	59,696.105 ppb	75.875 %	84.307 %	40.916 ppb	42.226 ppb	41.066 ppb	51,536.610 ppb
Recovery Percentage 1	95.773 %			100.542 %	99.693 %	99.662 %	100.245 %
Concentration RSD	4.0 %	4.5 %	3.7 %	2.4 %	5.2 %	2.9 %	3.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	40.639 ppb	38.799 ppb	40.977 ppb	18.468 ppb	83.229 %	19.417 ppb	21.104 ppb
Concentration per Run 1	40.189 ppb	39.103 ppb	41.115 ppb	18.136 ppb	82.926 %	19.939 ppb	20.045 ppb
Concentration per Run 2	39.767 ppb	36.444 ppb	39.252 ppb	18.102 ppb	85.617 %	18.333 ppb	18.768 ppb
Concentration per Run 3	41.962 ppb	40.849 ppb	42.564 ppb	19.166 ppb	81.145 %	19.979 ppb	24.499 ppb
Recovery Percentage 1	101.598 %	96.997 %	102.441 %	92.340 %		97.086 %	105.520 %
Concentration RSD	2.9 %	5.7 %	4.1 %	3.3 %	2.7 %	4.8 %	14.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	400.568 ppb	10.443 ppb	20.741 ppb	82.548 %	-0.026 ppb	0.361 ppb	0.208 ppb
Concentration per Run 1	403.675 ppb	10.537 ppb	20.765 ppb	83.271 %	-0.019 ppb	0.421 ppb	0.168 ppb
Concentration per Run 2	395.767 ppb	9.757 ppb	20.547 ppb	82.728 %	0.005 ppb	0.319 ppb	0.227 ppb
Concentration per Run 3	402.261 ppb	11.035 ppb	20.911 ppb	81.646 %	-0.063 ppb	0.344 ppb	0.229 ppb
Recovery Percentage 1	100.142 %	104.433 %	103.704 %				
Concentration RSD	1.1 %	6.2 %	0.9 %	1.0 %	135.2 %	14.7 %	16.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.069 %	-0.015 ppb	0.105 ppb	83.961 %
Concentration per Run 1	82.950 %	-0.012 ppb	0.099 ppb	85.321 %
Concentration per Run 2	80.200 %	-0.016 ppb	0.100 ppb	83.962 %
Concentration per Run 3	80.056 %	-0.016 ppb	0.115 ppb	82.599 %
Recovery Percentage 1				
Concentration RSD	2.0 %	14.8 %	8.4 %	1.6 %

Alpha ICPMSQ Full

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Analysis index: 15 Analysis started at: 3/14/2016 12:15:47 PM Rack: 0
Analysis label: Rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.663 %	88.376 %	0.034 ppb	27.238 ppb	8.767 ppb	6.644 ppb	12.068 ppb
Concentration per Run 1	90.249 %	88.677 %	0.033 ppb	15.840 ppb	2.077 ppb	1.695 ppb	12.490 ppb
Concentration per Run 2	90.805 %	90.481 %	0.036 ppb	35.149 ppb	11.974 ppb	10.274 ppb	15.176 ppb
Concentration per Run 3	90.936 %	85.972 %	0.034 ppb	30.726 ppb	12.250 ppb	7.962 ppb	8.538 ppb
Concentration RSD	0.4 %	2.6 %	4.1 %	37.1 %	66.1 %	66.8 %	27.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	24.238 ppb	83.570 %	85.797 %	0.038 ppb	0.108 ppb	-0.117 ppb	18.724 ppb
Concentration per Run 1	5.689 ppb	82.699 %	86.658 %	0.057 ppb	0.131 ppb	0.167 ppb	8.118 ppb
Concentration per Run 2	53.323 ppb	78.487 %	85.425 %	0.030 ppb	0.023 ppb	-0.436 ppb	28.327 ppb
Concentration per Run 3	13.702 ppb	89.524 %	85.309 %	0.027 ppb	0.171 ppb	-0.082 ppb	19.726 ppb
Concentration RSD	105.2 %	6.7 %	0.9 %	44.2 %	70.9 %	259.0 %	54.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.005 ppb	0.158 ppb	0.052 ppb	-0.219 ppb	89.713 %	0.024 ppb	0.202 ppb
Concentration per Run 1	0.009 ppb	0.098 ppb	0.062 ppb	-0.140 ppb	89.075 %	-0.025 ppb	0.245 ppb
Concentration per Run 2	0.009 ppb	0.141 ppb	0.036 ppb	-0.156 ppb	89.905 %	0.017 ppb	-0.159 ppb
Concentration per Run 3	-0.002 ppb	0.235 ppb	0.059 ppb	-0.359 ppb	90.160 %	0.080 ppb	0.521 ppb
Concentration RSD	119.0 %	44.4 %	27.4 %	55.9 %	0.6 %	221.9 %	168.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.567 ppb	0.034 ppb	0.020 ppb	89.169 %	-0.062 ppb	0.107 ppb	0.055 ppb
Concentration per Run 1	1.675 ppb	0.059 ppb	0.000 ppb	92.709 %	-0.051 ppb	0.167 ppb	0.101 ppb
Concentration per Run 2	1.613 ppb	0.032 ppb	0.038 ppb	86.173 %	-0.089 ppb	0.079 ppb	0.058 ppb
Concentration per Run 3	1.412 ppb	0.010 ppb	0.023 ppb	88.625 %	-0.047 ppb	0.076 ppb	0.006 ppb
Concentration RSD	8.8 %	72.1 %	93.0 %	3.7 %	37.2 %	48.2 %	86.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.861 %	0.015 ppb	0.033 ppb	89.315 %
Concentration per Run 1	90.242 %	0.004 ppb	0.032 ppb	89.548 %
Concentration per Run 2	86.894 %	0.027 ppb	0.044 ppb	89.749 %
Concentration per Run 3	86.448 %	0.014 ppb	0.023 ppb	88.648 %
Concentration RSD	2.4 %	76.0 %	32.4 %	0.7 %

Analysis index: 16 Analysis started at: 3/14/2016 12:18:49 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.896 %	90.481 %	103.544 ppb	9,942.500 ppb	10,335.656 ppb	106.400 ppb	10,366.292 ppb
Concentration per Run 1	94.700 %	97.695 %	104.045 ppb	9,312.161 ppb	9,644.364 ppb	100.263 ppb	9,690.060 ppb
Concentration per Run 2	95.382 %	85.070 %	103.115 ppb	10,614.983 ppb	10,808.045 ppb	108.068 ppb	10,953.870 ppb
Concentration per Run 3	94.606 %	88.677 %	103.471 ppb	9,900.357 ppb	10,554.559 ppb	110.868 ppb	10,454.946 ppb
Recovery Percentage 1			103.544 %	99.425 %	103.357 %	106.400 %	103.663 %
Concentration RSD	0.4 %	7.2 %	0.5 %	6.6 %	5.9 %	5.2 %	6.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,248.062 ppb	88.737 %	90.891 %	103.996 ppb	102.007 ppb	95.858 ppb	10,190.941 ppb
Concentration per Run 1	9,839.437 ppb	93.147 %	89.409 %	99.783 ppb	100.878 ppb	93.170 ppb	9,775.035 ppb
Concentration per Run 2	10,905.784 ppb	85.479 %	90.967 %	108.644 ppb	104.254 ppb	101.016 ppb	10,799.834 ppb
Concentration per Run 3	9,998.965 ppb	87.586 %	92.295 %	103.561 ppb	100.890 ppb	93.387 ppb	9,997.955 ppb
Recovery Percentage 1	102.481 %			103.996 %	102.007 %	95.858 %	101.909 %
Concentration RSD	5.6 %	4.5 %	1.6 %	4.3 %	1.9 %	4.7 %	5.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	104.958 ppb	104.975 ppb	107.212 ppb	105.857 ppb	90.157 %	101.752 ppb	98.418 ppb
Concentration per Run 1	98.942 ppb	103.518 ppb	105.926 ppb	103.000 ppb	92.524 %	99.130 ppb	97.356 ppb
Concentration per Run 2	110.862 ppb	107.750 ppb	110.034 ppb	109.500 ppb	88.247 %	103.460 ppb	103.117 ppb
Concentration per Run 3	105.070 ppb	103.655 ppb	105.677 ppb	105.072 ppb	89.701 %	102.666 ppb	94.783 ppb
Recovery Percentage 1	104.958 %	104.975 %	107.212 %	105.857 %		101.752 %	98.418 %
Concentration RSD	5.7 %	2.3 %	2.3 %	3.1 %	2.4 %	2.3 %	4.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	102.054 ppb	109.049 ppb	103.761 ppb	94.262 %	108.796 ppb	105.195 ppb	105.646 ppb
Concentration per Run 1	102.321 ppb	107.952 ppb	102.531 ppb	96.629 %	108.736 ppb	106.081 ppb	99.671 ppb
Concentration per Run 2	105.978 ppb	112.212 ppb	106.372 ppb	91.520 %	108.007 ppb	105.539 ppb	106.731 ppb
Concentration per Run 3	97.864 ppb	106.984 ppb	102.379 ppb	94.636 %	109.645 ppb	103.965 ppb	110.536 ppb
Recovery Percentage 1	102.054 %	109.049 %	103.761 %		108.796 %	105.195 %	105.646 %
Concentration RSD	4.0 %	2.6 %	2.2 %	2.7 %	0.8 %	1.0 %	5.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.994 %	103.714 ppb	104.601 ppb	89.250 %
Concentration per Run 1	92.790 %	102.741 ppb	104.545 ppb	89.687 %
Concentration per Run 2	93.006 %	104.592 ppb	105.438 ppb	88.733 %
Concentration per Run 3	90.185 %	103.809 ppb	103.820 ppb	89.331 %
Recovery Percentage 1		103.714 %	104.601 %	
Concentration RSD	1.7 %	0.9 %	0.8 %	0.5 %

Analysis index: 17 Analysis started at: 3/14/2016 12:21:56 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	93.549 %	90.080 %	0.024 ppb	13.067 ppb	8.399 ppb	1.154 ppb	11.131 ppb
Concentration per Run 1	92.212 %	92.886 %	0.014 ppb	20.266 ppb	16.386 ppb	2.326 ppb	18.939 ppb
Concentration per Run 2	94.188 %	94.088 %	0.022 ppb	8.335 ppb	5.176 ppb	0.639 ppb	6.986 ppb
Concentration per Run 3	94.248 %	83.266 %	0.034 ppb	10.599 ppb	3.633 ppb	0.497 ppb	7.469 ppb
Recovery Percentage 1			4.718 %	13.067 %	11.998 %	11.540 %	11.131 %
Concentration RSD	1.2 %	6.6 %	42.0 %	48.5 %	82.9 %	88.2 %	60.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	14.479 ppb	88.569 %	90.670 %	0.035 ppb	0.080 ppb	0.309 ppb	7.739 ppb
Concentration per Run 1	33.621 ppb	95.591 %	90.790 %	0.075 ppb	0.074 ppb	0.208 ppb	16.251 ppb
Concentration per Run 2	21.809 ppb	87.165 %	91.689 %	0.000 ppb	0.091 ppb	0.585 ppb	5.605 ppb
Concentration per Run 3	-11.992 ppb	82.952 %	89.532 %	0.029 ppb	0.076 ppb	0.134 ppb	1.362 ppb
Recovery Percentage 1	14.479 %			0.693 %	8.010 %	30.904 %	15.479 %
Concentration RSD	163.5 %	7.3 %	1.2 %	109.8 %	11.3 %	78.2 %	99.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.023 ppb	0.004 ppb	0.082 ppb	0.039 ppb	87.988 %	0.023 ppb	-0.153 ppb
Concentration per Run 1	0.072 ppb	0.006 ppb	0.227 ppb	0.015 ppb	94.761 %	0.075 ppb	-0.147 ppb
Concentration per Run 2	0.009 ppb	-0.015 ppb	0.039 ppb	0.034 ppb	81.919 %	-0.002 ppb	-0.180 ppb
Concentration per Run 3	-0.012 ppb	0.022 ppb	-0.019 ppb	0.066 ppb	87.286 %	-0.004 ppb	-0.132 ppb
Recovery Percentage 1	4.619 %	0.866 %	8.229 %	0.386 %	87.988 %	4.590 %	-3.066 %
Concentration RSD	189.2 %	437.9 %	156.0 %	66.1 %	7.3 %	195.0 %	15.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.591 ppb	0.027 ppb	0.030 ppb	92.889 %	0.079 ppb	0.134 ppb	-0.013 ppb
Concentration per Run 1	0.606 ppb	0.060 ppb	0.082 ppb	96.941 %	0.064 ppb	0.178 ppb	0.049 ppb
Concentration per Run 2	0.548 ppb	0.015 ppb	0.008 ppb	92.220 %	0.094 ppb	0.149 ppb	-0.044 ppb
Concentration per Run 3	0.619 ppb	0.005 ppb	0.002 ppb	89.507 %	0.080 ppb	0.075 ppb	-0.044 ppb
Recovery Percentage 1	19.706 %	6.694 %	15.140 %		2.639 %	6.693 %	-2.659 %
Concentration RSD	6.4 %	109.1 %	147.3 %	4.0 %	19.3 %	39.5 %	403.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.046 %	0.040 ppb	0.038 ppb	91.218 %
Concentration per Run 1	93.403 %	0.073 ppb	0.094 ppb	93.237 %
Concentration per Run 2	90.173 %	0.031 ppb	0.012 ppb	89.470 %
Concentration per Run 3	89.563 %	0.014 ppb	0.008 ppb	90.948 %
Recovery Percentage 1		7.922 %	7.583 %	91.218 %
Concentration RSD	2.3 %	76.3 %	127.5 %	2.1 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 18 Analysis started at: 3/14/2016 12:38:09 PM Rack: 1
Analysis label: 200.8 MDL #4 User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.643 %	87.374 %	0.511 ppb	58.964 ppb	56.039 ppb	1.809 ppb	55.705 ppb
Concentration per Run 1	95.231 %	91.082 %	0.471 ppb	55.063 ppb	54.507 ppb	1.632 ppb	35.411 ppb
Concentration per Run 2	94.968 %	87.475 %	0.533 ppb	57.354 ppb	56.953 ppb	0.983 ppb	78.367 ppb
Concentration per Run 3	96.731 %	83.567 %	0.528 ppb	64.473 ppb	56.658 ppb	2.811 ppb	53.338 ppb
Concentration RSD	1.0 %	4.3 %	6.7 %	8.3 %	2.4 %	51.2 %	38.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	38.187 ppb	83.177 %	88.440 %	0.837 ppb	1.349 ppb	0.259 ppb	51.778 ppb
Concentration per Run 1	24.107 ppb	88.428 %	89.103 %	1.008 ppb	1.354 ppb	0.052 ppb	65.584 ppb
Concentration per Run 2	34.694 ppb	77.813 %	87.989 %	0.792 ppb	1.538 ppb	0.749 ppb	45.055 ppb
Concentration per Run 3	55.761 ppb	83.289 %	88.228 %	0.712 ppb	1.155 ppb	-0.025 ppb	44.694 ppb
Concentration RSD	42.2 %	6.4 %	0.7 %	18.3 %	14.2 %	164.8 %	23.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.604 ppb	3.138 ppb	0.644 ppb	-0.099 ppb	85.433 %	0.617 ppb	0.108 ppb
Concentration per Run 1	0.648 ppb	3.459 ppb	0.522 ppb	-0.413 ppb	86.519 %	0.719 ppb	-0.126 ppb
Concentration per Run 2	0.654 ppb	2.838 ppb	0.828 ppb	0.088 ppb	82.302 %	0.572 ppb	0.330 ppb
Concentration per Run 3	0.509 ppb	3.117 ppb	0.583 ppb	0.028 ppb	87.477 %	0.561 ppb	0.121 ppb
Concentration RSD	13.6 %	9.9 %	25.1 %	276.5 %	3.2 %	14.3 %	210.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.376 ppb	0.639 ppb	0.547 ppb	85.340 %	0.630 ppb	0.519 ppb	0.431 ppb
Concentration per Run 1	1.402 ppb	0.613 ppb	0.490 ppb	88.510 %	0.725 ppb	0.570 ppb	0.248 ppb
Concentration per Run 2	1.493 ppb	0.624 ppb	0.495 ppb	86.679 %	0.525 ppb	0.342 ppb	0.664 ppb
Concentration per Run 3	1.232 ppb	0.681 ppb	0.655 ppb	80.830 %	0.641 ppb	0.647 ppb	0.381 ppb
Concentration RSD	9.6 %	5.7 %	17.1 %	4.7 %	15.9 %	30.5 %	49.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.845 %	0.486 ppb	0.611 ppb	88.406 %
Concentration per Run 1	92.950 %	0.502 ppb	0.609 ppb	91.544 %
Concentration per Run 2	87.988 %	0.456 ppb	0.613 ppb	88.016 %
Concentration per Run 3	85.596 %	0.500 ppb	0.611 ppb	85.658 %
Concentration RSD	4.2 %	5.4 %	0.4 %	3.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 19 Analysis started at: 3/14/2016 12:41:12 PM Rack: 1
Analysis label: 200.8 MDL #5 User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.019 %	88.377 %	0.523 ppb	54.701 ppb	45.419 ppb	1.498 ppb	49.706 ppb
Concentration per Run 1	97.754 %	95.892 %	0.531 ppb	47.012 ppb	44.463 ppb	0.830 ppb	52.010 ppb
Concentration per Run 2	96.321 %	81.763 %	0.550 ppb	61.599 ppb	44.854 ppb	1.966 ppb	65.147 ppb
Concentration per Run 3	96.981 %	87.475 %	0.488 ppb	55.493 ppb	46.941 ppb	1.698 ppb	31.960 ppb
Concentration RSD	0.7 %	8.0 %	6.0 %	13.4 %	2.9 %	39.7 %	33.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	39.445 ppb	86.968 %	89.862 %	0.524 ppb	0.965 ppb	0.342 ppb	55.501 ppb
Concentration per Run 1	26.658 ppb	91.545 %	91.826 %	0.208 ppb	0.947 ppb	0.351 ppb	54.054 ppb
Concentration per Run 2	35.971 ppb	81.099 %	88.381 %	0.870 ppb	0.930 ppb	0.618 ppb	58.060 ppb
Concentration per Run 3	55.706 ppb	88.260 %	89.380 %	0.492 ppb	1.020 ppb	0.058 ppb	54.389 ppb
Concentration RSD	37.6 %	6.1 %	2.0 %	63.5 %	4.9 %	81.7 %	4.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.515 ppb	1.818 ppb	0.614 ppb	-0.178 ppb	89.522 %	0.462 ppb	0.385 ppb
Concentration per Run 1	0.408 ppb	1.748 ppb	0.432 ppb	-0.228 ppb	94.697 %	0.415 ppb	0.498 ppb
Concentration per Run 2	0.576 ppb	2.126 ppb	0.802 ppb	-0.069 ppb	88.436 %	0.510 ppb	0.117 ppb
Concentration per Run 3	0.560 ppb	1.581 ppb	0.609 ppb	-0.236 ppb	85.433 %	0.463 ppb	0.540 ppb
Concentration RSD	18.0 %	15.4 %	30.1 %	53.1 %	5.3 %	10.3 %	60.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.927 ppb	0.454 ppb	0.575 ppb	89.873 %	0.467 ppb	0.461 ppb	0.694 ppb
Concentration per Run 1	0.889 ppb	0.372 ppb	0.467 ppb	94.852 %	0.408 ppb	0.347 ppb	0.785 ppb
Concentration per Run 2	1.022 ppb	0.484 ppb	0.541 ppb	90.286 %	0.520 ppb	0.502 ppb	0.782 ppb
Concentration per Run 3	0.871 ppb	0.504 ppb	0.717 ppb	84.481 %	0.473 ppb	0.535 ppb	0.515 ppb
Concentration RSD	8.9 %	15.7 %	22.3 %	5.8 %	12.0 %	21.8 %	22.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.669 %	0.457 ppb	0.700 ppb	93.393 %
Concentration per Run 1	97.104 %	0.448 ppb	0.617 ppb	97.951 %
Concentration per Run 2	91.627 %	0.473 ppb	0.753 ppb	91.408 %
Concentration per Run 3	89.277 %	0.450 ppb	0.731 ppb	90.821 %
Concentration RSD	4.3 %	3.0 %	10.4 %	4.2 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 20 Analysis started at: 3/14/2016 12:44:14 PM Rack: 1
Analysis label: 200.8 MDL #6 User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.330 %	91.282 %	0.513 ppb	101.681 ppb	54.974 ppb	11.464 ppb	45.448 ppb
Concentration per Run 1	96.869 %	91.984 %	0.499 ppb	97.105 ppb	47.692 ppb	12.552 ppb	43.784 ppb
Concentration per Run 2	97.714 %	90.481 %	0.537 ppb	103.868 ppb	52.647 ppb	10.859 ppb	53.189 ppb
Concentration per Run 3	97.408 %	91.383 %	0.502 ppb	104.071 ppb	64.583 ppb	10.981 ppb	39.372 ppb
Concentration RSD	0.4 %	0.8 %	4.2 %	3.9 %	15.8 %	8.2 %	15.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	51.837 ppb	88.681 %	90.659 %	0.545 ppb	0.943 ppb	1.302 ppb	80.915 ppb
Concentration per Run 1	69.773 ppb	95.927 %	89.916 %	0.510 ppb	0.949 ppb	1.489 ppb	70.325 ppb
Concentration per Run 2	42.472 ppb	86.238 %	90.749 %	0.614 ppb	0.933 ppb	1.081 ppb	85.072 ppb
Concentration per Run 3	43.266 ppb	83.879 %	91.311 %	0.511 ppb	0.948 ppb	1.336 ppb	87.348 ppb
Concentration RSD	30.0 %	7.2 %	0.8 %	11.0 %	1.0 %	15.8 %	11.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.597 ppb	1.882 ppb	0.606 ppb	0.904 ppb	85.603 %	0.490 ppb	0.478 ppb
Concentration per Run 1	0.523 ppb	1.758 ppb	0.693 ppb	0.778 ppb	86.263 %	0.479 ppb	1.237 ppb
Concentration per Run 2	0.675 ppb	1.845 ppb	0.481 ppb	0.966 ppb	84.283 %	0.356 ppb	0.082 ppb
Concentration per Run 3	0.594 ppb	2.042 ppb	0.643 ppb	0.967 ppb	86.263 %	0.633 ppb	0.115 ppb
Concentration RSD	12.7 %	7.7 %	18.3 %	12.1 %	1.3 %	28.3 %	137.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.687 ppb	0.598 ppb	0.491 ppb	88.856 %	0.660 ppb	0.531 ppb	0.646 ppb
Concentration per Run 1	0.660 ppb	0.579 ppb	0.420 ppb	90.048 %	0.584 ppb	0.482 ppb	0.581 ppb
Concentration per Run 2	0.673 ppb	0.641 ppb	0.525 ppb	88.641 %	0.661 ppb	0.552 ppb	0.649 ppb
Concentration per Run 3	0.729 ppb	0.575 ppb	0.528 ppb	87.879 %	0.733 ppb	0.557 ppb	0.707 ppb
Concentration RSD	5.3 %	6.2 %	12.6 %	1.2 %	11.3 %	7.9 %	9.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.681 %	0.498 ppb	0.636 ppb	87.799 %
Concentration per Run 1	93.593 %	0.468 ppb	0.632 ppb	92.321 %
Concentration per Run 2	89.908 %	0.536 ppb	0.629 ppb	85.709 %
Concentration per Run 3	88.542 %	0.489 ppb	0.648 ppb	85.367 %
Concentration RSD	2.9 %	7.0 %	1.6 %	4.5 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 21 Analysis started at: 3/14/2016 12:47:17 PM Rack: 1
Analysis label: L1606041-01 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.503 %	82.865 %	0.172 ppb	106,565.933 ppb	29,146.653 ppb	2,432.934 ppb	26,333.664 ppb
Concentration per Run 1	96.814 %	75.450 %	0.178 ppb	112,647.689 ppb	30,545.722 ppb	2,446.552 ppb	26,421.284 ppb
Concentration per Run 2	98.315 %	86.573 %	0.173 ppb	103,720.064 ppb	28,528.382 ppb	2,457.481 ppb	26,883.256 ppb
Concentration per Run 3	97.380 %	86.573 %	0.166 ppb	103,330.047 ppb	28,365.855 ppb	2,394.769 ppb	25,696.453 ppb
Concentration RSD	0.8 %	7.7 %	3.6 %	4.9 %	4.2 %	1.4 %	2.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	151,231.960 ppb	82.194 %	87.543 %	10.695 ppb	8.163 ppb	527.042 ppb	26,105.843 ppb
Concentration per Run 1	143,795.381 ppb	85.142 %	86.282 %	10.918 ppb	7.693 ppb	518.892 ppb	25,201.094 ppb
Concentration per Run 2	154,586.148 ppb	81.351 %	88.533 %	10.325 ppb	7.796 ppb	526.121 ppb	25,952.370 ppb
Concentration per Run 3	155,314.351 ppb	80.088 %	87.814 %	10.842 ppb	8.998 ppb	536.112 ppb	27,164.064 ppb
Concentration RSD	4.3 %	3.2 %	1.3 %	3.0 %	8.9 %	1.6 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	4.059 ppb	7.398 ppb	39.708 ppb	112.399 ppb	81.779 %	24.633 ppb	1.710 ppb
Concentration per Run 1	4.247 ppb	7.013 ppb	38.261 ppb	110.393 ppb	83.317 %	24.529 ppb	2.746 ppb
Concentration per Run 2	4.200 ppb	7.821 ppb	39.961 ppb	112.637 ppb	83.189 %	25.018 ppb	1.545 ppb
Concentration per Run 3	3.732 ppb	7.359 ppb	40.903 ppb	114.167 ppb	78.830 %	24.352 ppb	0.841 ppb
Concentration RSD	7.0 %	5.5 %	3.4 %	1.7 %	3.1 %	1.4 %	56.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.866 ppb	0.114 ppb	0.175 ppb	84.004 %	6.641 ppb	2.359 ppb	436.635 ppb
Concentration per Run 1	1.872 ppb	0.153 ppb	0.166 ppb	86.887 %	6.372 ppb	2.502 ppb	418.017 ppb
Concentration per Run 2	1.963 ppb	0.063 ppb	0.172 ppb	81.054 %	7.379 ppb	2.187 ppb	455.681 ppb
Concentration per Run 3	1.763 ppb	0.127 ppb	0.188 ppb	84.070 %	6.173 ppb	2.387 ppb	436.208 ppb
Concentration RSD	5.4 %	40.7 %	6.5 %	3.5 %	9.7 %	6.7 %	4.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.769 %	0.098 ppb	143.636 ppb	80.400 %
Concentration per Run 1	84.082 %	0.085 ppb	141.603 ppb	81.670 %
Concentration per Run 2	82.679 %	0.120 ppb	146.861 ppb	79.521 %
Concentration per Run 3	78.546 %	0.088 ppb	142.442 ppb	80.010 %
Concentration RSD	3.5 %	19.9 %	2.0 %	1.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 22
Analysis label: L1606041-01D20 6020TL
Analysis started at: 3/14/2016 12:50:20 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.286 %	91.683 %	0.016 ppb	5,144.423 ppb	1,523.591 ppb	122.301 ppb	1,320.544 ppb
Concentration per Run 1	93.237 %	95.892 %	0.014 ppb	4,946.384 ppb	1,401.948 ppb	118.322 ppb	1,318.884 ppb
Concentration per Run 2	96.875 %	82.966 %	0.015 ppb	5,901.289 ppb	1,896.206 ppb	140.989 ppb	1,500.953 ppb
Concentration per Run 3	95.747 %	96.192 %	0.019 ppb	4,585.596 ppb	1,272.618 ppb	107.591 ppb	1,141.795 ppb
Concentration RSD	2.0 %	8.2 %	17.5 %	13.2 %	21.6 %	13.9 %	13.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,621.767 ppb	87.109 %	90.657 %	0.433 ppb	0.370 ppb	24.712 ppb	1,322.707 ppb
Concentration per Run 1	7,102.827 ppb	88.766 %	89.761 %	0.396 ppb	0.426 ppb	23.983 ppb	1,229.833 ppb
Concentration per Run 2	9,274.140 ppb	79.161 %	91.116 %	0.625 ppb	0.392 ppb	28.774 ppb	1,604.077 ppb
Concentration per Run 3	6,488.334 ppb	93.399 %	91.094 %	0.279 ppb	0.291 ppb	21.381 ppb	1,134.212 ppb
Concentration RSD	19.2 %	8.3 %	0.9 %	40.6 %	19.0 %	15.2 %	18.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.182 ppb	0.396 ppb	2.133 ppb	4.954 ppb	94.311 %	1.090 ppb	0.212 ppb
Concentration per Run 1	0.131 ppb	0.361 ppb	2.031 ppb	4.423 ppb	98.211 %	1.134 ppb	0.074 ppb
Concentration per Run 2	0.279 ppb	0.546 ppb	2.593 ppb	6.324 ppb	86.072 %	1.295 ppb	0.080 ppb
Concentration per Run 3	0.136 ppb	0.280 ppb	1.776 ppb	4.115 ppb	98.651 %	0.840 ppb	0.484 ppb
Concentration RSD	46.1 %	34.5 %	19.6 %	24.2 %	7.6 %	21.2 %	110.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.083 ppb	0.021 ppb	0.003 ppb	91.231 %	0.267 ppb	0.102 ppb	22.238 ppb
Concentration per Run 1	0.061 ppb	0.009 ppb	-0.013 ppb	92.727 %	0.175 ppb	0.109 ppb	21.038 ppb
Concentration per Run 2	0.110 ppb	0.022 ppb	-0.004 ppb	85.997 %	0.398 ppb	0.202 ppb	24.828 ppb
Concentration per Run 3	0.078 ppb	0.032 ppb	0.025 ppb	94.967 %	0.228 ppb	-0.005 ppb	20.847 ppb
Concentration RSD	29.6 %	55.3 %	763.1 %	5.1 %	43.7 %	101.3 %	10.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.756 %	-0.001 ppb	6.908 ppb	92.062 %
Concentration per Run 1	93.467 %	0.003 ppb	6.500 ppb	96.464 %
Concentration per Run 2	86.757 %	0.006 ppb	7.798 ppb	86.612 %
Concentration per Run 3	95.044 %	-0.012 ppb	6.426 ppb	93.112 %
Concentration RSD	4.8 %	799.5 %	11.2 %	5.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 23 Analysis started at: 3/14/2016 12:53:23 PM Rack: 1
Analysis label: L1606041-02 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.944 %	97.595 %	0.154 ppb	87,130.377 ppb	42,949.867 ppb	2,484.656 ppb	53,131.237 ppb
Concentration per Run 1	112.483 %	99.800 %	0.141 ppb	85,926.560 ppb	42,252.285 ppb	2,522.839 ppb	53,933.171 ppb
Concentration per Run 2	109.644 %	94.088 %	0.184 ppb	88,569.138 ppb	44,521.604 ppb	2,514.614 ppb	51,982.167 ppb
Concentration per Run 3	110.706 %	98.898 %	0.139 ppb	86,895.434 ppb	42,075.712 ppb	2,416.515 ppb	53,478.372 ppb
Concentration RSD	1.3 %	3.1 %	16.3 %	1.5 %	3.2 %	2.4 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	152,812.091 ppb	82.727 %	90.376 %	15.421 ppb	12.011 ppb	600.538 ppb	24,505.618 ppb
Concentration per Run 1	151,743.001 ppb	83.458 %	91.727 %	15.446 ppb	11.981 ppb	604.265 ppb	24,924.557 ppb
Concentration per Run 2	153,308.430 ppb	83.458 %	88.803 %	15.921 ppb	11.946 ppb	582.515 ppb	24,179.442 ppb
Concentration per Run 3	153,384.843 ppb	81.267 %	90.597 %	14.896 ppb	12.105 ppb	614.834 ppb	24,412.857 ppb
Concentration RSD	0.6 %	1.5 %	1.6 %	3.3 %	0.7 %	2.7 %	1.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	7.943 ppb	9.078 ppb	31.872 ppb	113.206 ppb	82.758 %	191.254 ppb	4.474 ppb
Concentration per Run 1	7.881 ppb	9.454 ppb	33.787 ppb	117.965 ppb	81.457 %	193.375 ppb	4.015 ppb
Concentration per Run 2	7.771 ppb	9.291 ppb	30.185 ppb	108.111 ppb	86.248 %	182.088 ppb	3.565 ppb
Concentration per Run 3	8.176 ppb	8.489 ppb	31.642 ppb	113.541 ppb	80.570 %	198.299 ppb	5.843 ppb
Concentration RSD	2.6 %	5.7 %	5.7 %	4.4 %	3.7 %	4.3 %	27.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	10.585 ppb	0.135 ppb	0.134 ppb	82.362 %	13.368 ppb	1.228 ppb	430.154 ppb
Concentration per Run 1	11.169 ppb	0.155 ppb	0.160 ppb	83.166 %	14.198 ppb	1.414 ppb	422.163 ppb
Concentration per Run 2	10.150 ppb	0.105 ppb	0.079 ppb	81.983 %	13.255 ppb	1.090 ppb	435.164 ppb
Concentration per Run 3	10.436 ppb	0.146 ppb	0.163 ppb	81.935 %	12.651 ppb	1.179 ppb	433.135 ppb
Concentration RSD	5.0 %	19.4 %	35.4 %	0.8 %	5.8 %	13.6 %	1.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.591 %	0.051 ppb	150.336 ppb	79.260 %
Concentration per Run 1	84.208 %	0.053 ppb	154.317 ppb	77.811 %
Concentration per Run 2	84.009 %	0.047 ppb	149.021 ppb	79.609 %
Concentration per Run 3	82.556 %	0.052 ppb	147.671 ppb	80.361 %
Concentration RSD	1.1 %	6.8 %	2.3 %	1.7 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 24
Analysis label: L1606041-02D20 6020TL
Analysis started at: 3/14/2016 12:56:27 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.989 %	90.280 %	0.012 ppb	4,590.606 ppb	2,395.660 ppb	132.680 ppb	2,737.360 ppb
Concentration per Run 1	100.565 %	86.573 %	0.016 ppb	4,855.432 ppb	2,598.421 ppb	136.531 ppb	2,770.090 ppb
Concentration per Run 2	101.904 %	90.180 %	0.008 ppb	4,632.643 ppb	2,404.004 ppb	134.504 ppb	2,896.030 ppb
Concentration per Run 3	100.497 %	94.088 %	0.012 ppb	4,283.742 ppb	2,184.555 ppb	127.005 ppb	2,545.960 ppb
Concentration RSD	0.8 %	4.2 %	34.6 %	6.3 %	8.6 %	3.8 %	6.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,641.060 ppb	86.856 %	93.261 %	0.874 ppb	0.679 ppb	30.569 ppb	1,247.676 ppb
Concentration per Run 1	8,027.156 ppb	84.890 %	92.687 %	0.895 ppb	0.859 ppb	33.252 ppb	1,305.343 ppb
Concentration per Run 2	7,978.777 ppb	85.227 %	93.279 %	0.696 ppb	0.490 ppb	31.613 ppb	1,329.148 ppb
Concentration per Run 3	6,917.247 ppb	90.451 %	93.817 %	1.031 ppb	0.687 ppb	26.842 ppb	1,108.537 ppb
Concentration RSD	8.2 %	3.6 %	0.6 %	19.3 %	27.1 %	10.9 %	9.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.371 ppb	0.354 ppb	1.862 ppb	5.378 ppb	89.969 %	9.604 ppb	0.311 ppb
Concentration per Run 1	0.418 ppb	0.475 ppb	2.024 ppb	5.576 ppb	88.883 %	10.548 ppb	0.550 ppb
Concentration per Run 2	0.395 ppb	0.321 ppb	1.826 ppb	5.795 ppb	89.394 %	10.147 ppb	0.314 ppb
Concentration per Run 3	0.300 ppb	0.266 ppb	1.735 ppb	4.762 ppb	91.630 %	8.118 ppb	0.070 ppb
Concentration RSD	16.8 %	30.6 %	7.9 %	10.1 %	1.6 %	13.6 %	77.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.563 ppb	-0.007 ppb	-0.019 ppb	90.127 %	0.663 ppb	0.048 ppb	21.224 ppb
Concentration per Run 1	0.579 ppb	0.000 ppb	-0.026 ppb	88.240 %	0.667 ppb	0.017 ppb	23.489 ppb
Concentration per Run 2	0.593 ppb	-0.005 ppb	-0.005 ppb	89.240 %	0.613 ppb	0.075 ppb	21.418 ppb
Concentration per Run 3	0.517 ppb	-0.015 ppb	-0.026 ppb	92.900 %	0.708 ppb	0.053 ppb	18.766 ppb
Concentration RSD	7.2 %	118.6 %	62.6 %	2.7 %	7.2 %	61.2 %	11.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.658 %	-0.012 ppb	7.575 ppb	87.238 %
Concentration per Run 1	86.454 %	-0.011 ppb	8.143 ppb	85.144 %
Concentration per Run 2	91.182 %	-0.014 ppb	7.721 ppb	86.417 %
Concentration per Run 3	91.338 %	-0.010 ppb	6.860 ppb	90.154 %
Concentration RSD	3.1 %	20.4 %	8.6 %	3.0 %

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3/15/2016 2:21:09 PM

Analysis index: 25
Analysis label: WG872439-6D50 MCP-6020TS-10
Analysis started at: 3/14/2016 12:59:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 8

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.562 %	86.974 %	0.136 ppb	27.232 ppb	896.332 ppb	2,481.956 ppb	125.613 ppb
Concentration per Run 1	96.115 %	89.579 %	0.118 ppb	24.509 ppb	897.285 ppb	2,519.512 ppb	137.110 ppb
Concentration per Run 2	97.259 %	90.781 %	0.171 ppb	28.570 ppb	889.957 ppb	2,459.160 ppb	127.880 ppb
Concentration per Run 3	96.313 %	80.561 %	0.118 ppb	28.615 ppb	901.753 ppb	2,467.195 ppb	111.848 ppb
Concentration RSD	0.6 %	6.4 %	22.6 %	8.7 %	0.7 %	1.3 %	10.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,695.193 ppb	82.390 %	89.226 %	11.035 ppb	5.294 ppb	95.048 ppb	7,736.532 ppb
Concentration per Run 1	1,869.988 ppb	82.025 %	89.832 %	11.581 ppb	5.823 ppb	102.763 ppb	8,438.446 ppb
Concentration per Run 2	1,729.638 ppb	80.846 %	90.195 %	10.190 ppb	5.039 ppb	94.419 ppb	7,662.599 ppb
Concentration per Run 3	1,485.953 ppb	84.300 %	87.651 %	11.334 ppb	5.018 ppb	87.962 ppb	7,108.553 ppb
Concentration RSD	11.5 %	2.1 %	1.5 %	6.7 %	8.7 %	7.8 %	8.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.597 ppb	5.345 ppb	17.203 ppb	30.407 ppb	85.936 %	1.420 ppb	1.087 ppb
Concentration per Run 1	2.813 ppb	5.837 ppb	18.619 ppb	33.111 ppb	80.818 %	1.590 ppb	1.815 ppb
Concentration per Run 2	2.557 ppb	5.103 ppb	17.000 ppb	28.985 ppb	88.116 %	1.437 ppb	0.937 ppb
Concentration per Run 3	2.421 ppb	5.093 ppb	15.989 ppb	29.126 ppb	88.875 %	1.233 ppb	0.510 ppb
Concentration RSD	7.6 %	8.0 %	7.7 %	7.7 %	5.2 %	12.6 %	61.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.391 ppb	0.011 ppb	0.124 ppb	85.884 %	19.171 ppb	0.311 ppb	36.378 ppb
Concentration per Run 1	0.579 ppb	0.017 ppb	0.106 ppb	84.382 %	20.770 ppb	0.371 ppb	36.746 ppb
Concentration per Run 2	0.305 ppb	0.006 ppb	0.149 ppb	87.755 %	18.788 ppb	0.279 ppb	35.755 ppb
Concentration per Run 3	0.288 ppb	0.011 ppb	0.118 ppb	85.514 %	17.956 ppb	0.284 ppb	36.632 ppb
Concentration RSD	41.7 %	52.2 %	18.0 %	2.0 %	7.5 %	16.7 %	1.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.533 %	-0.002 ppb	60.864 ppb	86.293 %
Concentration per Run 1	87.698 %	-0.006 ppb	61.785 ppb	87.435 %
Concentration per Run 2	85.873 %	-0.002 ppb	61.270 ppb	85.138 %
Concentration per Run 3	89.029 %	0.001 ppb	59.535 ppb	86.307 %
Concentration RSD	1.8 %	157.4 %	1.9 %	1.3 %

Alpha ICPMSQ Full

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Analysis index: 26
Analysis label: WG872439-2D50 MCP-6020TS-10
Analysis started at: 3/14/2016 1:02:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	92.459 %	83.867 %	14.992 ppb	101.114 ppb	460.813 ppb	987.481 ppb	418.855 ppb
Concentration per Run 1	92.678 %	91.383 %	15.092 ppb	99.038 ppb	423.360 ppb	941.662 ppb	422.331 ppb
Concentration per Run 2	92.207 %	83.867 %	15.174 ppb	102.403 ppb	463.358 ppb	1,013.082 ppb	390.486 ppb
Concentration per Run 3	92.491 %	76.352 %	14.710 ppb	101.901 ppb	495.722 ppb	1,007.699 ppb	443.747 ppb
Concentration RSD	0.3 %	9.0 %	1.7 %	1.8 %	7.9 %	4.0 %	6.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	781.561 ppb	86.350 %	83.410 %	17.002 ppb	18.049 ppb	62.684 ppb	2,968.610 ppb
Concentration per Run 1	756.456 ppb	88.681 %	83.499 %	15.797 ppb	17.875 ppb	62.056 ppb	2,897.023 ppb
Concentration per Run 2	865.430 ppb	83.710 %	82.934 %	17.660 ppb	19.111 ppb	63.939 ppb	3,093.578 ppb
Concentration per Run 3	722.798 ppb	86.659 %	83.798 %	17.550 ppb	17.160 ppb	62.057 ppb	2,915.229 ppb
Concentration RSD	9.5 %	2.9 %	0.5 %	6.1 %	5.5 %	1.7 %	3.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	16.710 ppb	12.682 ppb	18.902 ppb	38.742 ppb	86.289 %	17.631 ppb	28.722 ppb
Concentration per Run 1	16.666 ppb	12.912 ppb	18.773 ppb	38.842 ppb	87.759 %	17.089 ppb	24.254 ppb
Concentration per Run 2	16.755 ppb	12.864 ppb	18.601 ppb	37.119 ppb	88.604 %	17.536 ppb	29.303 ppb
Concentration per Run 3	16.710 ppb	12.269 ppb	19.333 ppb	40.265 ppb	82.505 %	18.267 ppb	32.610 ppb
Concentration RSD	0.3 %	2.8 %	2.0 %	4.1 %	3.8 %	3.4 %	14.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	16.037 ppb	7.029 ppb	15.040 ppb	86.500 %	21.152 ppb	26.694 ppb	27.327 ppb
Concentration per Run 1	15.645 ppb	6.944 ppb	14.498 ppb	88.624 %	20.459 ppb	26.416 ppb	26.661 ppb
Concentration per Run 2	16.200 ppb	7.037 ppb	15.165 ppb	86.966 %	22.021 ppb	25.475 ppb	28.001 ppb
Concentration per Run 3	16.267 ppb	7.106 ppb	15.457 ppb	83.910 %	20.975 ppb	28.190 ppb	27.318 ppb
Concentration RSD	2.1 %	1.2 %	3.3 %	2.8 %	3.8 %	5.2 %	2.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.557 %	30.211 ppb	16.243 ppb	86.078 %
Concentration per Run 1	87.831 %	30.098 ppb	16.069 ppb	88.100 %
Concentration per Run 2	85.790 %	30.182 ppb	16.404 ppb	85.577 %
Concentration per Run 3	86.049 %	30.352 ppb	16.255 ppb	84.558 %
Concentration RSD	1.3 %	0.4 %	1.0 %	2.1 %

Alpha ICPMSQ Full

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Analysis index: 27
Analysis label: WG872439-3D50 MCP-6020TS-10
Analysis started at: 3/14/2016 1:05:40 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.317 %	88.577 %	15.688 ppb	95.205 ppb	445.896 ppb	927.653 ppb	453.140 ppb
Concentration per Run 1	94.201 %	84.469 %	15.615 ppb	92.644 ppb	441.559 ppb	885.700 ppb	444.141 ppb
Concentration per Run 2	93.885 %	92.284 %	15.601 ppb	96.343 ppb	461.744 ppb	931.673 ppb	477.082 ppb
Concentration per Run 3	94.866 %	88.978 %	15.847 ppb	96.627 ppb	434.386 ppb	965.585 ppb	438.198 ppb
Concentration RSD	0.5 %	4.4 %	0.9 %	2.3 %	3.2 %	4.3 %	4.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	878.855 ppb	85.199 %	87.896 %	17.814 ppb	18.670 ppb	64.335 ppb	3,032.431 ppb
Concentration per Run 1	790.285 ppb	89.018 %	87.501 %	16.631 ppb	17.973 ppb	58.538 ppb	2,754.623 ppb
Concentration per Run 2	964.208 ppb	81.520 %	86.785 %	18.934 ppb	19.251 ppb	68.667 ppb	3,179.676 ppb
Concentration per Run 3	882.073 ppb	85.058 %	89.403 %	17.878 ppb	18.787 ppb	65.801 ppb	3,162.995 ppb
Concentration RSD	9.9 %	4.4 %	1.5 %	6.5 %	3.5 %	8.1 %	7.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	18.447 ppb	13.568 ppb	20.840 ppb	38.658 ppb	86.168 %	20.023 ppb	32.276 ppb
Concentration per Run 1	16.783 ppb	13.356 ppb	19.355 ppb	36.651 ppb	89.413 %	19.236 ppb	34.521 ppb
Concentration per Run 2	19.371 ppb	13.685 ppb	22.019 ppb	39.934 ppb	83.512 %	20.488 ppb	31.037 ppb
Concentration per Run 3	19.187 ppb	13.662 ppb	21.146 ppb	39.389 ppb	85.579 %	20.346 ppb	31.271 ppb
Concentration RSD	7.8 %	1.4 %	6.5 %	4.6 %	3.5 %	3.4 %	6.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	16.547 ppb	7.593 ppb	15.940 ppb	89.282 %	22.107 ppb	25.500 ppb	29.248 ppb
Concentration per Run 1	14.953 ppb	7.301 ppb	15.499 ppb	93.195 %	20.815 ppb	24.445 ppb	26.732 ppb
Concentration per Run 2	16.956 ppb	7.439 ppb	16.045 ppb	90.001 %	22.490 ppb	24.508 ppb	29.918 ppb
Concentration per Run 3	17.732 ppb	8.039 ppb	16.276 ppb	84.650 %	23.016 ppb	27.547 ppb	31.094 ppb
Concentration RSD	8.7 %	5.2 %	2.5 %	4.8 %	5.2 %	7.0 %	7.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.474 %	31.476 ppb	16.928 ppb	89.148 %
Concentration per Run 1	92.700 %	30.795 ppb	15.972 ppb	92.640 %
Concentration per Run 2	85.870 %	31.727 ppb	17.090 ppb	88.564 %
Concentration per Run 3	86.851 %	31.905 ppb	17.723 ppb	86.241 %
Concentration RSD	4.2 %	1.9 %	5.2 %	3.6 %

Alpha ICPMSQ Full

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Analysis index: 28 Analysis started at: 3/14/2016 1:08:44 PM Rack: 0
Analysis label: XCCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.120 %	83.366 %	104.626 ppb	10,734.609 ppb	11,060.182 ppb	116.744 ppb	10,745.984 ppb
Concentration per Run 1	93.101 %	80.861 %	105.521 ppb	10,808.061 ppb	10,887.447 ppb	111.127 ppb	10,457.967 ppb
Concentration per Run 2	94.272 %	83.867 %	104.093 ppb	10,657.756 ppb	10,787.576 ppb	116.728 ppb	10,819.776 ppb
Concentration per Run 3	94.986 %	85.370 %	104.263 ppb	10,738.011 ppb	11,505.524 ppb	122.377 ppb	10,960.210 ppb
Recovery Percentage 1			104.626 %	107.346 %	110.602 %	116.744 %	107.460 %
Concentration RSD	1.0 %	2.8 %	0.7 %	0.7 %	3.5 %	4.8 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,667.117 ppb	81.997 %	90.490 %	111.425 ppb	112.444 ppb	110.188 ppb	11,225.310 ppb
Concentration per Run 1	10,365.149 ppb	84.890 %	90.926 %	110.446 ppb	109.759 ppb	109.743 ppb	10,896.736 ppb
Concentration per Run 2	10,321.932 ppb	84.047 %	89.878 %	105.546 ppb	108.331 ppb	102.126 ppb	10,798.833 ppb
Concentration per Run 3	11,314.271 ppb	77.055 %	90.667 %	118.282 ppb	119.242 ppb	118.695 ppb	11,980.360 ppb
Recovery Percentage 1	106.671 %			111.425 %	112.444 %	110.188 %	112.253 %
Concentration RSD	5.3 %	5.2 %	0.6 %	5.8 %	5.3 %	7.5 %	5.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	115.836 ppb	113.553 ppb	112.980 ppb	112.128 ppb	87.493 %	109.707 ppb	108.433 ppb
Concentration per Run 1	112.666 ppb	112.641 ppb	112.701 ppb	112.287 ppb	89.408 %	110.272 ppb	107.775 ppb
Concentration per Run 2	110.588 ppb	111.868 ppb	108.616 ppb	106.121 ppb	89.758 %	105.277 ppb	106.683 ppb
Concentration per Run 3	124.254 ppb	116.151 ppb	117.624 ppb	117.975 ppb	83.313 %	113.572 ppb	110.840 ppb
Recovery Percentage 1	115.836 %	113.553 %	112.980 %	112.128 %		109.707 %	108.433 %
Concentration RSD	6.4 %	2.0 %	4.0 %	5.3 %	4.1 %	3.8 %	2.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	106.200 ppb	116.098 ppb	116.284 ppb	84.763 %	117.181 ppb	110.451 ppb	111.917 ppb
Concentration per Run 1	103.731 ppb	113.202 ppb	113.083 ppb	87.726 %	115.840 ppb	110.014 ppb	111.463 ppb
Concentration per Run 2	106.371 ppb	116.933 ppb	113.831 ppb	83.745 %	113.696 ppb	106.186 ppb	108.199 ppb
Concentration per Run 3	108.498 ppb	118.161 ppb	121.937 ppb	82.817 %	122.007 ppb	115.155 ppb	116.089 ppb
Recovery Percentage 1	106.200 %	116.098 %	116.284 %		117.181 %	110.451 %	111.917 %
Concentration RSD	2.2 %	2.2 %	4.2 %	3.1 %	3.7 %	4.1 %	3.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.104 %	107.885 ppb	115.178 ppb	83.582 %
Concentration per Run 1	85.317 %	106.613 ppb	114.298 ppb	85.418 %
Concentration per Run 2	84.045 %	103.851 ppb	114.013 ppb	85.509 %
Concentration per Run 3	82.950 %	113.192 ppb	117.223 ppb	79.821 %
Recovery Percentage 1		107.885 %	115.178 %	
Concentration RSD	1.4 %	4.4 %	1.5 %	3.9 %

Analysis index: 29 Analysis started at: 3/14/2016 1:11:51 PM Rack: 0
Analysis label: XCCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.843 %	93.186 %	0.022 ppb	2.365 ppb	1.445 ppb	0.000 ppb	9.405 ppb
Concentration per Run 1	95.183 %	95.892 %	0.029 ppb	2.375 ppb	2.480 ppb	0.030 ppb	3.063 ppb
Concentration per Run 2	95.485 %	93.186 %	0.015 ppb	1.956 ppb	1.288 ppb	0.100 ppb	13.334 ppb
Concentration per Run 3	93.861 %	90.481 %	0.023 ppb	2.764 ppb	0.567 ppb	-0.128 ppb	11.819 ppb
Recovery Percentage 1			4.451 %	2.365 %	2.064 %	0.004 %	9.405 %
Concentration RSD	0.9 %	2.9 %	32.2 %	17.1 %	66.9 %	33,375.9 %	59.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5.611 ppb	87.979 %	90.302 %	0.009 ppb	0.020 ppb	0.412 ppb	3.389 ppb
Concentration per Run 1	7.295 ppb	88.344 %	91.451 %	0.000 ppb	-0.021 ppb	0.552 ppb	5.273 ppb
Concentration per Run 2	12.803 ppb	83.879 %	89.586 %	0.028 ppb	-0.001 ppb	0.568 ppb	2.137 ppb
Concentration per Run 3	-3.265 ppb	91.714 %	89.869 %	0.000 ppb	0.080 ppb	0.117 ppb	2.758 ppb
Recovery Percentage 1	5.611 %			0.187 %	1.966 %	41.232 %	6.779 %
Concentration RSD	145.5 %	4.5 %	1.1 %	173.2 %	272.9 %	62.1 %	49.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.015 ppb	0.076 ppb	0.016 ppb	0.091 ppb	90.799 %	0.044 ppb	-0.084 ppb
Concentration per Run 1	0.018 ppb	0.236 ppb	0.006 ppb	0.570 ppb	90.799 %	0.016 ppb	-0.157 ppb
Concentration per Run 2	0.019 ppb	-0.019 ppb	0.060 ppb	-0.165 ppb	90.736 %	-0.004 ppb	0.051 ppb
Concentration per Run 3	0.008 ppb	0.012 ppb	-0.020 ppb	-0.132 ppb	90.863 %	0.121 ppb	-0.144 ppb
Recovery Percentage 1	2.940 %	15.240 %	1.554 %	0.910 %	90.799 %	8.854 %	-1.670 %
Concentration RSD	42.1 %	182.8 %	264.0 %	455.8 %	0.1 %	151.5 %	139.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.363 ppb	0.020 ppb	-0.010 ppb	91.532 %	0.069 ppb	0.035 ppb	-0.012 ppb
Concentration per Run 1	0.294 ppb	0.029 ppb	-0.026 ppb	91.670 %	0.095 ppb	0.053 ppb	0.004 ppb
Concentration per Run 2	0.535 ppb	0.019 ppb	-0.007 ppb	94.233 %	0.029 ppb	0.014 ppb	0.004 ppb
Concentration per Run 3	0.260 ppb	0.010 ppb	0.002 ppb	88.694 %	0.082 ppb	0.036 ppb	-0.044 ppb
Recovery Percentage 1	12.097 %	4.884 %	-5.182 %		2.291 %	1.737 %	-2.429 %
Concentration RSD	41.2 %	49.1 %	138.1 %	3.0 %	51.0 %	56.5 %	228.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.980 %	0.076 ppb	0.017 ppb	90.250 %
Concentration per Run 1	92.017 %	0.072 ppb	0.012 ppb	92.765 %
Concentration per Run 2	89.146 %	0.089 ppb	0.030 ppb	90.002 %
Concentration per Run 3	85.779 %	0.066 ppb	0.010 ppb	87.982 %
Recovery Percentage 1		15.174 %	3.452 %	90.250 %
Concentration RSD	3.5 %	15.9 %	63.7 %	2.7 %

Analysis index: 30 Analysis started at: 3/14/2016 1:18:29 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.038 %	89.078 %	103.932 ppb	9,920.658 ppb	10,210.353 ppb	98.014 ppb	10,058.186 ppb
Concentration per Run 1	95.172 %	89.579 %	103.821 ppb	10,083.467 ppb	10,111.600 ppb	95.816 ppb	9,682.598 ppb
Concentration per Run 2	95.285 %	88.076 %	103.443 ppb	10,016.922 ppb	10,581.664 ppb	97.605 ppb	10,260.367 ppb
Concentration per Run 3	94.657 %	89.579 %	104.534 ppb	9,661.587 ppb	9,937.796 ppb	100.622 ppb	10,231.593 ppb
Recovery Percentage 1			103.932 %	99.207 %	102.104 %	98.014 %	100.582 %
Concentration RSD	0.4 %	1.0 %	0.5 %	2.3 %	3.3 %	2.5 %	3.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,899.583 ppb	86.378 %	90.866 %	99.927 ppb	103.444 ppb	100.894 ppb	10,352.966 ppb
Concentration per Run 1	9,682.673 ppb	88.597 %	90.299 %	98.769 ppb	100.986 ppb	99.083 ppb	10,555.712 ppb
Concentration per Run 2	9,974.078 ppb	86.322 %	90.407 %	97.845 ppb	103.492 ppb	102.240 ppb	10,227.970 ppb
Concentration per Run 3	10,041.998 ppb	84.216 %	91.893 %	103.167 ppb	105.855 ppb	101.358 ppb	10,275.216 ppb
Recovery Percentage 1	98.996 %			99.927 %	103.444 %	100.894 %	103.530 %
Concentration RSD	1.9 %	2.5 %	1.0 %	2.8 %	2.4 %	1.6 %	1.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	107.109 ppb	107.990 ppb	107.351 ppb	106.732 ppb	87.451 %	102.169 ppb	108.935 ppb
Concentration per Run 1	107.919 ppb	106.990 ppb	109.397 ppb	106.666 ppb	86.109 %	106.347 ppb	110.096 ppb
Concentration per Run 2	105.021 ppb	110.170 ppb	104.872 ppb	103.344 ppb	89.235 %	101.779 ppb	108.068 ppb
Concentration per Run 3	108.388 ppb	106.810 ppb	107.784 ppb	110.187 ppb	87.011 %	98.380 ppb	108.641 ppb
Recovery Percentage 1	107.109 %	107.990 %	107.351 %	106.732 %		102.169 %	108.935 %
Concentration RSD	1.7 %	1.8 %	2.1 %	3.2 %	1.8 %	3.9 %	1.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	100.807 ppb	110.228 ppb	105.273 ppb	88.302 %	106.730 ppb	104.109 ppb	103.982 ppb
Concentration per Run 1	102.323 ppb	109.006 ppb	105.508 ppb	91.179 %	102.662 ppb	99.078 ppb	104.625 ppb
Concentration per Run 2	99.822 ppb	108.389 ppb	105.392 ppb	86.620 %	110.070 ppb	104.713 ppb	101.529 ppb
Concentration per Run 3	100.277 ppb	113.289 ppb	104.918 ppb	87.106 %	107.457 ppb	108.536 ppb	105.792 ppb
Recovery Percentage 1	100.807 %	110.228 %	105.273 %		106.730 %	104.109 %	103.982 %
Concentration RSD	1.3 %	2.4 %	0.3 %	2.8 %	3.5 %	4.6 %	2.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.634 %	102.734 ppb	107.315 ppb	85.161 %
Concentration per Run 1	87.837 %	103.073 ppb	109.718 ppb	87.859 %
Concentration per Run 2	87.482 %	101.135 ppb	105.493 ppb	85.517 %
Concentration per Run 3	84.582 %	103.992 ppb	106.734 ppb	82.107 %
Recovery Percentage 1		102.734 %	107.315 %	
Concentration RSD	2.1 %	1.4 %	2.0 %	3.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 31 Analysis started at: 3/14/2016 1:21:36 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.866 %	88.978 %	0.021 ppb	7.014 ppb	1.564 ppb	0.202 ppb	8.173 ppb
Concentration per Run 1	95.690 %	92.585 %	0.019 ppb	5.131 ppb	3.323 ppb	-0.426 ppb	-1.624 ppb
Concentration per Run 2	94.611 %	89.278 %	0.019 ppb	8.702 ppb	0.669 ppb	-0.220 ppb	8.666 ppb
Concentration per Run 3	94.297 %	85.070 %	0.024 ppb	7.210 ppb	0.700 ppb	1.252 ppb	17.477 ppb
Recovery Percentage 1			4.155 %	7.014 %	2.234 %	2.023 %	8.173 %
Concentration RSD	0.8 %	4.2 %	12.9 %	25.6 %	97.4 %	452.3 %	117.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8.781 ppb	84.300 %	91.802 %	0.009 ppb	0.036 ppb	0.307 ppb	1.850 ppb
Concentration per Run 1	2.529 ppb	83.879 %	91.959 %	0.028 ppb	0.092 ppb	-0.038 ppb	2.159 ppb
Concentration per Run 2	26.804 ppb	83.458 %	92.656 %	0.000 ppb	0.000 ppb	0.684 ppb	2.137 ppb
Concentration per Run 3	-2.990 ppb	85.564 %	90.791 %	0.000 ppb	0.016 ppb	0.274 ppb	1.254 ppb
Recovery Percentage 1	8.781 %			0.188 %	3.584 %	30.686 %	3.700 %
Concentration RSD	180.5 %	1.3 %	1.0 %	173.2 %	137.3 %	118.0 %	27.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.022 ppb	0.043 ppb	0.060 ppb	0.262 ppb	91.119 %	0.037 ppb	-0.102 ppb
Concentration per Run 1	0.050 ppb	0.020 ppb	0.035 ppb	0.323 ppb	89.394 %	-0.004 ppb	-0.172 ppb
Concentration per Run 2	0.029 ppb	0.056 ppb	0.060 ppb	0.314 ppb	91.311 %	0.058 ppb	0.004 ppb
Concentration per Run 3	-0.012 ppb	0.052 ppb	0.084 ppb	0.147 ppb	92.652 %	0.057 ppb	-0.136 ppb
Recovery Percentage 1	4.442 %	8.531 %	5.966 %	2.616 %	91.119 %	7.349 %	-2.031 %
Concentration RSD	141.0 %	47.0 %	41.6 %	37.9 %	1.8 %	96.2 %	91.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.406 ppb	0.015 ppb	0.001 ppb	90.257 %	0.085 ppb	0.068 ppb	0.071 ppb
Concentration per Run 1	0.513 ppb	0.020 ppb	0.022 ppb	89.953 %	0.121 ppb	0.075 ppb	0.055 ppb
Concentration per Run 2	0.415 ppb	0.021 ppb	-0.005 ppb	88.295 %	0.039 ppb	0.057 ppb	0.057 ppb
Concentration per Run 3	0.290 ppb	0.004 ppb	-0.013 ppb	92.525 %	0.094 ppb	0.072 ppb	0.101 ppb
Recovery Percentage 1	13.534 %	3.773 %	0.645 %		2.826 %	3.395 %	14.199 %
Concentration RSD	27.6 %	60.9 %	1,416.2 %	2.4 %	49.1 %	14.5 %	36.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.198 %	0.036 ppb	0.008 ppb	87.382 %
Concentration per Run 1	87.834 %	0.025 ppb	-0.004 ppb	89.434 %
Concentration per Run 2	86.956 %	0.041 ppb	0.016 ppb	85.852 %
Concentration per Run 3	89.806 %	0.043 ppb	0.011 ppb	86.860 %
Recovery Percentage 1		7.267 %	1.501 %	87.382 %
Concentration RSD	1.7 %	27.7 %	141.6 %	2.1 %

Alpha ICPMSQ Full

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Analysis index: 32
Analysis label: WG872439-1 MCP-6020TS-10
Analysis started at: 3/14/2016 1:24:43 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 11

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	93.999 %	86.673 %	0.015 ppb	0.283 ppb	-0.971 ppb	-0.646 ppb	2.279 ppb
Concentration per Run 1	95.186 %	80.260 %	0.024 ppb	4.977 ppb	-1.403 ppb	-0.732 ppb	-11.265 ppb
Concentration per Run 2	93.555 %	96.493 %	0.018 ppb	-3.835 ppb	-0.105 ppb	-0.473 ppb	5.798 ppb
Concentration per Run 3	93.258 %	83.266 %	0.002 ppb	-0.294 ppb	-1.403 ppb	-0.735 ppb	12.305 ppb
Concentration RSD	1.1 %	10.0 %	74.8 %	1,569.5 %	77.2 %	23.3 %	534.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-7.589 ppb	85.676 %	90.444 %	0.000 ppb	0.133 ppb	-0.385 ppb	0.484 ppb
Concentration per Run 1	-19.311 ppb	86.069 %	89.873 %	0.000 ppb	0.125 ppb	-0.355 ppb	0.461 ppb
Concentration per Run 2	-1.918 ppb	86.996 %	90.757 %	0.000 ppb	0.161 ppb	-0.392 ppb	0.467 ppb
Concentration per Run 3	-1.538 ppb	83.963 %	90.701 %	0.000 ppb	0.113 ppb	-0.408 ppb	0.525 ppb
Concentration RSD	133.8 %	1.8 %	0.5 %		18.7 %	7.1 %	7.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.002 ppb	-0.082 ppb	-0.028 ppb	-0.583 ppb	86.540 %	0.004 ppb	0.058 ppb
Concentration per Run 1	-0.012 ppb	-0.057 ppb	-0.019 ppb	-0.653 ppb	88.883 %	-0.025 ppb	0.020 ppb
Concentration per Run 2	0.009 ppb	-0.095 ppb	-0.019 ppb	-0.564 ppb	86.775 %	0.018 ppb	0.106 ppb
Concentration per Run 3	-0.001 ppb	-0.094 ppb	-0.046 ppb	-0.532 ppb	83.964 %	0.020 ppb	0.047 ppb
Concentration RSD	660.5 %	26.0 %	55.6 %	10.7 %	2.9 %	594.6 %	76.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.115 ppb	0.007 ppb	-0.014 ppb	87.799 %	0.020 ppb	0.050 ppb	0.007 ppb
Concentration per Run 1	0.068 ppb	0.006 ppb	-0.019 ppb	87.115 %	-0.024 ppb	0.057 ppb	-0.044 ppb
Concentration per Run 2	0.146 ppb	-0.005 ppb	-0.012 ppb	89.870 %	-0.027 ppb	0.055 ppb	0.006 ppb
Concentration per Run 3	0.131 ppb	0.022 ppb	-0.011 ppb	86.411 %	0.110 ppb	0.038 ppb	0.060 ppb
Concentration RSD	36.3 %	180.0 %	28.3 %	2.1 %	399.5 %	21.1 %	726.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.989 %	0.003 ppb	0.005 ppb	85.954 %
Concentration per Run 1	88.078 %	0.004 ppb	0.000 ppb	86.738 %
Concentration per Run 2	86.728 %	0.003 ppb	0.003 ppb	85.370 %
Concentration per Run 3	83.160 %	0.000 ppb	0.014 ppb	85.756 %
Concentration RSD	3.0 %	76.3 %	135.2 %	0.8 %

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Analysis index: 33
Analysis label: L1606551-05D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:27:49 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 12

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	91.992 %	91.683 %	0.601 ppb	107.595 ppb	3,795.503 ppb	10,396.776 ppb	564.389 ppb
Concentration per Run 1	92.300 %	94.088 %	0.560 ppb	115.586 ppb	4,057.281 ppb	10,948.990 ppb	585.474 ppb
Concentration per Run 2	91.645 %	86.573 %	0.583 ppb	108.944 ppb	3,957.608 ppb	10,908.843 ppb	567.469 ppb
Concentration per Run 3	92.030 %	94.389 %	0.661 ppb	98.255 ppb	3,371.620 ppb	9,332.494 ppb	540.225 ppb
Concentration RSD	0.4 %	4.8 %	8.8 %	8.1 %	9.8 %	8.9 %	4.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,201.513 ppb	84.300 %	83.896 %	47.363 ppb	22.714 ppb	406.381 ppb	33,221.438 ppb
Concentration per Run 1	7,817.699 ppb	79.751 %	84.920 %	54.396 ppb	24.698 ppb	436.952 ppb	35,864.694 ppb
Concentration per Run 2	7,184.889 ppb	84.974 %	82.373 %	45.872 ppb	22.748 ppb	403.125 ppb	33,688.185 ppb
Concentration per Run 3	6,601.950 ppb	88.176 %	84.396 %	41.822 ppb	20.695 ppb	379.068 ppb	30,111.434 ppb
Concentration RSD	8.4 %	5.0 %	1.6 %	13.6 %	8.8 %	7.2 %	8.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	11.261 ppb	27.697 ppb	80.092 ppb	130.759 ppb	87.661 %	6.499 ppb	5.058 ppb
Concentration per Run 1	12.039 ppb	27.596 ppb	81.783 ppb	134.505 ppb	89.269 %	7.229 ppb	6.052 ppb
Concentration per Run 2	11.515 ppb	28.209 ppb	82.587 ppb	135.745 ppb	86.489 %	6.500 ppb	5.616 ppb
Concentration per Run 3	10.228 ppb	27.285 ppb	75.906 ppb	122.027 ppb	87.225 %	5.768 ppb	3.506 ppb
Concentration RSD	8.3 %	1.7 %	4.6 %	5.8 %	1.6 %	11.2 %	26.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.572 ppb	0.069 ppb	0.503 ppb	89.814 %	82.819 ppb	1.190 ppb	161.510 ppb
Concentration per Run 1	1.904 ppb	0.075 ppb	0.571 ppb	90.846 %	85.489 ppb	1.286 ppb	168.818 ppb
Concentration per Run 2	1.650 ppb	0.047 ppb	0.516 ppb	87.656 %	85.860 ppb	1.243 ppb	160.913 ppb
Concentration per Run 3	1.162 ppb	0.085 ppb	0.422 ppb	90.940 %	77.109 ppb	1.042 ppb	154.798 ppb
Concentration RSD	24.0 %	28.6 %	14.9 %	2.1 %	6.0 %	10.9 %	4.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.904 %	0.039 ppb	266.253 ppb	85.578 %
Concentration per Run 1	85.851 %	0.050 ppb	283.816 ppb	85.790 %
Concentration per Run 2	87.206 %	0.032 ppb	263.221 ppb	83.449 %
Concentration per Run 3	90.655 %	0.034 ppb	251.721 ppb	87.494 %
Concentration RSD	2.8 %	25.7 %	6.1 %	2.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 34
Analysis label: WG872439-4D50 MCP-6020TS-10
Analysis started at: 3/14/2016 1:30:54 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 13

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	89.764 %	83.467 %	2.153 ppb	447.450 ppb	1,363.707 ppb	2,837.839 ppb	507.634 ppb
Concentration per Run 1	90.264 %	86.573 %	2.168 ppb	454.691 ppb	1,399.545 ppb	2,866.206 ppb	515.215 ppb
Concentration per Run 2	89.890 %	81.763 %	2.112 ppb	453.754 ppb	1,333.076 ppb	2,792.412 ppb	501.955 ppb
Concentration per Run 3	89.138 %	82.064 %	2.179 ppb	433.906 ppb	1,358.498 ppb	2,854.898 ppb	505.733 ppb
Concentration RSD	0.6 %	3.2 %	1.7 %	2.6 %	2.5 %	1.4 %	1.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,012.549 ppb	81.632 %	85.995 %	32.413 ppb	11.809 ppb	130.263 ppb	6,081.623 ppb
Concentration per Run 1	2,021.376 ppb	80.340 %	87.347 %	32.829 ppb	11.875 ppb	136.606 ppb	6,260.437 ppb
Concentration per Run 2	2,029.064 ppb	83.121 %	84.667 %	32.685 ppb	11.706 ppb	126.636 ppb	6,032.814 ppb
Concentration per Run 3	1,987.208 ppb	81.436 %	85.970 %	31.724 ppb	11.846 ppb	127.547 ppb	5,951.619 ppb
Concentration RSD	1.1 %	1.7 %	1.6 %	1.9 %	0.8 %	4.2 %	2.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	23.390 ppb	26.124 ppb	26.106 ppb	48.724 ppb	85.993 %	6.908 ppb	5.243 ppb
Concentration per Run 1	23.187 ppb	27.350 ppb	26.027 ppb	49.368 ppb	89.954 %	6.527 ppb	5.272 ppb
Concentration per Run 2	23.184 ppb	24.068 ppb	24.060 ppb	48.186 ppb	87.789 %	6.579 ppb	5.123 ppb
Concentration per Run 3	23.798 ppb	26.955 ppb	28.231 ppb	48.616 ppb	80.235 %	7.619 ppb	5.335 ppb
Concentration RSD	1.5 %	6.9 %	8.0 %	1.2 %	5.9 %	8.9 %	2.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	38.235 ppb	12.675 ppb	2.400 ppb	86.099 %	45.893 ppb	17.113 ppb	120.327 ppb
Concentration per Run 1	37.354 ppb	12.939 ppb	2.518 ppb	88.145 %	44.838 ppb	17.205 ppb	115.855 ppb
Concentration per Run 2	36.489 ppb	12.284 ppb	2.388 ppb	87.415 %	44.830 ppb	16.451 ppb	118.764 ppb
Concentration per Run 3	40.861 ppb	12.802 ppb	2.295 ppb	82.736 %	48.010 ppb	17.684 ppb	126.361 ppb
Concentration RSD	6.1 %	2.7 %	4.7 %	3.4 %	4.0 %	3.6 %	4.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.124 %	3.483 ppb	101.615 ppb	85.165 %
Concentration per Run 1	87.509 %	3.351 ppb	99.715 ppb	88.352 %
Concentration per Run 2	84.011 %	3.530 ppb	102.187 ppb	84.101 %
Concentration per Run 3	83.854 %	3.567 ppb	102.942 ppb	83.043 %
Concentration RSD	2.4 %	3.3 %	1.7 %	3.3 %

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Analysis index: 35
Analysis label: WG872439-5D50 MCP-6020TS-10
Analysis started at: 3/14/2016 1:33:56 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 14

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.001 %	90.180 %	2.207 ppb	437.376 ppb	1,365.175 ppb	2,603.914 ppb	542.418 ppb
Concentration per Run 1	89.713 %	87.775 %	2.177 ppb	447.572 ppb	1,398.221 ppb	2,699.562 ppb	590.284 ppb
Concentration per Run 2	90.139 %	89.278 %	2.239 ppb	447.073 ppb	1,410.065 ppb	2,615.202 ppb	470.357 ppb
Concentration per Run 3	90.152 %	93.487 %	2.204 ppb	417.483 ppb	1,287.239 ppb	2,496.978 ppb	566.615 ppb
Concentration RSD	0.3 %	3.3 %	1.4 %	3.9 %	5.0 %	3.9 %	11.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,429.207 ppb	83.823 %	83.770 %	37.441 ppb	12.124 ppb	92.765 ppb	7,512.752 ppb
Concentration per Run 1	2,819.048 ppb	81.520 %	84.349 %	38.715 ppb	11.809 ppb	90.939 ppb	7,939.669 ppb
Concentration per Run 2	2,336.727 ppb	85.395 %	83.199 %	36.380 ppb	12.265 ppb	95.055 ppb	7,393.241 ppb
Concentration per Run 3	2,131.846 ppb	84.553 %	83.761 %	37.227 ppb	12.299 ppb	92.300 ppb	7,205.346 ppb
Concentration RSD	14.5 %	2.4 %	0.7 %	3.2 %	2.3 %	2.3 %	5.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	22.521 ppb	27.082 ppb	29.910 ppb	49.633 ppb	84.017 %	7.237 ppb	6.680 ppb
Concentration per Run 1	22.163 ppb	27.158 ppb	29.315 ppb	49.526 ppb	84.850 %	7.626 ppb	6.281 ppb
Concentration per Run 2	22.846 ppb	27.031 ppb	30.413 ppb	50.122 ppb	84.339 %	7.118 ppb	5.379 ppb
Concentration per Run 3	22.554 ppb	27.055 ppb	30.004 ppb	49.251 ppb	82.862 %	6.968 ppb	8.380 ppb
Concentration RSD	1.5 %	0.2 %	1.9 %	0.9 %	1.2 %	4.8 %	23.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	40.313 ppb	13.361 ppb	2.431 ppb	85.342 %	47.109 ppb	17.179 ppb	119.370 ppb
Concentration per Run 1	39.781 ppb	12.822 ppb	2.516 ppb	87.971 %	44.460 ppb	17.819 ppb	121.919 ppb
Concentration per Run 2	41.215 ppb	13.650 ppb	2.373 ppb	84.160 %	48.046 ppb	16.441 ppb	120.197 ppb
Concentration per Run 3	39.942 ppb	13.612 ppb	2.406 ppb	83.897 %	48.821 ppb	17.276 ppb	115.995 ppb
Concentration RSD	1.9 %	3.5 %	3.1 %	2.7 %	4.9 %	4.0 %	2.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.323 %	3.934 ppb	81.374 ppb	84.400 %
Concentration per Run 1	89.552 %	4.040 ppb	80.586 ppb	83.265 %
Concentration per Run 2	83.824 %	3.956 ppb	83.249 ppb	85.429 %
Concentration per Run 3	85.591 %	3.805 ppb	80.288 ppb	84.507 %
Concentration RSD	3.4 %	3.0 %	2.0 %	1.3 %

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Analysis index: 36
Analysis label: L1606551-01D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:36:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 15

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.664 %	87.174 %	0.703 ppb	190.925 ppb	3,780.732 ppb	23,241.785 ppb	559.317 ppb
Concentration per Run 1	90.699 %	83.567 %	0.658 ppb	199.120 ppb	3,756.681 ppb	23,118.083 ppb	534.222 ppb
Concentration per Run 2	89.989 %	86.873 %	0.736 ppb	190.908 ppb	3,923.414 ppb	24,082.210 ppb	549.586 ppb
Concentration per Run 3	91.303 %	91.082 %	0.715 ppb	182.748 ppb	3,662.100 ppb	22,525.061 ppb	594.142 ppb
Concentration RSD	0.7 %	4.3 %	5.8 %	4.3 %	3.5 %	3.4 %	5.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,995.180 ppb	80.481 %	81.553 %	40.756 ppb	23.921 ppb	288.887 ppb	32,635.856 ppb
Concentration per Run 1	3,853.751 ppb	80.172 %	81.861 %	41.426 ppb	23.021 ppb	291.738 ppb	31,934.236 ppb
Concentration per Run 2	4,001.989 ppb	81.267 %	80.801 %	39.855 ppb	24.813 ppb	291.842 ppb	32,836.428 ppb
Concentration per Run 3	4,129.801 ppb	80.003 %	81.999 %	40.986 ppb	23.930 ppb	283.082 ppb	33,136.904 ppb
Concentration RSD	3.5 %	0.9 %	0.8 %	2.0 %	3.7 %	1.7 %	1.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	5.889 ppb	14.372 ppb	11.396 ppb	45.411 ppb	84.503 %	4.381 ppb	4.068 ppb
Concentration per Run 1	5.514 ppb	13.316 ppb	11.757 ppb	45.322 ppb	87.255 %	4.710 ppb	4.643 ppb
Concentration per Run 2	6.062 ppb	15.182 ppb	10.940 ppb	46.031 ppb	83.182 %	4.418 ppb	4.343 ppb
Concentration per Run 3	6.093 ppb	14.618 ppb	11.490 ppb	44.882 ppb	83.073 %	4.014 ppb	3.218 ppb
Concentration RSD	5.5 %	6.7 %	3.7 %	1.3 %	2.8 %	8.0 %	18.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.958 ppb	0.083 ppb	0.081 ppb	82.553 %	1.555 ppb	0.333 ppb	40.784 ppb
Concentration per Run 1	0.856 ppb	0.096 ppb	0.096 ppb	85.605 %	1.382 ppb	0.307 ppb	41.284 ppb
Concentration per Run 2	0.919 ppb	0.073 ppb	0.042 ppb	81.709 %	1.755 ppb	0.407 ppb	41.033 ppb
Concentration per Run 3	1.098 ppb	0.080 ppb	0.105 ppb	80.345 %	1.529 ppb	0.284 ppb	40.035 ppb
Concentration RSD	13.1 %	13.8 %	41.7 %	3.3 %	12.1 %	19.7 %	1.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.626 %	0.114 ppb	22.822 ppb	83.493 %
Concentration per Run 1	83.843 %	0.107 ppb	22.678 ppb	85.777 %
Concentration per Run 2	82.100 %	0.139 ppb	22.883 ppb	83.353 %
Concentration per Run 3	78.936 %	0.097 ppb	22.905 ppb	81.349 %
Concentration RSD	3.0 %	19.2 %	0.5 %	2.7 %

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Analysis index: 37
Analysis label: L1606551-02D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:40:02 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 16

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	88.685 %	85.972 %	1.015 ppb	110.321 ppb	3,056.923 ppb	8,670.257 ppb	436.875 ppb
Concentration per Run 1	88.457 %	91.082 %	0.966 ppb	115.604 ppb	2,997.895 ppb	8,468.842 ppb	426.866 ppb
Concentration per Run 2	88.716 %	83.867 %	1.048 ppb	111.349 ppb	3,147.425 ppb	8,870.639 ppb	440.590 ppb
Concentration per Run 3	88.881 %	82.966 %	1.030 ppb	104.009 ppb	3,025.448 ppb	8,671.290 ppb	443.169 ppb
Concentration RSD	0.2 %	5.2 %	4.2 %	5.3 %	2.6 %	2.3 %	2.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,618.300 ppb	82.138 %	79.654 %	9.673 ppb	8.947 ppb	784.448 ppb	26,162.928 ppb
Concentration per Run 1	1,697.792 ppb	82.784 %	80.129 %	9.812 ppb	9.176 ppb	793.073 ppb	25,971.114 ppb
Concentration per Run 2	1,661.111 ppb	79.582 %	79.387 %	10.417 ppb	9.533 ppb	808.482 ppb	26,733.973 ppb
Concentration per Run 3	1,495.995 ppb	84.048 %	79.446 %	8.791 ppb	8.133 ppb	751.790 ppb	25,783.695 ppb
Concentration RSD	6.6 %	2.8 %	0.5 %	8.5 %	8.1 %	3.7 %	1.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	9.053 ppb	18.599 ppb	18.531 ppb	75.440 ppb	81.324 %	8.294 ppb	15.790 ppb
Concentration per Run 1	9.029 ppb	18.639 ppb	17.870 ppb	74.012 ppb	86.541 %	8.097 ppb	15.046 ppb
Concentration per Run 2	9.400 ppb	19.440 ppb	19.994 ppb	77.278 ppb	77.589 %	8.041 ppb	14.435 ppb
Concentration per Run 3	8.729 ppb	17.718 ppb	17.729 ppb	75.030 ppb	79.840 %	8.744 ppb	17.888 ppb
Concentration RSD	3.7 %	4.6 %	6.8 %	2.2 %	5.7 %	4.7 %	11.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.170 ppb	0.025 ppb	0.257 ppb	84.531 %	0.340 ppb	0.143 ppb	23.269 ppb
Concentration per Run 1	1.239 ppb	0.022 ppb	0.267 ppb	86.276 %	0.308 ppb	0.201 ppb	25.088 ppb
Concentration per Run 2	1.133 ppb	0.018 ppb	0.197 ppb	83.648 %	0.390 ppb	0.187 ppb	22.795 ppb
Concentration per Run 3	1.139 ppb	0.034 ppb	0.307 ppb	83.668 %	0.323 ppb	0.040 ppb	21.925 ppb
Concentration RSD	5.1 %	34.6 %	21.7 %	1.8 %	12.9 %	62.6 %	7.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.442 %	0.022 ppb	13.507 ppb	85.142 %
Concentration per Run 1	86.447 %	0.023 ppb	13.333 ppb	86.286 %
Concentration per Run 2	84.346 %	0.017 ppb	13.771 ppb	86.464 %
Concentration per Run 3	82.532 %	0.025 ppb	13.417 ppb	82.675 %
Concentration RSD	2.3 %	19.4 %	1.7 %	2.5 %

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Analysis index: 38
Analysis label: L1606551-03D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:43:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 17

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.788 %	92.986 %	1.004 ppb	173.621 ppb	2,317.791 ppb	12,039.014 ppb	453.435 ppb
Concentration per Run 1	103.064 %	101.303 %	0.950 ppb	160.363 ppb	2,104.024 ppb	10,868.887 ppb	433.885 ppb
Concentration per Run 2	102.602 %	89.278 %	1.019 ppb	190.904 ppb	2,604.433 ppb	13,464.068 ppb	487.897 ppb
Concentration per Run 3	102.697 %	88.376 %	1.044 ppb	169.595 ppb	2,244.916 ppb	11,784.086 ppb	438.522 ppb
Concentration RSD	0.2 %	7.8 %	4.9 %	9.0 %	11.1 %	10.9 %	6.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	6,249.013 ppb	90.423 %	92.924 %	38.027 ppb	21.333 ppb	420.555 ppb	56,290.565 ppb
Concentration per Run 1	5,869.308 ppb	95.928 %	91.607 %	34.691 ppb	18.716 ppb	391.919 ppb	52,087.161 ppb
Concentration per Run 2	6,815.103 ppb	84.300 %	94.931 %	43.239 ppb	25.500 ppb	472.500 ppb	64,060.764 ppb
Concentration per Run 3	6,062.628 ppb	91.040 %	92.235 %	36.151 ppb	19.784 ppb	397.245 ppb	52,723.770 ppb
Concentration RSD	8.0 %	6.5 %	1.9 %	12.0 %	17.1 %	10.7 %	12.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.849 ppb	47.068 ppb	120.471 ppb	108.917 ppb	93.998 %	10.676 ppb	4.932 ppb
Concentration per Run 1	18.719 ppb	42.311 ppb	113.181 ppb	102.034 ppb	97.437 %	9.717 ppb	4.119 ppb
Concentration per Run 2	22.130 ppb	53.116 ppb	130.633 ppb	117.714 ppb	94.866 %	11.689 ppb	6.411 ppb
Concentration per Run 3	18.699 ppb	45.777 ppb	117.598 ppb	107.002 ppb	89.690 %	10.623 ppb	4.266 ppb
Concentration RSD	10.0 %	11.7 %	7.5 %	7.4 %	4.2 %	9.2 %	26.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.701 ppb	0.092 ppb	0.240 ppb	94.472 %	13.858 ppb	1.915 ppb	151.365 ppb
Concentration per Run 1	2.698 ppb	0.130 ppb	0.215 ppb	96.886 %	13.147 ppb	1.759 ppb	151.350 ppb
Concentration per Run 2	3.164 ppb	0.059 ppb	0.284 ppb	90.745 %	15.489 ppb	2.312 ppb	161.148 ppb
Concentration per Run 3	2.242 ppb	0.086 ppb	0.219 ppb	95.785 %	12.938 ppb	1.674 ppb	141.598 ppb
Concentration RSD	17.1 %	39.0 %	16.3 %	3.5 %	10.2 %	18.1 %	6.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.044 %	0.085 ppb	241.430 ppb	93.316 %
Concentration per Run 1	96.459 %	0.075 ppb	236.954 ppb	98.663 %
Concentration per Run 2	89.139 %	0.104 ppb	258.986 ppb	87.020 %
Concentration per Run 3	93.533 %	0.075 ppb	228.349 ppb	94.266 %
Concentration RSD	4.0 %	20.3 %	6.5 %	6.3 %

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Analysis index: 39
Analysis label: L1606551-04D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:46:08 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 18

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.350 %	87.274 %	0.366 ppb	117.063 ppb	1,821.050 ppb	12,903.714 ppb	434.622 ppb
Concentration per Run 1	100.574 %	91.984 %	0.357 ppb	123.010 ppb	1,884.977 ppb	13,365.072 ppb	424.750 ppb
Concentration per Run 2	100.113 %	88.076 %	0.368 ppb	109.274 ppb	1,754.255 ppb	12,472.282 ppb	417.427 ppb
Concentration per Run 3	100.364 %	81.763 %	0.372 ppb	118.904 ppb	1,823.916 ppb	12,873.788 ppb	461.689 ppb
Concentration RSD	0.2 %	5.9 %	2.2 %	6.0 %	3.6 %	3.5 %	5.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,852.913 ppb	90.619 %	89.171 %	32.496 ppb	22.130 ppb	193.317 ppb	16,446.851 ppb
Concentration per Run 1	2,053.993 ppb	87.586 %	86.985 %	34.565 ppb	24.047 ppb	205.226 ppb	17,504.003 ppb
Concentration per Run 2	1,854.255 ppb	94.747 %	92.018 %	31.526 ppb	21.063 ppb	190.477 ppb	16,168.207 ppb
Concentration per Run 3	1,650.490 ppb	89.524 %	88.509 %	31.395 ppb	21.281 ppb	184.249 ppb	15,668.342 ppb
Concentration RSD	10.9 %	4.1 %	2.9 %	5.5 %	7.5 %	5.6 %	5.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	3.921 ppb	10.209 ppb	25.846 ppb	85.262 ppb	90.048 %	5.396 ppb	4.431 ppb
Concentration per Run 1	3.898 ppb	10.870 ppb	26.605 ppb	87.986 ppb	94.866 %	5.154 ppb	3.243 ppb
Concentration per Run 2	3.901 ppb	9.978 ppb	25.132 ppb	84.255 ppb	87.950 %	5.434 ppb	5.886 ppb
Concentration per Run 3	3.964 ppb	9.780 ppb	25.800 ppb	83.546 ppb	87.327 %	5.602 ppb	4.163 ppb
Concentration RSD	0.9 %	5.7 %	2.9 %	2.8 %	4.6 %	4.2 %	30.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.822 ppb	0.064 ppb	0.124 ppb	93.775 %	13.908 ppb	2.114 ppb	63.783 ppb
Concentration per Run 1	0.877 ppb	0.065 ppb	0.172 ppb	89.616 %	15.319 ppb	2.503 ppb	67.542 ppb
Concentration per Run 2	0.765 ppb	0.081 ppb	0.090 ppb	95.911 %	13.704 ppb	2.294 ppb	65.213 ppb
Concentration per Run 3	0.825 ppb	0.047 ppb	0.110 ppb	95.799 %	12.702 ppb	1.546 ppb	58.592 ppb
Concentration RSD	6.8 %	26.0 %	34.5 %	3.8 %	9.5 %	23.8 %	7.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.366 %	0.079 ppb	147.901 ppb	94.651 %
Concentration per Run 1	92.017 %	0.108 ppb	157.850 ppb	91.920 %
Concentration per Run 2	95.049 %	0.069 ppb	143.868 ppb	97.521 %
Concentration per Run 3	93.032 %	0.060 ppb	141.985 ppb	94.511 %
Concentration RSD	1.7 %	32.2 %	5.9 %	3.0 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 40
Analysis label: L1606551-06D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:49:12 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 19

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.901 %	85.070 %	0.438 ppb	77.973 ppb	948.866 ppb	4,482.277 ppb	224.839 ppb
Concentration per Run 1	95.827 %	85.972 %	0.472 ppb	70.642 ppb	905.516 ppb	4,504.957 ppb	251.757 ppb
Concentration per Run 2	98.301 %	84.469 %	0.420 ppb	77.010 ppb	974.515 ppb	4,374.734 ppb	197.860 ppb
Concentration per Run 3	96.574 %	84.769 %	0.421 ppb	86.266 ppb	966.566 ppb	4,567.140 ppb	224.899 ppb
Concentration RSD	1.3 %	0.9 %	6.9 %	10.1 %	4.0 %	2.2 %	12.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	694.274 ppb	87.642 %	86.866 %	8.251 ppb	4.983 ppb	417.929 ppb	12,339.152 ppb
Concentration per Run 1	672.180 ppb	89.692 %	86.304 %	7.733 ppb	5.135 ppb	417.775 ppb	12,124.207 ppb
Concentration per Run 2	682.793 ppb	91.040 %	88.289 %	8.349 ppb	4.652 ppb	397.449 ppb	11,897.499 ppb
Concentration per Run 3	727.849 ppb	82.194 %	86.003 %	8.671 ppb	5.160 ppb	438.562 ppb	12,995.749 ppb
Concentration RSD	4.3 %	5.4 %	1.4 %	5.8 %	5.7 %	4.9 %	4.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.422 ppb	4.840 ppb	5.929 ppb	28.777 ppb	87.229 %	2.259 ppb	3.875 ppb
Concentration per Run 1	2.500 ppb	5.125 ppb	5.770 ppb	27.960 ppb	87.702 %	2.347 ppb	4.772 ppb
Concentration per Run 2	2.383 ppb	4.964 ppb	5.596 ppb	29.207 ppb	86.823 %	2.306 ppb	2.962 ppb
Concentration per Run 3	2.382 ppb	4.431 ppb	6.422 ppb	29.165 ppb	87.161 %	2.124 ppb	3.892 ppb
Concentration RSD	2.8 %	7.5 %	7.3 %	2.5 %	0.5 %	5.3 %	23.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.241 ppb	0.003 ppb	0.003 ppb	91.904 %	0.750 ppb	0.053 ppb	21.289 ppb
Concentration per Run 1	0.201 ppb	-0.010 ppb	0.007 ppb	92.623 %	0.647 ppb	0.052 ppb	20.177 ppb
Concentration per Run 2	0.202 ppb	0.020 ppb	-0.006 ppb	92.157 %	0.754 ppb	0.015 ppb	21.505 ppb
Concentration per Run 3	0.321 ppb	0.000 ppb	0.008 ppb	90.931 %	0.850 ppb	0.093 ppb	22.186 ppb
Concentration RSD	28.5 %	479.5 %	259.1 %	1.0 %	13.5 %	73.2 %	4.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.084 %	0.008 ppb	13.335 ppb	94.795 %
Concentration per Run 1	94.504 %	0.011 ppb	13.572 ppb	96.822 %
Concentration per Run 2	95.337 %	0.012 ppb	12.848 ppb	95.956 %
Concentration per Run 3	92.409 %	0.001 ppb	13.585 ppb	91.606 %
Concentration RSD	1.6 %	79.8 %	3.2 %	2.9 %

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3/15/2016 2:21:09 PM

Analysis index: 41
Analysis label: L1606551-07D10 MCP-6020TS-10
Analysis started at: 3/14/2016 1:52:16 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 20

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.370 %	90.481 %	0.674 ppb	359.929 ppb	3,261.495 ppb	10,615.750 ppb	1,113.168 ppb
Concentration per Run 1	97.433 %	82.665 %	0.679 ppb	386.683 ppb	3,589.522 ppb	11,352.450 ppb	1,129.659 ppb
Concentration per Run 2	95.027 %	88.978 %	0.669 ppb	364.133 ppb	3,320.646 ppb	11,348.814 ppb	1,135.224 ppb
Concentration per Run 3	96.651 %	99.800 %	0.674 ppb	328.973 ppb	2,874.316 ppb	9,145.985 ppb	1,074.621 ppb
Concentration RSD	1.3 %	9.6 %	0.7 %	8.1 %	11.1 %	12.0 %	3.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,380.637 ppb	89.159 %	86.852 %	30.479 ppb	20.940 ppb	434.150 ppb	35,563.830 ppb
Concentration per Run 1	5,801.684 ppb	89.861 %	84.841 %	31.074 ppb	22.521 ppb	462.295 ppb	38,435.407 ppb
Concentration per Run 2	5,565.635 ppb	84.216 %	85.314 %	31.916 ppb	20.826 ppb	447.333 ppb	36,640.269 ppb
Concentration per Run 3	4,774.594 ppb	93.400 %	90.402 %	28.448 ppb	19.472 ppb	392.823 ppb	31,615.814 ppb
Concentration RSD	10.0 %	5.2 %	3.6 %	5.9 %	7.3 %	8.4 %	9.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.593 ppb	49.943 ppb	61.881 ppb	191.814 ppb	88.990 %	11.144 ppb	4.262 ppb
Concentration per Run 1	16.696 ppb	52.878 ppb	62.316 ppb	199.914 ppb	89.363 %	11.286 ppb	3.438 ppb
Concentration per Run 2	15.751 ppb	52.933 ppb	64.993 ppb	199.497 ppb	88.668 %	11.767 ppb	4.812 ppb
Concentration per Run 3	14.332 ppb	44.019 ppb	58.336 ppb	176.030 ppb	88.939 %	10.378 ppb	4.536 ppb
Concentration RSD	7.6 %	10.3 %	5.4 %	7.1 %	0.4 %	6.3 %	17.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.945 ppb	0.101 ppb	0.230 ppb	91.546 %	15.585 ppb	1.044 ppb	196.857 ppb
Concentration per Run 1	2.177 ppb	0.124 ppb	0.249 ppb	92.121 %	15.869 ppb	1.109 ppb	211.173 ppb
Concentration per Run 2	2.007 ppb	0.092 ppb	0.243 ppb	89.177 %	16.467 ppb	1.158 ppb	195.918 ppb
Concentration per Run 3	1.651 ppb	0.088 ppb	0.199 ppb	93.339 %	14.419 ppb	0.863 ppb	183.480 ppb
Concentration RSD	13.8 %	19.4 %	11.8 %	2.3 %	6.8 %	15.2 %	7.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.409 %	0.040 ppb	300.692 ppb	92.501 %
Concentration per Run 1	89.359 %	0.033 ppb	319.265 ppb	89.262 %
Concentration per Run 2	91.136 %	0.056 ppb	300.460 ppb	91.045 %
Concentration per Run 3	93.733 %	0.030 ppb	282.352 ppb	97.196 %
Concentration RSD	2.4 %	35.4 %	6.1 %	4.5 %

Analysis index: 42 Analysis started at: 3/14/2016 1:55:20 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	88.867 %	90.882 %	106.273 ppb	9,185.891 ppb	9,394.215 ppb	95.502 ppb	9,742.674 ppb
Concentration per Run 1	87.458 %	91.082 %	107.857 ppb	9,184.039 ppb	9,166.254 ppb	90.301 ppb	9,550.327 ppb
Concentration per Run 2	89.328 %	85.972 %	106.525 ppb	9,300.675 ppb	9,423.113 ppb	97.310 ppb	9,958.848 ppb
Concentration per Run 3	89.815 %	95.591 %	104.436 ppb	9,072.960 ppb	9,593.278 ppb	98.894 ppb	9,718.847 ppb
Recovery Percentage 1			106.273 %	91.859 %	93.942 %	95.502 %	97.427 %
Concentration RSD	1.4 %	5.3 %	1.6 %	1.2 %	2.3 %	4.8 %	2.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,297.262 ppb	87.923 %	82.412 %	97.429 ppb	95.773 ppb	91.643 ppb	9,673.415 ppb
Concentration per Run 1	8,920.426 ppb	88.428 %	80.097 %	97.413 ppb	97.884 ppb	94.088 ppb	9,587.805 ppb
Concentration per Run 2	9,029.072 ppb	89.776 %	82.928 %	92.214 ppb	90.173 ppb	83.320 ppb	9,094.341 ppb
Concentration per Run 3	9,942.289 ppb	85.564 %	84.212 %	102.659 ppb	99.261 ppb	97.522 ppb	10,338.100 ppb
Recovery Percentage 1	92.973 %			97.429 %	95.773 %	91.643 %	96.734 %
Concentration RSD	6.0 %	2.4 %	2.6 %	5.4 %	5.1 %	8.1 %	6.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	100.899 ppb	101.634 ppb	103.472 ppb	102.406 ppb	86.979 %	98.295 ppb	100.740 ppb
Concentration per Run 1	99.931 ppb	96.187 ppb	104.362 ppb	100.947 ppb	86.714 %	96.406 ppb	91.966 ppb
Concentration per Run 2	96.403 ppb	99.602 ppb	98.202 ppb	99.662 ppb	89.679 %	95.685 ppb	94.064 ppb
Concentration per Run 3	106.363 ppb	109.114 ppb	107.853 ppb	106.608 ppb	84.545 %	102.793 ppb	116.190 ppb
Recovery Percentage 1	100.899 %	101.634 %	103.472 %	102.406 %		98.295 %	100.740 %
Concentration RSD	5.0 %	6.6 %	4.7 %	3.6 %	3.0 %	4.0 %	13.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	96.673 ppb	106.927 ppb	100.099 ppb	91.221 %	103.613 ppb	98.079 ppb	100.161 ppb
Concentration per Run 1	94.612 ppb	106.397 ppb	97.665 ppb	91.428 %	105.617 ppb	100.115 ppb	98.782 ppb
Concentration per Run 2	93.769 ppb	106.963 ppb	98.333 ppb	92.973 %	97.964 ppb	92.629 ppb	99.618 ppb
Concentration per Run 3	101.638 ppb	107.419 ppb	104.298 ppb	89.263 %	107.257 ppb	101.493 ppb	102.082 ppb
Recovery Percentage 1	96.673 %	106.927 %	100.099 %		103.613 %	98.079 %	100.161 %
Concentration RSD	4.5 %	0.5 %	3.6 %	2.0 %	4.8 %	4.9 %	1.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.427 %	100.394 ppb	104.944 ppb	93.140 %
Concentration per Run 1	94.142 %	98.238 ppb	102.379 ppb	94.692 %
Concentration per Run 2	95.482 %	99.083 ppb	103.833 ppb	94.313 %
Concentration per Run 3	90.658 %	103.862 ppb	108.621 ppb	90.415 %
Recovery Percentage 1		100.394 %	104.944 %	
Concentration RSD	2.7 %	3.0 %	3.1 %	2.5 %

Analysis index: 43 Analysis started at: 3/14/2016 1:58:27 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	92.116 %	87.074 %	0.024 ppb	6.815 ppb	10.329 ppb	2.307 ppb	16.497 ppb
Concentration per Run 1	93.142 %	91.082 %	0.017 ppb	0.641 ppb	1.912 ppb	0.063 ppb	-4.078 ppb
Concentration per Run 2	92.895 %	89.278 %	0.024 ppb	14.409 ppb	24.632 ppb	7.195 ppb	53.578 ppb
Concentration per Run 3	90.310 %	80.861 %	0.030 ppb	5.394 ppb	4.444 ppb	-0.336 ppb	-0.010 ppb
Recovery Percentage 1			4.763 %	6.815 %	14.756 %	23.072 %	16.497 %
Concentration RSD	1.7 %	6.3 %	27.1 %	102.6 %	120.5 %	183.7 %	195.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	4.620 ppb	84.048 %	87.767 %	0.078 ppb	0.153 ppb	0.736 ppb	11.312 ppb
Concentration per Run 1	0.862 ppb	89.187 %	86.287 %	0.027 ppb	0.083 ppb	0.597 ppb	3.563 ppb
Concentration per Run 2	25.259 ppb	80.004 %	89.177 %	0.208 ppb	0.393 ppb	1.284 ppb	27.308 ppb
Concentration per Run 3	-12.260 ppb	82.952 %	87.836 %	0.000 ppb	-0.018 ppb	0.328 ppb	3.063 ppb
Recovery Percentage 1	4.620 %			1.566 %	15.262 %	73.617 %	22.623 %
Concentration RSD	412.1 %	5.6 %	1.6 %	144.8 %	140.4 %	66.9 %	122.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.081 ppb	0.215 ppb	0.074 ppb	0.240 ppb	87.988 %	0.048 ppb	-0.142 ppb
Concentration per Run 1	-0.002 ppb	0.192 ppb	0.031 ppb	-0.080 ppb	93.802 %	0.015 ppb	-0.129 ppb
Concentration per Run 2	0.185 ppb	0.314 ppb	0.156 ppb	0.690 ppb	82.686 %	0.089 ppb	-0.172 ppb
Concentration per Run 3	0.061 ppb	0.138 ppb	0.036 ppb	0.109 ppb	87.477 %	0.040 ppb	-0.125 ppb
Recovery Percentage 1	16.246 %	42.960 %	7.407 %	2.395 %	87.988 %	9.589 %	-2.840 %
Concentration RSD	117.0 %	41.9 %	95.3 %	167.4 %	6.3 %	78.5 %	18.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.463 ppb	0.059 ppb	0.073 ppb	91.080 %	0.158 ppb	0.074 ppb	0.085 ppb
Concentration per Run 1	0.432 ppb	0.018 ppb	-0.020 ppb	94.639 %	0.188 ppb	-0.005 ppb	0.002 ppb
Concentration per Run 2	0.532 ppb	0.154 ppb	0.208 ppb	90.177 %	0.226 ppb	0.211 ppb	0.200 ppb
Concentration per Run 3	0.424 ppb	0.005 ppb	0.030 ppb	88.424 %	0.060 ppb	0.016 ppb	0.053 ppb
Recovery Percentage 1	15.431 %	14.788 %	36.320 %		5.263 %	3.703 %	16.991 %
Concentration RSD	13.0 %	138.6 %	164.9 %	3.5 %	55.0 %	160.5 %	121.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.818 %	0.086 ppb	0.119 ppb	92.890 %
Concentration per Run 1	97.688 %	0.026 ppb	0.011 ppb	92.943 %
Concentration per Run 2	90.812 %	0.206 ppb	0.324 ppb	92.522 %
Concentration per Run 3	92.953 %	0.026 ppb	0.021 ppb	93.204 %
Recovery Percentage 1		17.204 %	23.769 %	92.890 %
Concentration RSD	3.8 %	120.6 %	149.7 %	0.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 44
Analysis label: L1606551-08D10 MCP-6020TS-10
Analysis started at: 3/14/2016 2:06:17 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 21

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.360 %	92.785 %	0.907 ppb	91.750 ppb	2,087.105 ppb	8,788.351 ppb	264.427 ppb
Concentration per Run 1	95.788 %	94.088 %	0.880 ppb	94.960 ppb	2,062.933 ppb	8,826.383 ppb	276.563 ppb
Concentration per Run 2	99.211 %	91.984 %	0.952 ppb	92.905 ppb	2,153.874 ppb	8,835.976 ppb	237.180 ppb
Concentration per Run 3	97.081 %	92.284 %	0.888 ppb	87.384 ppb	2,044.508 ppb	8,702.694 ppb	279.539 ppb
Concentration RSD	1.8 %	1.2 %	4.4 %	4.3 %	2.8 %	0.8 %	8.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,176.442 ppb	83.879 %	85.925 %	68.041 ppb	30.710 ppb	212.221 ppb	49,119.986 ppb
Concentration per Run 1	2,351.047 ppb	81.604 %	83.444 %	72.191 ppb	31.689 ppb	217.736 ppb	50,855.248 ppb
Concentration per Run 2	2,016.702 ppb	83.457 %	86.528 %	67.997 ppb	30.780 ppb	215.256 ppb	49,913.035 ppb
Concentration per Run 3	2,161.579 ppb	86.575 %	87.804 %	63.935 ppb	29.660 ppb	203.670 ppb	46,591.674 ppb
Concentration RSD	7.7 %	3.0 %	2.6 %	6.1 %	3.3 %	3.5 %	4.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.445 ppb	66.933 ppb	81.542 ppb	154.782 ppb	87.179 %	12.986 ppb	8.925 ppb
Concentration per Run 1	15.460 ppb	68.541 ppb	85.438 ppb	156.444 ppb	86.729 %	13.573 ppb	8.798 ppb
Concentration per Run 2	15.778 ppb	68.956 ppb	81.075 ppb	156.458 ppb	85.316 %	13.141 ppb	9.120 ppb
Concentration per Run 3	15.097 ppb	63.301 ppb	78.112 ppb	151.444 ppb	89.492 %	12.243 ppb	8.857 ppb
Concentration RSD	2.2 %	4.7 %	4.5 %	1.9 %	2.4 %	5.2 %	1.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	11.151 ppb	0.123 ppb	0.384 ppb	88.939 %	20.443 ppb	1.968 ppb	52.097 ppb
Concentration per Run 1	10.544 ppb	0.118 ppb	0.410 ppb	89.278 %	21.014 ppb	2.026 ppb	51.820 ppb
Concentration per Run 2	11.765 ppb	0.150 ppb	0.339 ppb	91.598 %	19.786 ppb	2.128 ppb	50.929 ppb
Concentration per Run 3	11.144 ppb	0.100 ppb	0.402 ppb	85.942 %	20.529 ppb	1.751 ppb	53.541 ppb
Concentration RSD	5.5 %	20.9 %	10.1 %	3.2 %	3.0 %	9.9 %	2.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.622 %	0.224 ppb	228.974 ppb	91.487 %
Concentration per Run 1	96.406 %	0.220 ppb	226.056 ppb	96.246 %
Concentration per Run 2	92.469 %	0.256 ppb	227.057 ppb	88.779 %
Concentration per Run 3	88.991 %	0.196 ppb	233.808 ppb	89.437 %
Concentration RSD	4.0 %	13.4 %	1.8 %	4.5 %

Alpha ICPMSQ Full

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Analysis index: 45
Analysis label: L1606551-09D10 MCP-6020TS-10
Analysis started at: 3/14/2016 2:09:21 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 22

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.670 %	85.571 %	0.603 ppb	115.869 ppb	3,426.027 ppb	9,354.505 ppb	512.449 ppb
Concentration per Run 1	95.085 %	95.290 %	0.599 ppb	106.460 ppb	3,150.149 ppb	8,579.583 ppb	466.671 ppb
Concentration per Run 2	93.895 %	86.573 %	0.624 ppb	119.292 ppb	3,448.823 ppb	9,068.705 ppb	488.352 ppb
Concentration per Run 3	95.030 %	74.849 %	0.586 ppb	121.857 ppb	3,679.110 ppb	10,415.225 ppb	582.323 ppb
Concentration RSD	0.7 %	12.0 %	3.2 %	7.1 %	7.7 %	10.2 %	12.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,170.946 ppb	77.448 %	83.679 %	41.498 ppb	41.012 ppb	398.199 ppb	23,196.444 ppb
Concentration per Run 1	2,131.310 ppb	82.110 %	83.821 %	41.136 ppb	39.182 ppb	376.050 ppb	22,225.299 ppb
Concentration per Run 2	2,306.325 ppb	76.718 %	81.853 %	40.998 ppb	41.062 ppb	397.806 ppb	23,165.925 ppb
Concentration per Run 3	2,075.203 ppb	73.517 %	85.363 %	42.361 ppb	42.792 ppb	420.742 ppb	24,198.109 ppb
Concentration RSD	5.6 %	5.6 %	2.1 %	1.8 %	4.4 %	5.6 %	4.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	11.246 ppb	31.140 ppb	75.349 ppb	147.706 ppb	82.072 %	7.296 ppb	4.755 ppb
Concentration per Run 1	11.443 ppb	30.179 ppb	74.145 ppb	140.272 ppb	86.831 %	6.556 ppb	4.875 ppb
Concentration per Run 2	11.451 ppb	31.462 ppb	75.441 ppb	153.196 ppb	79.150 %	7.980 ppb	5.584 ppb
Concentration per Run 3	10.844 ppb	31.780 ppb	76.463 ppb	149.649 ppb	80.235 %	7.351 ppb	3.806 ppb
Concentration RSD	3.1 %	2.7 %	1.5 %	4.5 %	5.1 %	9.8 %	18.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.078 ppb	0.135 ppb	0.431 ppb	87.074 %	73.239 ppb	1.462 ppb	78.626 ppb
Concentration per Run 1	1.695 ppb	0.121 ppb	0.444 ppb	90.743 %	72.357 ppb	1.302 ppb	79.080 ppb
Concentration per Run 2	2.334 ppb	0.170 ppb	0.416 ppb	84.187 %	73.320 ppb	1.780 ppb	77.486 ppb
Concentration per Run 3	2.205 ppb	0.113 ppb	0.434 ppb	86.292 %	74.039 ppb	1.305 ppb	79.311 ppb
Concentration RSD	16.3 %	23.1 %	3.3 %	3.8 %	1.2 %	18.8 %	1.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.828 %	0.102 ppb	157.468 ppb	90.107 %
Concentration per Run 1	88.003 %	0.089 ppb	160.457 ppb	92.512 %
Concentration per Run 2	90.018 %	0.098 ppb	154.240 ppb	90.131 %
Concentration per Run 3	85.465 %	0.118 ppb	157.709 ppb	87.678 %
Concentration RSD	2.6 %	14.4 %	2.0 %	2.7 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 46
Analysis label: L1606551-10D10 MCP-6020TS-10
Analysis started at: 3/14/2016 2:12:26 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 23

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.987 %	87.274 %	0.457 ppb	297.631 ppb	9,294.526 ppb	13,933.637 ppb	871.728 ppb
Concentration per Run 1	95.191 %	81.162 %	0.465 ppb	304.033 ppb	9,564.012 ppb	14,395.695 ppb	888.367 ppb
Concentration per Run 2	95.591 %	94.990 %	0.477 ppb	298.974 ppb	9,192.158 ppb	13,828.561 ppb	892.818 ppb
Concentration per Run 3	94.178 %	85.671 %	0.428 ppb	289.888 ppb	9,127.406 ppb	13,576.654 ppb	833.998 ppb
Concentration RSD	0.8 %	8.1 %	5.6 %	2.4 %	2.5 %	3.0 %	3.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	39,840.684 ppb	80.481 %	82.807 %	27.849 ppb	18.061 ppb	544.048 ppb	24,373.348 ppb
Concentration per Run 1	38,875.379 ppb	83.457 %	82.686 %	26.599 ppb	18.401 ppb	530.092 ppb	23,706.958 ppb
Concentration per Run 2	41,772.918 ppb	75.791 %	83.936 %	29.255 ppb	19.615 ppb	563.385 ppb	24,989.268 ppb
Concentration per Run 3	38,873.754 ppb	82.194 %	81.799 %	27.693 ppb	16.169 ppb	538.668 ppb	24,423.817 ppb
Concentration RSD	4.2 %	5.1 %	1.3 %	4.8 %	9.7 %	3.2 %	2.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	6.919 ppb	15.728 ppb	20.209 ppb	61.937 ppb	84.092 %	5.081 ppb	3.527 ppb
Concentration per Run 1	6.963 ppb	15.911 ppb	19.343 ppb	59.785 ppb	87.064 %	4.735 ppb	3.462 ppb
Concentration per Run 2	6.871 ppb	15.951 ppb	20.058 ppb	62.417 ppb	82.678 %	5.785 ppb	3.634 ppb
Concentration per Run 3	6.923 ppb	15.321 ppb	21.228 ppb	63.609 ppb	82.535 %	4.722 ppb	3.485 ppb
Concentration RSD	0.7 %	2.2 %	4.7 %	3.2 %	3.1 %	12.0 %	2.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.865 ppb	0.082 ppb	0.082 ppb	88.150 %	2.590 ppb	0.236 ppb	52.707 ppb
Concentration per Run 1	0.947 ppb	0.080 ppb	0.076 ppb	91.005 %	2.551 ppb	0.229 ppb	50.578 ppb
Concentration per Run 2	0.640 ppb	0.084 ppb	0.100 ppb	88.418 %	2.846 ppb	0.317 ppb	51.304 ppb
Concentration per Run 3	1.007 ppb	0.081 ppb	0.069 ppb	85.026 %	2.373 ppb	0.163 ppb	56.239 ppb
Concentration RSD	22.8 %	2.0 %	20.2 %	3.4 %	9.2 %	32.7 %	5.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.116 %	0.103 ppb	62.678 ppb	90.013 %
Concentration per Run 1	88.922 %	0.107 ppb	62.426 ppb	91.460 %
Concentration per Run 2	86.034 %	0.105 ppb	61.924 ppb	89.927 %
Concentration per Run 3	86.393 %	0.097 ppb	63.685 ppb	88.653 %
Concentration RSD	1.8 %	5.4 %	1.4 %	1.6 %

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3/15/2016 2:21:09 PM

Analysis index: 47
Analysis label: L1606240-08D100 MCP-6020TS-10
Analysis started at: 3/14/2016 2:15:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 24

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.951 %	79.458 %	0.061 ppb	23.502 ppb	593.033 ppb	1,098.874 ppb	164.335 ppb
Concentration per Run 1	91.245 %	77.855 %	0.072 ppb	25.503 ppb	620.400 ppb	1,179.800 ppb	156.330 ppb
Concentration per Run 2	91.873 %	85.972 %	0.059 ppb	25.375 ppb	538.597 ppb	1,019.303 ppb	145.041 ppb
Concentration per Run 3	89.735 %	74.549 %	0.053 ppb	19.629 ppb	620.102 ppb	1,097.519 ppb	191.636 ppb
Concentration RSD	1.2 %	7.4 %	15.6 %	14.3 %	7.9 %	7.3 %	14.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,989.440 ppb	79.751 %	83.645 %	118.844 ppb	8.168 ppb	54.850 ppb	5,605.145 ppb
Concentration per Run 1	2,826.866 ppb	78.234 %	80.597 %	132.564 ppb	8.215 ppb	57.998 ppb	6,331.514 ppb
Concentration per Run 2	2,850.413 ppb	80.930 %	85.220 %	113.296 ppb	8.076 ppb	54.089 ppb	5,341.131 ppb
Concentration per Run 3	3,291.040 ppb	80.088 %	85.118 %	110.673 ppb	8.212 ppb	52.462 ppb	5,142.789 ppb
Concentration RSD	8.7 %	1.7 %	3.2 %	10.1 %	1.0 %	5.2 %	11.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.180 ppb	18.432 ppb	17.079 ppb	36.609 ppb	82.728 %	2.234 ppb	0.540 ppb
Concentration per Run 1	1.368 ppb	20.600 ppb	18.701 ppb	40.451 ppb	77.447 %	2.270 ppb	0.315 ppb
Concentration per Run 2	1.146 ppb	17.665 ppb	16.335 ppb	34.322 ppb	86.455 %	2.034 ppb	0.539 ppb
Concentration per Run 3	1.026 ppb	17.031 ppb	16.200 ppb	35.055 ppb	84.283 %	2.397 ppb	0.766 ppb
Concentration RSD	14.7 %	10.3 %	8.2 %	9.1 %	5.7 %	8.2 %	41.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.053 ppb	0.014 ppb	1.580 ppb	86.994 %	1.257 ppb	0.636 ppb	21.003 ppb
Concentration per Run 1	2.227 ppb	0.040 ppb	1.725 ppb	82.830 %	1.198 ppb	0.655 ppb	21.651 ppb
Concentration per Run 2	2.060 ppb	-0.005 ppb	1.506 ppb	86.837 %	1.351 ppb	0.719 ppb	21.010 ppb
Concentration per Run 3	1.873 ppb	0.005 ppb	1.509 ppb	91.315 %	1.222 ppb	0.535 ppb	20.348 ppb
Concentration RSD	8.6 %	174.5 %	7.9 %	4.9 %	6.5 %	14.7 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.431 %	0.005 ppb	58.596 ppb	91.289 %
Concentration per Run 1	85.062 %	0.013 ppb	65.953 ppb	88.737 %
Concentration per Run 2	93.724 %	0.000 ppb	54.550 ppb	94.696 %
Concentration per Run 3	92.506 %	0.004 ppb	55.286 ppb	90.435 %
Concentration RSD	5.2 %	127.2 %	10.9 %	3.4 %

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Analysis index: 48
Analysis label: L1606251-08D200 MCP-6020TS-10
Analysis started at: 3/14/2016 2:18:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 25

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.324 %	85.671 %	0.048 ppb	7.944 ppb	229.919 ppb	613.114 ppb	32.916 ppb
Concentration per Run 1	90.149 %	80.260 %	0.041 ppb	6.511 ppb	230.509 ppb	616.128 ppb	26.090 ppb
Concentration per Run 2	87.235 %	97.996 %	0.049 ppb	6.953 ppb	212.137 ppb	573.142 ppb	43.656 ppb
Concentration per Run 3	84.588 %	78.757 %	0.054 ppb	10.368 ppb	247.113 ppb	650.070 ppb	29.001 ppb
Concentration RSD	3.2 %	12.5 %	14.0 %	26.6 %	7.6 %	6.3 %	28.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	321.442 ppb	86.884 %	80.110 %	3.149 ppb	1.327 ppb	24.387 ppb	1,681.745 ppb
Concentration per Run 1	269.006 ppb	89.102 %	83.369 %	3.049 ppb	1.358 ppb	24.958 ppb	1,627.481 ppb
Concentration per Run 2	348.209 ppb	87.164 %	81.467 %	3.215 ppb	1.204 ppb	24.589 ppb	1,698.562 ppb
Concentration per Run 3	347.110 ppb	84.384 %	75.494 %	3.185 ppb	1.419 ppb	23.613 ppb	1,719.191 ppb
Concentration RSD	14.1 %	2.7 %	5.1 %	2.8 %	8.4 %	2.8 %	2.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.487 ppb	1.435 ppb	7.033 ppb	39.267 ppb	87.690 %	0.586 ppb	0.166 ppb
Concentration per Run 1	0.429 ppb	1.025 ppb	7.160 ppb	39.361 ppb	87.924 %	0.491 ppb	0.513 ppb
Concentration per Run 2	0.629 ppb	1.684 ppb	6.588 ppb	38.112 ppb	87.477 %	0.559 ppb	0.118 ppb
Concentration per Run 3	0.401 ppb	1.595 ppb	7.351 ppb	40.328 ppb	87.669 %	0.708 ppb	-0.132 ppb
Concentration RSD	25.5 %	24.9 %	5.6 %	2.8 %	0.3 %	18.9 %	195.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.105 ppb	0.001 ppb	0.057 ppb	91.553 %	0.698 ppb	0.124 ppb	34.394 ppb
Concentration per Run 1	0.008 ppb	-0.005 ppb	0.076 ppb	90.385 %	0.583 ppb	0.152 ppb	35.186 ppb
Concentration per Run 2	0.163 ppb	0.005 ppb	0.041 ppb	91.874 %	0.592 ppb	0.111 ppb	35.029 ppb
Concentration per Run 3	0.143 ppb	0.005 ppb	0.054 ppb	92.401 %	0.919 ppb	0.110 ppb	32.966 ppb
Concentration RSD	80.7 %	377.9 %	31.1 %	1.1 %	27.4 %	19.3 %	3.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.178 %	0.000 ppb	113.181 ppb	92.390 %
Concentration per Run 1	90.319 %	-0.006 ppb	113.757 ppb	93.137 %
Concentration per Run 2	92.411 %	-0.005 ppb	110.954 ppb	92.319 %
Concentration per Run 3	90.804 %	0.011 ppb	114.833 ppb	91.714 %
Concentration RSD	1.2 %	87,064.9 %	1.8 %	0.8 %

Alpha ICPMSQ Full

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Analysis index: 49 Analysis started at: 3/14/2016 3:01:24 PM Rack: 1
Analysis label: WG873268-1 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 26

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.032 %	84.669 %	-0.001 ppb	5.926 ppb	1.963 ppb	0.220 ppb	7.629 ppb
Concentration per Run 1	94.592 %	85.370 %	-0.006 ppb	5.655 ppb	1.484 ppb	0.034 ppb	25.012 ppb
Concentration per Run 2	93.666 %	83.867 %	0.002 ppb	3.440 ppb	1.490 ppb	0.599 ppb	8.458 ppb
Concentration per Run 3	93.838 %	84.769 %	0.002 ppb	8.682 ppb	2.916 ppb	0.027 ppb	-10.584 ppb
Concentration RSD	0.5 %	0.9 %	896.3 %	44.4 %	42.0 %	149.4 %	233.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-1.837 ppb	80.762 %	87.021 %	0.020 ppb	0.567 ppb	-0.434 ppb	-0.318 ppb
Concentration per Run 1	-0.260 ppb	79.919 %	86.691 %	0.000 ppb	0.713 ppb	-0.557 ppb	-0.326 ppb
Concentration per Run 2	-15.195 ppb	81.267 %	86.379 %	0.000 ppb	0.485 ppb	-0.551 ppb	-0.309 ppb
Concentration per Run 3	9.945 ppb	81.099 %	87.993 %	0.059 ppb	0.502 ppb	-0.193 ppb	-0.318 ppb
Concentration RSD	688.4 %	0.9 %	1.0 %	173.2 %	22.4 %	48.0 %	2.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.012 ppb	1.334 ppb	0.011 ppb	-0.945 ppb	84.496 %	-0.025 ppb	0.012 ppb
Concentration per Run 1	-0.012 ppb	1.285 ppb	-0.018 ppb	-0.773 ppb	87.669 %	-0.025 ppb	0.077 ppb
Concentration per Run 2	-0.012 ppb	1.448 ppb	-0.046 ppb	-0.960 ppb	81.855 %	-0.025 ppb	0.103 ppb
Concentration per Run 3	-0.012 ppb	1.268 ppb	0.096 ppb	-1.101 ppb	83.964 %	-0.025 ppb	-0.142 ppb
Concentration RSD	0.0 %	7.4 %	715.7 %	17.4 %	3.5 %	0.0 %	1,083.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.387 ppb	-0.009 ppb	-0.021 ppb	82.837 %	0.037 ppb	0.012 ppb	0.007 ppb
Concentration per Run 1	0.303 ppb	-0.015 ppb	-0.019 ppb	89.528 %	-0.027 ppb	-0.004 ppb	0.055 ppb
Concentration per Run 2	0.399 ppb	-0.009 ppb	-0.025 ppb	79.609 %	0.009 ppb	0.042 ppb	-0.044 ppb
Concentration per Run 3	0.458 ppb	-0.004 ppb	-0.017 ppb	79.376 %	0.129 ppb	-0.001 ppb	0.009 ppb
Concentration RSD	20.2 %	59.7 %	19.7 %	7.0 %	220.0 %	209.3 %	758.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.018 %	-0.024 ppb	0.031 ppb	86.743 %
Concentration per Run 1	89.467 %	-0.024 ppb	0.040 ppb	89.886 %
Concentration per Run 2	88.908 %	-0.021 ppb	0.029 ppb	85.982 %
Concentration per Run 3	85.678 %	-0.027 ppb	0.023 ppb	84.362 %
Concentration RSD	2.3 %	11.5 %	28.1 %	3.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 50
Analysis label: WG873268-2D5 6020TL
Analysis started at: 3/14/2016 3:04:26 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 27

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	88.848 %	83.066 %	9.440 ppb	1,909.190 ppb	1,949.834 ppb	372.625 ppb	1,879.647 ppb
Concentration per Run 1	88.229 %	78.156 %	9.526 ppb	2,026.822 ppb	2,052.704 ppb	402.597 ppb	1,969.555 ppb
Concentration per Run 2	88.461 %	78.757 %	9.451 ppb	1,893.335 ppb	1,913.582 ppb	358.051 ppb	1,859.029 ppb
Concentration per Run 3	89.853 %	92.284 %	9.342 ppb	1,807.412 ppb	1,883.217 ppb	357.228 ppb	1,810.356 ppb
Concentration RSD	1.0 %	9.6 %	1.0 %	5.8 %	4.6 %	7.0 %	4.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,957.268 ppb	78.571 %	83.001 %	94.659 ppb	37.256 ppb	91.131 ppb	182.375 ppb
Concentration per Run 1	2,014.286 ppb	77.308 %	82.773 %	96.505 ppb	37.980 ppb	90.895 ppb	189.530 ppb
Concentration per Run 2	1,967.381 ppb	80.846 %	81.793 %	94.600 ppb	36.846 ppb	89.209 ppb	167.308 ppb
Concentration per Run 3	1,890.138 ppb	77.560 %	84.439 %	92.873 ppb	36.941 ppb	93.288 ppb	190.286 ppb
Concentration RSD	3.2 %	2.5 %	1.6 %	1.9 %	1.7 %	2.2 %	7.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	95.188 ppb	99.467 ppb	49.528 ppb	95.051 ppb	79.647 %	23.680 ppb	25.172 ppb
Concentration per Run 1	98.907 ppb	102.199 ppb	49.968 ppb	94.757 ppb	81.832 %	23.340 ppb	25.208 ppb
Concentration per Run 2	93.372 ppb	98.948 ppb	48.941 ppb	94.907 ppb	78.214 %	23.924 ppb	23.440 ppb
Concentration per Run 3	93.285 ppb	97.254 ppb	49.676 ppb	95.490 ppb	78.894 %	23.777 ppb	26.867 ppb
Concentration RSD	3.4 %	2.5 %	1.1 %	0.4 %	2.4 %	1.3 %	6.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	195.240 ppb	10.266 ppb	10.461 ppb	82.601 %	207.543 ppb	91.702 ppb	372.122 ppb
Concentration per Run 1	200.728 ppb	10.181 ppb	10.352 ppb	84.160 %	202.090 ppb	90.207 ppb	367.615 ppb
Concentration per Run 2	190.193 ppb	10.208 ppb	10.340 ppb	82.222 %	206.509 ppb	94.378 ppb	374.550 ppb
Concentration per Run 3	194.801 ppb	10.408 ppb	10.690 ppb	81.420 %	214.029 ppb	90.521 ppb	374.200 ppb
Concentration RSD	2.7 %	1.2 %	1.9 %	1.7 %	2.9 %	2.5 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.758 %	23.375 ppb	107.735 ppb	85.487 %
Concentration per Run 1	89.496 %	22.903 ppb	107.308 ppb	90.666 %
Concentration per Run 2	84.846 %	23.973 ppb	106.995 ppb	83.427 %
Concentration per Run 3	82.932 %	23.250 ppb	108.902 ppb	82.369 %
Concentration RSD	3.9 %	2.3 %	0.9 %	5.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 51 Analysis started at: 3/14/2016 3:07:29 PM Rack: 1
Analysis label: L1607151-02 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 28

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	93.629 %	88.978 %	-0.001 ppb	470,027.558 ppb	34,671.813 ppb	38.832 ppb	32,372.865 ppb
Concentration per Run 1	92.636 %	87.775 %	0.000 ppb	467,207.073 ppb	34,545.486 ppb	36.346 ppb	31,756.269 ppb
Concentration per Run 2	94.376 %	85.972 %	-0.001 ppb	492,721.148 ppb	35,343.392 ppb	42.729 ppb	33,576.289 ppb
Concentration per Run 3	93.874 %	93.186 %	-0.001 ppb	450,154.452 ppb	34,126.559 ppb	37.422 ppb	31,786.036 ppb
Concentration RSD	1.0 %	4.2 %	17.6 %	4.6 %	1.8 %	8.8 %	3.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	147,964.554 ppb	83.373 %	88.892 %	4.527 ppb	1.395 ppb	850.274 ppb	89.712 ppb
Concentration per Run 1	137,545.579 ppb	86.659 %	89.248 %	3.678 ppb	1.362 ppb	772.157 ppb	94.049 ppb
Concentration per Run 2	157,976.584 ppb	79.245 %	86.668 %	5.454 ppb	1.523 ppb	923.746 ppb	82.928 ppb
Concentration per Run 3	148,371.500 ppb	84.216 %	90.761 %	4.449 ppb	1.300 ppb	854.919 ppb	92.159 ppb
Concentration RSD	6.9 %	4.5 %	2.3 %	19.7 %	8.3 %	8.9 %	6.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.800 ppb	6.032 ppb	2.673 ppb	20.279 ppb	83.831 %	3.245 ppb	0.640 ppb
Concentration per Run 1	1.669 ppb	5.818 ppb	2.499 ppb	18.259 ppb	89.897 %	2.634 ppb	0.272 ppb
Concentration per Run 2	2.065 ppb	6.477 ppb	2.889 ppb	20.777 ppb	80.770 %	3.865 ppb	0.814 ppb
Concentration per Run 3	1.666 ppb	5.801 ppb	2.630 ppb	21.802 ppb	80.826 %	3.235 ppb	0.834 ppb
Concentration RSD	12.7 %	6.4 %	7.4 %	9.0 %	6.3 %	19.0 %	49.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	38.170 ppb	0.010 ppb	0.059 ppb	82.073 %	0.275 ppb	1.868 ppb	9.326 ppb
Concentration per Run 1	36.117 ppb	0.017 ppb	0.054 ppb	84.243 %	0.294 ppb	1.446 ppb	9.208 ppb
Concentration per Run 2	37.943 ppb	0.012 ppb	0.078 ppb	83.238 %	0.278 ppb	1.979 ppb	9.845 ppb
Concentration per Run 3	40.450 ppb	0.002 ppb	0.045 ppb	78.738 %	0.253 ppb	2.179 ppb	8.924 ppb
Concentration RSD	5.7 %	72.6 %	29.0 %	3.6 %	7.6 %	20.3 %	5.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.078 %	0.008 ppb	0.280 ppb	73.566 %
Concentration per Run 1	90.601 %	0.022 ppb	0.276 ppb	76.954 %
Concentration per Run 2	85.709 %	0.013 ppb	0.297 ppb	72.619 %
Concentration per Run 3	81.925 %	-0.010 ppb	0.268 ppb	71.125 %
Concentration RSD	5.1 %	196.5 %	5.3 %	4.1 %

Alpha ICPMSQ Full

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Analysis index: 52
Analysis label: xWG873268-2d5 6020TL
Analysis started at: 3/14/2016 3:10:32 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 27

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.161 %	89.379 %	9.446 ppb	1,960.770 ppb	2,013.025 ppb	389.047 ppb	1,928.339 ppb
Concentration per Run 1	96.899 %	98.297 %	9.465 ppb	1,823.003 ppb	1,827.063 ppb	374.746 ppb	1,851.833 ppb
Concentration per Run 2	97.895 %	88.376 %	9.510 ppb	2,004.328 ppb	2,071.004 ppb	388.912 ppb	2,005.360 ppb
Concentration per Run 3	99.688 %	81.463 %	9.361 ppb	2,054.979 ppb	2,141.008 ppb	403.482 ppb	1,927.823 ppb
Concentration RSD	1.4 %	9.5 %	0.8 %	6.2 %	8.2 %	3.7 %	4.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,864.473 ppb	88.625 %	94.156 %	96.787 ppb	37.560 ppb	91.555 ppb	186.081 ppb
Concentration per Run 1	1,862.836 ppb	91.293 %	92.218 %	94.933 ppb	36.309 ppb	89.134 ppb	189.465 ppb
Concentration per Run 2	1,908.030 ppb	87.586 %	96.172 %	97.617 ppb	38.260 ppb	89.624 ppb	180.096 ppb
Concentration per Run 3	1,822.554 ppb	86.996 %	94.079 %	97.811 ppb	38.111 ppb	95.907 ppb	188.682 ppb
Concentration RSD	2.3 %	2.6 %	2.1 %	1.7 %	2.9 %	4.1 %	2.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	95.900 ppb	99.052 ppb	48.001 ppb	91.852 ppb	91.056 %	22.539 ppb	23.061 ppb
Concentration per Run 1	93.258 ppb	96.626 ppb	47.271 ppb	89.148 ppb	95.058 %	22.594 ppb	21.839 ppb
Concentration per Run 2	94.616 ppb	100.700 ppb	47.474 ppb	91.280 ppb	91.678 %	22.461 ppb	21.975 ppb
Concentration per Run 3	99.826 ppb	99.829 ppb	49.260 ppb	95.129 ppb	86.433 %	22.562 ppb	25.369 ppb
Concentration RSD	3.6 %	2.2 %	2.3 %	3.3 %	4.8 %	0.3 %	8.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	186.318 ppb	9.843 ppb	9.941 ppb	92.578 %	200.902 ppb	91.685 ppb	369.809 ppb
Concentration per Run 1	176.231 ppb	9.432 ppb	9.561 ppb	98.572 %	196.378 ppb	87.224 ppb	353.884 ppb
Concentration per Run 2	192.989 ppb	10.244 ppb	10.465 ppb	87.679 %	203.612 ppb	95.064 ppb	367.262 ppb
Concentration per Run 3	189.735 ppb	9.852 ppb	9.797 ppb	91.483 %	202.716 ppb	92.766 ppb	388.280 ppb
Concentration RSD	4.8 %	4.1 %	4.7 %	6.0 %	2.0 %	4.4 %	4.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.382 %	22.772 ppb	105.630 ppb	94.023 %
Concentration per Run 1	97.221 %	21.894 ppb	103.021 ppb	97.905 %
Concentration per Run 2	94.446 %	22.946 ppb	106.212 ppb	92.753 %
Concentration per Run 3	91.479 %	23.476 ppb	107.657 ppb	91.411 %
Concentration RSD	3.0 %	3.5 %	2.2 %	3.6 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 53
Analysis label: WG873268-4D10 6020TL
Analysis started at: 3/14/2016 3:13:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 30

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.529 %	89.579 %	4.511 ppb	50,614.621 ppb	4,665.170 ppb	183.994 ppb	4,368.545 ppb
Concentration per Run 1	97.511 %	88.076 %	4.610 ppb	51,141.828 ppb	4,764.841 ppb	188.544 ppb	4,370.913 ppb
Concentration per Run 2	97.187 %	94.990 %	4.437 ppb	48,825.195 ppb	4,505.030 ppb	178.303 ppb	4,256.299 ppb
Concentration per Run 3	97.891 %	85.671 %	4.485 ppb	51,876.839 ppb	4,725.639 ppb	185.136 ppb	4,478.422 ppb
Concentration RSD	0.4 %	5.4 %	2.0 %	3.1 %	3.0 %	2.8 %	2.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	16,348.732 ppb	86.350 %	93.212 %	48.278 ppb	18.299 ppb	131.269 ppb	100.940 ppb
Concentration per Run 1	16,608.977 ppb	85.058 %	94.429 %	49.575 ppb	18.492 ppb	125.051 ppb	96.668 ppb
Concentration per Run 2	15,822.452 ppb	88.428 %	91.313 %	46.184 ppb	16.825 ppb	131.310 ppb	93.938 ppb
Concentration per Run 3	16,614.769 ppb	85.564 %	93.893 %	49.074 ppb	19.580 ppb	137.447 ppb	112.215 ppb
Concentration RSD	2.8 %	2.1 %	1.8 %	3.8 %	7.6 %	4.7 %	9.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	46.665 ppb	47.016 ppb	24.127 ppb	46.417 ppb	91.116 %	11.775 ppb	11.058 ppb
Concentration per Run 1	47.278 ppb	46.185 ppb	22.607 ppb	46.431 ppb	95.400 %	11.026 ppb	10.863 ppb
Concentration per Run 2	44.709 ppb	45.258 ppb	24.147 ppb	45.940 ppb	91.310 %	11.478 ppb	11.309 ppb
Concentration per Run 3	48.007 ppb	49.604 ppb	25.627 ppb	46.881 ppb	86.639 %	12.820 ppb	11.003 ppb
Concentration RSD	3.7 %	4.9 %	6.3 %	1.0 %	4.8 %	7.9 %	2.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	99.425 ppb	4.481 ppb	4.748 ppb	92.193 %	101.449 ppb	47.435 ppb	181.787 ppb
Concentration per Run 1	96.995 ppb	4.499 ppb	5.195 ppb	91.842 %	103.722 ppb	47.021 ppb	184.632 ppb
Concentration per Run 2	97.997 ppb	4.449 ppb	4.525 ppb	94.881 %	98.190 ppb	48.112 ppb	177.277 ppb
Concentration per Run 3	103.284 ppb	4.494 ppb	4.525 ppb	89.855 %	102.434 ppb	47.173 ppb	183.451 ppb
Concentration RSD	3.4 %	0.6 %	8.1 %	2.7 %	2.9 %	1.2 %	2.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.106 %	11.607 ppb	53.076 ppb	88.251 %
Concentration per Run 1	91.136 %	11.475 ppb	53.963 ppb	89.563 %
Concentration per Run 2	90.783 %	11.697 ppb	53.325 ppb	87.395 %
Concentration per Run 3	91.400 %	11.651 ppb	51.940 ppb	87.794 %
Concentration RSD	0.3 %	1.0 %	1.9 %	1.3 %

Analysis index: 54 Analysis started at: 3/14/2016 3:16:39 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.769 %	93.787 %	102.959 ppb	9,726.815 ppb	10,068.832 ppb	102.319 ppb	10,193.173 ppb
Concentration per Run 1	96.516 %	93.186 %	102.445 ppb	9,686.989 ppb	9,961.641 ppb	102.669 ppb	10,158.153 ppb
Concentration per Run 2	94.967 %	96.793 %	103.849 ppb	9,455.642 ppb	9,853.200 ppb	97.208 ppb	10,093.270 ppb
Concentration per Run 3	95.825 %	91.383 %	102.582 ppb	10,037.812 ppb	10,391.656 ppb	107.079 ppb	10,328.097 ppb
Recovery Percentage 1			102.959 %	97.268 %	100.688 %	102.319 %	101.932 %
Concentration RSD	0.8 %	2.9 %	0.8 %	3.0 %	2.8 %	4.8 %	1.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,875.275 ppb	88.232 %	90.936 %	104.449 ppb	105.883 ppb	100.578 ppb	10,189.489 ppb
Concentration per Run 1	9,505.055 ppb	92.641 %	92.513 %	99.521 ppb	101.270 ppb	96.686 ppb	9,992.794 ppb
Concentration per Run 2	9,898.322 ppb	88.849 %	89.705 %	103.306 ppb	104.578 ppb	102.535 ppb	10,040.069 ppb
Concentration per Run 3	10,222.447 ppb	83.205 %	90.591 %	110.520 ppb	111.801 ppb	102.512 ppb	10,535.603 ppb
Recovery Percentage 1	98.753 %			104.449 %	105.883 %	100.578 %	101.895 %
Concentration RSD	3.6 %	5.4 %	1.6 %	5.3 %	5.1 %	3.4 %	3.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	104.861 ppb	104.850 ppb	105.827 ppb	101.858 ppb	89.973 %	99.152 ppb	104.196 ppb
Concentration per Run 1	100.285 ppb	101.625 ppb	101.335 ppb	95.580 ppb	94.951 %	95.307 ppb	101.146 ppb
Concentration per Run 2	106.358 ppb	104.199 ppb	109.022 ppb	102.714 ppb	89.164 %	101.383 ppb	105.903 ppb
Concentration per Run 3	107.941 ppb	108.726 ppb	107.124 ppb	107.279 ppb	85.804 %	100.765 ppb	105.540 ppb
Recovery Percentage 1	104.861 %	104.850 %	105.827 %	101.858 %		99.152 %	104.196 %
Concentration RSD	3.9 %	3.4 %	3.8 %	5.8 %	5.1 %	3.4 %	2.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	102.051 ppb	109.054 ppb	105.711 ppb	91.122 %	106.065 ppb	101.225 ppb	104.363 ppb
Concentration per Run 1	99.840 ppb	107.643 ppb	104.222 ppb	93.941 %	104.526 ppb	98.932 ppb	104.258 ppb
Concentration per Run 2	101.084 ppb	108.156 ppb	105.222 ppb	92.252 %	103.948 ppb	102.173 ppb	104.905 ppb
Concentration per Run 3	105.229 ppb	111.364 ppb	107.688 ppb	87.173 %	109.722 ppb	102.569 ppb	103.927 ppb
Recovery Percentage 1	102.051 %	109.054 %	105.711 %		106.065 %	101.225 %	104.363 %
Concentration RSD	2.8 %	1.8 %	1.7 %	3.9 %	3.0 %	2.0 %	0.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.912 %	102.733 ppb	107.450 ppb	88.878 %
Concentration per Run 1	93.346 %	100.986 ppb	105.677 ppb	92.243 %
Concentration per Run 2	89.577 %	105.382 ppb	107.703 ppb	87.312 %
Concentration per Run 3	89.812 %	101.832 ppb	108.970 ppb	87.078 %
Recovery Percentage 1		102.733 %	107.450 %	
Concentration RSD	2.3 %	2.3 %	1.5 %	3.3 %

Analysis index: 55 Analysis started at: 3/14/2016 3:19:46 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.492 %	93.988 %	0.012 ppb	5.462 ppb	0.552 ppb	-0.757 ppb	0.192 ppb
Concentration per Run 1	95.095 %	94.990 %	0.009 ppb	7.116 ppb	0.558 ppb	-0.980 ppb	-4.614 ppb
Concentration per Run 2	97.490 %	89.880 %	0.019 ppb	4.902 ppb	-0.752 ppb	-0.651 ppb	-1.216 ppb
Concentration per Run 3	96.890 %	97.094 %	0.007 ppb	4.367 ppb	1.851 ppb	-0.639 ppb	6.407 ppb
Recovery Percentage 1			2.354 %	5.462 %	0.789 %	-7.567 %	0.192 %
Concentration RSD	1.3 %	3.9 %	50.4 %	26.7 %	235.7 %	25.6 %	2,934.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10.874 ppb	89.074 %	91.325 %	0.046 ppb	0.032 ppb	0.686 ppb	1.772 ppb
Concentration per Run 1	18.254 ppb	87.417 %	91.036 %	0.081 ppb	-0.021 ppb	0.592 ppb	3.658 ppb
Concentration per Run 2	-1.242 ppb	93.989 %	91.869 %	0.000 ppb	0.080 ppb	0.815 ppb	2.013 ppb
Concentration per Run 3	15.611 ppb	85.817 %	91.069 %	0.056 ppb	0.036 ppb	0.650 ppb	-0.356 ppb
Recovery Percentage 1	10.874 %			0.915 %	3.169 %	68.576 %	3.543 %
Concentration RSD	97.3 %	4.9 %	0.5 %	91.0 %	159.5 %	16.9 %	113.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.025 ppb	-0.046 ppb	0.017 ppb	0.077 ppb	87.605 %	0.018 ppb	0.102 ppb
Concentration per Run 1	0.028 ppb	-0.133 ppb	-0.020 ppb	0.161 ppb	92.013 %	0.016 ppb	-0.157 ppb
Concentration per Run 2	0.028 ppb	0.090 ppb	0.008 ppb	-0.120 ppb	84.538 %	0.064 ppb	0.385 ppb
Concentration per Run 3	0.019 ppb	-0.094 ppb	0.063 ppb	0.190 ppb	86.263 %	-0.025 ppb	0.079 ppb
Recovery Percentage 1	4.977 %	-9.173 %	1.713 %	0.770 %	87.605 %	3.664 %	2.045 %
Concentration RSD	20.2 %	259.4 %	248.0 %	222.6 %	4.5 %	244.6 %	265.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.582 ppb	0.024 ppb	-0.008 ppb	88.889 %	0.123 ppb	0.095 ppb	0.038 ppb
Concentration per Run 1	0.395 ppb	0.026 ppb	-0.012 ppb	88.262 %	0.125 ppb	0.136 ppb	0.005 ppb
Concentration per Run 2	0.634 ppb	0.026 ppb	-0.012 ppb	88.274 %	0.061 ppb	0.076 ppb	0.006 ppb
Concentration per Run 3	0.719 ppb	0.020 ppb	0.001 ppb	90.132 %	0.183 ppb	0.074 ppb	0.102 ppb
Recovery Percentage 1	19.414 %	6.029 %	-3.754 %		4.106 %	4.772 %	7.507 %
Concentration RSD	28.9 %	13.4 %	102.8 %	1.2 %	49.8 %	36.8 %	147.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.179 %	0.021 ppb	0.011 ppb	90.167 %
Concentration per Run 1	89.742 %	0.024 ppb	0.015 ppb	90.150 %
Concentration per Run 2	89.170 %	0.023 ppb	0.009 ppb	90.263 %
Concentration per Run 3	91.626 %	0.015 ppb	0.008 ppb	90.088 %
Recovery Percentage 1		4.114 %	2.180 %	90.167 %
Concentration RSD	1.4 %	25.0 %	36.3 %	0.1 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 56
Analysis label: WG873268-5D10 6020TL
Analysis started at: 3/14/2016 3:47:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 31

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.685 %	93.387 %	50.216 ppb	54,441.822 ppb	8,675.475 ppb	54.561 ppb	7,895.397 ppb
Concentration per Run 1	102.293 %	91.082 %	50.259 ppb	53,462.256 ppb	8,151.874 ppb	53.919 ppb	7,484.871 ppb
Concentration per Run 2	104.049 %	94.689 %	50.208 ppb	54,783.800 ppb	8,782.091 ppb	51.721 ppb	7,990.545 ppb
Concentration per Run 3	101.713 %	94.389 %	50.181 ppb	55,079.411 ppb	9,092.461 ppb	58.044 ppb	8,210.776 ppb
Concentration RSD	1.2 %	2.1 %	0.1 %	1.6 %	5.5 %	5.9 %	4.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	19,150.692 ppb	91.124 %	98.969 %	48.991 ppb	48.824 ppb	131.891 ppb	4,933.724 ppb
Concentration per Run 1	18,235.294 ppb	97.612 %	98.376 %	48.132 ppb	44.846 ppb	125.650 ppb	4,659.810 ppb
Concentration per Run 2	19,601.843 ppb	88.765 %	99.533 %	49.105 ppb	48.623 ppb	134.404 ppb	5,017.436 ppb
Concentration per Run 3	19,614.939 ppb	86.996 %	99.000 %	49.736 ppb	53.004 ppb	135.620 ppb	5,123.926 ppb
Concentration RSD	4.1 %	6.2 %	0.6 %	1.6 %	8.4 %	4.1 %	4.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	50.199 ppb	51.305 ppb	52.522 ppb	51.125 ppb	89.506 %	49.602 ppb	45.483 ppb
Concentration per Run 1	47.109 ppb	50.375 ppb	48.397 ppb	49.072 ppb	94.133 %	47.784 ppb	43.101 ppb
Concentration per Run 2	50.934 ppb	48.905 ppb	54.348 ppb	52.291 ppb	86.154 %	50.328 ppb	48.705 ppb
Concentration per Run 3	52.553 ppb	54.635 ppb	54.822 ppb	52.013 ppb	88.232 %	50.694 ppb	44.643 ppb
Concentration RSD	5.6 %	5.8 %	6.8 %	3.5 %	4.6 %	3.2 %	6.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	52.300 ppb	44.323 ppb	50.044 ppb	88.869 %	48.559 ppb	49.283 ppb	50.979 ppb
Concentration per Run 1	51.778 ppb	42.754 ppb	47.663 ppb	95.071 %	47.101 ppb	46.109 ppb	48.849 ppb
Concentration per Run 2	53.640 ppb	44.589 ppb	50.711 ppb	87.997 %	48.770 ppb	49.135 ppb	50.415 ppb
Concentration per Run 3	51.483 ppb	45.627 ppb	51.757 ppb	83.539 %	49.804 ppb	52.605 ppb	53.674 ppb
Concentration RSD	2.2 %	3.3 %	4.3 %	6.5 %	2.8 %	6.6 %	4.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.876 %	50.177 ppb	49.886 ppb	83.616 %
Concentration per Run 1	92.119 %	48.589 ppb	48.265 ppb	87.718 %
Concentration per Run 2	88.654 %	51.519 ppb	49.973 ppb	81.084 %
Concentration per Run 3	85.854 %	50.422 ppb	51.419 ppb	82.046 %
Concentration RSD	3.5 %	2.9 %	3.2 %	4.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 57
Analysis label: WG873268-6D5 6020TL
Analysis started at: 3/14/2016 3:50:43 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 32

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.514 %	93.487 %	0.004 ppb	98,006.644 ppb	7,293.218 ppb	6.366 ppb	6,449.659 ppb
Concentration per Run 1	100.648 %	95.892 %	0.004 ppb	96,283.763 ppb	6,991.522 ppb	6.267 ppb	6,459.332 ppb
Concentration per Run 2	99.885 %	98.297 %	0.001 ppb	96,311.682 ppb	7,361.319 ppb	6.639 ppb	6,682.129 ppb
Concentration per Run 3	101.010 %	86.272 %	0.007 ppb	101,424.486 ppb	7,526.815 ppb	6.191 ppb	6,207.515 ppb
Concentration RSD	0.6 %	6.8 %	64.4 %	3.0 %	3.8 %	3.8 %	3.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	29,181.684 ppb	90.142 %	97.137 %	0.844 ppb	0.287 ppb	167.756 ppb	14.697 ppb
Concentration per Run 1	28,436.406 ppb	92.641 %	96.490 %	1.016 ppb	0.302 ppb	158.978 ppb	12.242 ppb
Concentration per Run 2	30,501.653 ppb	86.238 %	95.533 %	0.800 ppb	0.269 ppb	181.375 ppb	14.471 ppb
Concentration per Run 3	28,606.994 ppb	91.546 %	99.388 %	0.715 ppb	0.291 ppb	162.914 ppb	17.378 ppb
Concentration RSD	3.9 %	3.8 %	2.1 %	18.4 %	5.9 %	7.1 %	17.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.340 ppb	1.208 ppb	0.878 ppb	4.149 ppb	88.584 %	0.558 ppb	0.147 ppb
Concentration per Run 1	0.290 ppb	1.500 ppb	1.125 ppb	4.258 ppb	89.649 %	0.629 ppb	0.529 ppb
Concentration per Run 2	0.352 ppb	0.844 ppb	0.885 ppb	4.197 ppb	89.585 %	0.589 ppb	0.081 ppb
Concentration per Run 3	0.377 ppb	1.279 ppb	0.623 ppb	3.992 ppb	86.518 %	0.456 ppb	-0.168 ppb
Concentration RSD	13.2 %	27.6 %	28.6 %	3.4 %	2.0 %	16.3 %	239.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	6.681 ppb	0.018 ppb	0.001 ppb	89.437 %	0.018 ppb	0.286 ppb	1.767 ppb
Concentration per Run 1	6.527 ppb	0.040 ppb	0.028 ppb	91.587 %	-0.071 ppb	0.305 ppb	1.813 ppb
Concentration per Run 2	6.774 ppb	0.001 ppb	-0.012 ppb	86.230 %	0.088 ppb	0.202 ppb	1.601 ppb
Concentration per Run 3	6.741 ppb	0.015 ppb	-0.012 ppb	90.495 %	0.036 ppb	0.350 ppb	1.886 ppb
Concentration RSD	2.0 %	106.9 %	1,817.1 %	3.2 %	458.4 %	26.7 %	8.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.157 %	-0.014 ppb	0.044 ppb	80.460 %
Concentration per Run 1	89.245 %	-0.011 ppb	0.059 ppb	83.637 %
Concentration per Run 2	85.691 %	-0.012 ppb	0.031 ppb	77.704 %
Concentration per Run 3	83.534 %	-0.019 ppb	0.042 ppb	80.038 %
Concentration RSD	3.3 %	31.1 %	31.6 %	3.7 %

Alpha ICPMSQ Full

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Analysis index: 58 Analysis started at: 3/14/2016 3:53:47 PM Rack: 1
Analysis label: L1606912-01 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 33

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	108.498 %	90.781 %	0.021 ppb	529,982.009 ppb	51,872.063 ppb	489.415 ppb	46,939.818 ppb
Concentration per Run 1	109.323 %	91.383 %	0.020 ppb	544,742.119 ppb	52,683.107 ppb	492.223 ppb	49,130.247 ppb
Concentration per Run 2	107.728 %	91.383 %	0.020 ppb	512,160.144 ppb	50,563.131 ppb	483.844 ppb	45,459.275 ppb
Concentration per Run 3	108.444 %	89.579 %	0.022 ppb	533,043.765 ppb	52,369.950 ppb	492.179 ppb	46,229.933 ppb
Concentration RSD	0.7 %	1.1 %	5.5 %	3.1 %	2.2 %	1.0 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	518,073.436 ppb	82.194 %	96.330 %	12.438 ppb	4.444 ppb	501.097 ppb	841.122 ppb
Concentration per Run 1	532,451.055 ppb	77.813 %	98.670 %	12.344 ppb	4.614 ppb	516.477 ppb	864.529 ppb
Concentration per Run 2	488,411.791 ppb	86.996 %	93.089 %	12.184 ppb	3.898 ppb	480.107 ppb	790.210 ppb
Concentration per Run 3	533,357.462 ppb	81.772 %	97.231 %	12.787 ppb	4.819 ppb	506.708 ppb	868.627 ppb
Concentration RSD	5.0 %	5.6 %	3.0 %	2.5 %	10.9 %	3.8 %	5.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.883 ppb	11.181 ppb	2.580 ppb	5.786 ppb	80.416 %	9.740 ppb	0.383 ppb
Concentration per Run 1	0.848 ppb	11.092 ppb	2.360 ppb	5.808 ppb	85.681 %	8.806 ppb	0.267 ppb
Concentration per Run 2	0.932 ppb	10.993 ppb	2.501 ppb	5.900 ppb	80.243 %	9.979 ppb	0.806 ppb
Concentration per Run 3	0.869 ppb	11.459 ppb	2.879 ppb	5.651 ppb	75.324 %	10.436 ppb	0.076 ppb
Concentration RSD	5.0 %	2.2 %	10.4 %	2.2 %	6.4 %	8.6 %	98.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	51.094 ppb	0.013 ppb	-0.008 ppb	82.441 %	0.323 ppb	2.899 ppb	158.538 ppb
Concentration per Run 1	50.930 ppb	0.001 ppb	0.012 ppb	82.095 %	0.378 ppb	2.792 ppb	159.259 ppb
Concentration per Run 2	51.857 ppb	0.024 ppb	-0.010 ppb	82.049 %	0.310 ppb	3.120 ppb	160.115 ppb
Concentration per Run 3	50.495 ppb	0.013 ppb	-0.025 ppb	83.178 %	0.281 ppb	2.784 ppb	156.239 ppb
Concentration RSD	1.4 %	89.2 %	236.3 %	0.8 %	15.3 %	6.6 %	1.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	77.750 %	-0.015 ppb	10.847 ppb	68.222 %
Concentration per Run 1	81.119 %	-0.021 ppb	10.452 ppb	68.863 %
Concentration per Run 2	76.198 %	-0.014 ppb	10.864 ppb	67.683 %
Concentration per Run 3	75.931 %	-0.009 ppb	11.225 ppb	68.121 %
Concentration RSD	3.8 %	43.4 %	3.6 %	0.9 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 59 Analysis started at: 3/14/2016 3:56:52 PM Rack: 1
Analysis label: L1607151-01 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 34

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.270 %	90.381 %	0.033 ppb	522,999.499 ppb	36,834.886 ppb	350.774 ppb	34,617.879 ppb
Concentration per Run 1	105.858 %	91.383 %	0.029 ppb	523,389.716 ppb	36,860.605 ppb	345.382 ppb	34,285.012 ppb
Concentration per Run 2	103.301 %	87.475 %	0.035 ppb	538,614.598 ppb	37,678.765 ppb	369.155 ppb	34,624.178 ppb
Concentration per Run 3	103.652 %	92.284 %	0.034 ppb	506,994.183 ppb	35,965.287 ppb	337.783 ppb	34,944.447 ppb
Concentration RSD	1.3 %	2.8 %	10.0 %	3.0 %	2.3 %	4.7 %	1.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	157,660.666 ppb	83.823 %	94.407 %	2.781 ppb	2.452 ppb	599.030 ppb	6,151.951 ppb
Concentration per Run 1	152,810.732 ppb	88.344 %	95.582 %	2.248 ppb	2.409 ppb	550.082 ppb	5,661.036 ppb
Concentration per Run 2	162,188.721 ppb	80.931 %	94.227 %	2.850 ppb	2.396 ppb	628.484 ppb	6,275.575 ppb
Concentration per Run 3	157,982.544 ppb	82.194 %	93.412 %	3.245 ppb	2.550 ppb	618.524 ppb	6,519.242 ppb
Concentration RSD	3.0 %	4.7 %	1.2 %	18.1 %	3.5 %	7.1 %	7.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.771 ppb	8.360 ppb	8.929 ppb	26.260 ppb	83.474 %	8.989 ppb	1.136 ppb
Concentration per Run 1	1.670 ppb	8.100 ppb	8.278 ppb	25.308 ppb	89.138 %	8.194 ppb	0.732 ppb
Concentration per Run 2	1.842 ppb	8.456 ppb	8.847 ppb	26.715 ppb	80.003 %	9.036 ppb	1.844 ppb
Concentration per Run 3	1.802 ppb	8.525 ppb	9.662 ppb	26.758 ppb	81.280 %	9.736 ppb	0.832 ppb
Concentration RSD	5.1 %	2.7 %	7.8 %	3.1 %	5.9 %	8.6 %	54.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	34.008 ppb	0.021 ppb	0.044 ppb	82.518 %	0.343 ppb	0.749 ppb	111.605 ppb
Concentration per Run 1	34.269 ppb	0.034 ppb	0.034 ppb	82.191 %	0.351 ppb	0.741 ppb	110.046 ppb
Concentration per Run 2	34.896 ppb	0.018 ppb	0.049 ppb	82.720 %	0.488 ppb	0.784 ppb	112.620 ppb
Concentration per Run 3	32.859 ppb	0.012 ppb	0.049 ppb	82.644 %	0.189 ppb	0.722 ppb	112.150 ppb
Concentration RSD	3.1 %	51.7 %	19.9 %	0.3 %	43.6 %	4.2 %	1.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.004 %	-0.026 ppb	9.048 ppb	72.069 %
Concentration per Run 1	87.450 %	-0.030 ppb	8.820 ppb	73.963 %
Concentration per Run 2	84.300 %	-0.028 ppb	9.146 ppb	71.279 %
Concentration per Run 3	83.262 %	-0.018 ppb	9.178 ppb	70.965 %
Concentration RSD	2.6 %	25.2 %	2.2 %	2.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 60 Analysis started at: 3/14/2016 4:06:10 PM Rack: 1
Analysis label: WG873562-1 6020SL User name: ALPHALAB\a1metalsinstrument Vial: 35

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.191 %	100.301 %	-0.006 ppb	7.337 ppb	-0.351 ppb	-0.056 ppb	0.209 ppb
Concentration per Run 1	112.387 %	99.800 %	-0.006 ppb	5.712 ppb	1.126 ppb	0.161 ppb	-0.442 ppb
Concentration per Run 2	110.686 %	99.499 %	-0.002 ppb	7.918 ppb	-1.403 ppb	-0.651 ppb	10.319 ppb
Concentration per Run 3	116.500 %	101.603 %	-0.011 ppb	8.379 ppb	-0.774 ppb	0.322 ppb	-9.249 ppb
Concentration RSD	2.6 %	1.1 %	68.0 %	19.4 %	375.4 %	932.9 %	4,683.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3.079 ppb	87.249 %	94.937 %	0.027 ppb	0.783 ppb	-0.326 ppb	1.282 ppb
Concentration per Run 1	-6.417 ppb	88.513 %	93.553 %	0.027 ppb	0.853 ppb	-0.343 ppb	0.397 ppb
Concentration per Run 2	8.498 ppb	85.816 %	93.013 %	0.055 ppb	0.626 ppb	-0.364 ppb	0.434 ppb
Concentration per Run 3	7.157 ppb	87.417 %	98.247 %	0.000 ppb	0.870 ppb	-0.270 ppb	3.016 ppb
Concentration RSD	268.0 %	1.6 %	3.0 %	100.9 %	17.4 %	15.1 %	117.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.012 ppb	3.871 ppb	0.273 ppb	-0.938 ppb	90.011 %	-0.003 ppb	-0.079 ppb
Concentration per Run 1	-0.012 ppb	3.235 ppb	0.286 ppb	-0.883 ppb	93.866 %	-0.025 ppb	0.074 ppb
Concentration per Run 2	-0.012 ppb	3.862 ppb	0.188 ppb	-1.065 ppb	92.716 %	-0.025 ppb	-0.170 ppb
Concentration per Run 3	-0.012 ppb	4.514 ppb	0.344 ppb	-0.866 ppb	83.452 %	0.043 ppb	-0.142 ppb
Concentration RSD	0.0 %	16.5 %	28.8 %	11.8 %	6.3 %	1,525.6 %	167.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.765 ppb	-0.005 ppb	-0.021 ppb	87.269 %	-0.047 ppb	0.017 ppb	-0.011 ppb
Concentration per Run 1	0.554 ppb	-0.005 ppb	-0.013 ppb	91.037 %	-0.029 ppb	-0.004 ppb	0.004 ppb
Concentration per Run 2	0.948 ppb	0.001 ppb	-0.026 ppb	85.373 %	-0.089 ppb	0.018 ppb	-0.044 ppb
Concentration per Run 3	0.793 ppb	-0.010 ppb	-0.026 ppb	85.397 %	-0.022 ppb	0.038 ppb	0.007 ppb
Concentration RSD	26.0 %	107.6 %	35.2 %	3.7 %	78.9 %	122.4 %	253.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.152 %	-0.022 ppb	0.008 ppb	90.845 %
Concentration per Run 1	92.853 %	-0.026 ppb	0.017 ppb	93.959 %
Concentration per Run 2	89.183 %	-0.020 ppb	-0.002 ppb	90.643 %
Concentration per Run 3	88.421 %	-0.020 ppb	0.008 ppb	87.934 %
Concentration RSD	2.6 %	15.5 %	117.3 %	3.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 61
Analysis label: WG873562-2D5 6020SL
Analysis started at: 3/14/2016 4:09:16 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 36

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.855 %	96.192 %	9.369 ppb	2,008.495 ppb	2,051.605 ppb	404.308 ppb	1,959.153 ppb
Concentration per Run 1	111.731 %	94.088 %	9.237 ppb	2,014.074 ppb	2,073.094 ppb	424.404 ppb	2,053.374 ppb
Concentration per Run 2	109.668 %	97.695 %	9.536 ppb	2,025.729 ppb	2,003.542 ppb	380.692 ppb	1,906.870 ppb
Concentration per Run 3	111.165 %	96.793 %	9.334 ppb	1,985.683 ppb	2,078.178 ppb	407.826 ppb	1,917.216 ppb
Concentration RSD	1.0 %	2.0 %	1.6 %	1.0 %	2.0 %	5.5 %	4.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,987.389 ppb	91.153 %	93.343 %	98.778 ppb	37.669 ppb	97.990 ppb	200.101 ppb
Concentration per Run 1	2,111.471 ppb	91.125 %	95.709 %	96.762 ppb	35.973 ppb	97.445 ppb	187.527 ppb
Concentration per Run 2	2,015.404 ppb	89.608 %	90.840 %	105.230 ppb	39.775 ppb	101.954 ppb	219.617 ppb
Concentration per Run 3	1,835.291 ppb	92.726 %	93.479 %	94.342 ppb	37.258 ppb	94.572 ppb	193.159 ppb
Concentration RSD	7.1 %	1.7 %	2.6 %	5.8 %	5.1 %	3.8 %	8.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	97.497 ppb	102.974 ppb	51.928 ppb	99.398 ppb	88.846 %	23.560 ppb	22.352 ppb
Concentration per Run 1	95.159 ppb	101.704 ppb	51.914 ppb	97.215 ppb	93.900 %	21.882 ppb	23.222 ppb
Concentration per Run 2	102.565 ppb	104.598 ppb	51.902 ppb	101.876 ppb	86.575 %	24.675 ppb	23.382 ppb
Concentration per Run 3	94.768 ppb	102.622 ppb	51.968 ppb	99.102 ppb	86.064 %	24.124 ppb	20.453 ppb
Concentration RSD	4.5 %	1.4 %	0.1 %	2.4 %	4.9 %	6.3 %	7.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	197.956 ppb	9.668 ppb	11.123 ppb	87.868 %	209.497 ppb	95.665 ppb	398.451 ppb
Concentration per Run 1	198.757 ppb	9.562 ppb	11.971 ppb	87.302 %	215.926 ppb	100.423 ppb	413.752 ppb
Concentration per Run 2	201.187 ppb	9.659 ppb	10.943 ppb	87.337 %	208.940 ppb	96.160 ppb	408.343 ppb
Concentration per Run 3	193.923 ppb	9.783 ppb	10.455 ppb	88.966 %	203.625 ppb	90.411 ppb	373.258 ppb
Concentration RSD	1.9 %	1.1 %	7.0 %	1.1 %	2.9 %	5.3 %	5.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.872 %	25.323 ppb	110.588 ppb	87.462 %
Concentration per Run 1	91.346 %	25.644 ppb	112.878 ppb	86.634 %
Concentration per Run 2	91.369 %	25.739 ppb	109.405 ppb	87.404 %
Concentration per Run 3	89.900 %	24.586 ppb	109.482 ppb	88.348 %
Concentration RSD	0.9 %	2.5 %	1.8 %	1.0 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 62
Analysis label: L1606583-02D20 6020SL
Analysis started at: 3/14/2016 4:12:21 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 37

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.571 %	101.503 %	-0.007 ppb	3,530.782 ppb	768.707 ppb	-0.242 ppb	827.167 ppb
Concentration per Run 1	113.172 %	93.186 %	-0.007 ppb	3,754.005 ppb	812.521 ppb	-0.796 ppb	774.588 ppb
Concentration per Run 2	113.938 %	108.217 %	-0.009 ppb	3,394.829 ppb	736.109 ppb	0.740 ppb	884.325 ppb
Concentration per Run 3	113.603 %	103.106 %	-0.005 ppb	3,443.511 ppb	757.490 ppb	-0.669 ppb	822.586 ppb
Concentration RSD	0.3 %	7.5 %	26.5 %	5.5 %	5.1 %	352.6 %	6.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,012.744 ppb	86.547 %	97.006 %	0.018 ppb	0.065 ppb	33.151 ppb	209.823 ppb
Concentration per Run 1	7,213.557 ppb	86.406 %	95.373 %	0.028 ppb	0.125 ppb	34.749 ppb	207.323 ppb
Concentration per Run 2	6,848.683 ppb	87.501 %	96.372 %	0.027 ppb	0.034 ppb	32.599 ppb	194.123 ppb
Concentration per Run 3	6,975.993 ppb	85.732 %	99.273 %	0.000 ppb	0.035 ppb	32.106 ppb	228.022 ppb
Concentration RSD	2.6 %	1.0 %	2.1 %	86.6 %	80.6 %	4.2 %	8.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.026 ppb	0.132 ppb	0.223 ppb	-0.265 ppb	87.946 %	0.162 ppb	0.064 ppb
Concentration per Run 1	0.029 ppb	0.094 ppb	0.222 ppb	-0.497 ppb	88.627 %	0.103 ppb	-0.180 ppb
Concentration per Run 2	0.008 ppb	0.282 ppb	0.303 ppb	0.001 ppb	87.924 %	0.147 ppb	0.028 ppb
Concentration per Run 3	0.039 ppb	0.020 ppb	0.144 ppb	-0.300 ppb	87.285 %	0.235 ppb	0.343 ppb
Concentration RSD	61.9 %	102.4 %	35.6 %	94.6 %	0.8 %	41.6 %	414.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.840 ppb	0.000 ppb	-0.019 ppb	89.478 %	0.038 ppb	0.843 ppb	3.579 ppb
Concentration per Run 1	0.725 ppb	0.000 ppb	-0.026 ppb	91.166 %	0.013 ppb	0.906 ppb	3.718 ppb
Concentration per Run 2	0.880 ppb	-0.010 ppb	-0.019 ppb	87.979 %	0.148 ppb	0.878 ppb	3.828 ppb
Concentration per Run 3	0.916 ppb	0.010 ppb	-0.012 ppb	89.289 %	-0.048 ppb	0.744 ppb	3.192 ppb
Concentration RSD	12.1 %	9,964.8 %	36.6 %	1.8 %	266.0 %	10.3 %	9.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.507 %	-0.012 ppb	0.012 ppb	88.005 %
Concentration per Run 1	89.739 %	-0.017 ppb	0.011 ppb	88.271 %
Concentration per Run 2	87.818 %	-0.006 ppb	0.023 ppb	86.955 %
Concentration per Run 3	90.963 %	-0.012 ppb	0.001 ppb	88.789 %
Concentration RSD	1.8 %	49.0 %	94.9 %	1.1 %

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Analysis index: 63
Analysis label: L1606583-02 6020SL
Analysis started at: 3/14/2016 4:15:24 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 38

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	117.846 %	101.603 %	-0.002 ppb	72,238.566 ppb	15,195.631 ppb	5.721 ppb	15,771.580 ppb
Concentration per Run 1	116.293 %	107.916 %	-0.003 ppb	67,645.345 ppb	14,574.317 ppb	5.498 ppb	15,727.504 ppb
Concentration per Run 2	119.157 %	89.278 %	-0.002 ppb	77,695.868 ppb	16,164.857 ppb	6.380 ppb	15,894.690 ppb
Concentration per Run 3	118.087 %	107.615 %	-0.001 ppb	71,374.484 ppb	14,847.721 ppb	5.286 ppb	15,692.547 ppb
Concentration RSD	1.2 %	10.5 %	65.3 %	7.0 %	5.6 %	10.1 %	0.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	141,573.484 ppb	88.063 %	97.753 %	0.502 ppb	0.914 ppb	657.374 ppb	4,163.277 ppb
Concentration per Run 1	143,783.944 ppb	89.018 %	98.687 %	0.402 ppb	0.821 ppb	627.370 ppb	4,184.019 ppb
Concentration per Run 2	140,748.782 ppb	88.681 %	97.585 %	0.574 ppb	0.912 ppb	669.823 ppb	4,137.697 ppb
Concentration per Run 3	140,187.724 ppb	86.491 %	96.986 %	0.532 ppb	1.009 ppb	674.930 ppb	4,168.115 ppb
Concentration RSD	1.4 %	1.6 %	0.9 %	17.8 %	10.3 %	4.0 %	0.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.472 ppb	3.790 ppb	0.353 ppb	19.498 ppb	85.920 %	3.459 ppb	0.335 ppb
Concentration per Run 1	0.413 ppb	3.429 ppb	0.371 ppb	17.779 ppb	90.991 %	3.476 ppb	0.092 ppb
Concentration per Run 2	0.491 ppb	3.849 ppb	0.367 ppb	20.021 ppb	84.155 %	3.419 ppb	0.796 ppb
Concentration per Run 3	0.513 ppb	4.093 ppb	0.319 ppb	20.694 ppb	82.614 %	3.482 ppb	0.116 ppb
Concentration RSD	11.2 %	8.9 %	8.2 %	7.8 %	5.2 %	1.0 %	119.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.009 ppb	-0.006 ppb	-0.013 ppb	84.903 %	0.053 ppb	0.502 ppb	77.597 ppb
Concentration per Run 1	3.967 ppb	-0.005 ppb	-0.019 ppb	86.997 %	0.107 ppb	0.401 ppb	76.222 ppb
Concentration per Run 2	4.358 ppb	-0.010 ppb	-0.018 ppb	84.185 %	-0.020 ppb	0.623 ppb	77.636 ppb
Concentration per Run 3	3.702 ppb	-0.004 ppb	-0.003 ppb	83.527 %	0.072 ppb	0.481 ppb	78.932 ppb
Concentration RSD	8.2 %	48.4 %	64.9 %	2.2 %	124.7 %	22.4 %	1.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.688 %	-0.026 ppb	0.097 ppb	79.550 %
Concentration per Run 1	87.656 %	-0.031 ppb	0.103 ppb	80.200 %
Concentration per Run 2	86.493 %	-0.020 ppb	0.093 ppb	79.455 %
Concentration per Run 3	85.917 %	-0.028 ppb	0.094 ppb	78.997 %
Concentration RSD	1.0 %	21.1 %	5.3 %	0.8 %

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Analysis index: 64 Analysis started at: 3/14/2016 4:18:27 PM Rack: 1
Analysis label: WG873562-3 6020SL User name: ALPHALAB\a1metalsinstrument Vial: 39

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	124.604 %	101.703 %	0.002 ppb	72,357.605 ppb	15,618.454 ppb	3.076 ppb	15,493.797 ppb
Concentration per Run 1	122.290 %	91.683 %	-0.001 ppb	75,466.649 ppb	16,469.348 ppb	3.257 ppb	14,838.798 ppb
Concentration per Run 2	125.668 %	107.916 %	0.001 ppb	71,745.791 ppb	15,535.431 ppb	1.257 ppb	16,402.577 ppb
Concentration per Run 3	125.854 %	105.511 %	0.006 ppb	69,860.376 ppb	14,850.583 ppb	4.714 ppb	15,240.016 ppb
Concentration RSD	1.6 %	8.6 %	176.4 %	3.9 %	5.2 %	56.4 %	5.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	140,665.910 ppb	92.753 %	98.522 %	0.509 ppb	0.975 ppb	657.602 ppb	4,203.907 ppb
Concentration per Run 1	136,956.502 ppb	97.528 %	98.198 %	0.475 ppb	0.912 ppb	635.763 ppb	4,058.322 ppb
Concentration per Run 2	146,974.825 ppb	85.479 %	98.428 %	0.566 ppb	1.299 ppb	700.548 ppb	4,607.080 ppb
Concentration per Run 3	138,066.404 ppb	95.253 %	98.939 %	0.485 ppb	0.713 ppb	636.496 ppb	3,946.318 ppb
Concentration RSD	3.9 %	6.9 %	0.4 %	9.8 %	30.6 %	5.7 %	8.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.536 ppb	3.517 ppb	0.366 ppb	33.529 ppb	86.687 %	3.473 ppb	-0.016 ppb
Concentration per Run 1	0.548 ppb	2.775 ppb	0.442 ppb	32.662 ppb	89.194 %	3.207 ppb	0.040 ppb
Concentration per Run 2	0.656 ppb	4.138 ppb	0.210 ppb	34.686 ppb	81.855 %	3.677 ppb	-0.144 ppb
Concentration per Run 3	0.402 ppb	3.639 ppb	0.446 ppb	33.240 ppb	89.011 %	3.536 ppb	0.055 ppb
Concentration RSD	23.8 %	19.6 %	37.0 %	3.1 %	4.8 %	7.0 %	683.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.157 ppb	-0.001 ppb	-0.028 ppb	83.078 %	0.035 ppb	0.272 ppb	75.566 ppb
Concentration per Run 1	3.808 ppb	-0.005 ppb	-0.026 ppb	85.223 %	-0.022 ppb	0.224 ppb	73.161 ppb
Concentration per Run 2	4.326 ppb	0.001 ppb	-0.025 ppb	82.110 %	0.098 ppb	0.359 ppb	77.225 ppb
Concentration per Run 3	4.338 ppb	0.001 ppb	-0.033 ppb	81.902 %	0.029 ppb	0.232 ppb	76.313 ppb
Concentration RSD	7.3 %	539.2 %	15.2 %	2.2 %	171.9 %	27.9 %	2.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.705 %	-0.029 ppb	0.088 ppb	79.068 %
Concentration per Run 1	88.028 %	-0.029 ppb	0.089 ppb	80.534 %
Concentration per Run 2	87.758 %	-0.028 ppb	0.075 ppb	78.807 %
Concentration per Run 3	87.329 %	-0.029 ppb	0.100 ppb	77.862 %
Concentration RSD	0.4 %	3.2 %	14.2 %	1.7 %

Alpha ICPMSQ Full

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Analysis index: 65
Analysis label: WG873562-3D20 6020SL
Analysis started at: 3/14/2016 4:21:30 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 40

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	124.482 %	108.417 %	-0.002 ppb	3,448.651 ppb	752.234 ppb	-0.313 ppb	755.080 ppb
Concentration per Run 1	126.191 %	104.609 %	-0.003 ppb	3,385.484 ppb	735.510 ppb	-0.925 ppb	690.509 ppb
Concentration per Run 2	126.444 %	108.217 %	-0.003 ppb	3,505.551 ppb	747.723 ppb	0.409 ppb	788.871 ppb
Concentration per Run 3	120.810 %	112.425 %	0.000 ppb	3,454.919 ppb	773.469 ppb	-0.425 ppb	785.860 ppb
Concentration RSD	2.6 %	3.6 %	100.3 %	1.7 %	2.6 %	215.1 %	7.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	6,954.575 ppb	94.664 %	98.363 %	0.026 ppb	0.098 ppb	32.029 ppb	206.136 ppb
Concentration per Run 1	6,081.174 ppb	105.617 %	97.625 %	0.023 ppb	0.141 ppb	29.374 ppb	191.444 ppb
Concentration per Run 2	7,338.007 ppb	88.344 %	99.322 %	0.027 ppb	0.087 ppb	33.677 ppb	219.427 ppb
Concentration per Run 3	7,444.543 ppb	90.029 %	98.141 %	0.027 ppb	0.066 ppb	33.035 ppb	207.537 ppb
Concentration RSD	10.9 %	10.1 %	0.9 %	8.2 %	39.7 %	7.2 %	6.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.020 ppb	0.188 ppb	0.225 ppb	0.726 ppb	89.777 %	0.199 ppb	-0.028 ppb
Concentration per Run 1	0.033 ppb	0.235 ppb	0.101 ppb	0.525 ppb	92.397 %	0.262 ppb	-0.136 ppb
Concentration per Run 2	0.018 ppb	0.093 ppb	0.385 ppb	0.899 ppb	86.966 %	0.214 ppb	0.246 ppb
Concentration per Run 3	0.008 ppb	0.234 ppb	0.190 ppb	0.755 ppb	89.969 %	0.122 ppb	-0.193 ppb
Concentration RSD	63.6 %	43.5 %	64.7 %	26.0 %	3.0 %	35.6 %	865.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.263 ppb	-0.005 ppb	-0.028 ppb	88.971 %	-0.048 ppb	0.082 ppb	3.729 ppb
Concentration per Run 1	0.103 ppb	0.000 ppb	-0.033 ppb	90.233 %	-0.049 ppb	0.113 ppb	3.202 ppb
Concentration per Run 2	0.385 ppb	-0.010 ppb	-0.033 ppb	88.534 %	0.018 ppb	0.057 ppb	3.913 ppb
Concentration per Run 3	0.302 ppb	-0.005 ppb	-0.019 ppb	88.146 %	-0.112 ppb	0.077 ppb	4.072 ppb
Concentration RSD	55.1 %	98.9 %	28.5 %	1.2 %	135.8 %	35.1 %	12.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.709 %	-0.020 ppb	-0.003 ppb	86.028 %
Concentration per Run 1	89.486 %	-0.022 ppb	-0.008 ppb	88.934 %
Concentration per Run 2	85.687 %	-0.018 ppb	0.005 ppb	84.973 %
Concentration per Run 3	87.952 %	-0.021 ppb	-0.007 ppb	84.177 %
Concentration RSD	2.2 %	9.2 %	232.3 %	3.0 %

Analysis index: 66 Analysis started at: 3/14/2016 4:24:33 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	117.771 %	95.190 %	93.169 ppb	10,335.341 ppb	10,431.606 ppb	109.525 ppb	10,633.838 ppb
Concentration per Run 1	117.576 %	88.978 %	93.453 ppb	10,428.554 ppb	10,390.354 ppb	107.026 ppb	10,361.777 ppb
Concentration per Run 2	117.798 %	99.499 %	93.075 ppb	10,416.965 ppb	10,557.056 ppb	105.824 ppb	10,470.322 ppb
Concentration per Run 3	117.939 %	97.094 %	92.978 ppb	10,160.502 ppb	10,347.408 ppb	115.727 ppb	11,069.415 ppb
Recovery Percentage 1			93.169 %	103.353 %	104.316 %	109.525 %	106.338 %
Concentration RSD	0.2 %	5.8 %	0.3 %	1.5 %	1.1 %	4.9 %	3.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,521.067 ppb	86.631 %	94.646 %	102.417 ppb	104.924 ppb	103.194 ppb	10,466.984 ppb
Concentration per Run 1	9,723.630 ppb	94.916 %	92.166 %	93.575 ppb	97.561 ppb	96.806 ppb	10,160.428 ppb
Concentration per Run 2	10,873.824 ppb	84.047 %	96.343 %	103.138 ppb	105.670 ppb	104.357 ppb	10,257.147 ppb
Concentration per Run 3	10,965.747 ppb	80.931 %	95.428 %	110.539 ppb	111.542 ppb	108.418 ppb	10,983.376 ppb
Recovery Percentage 1	105.211 %			102.417 %	104.924 %	103.194 %	104.670 %
Concentration RSD	6.6 %	8.5 %	2.3 %	8.3 %	6.7 %	5.7 %	4.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	105.291 ppb	106.876 ppb	106.614 ppb	99.767 ppb	90.136 %	97.433 ppb	95.129 ppb
Concentration per Run 1	104.753 ppb	105.511 ppb	104.929 ppb	100.022 ppb	89.608 %	100.264 ppb	89.623 ppb
Concentration per Run 2	102.696 ppb	100.597 ppb	103.645 ppb	97.903 ppb	94.651 %	92.146 ppb	92.734 ppb
Concentration per Run 3	108.423 ppb	114.520 ppb	111.268 ppb	101.377 ppb	86.150 %	99.887 ppb	103.031 ppb
Recovery Percentage 1	105.291 %	106.876 %	106.614 %	99.767 %		97.433 %	95.129 %
Concentration RSD	2.8 %	6.6 %	3.8 %	1.8 %	4.7 %	4.7 %	7.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	98.200 ppb	109.356 ppb	107.033 ppb	86.865 %	109.131 ppb	102.779 ppb	102.159 ppb
Concentration per Run 1	96.320 ppb	104.724 ppb	102.664 ppb	90.515 %	108.537 ppb	101.221 ppb	99.170 ppb
Concentration per Run 2	95.181 ppb	109.322 ppb	106.298 ppb	86.808 %	109.529 ppb	102.142 ppb	102.813 ppb
Concentration per Run 3	103.099 ppb	114.021 ppb	112.138 ppb	83.273 %	109.327 ppb	104.976 ppb	104.495 ppb
Recovery Percentage 1	98.200 %	109.356 %	107.033 %		109.131 %	102.779 %	102.159 %
Concentration RSD	4.4 %	4.3 %	4.5 %	4.2 %	0.5 %	1.9 %	2.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.475 %	102.861 ppb	102.952 ppb	83.471 %
Concentration per Run 1	92.188 %	101.057 ppb	97.153 ppb	85.708 %
Concentration per Run 2	84.517 %	103.692 ppb	106.747 ppb	82.128 %
Concentration per Run 3	85.720 %	103.834 ppb	104.955 ppb	82.579 %
Recovery Percentage 1		102.861 %	102.952 %	
Concentration RSD	4.7 %	1.5 %	5.0 %	2.3 %

Analysis index: 67 Analysis started at: 3/14/2016 4:27:40 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	115.535 %	91.783 %	0.010 ppb	8.490 ppb	1.040 ppb	0.072 ppb	2.381 ppb
Concentration per Run 1	118.818 %	88.677 %	0.015 ppb	8.573 ppb	1.278 ppb	-0.097 ppb	1.934 ppb
Concentration per Run 2	113.555 %	93.186 %	0.007 ppb	8.688 ppb	1.927 ppb	0.254 ppb	-1.598 ppb
Concentration per Run 3	114.232 %	93.487 %	0.009 ppb	8.209 ppb	-0.086 ppb	0.058 ppb	6.807 ppb
Recovery Percentage 1			2.079 %	8.490 %	1.485 %	0.716 %	2.381 %
Concentration RSD	2.5 %	2.9 %	36.0 %	2.9 %	98.8 %	245.3 %	177.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8.255 ppb	87.754 %	93.149 %	0.027 ppb	0.093 ppb	0.696 ppb	-0.065 ppb
Concentration per Run 1	0.838 ppb	89.861 %	92.877 %	0.027 ppb	0.136 ppb	0.211 ppb	-1.196 ppb
Concentration per Run 2	5.470 ppb	85.816 %	93.330 %	0.028 ppb	0.074 ppb	0.944 ppb	1.365 ppb
Concentration per Run 3	18.457 ppb	87.586 %	93.239 %	0.027 ppb	0.070 ppb	0.933 ppb	-0.364 ppb
Recovery Percentage 1	8.255 %			0.549 %	9.316 %	69.581 %	-0.130 %
Concentration RSD	110.6 %	2.3 %	0.3 %	2.6 %	39.6 %	60.4 %	2,013.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.015 ppb	-0.018 ppb	0.090 ppb	0.120 ppb	86.199 %	0.019 ppb	0.152 ppb
Concentration per Run 1	0.018 ppb	-0.022 ppb	0.111 ppb	0.098 ppb	89.777 %	0.017 ppb	-0.165 ppb
Concentration per Run 2	0.009 ppb	0.063 ppb	0.094 ppb	0.297 ppb	83.005 %	0.020 ppb	0.319 ppb
Concentration per Run 3	0.019 ppb	-0.095 ppb	0.063 ppb	-0.035 ppb	85.816 %	0.019 ppb	0.302 ppb
Recovery Percentage 1	3.050 %	-3.609 %	8.969 %	1.201 %	86.199 %	3.745 %	3.036 %
Concentration RSD	34.9 %	437.8 %	27.3 %	139.0 %	3.9 %	9.0 %	181.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.339 ppb	0.020 ppb	0.017 ppb	86.756 %	0.080 ppb	0.092 ppb	0.041 ppb
Concentration per Run 1	0.262 ppb	0.000 ppb	0.051 ppb	88.339 %	0.061 ppb	0.116 ppb	0.106 ppb
Concentration per Run 2	0.396 ppb	0.016 ppb	-0.019 ppb	88.037 %	0.019 ppb	0.077 ppb	-0.044 ppb
Concentration per Run 3	0.358 ppb	0.044 ppb	0.018 ppb	83.894 %	0.162 ppb	0.081 ppb	0.060 ppb
Recovery Percentage 1	11.291 %	5.036 %	8.355 %		2.677 %	4.581 %	8.122 %
Concentration RSD	20.3 %	110.2 %	207.9 %	2.9 %	91.4 %	23.4 %	189.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.000 %	0.011 ppb	0.008 ppb	82.566 %
Concentration per Run 1	88.182 %	0.009 ppb	0.015 ppb	83.014 %
Concentration per Run 2	84.313 %	0.018 ppb	0.007 ppb	83.913 %
Concentration per Run 3	85.504 %	0.005 ppb	0.001 ppb	80.770 %
Recovery Percentage 1		2.149 %	1.548 %	82.566 %
Concentration RSD	2.3 %	63.7 %	92.7 %	2.0 %

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Analysis index: 68
Analysis label: WG873562-4D20 6020SL

Analysis started at: 3/14/2016 4:54:15 PM
User name: ALPHALAB\a1metalsinstrument

Rack: 1
Vial: 41

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	133.035 %	109.419 %	2.204 ppb	4,116.407 ppb	1,381.878 ppb	102.407 ppb	1,321.194 ppb
Concentration per Run 1	134.765 %	105.511 %	2.296 ppb	4,478.813 ppb	1,567.473 ppb	115.765 ppb	1,450.765 ppb
Concentration per Run 2	134.452 %	117.536 %	2.118 ppb	3,785.094 ppb	1,249.893 ppb	93.663 ppb	1,208.011 ppb
Concentration per Run 3	129.889 %	105.211 %	2.198 ppb	4,085.316 ppb	1,328.268 ppb	97.792 ppb	1,304.806 ppb
Concentration RSD	2.1 %	6.4 %	4.0 %	8.5 %	12.0 %	11.5 %	9.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,875.176 ppb	94.579 %	107.946 %	26.332 ppb	10.800 ppb	58.541 ppb	276.773 ppb
Concentration per Run 1	8,981.170 ppb	91.378 %	107.661 %	28.864 ppb	11.910 ppb	65.131 ppb	309.137 ppb
Concentration per Run 2	7,352.766 ppb	98.371 %	110.664 %	24.555 ppb	10.373 ppb	53.091 ppb	238.651 ppb
Concentration per Run 3	7,291.591 ppb	93.989 %	105.512 %	25.576 ppb	10.117 ppb	57.400 ppb	282.530 ppb
Concentration RSD	12.2 %	3.7 %	2.4 %	8.6 %	9.0 %	10.4 %	12.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	26.937 ppb	27.768 ppb	13.970 ppb	25.803 ppb	94.777 %	6.548 ppb	8.346 ppb
Concentration per Run 1	29.731 ppb	29.539 ppb	15.506 ppb	29.073 ppb	92.261 %	7.552 ppb	9.203 ppb
Concentration per Run 2	25.810 ppb	26.040 ppb	13.577 ppb	23.785 ppb	98.722 %	6.250 ppb	4.759 ppb
Concentration per Run 3	25.269 ppb	27.726 ppb	12.828 ppb	24.549 ppb	93.347 %	5.840 ppb	11.076 ppb
Concentration RSD	9.0 %	6.3 %	9.9 %	11.1 %	3.7 %	13.7 %	38.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	53.040 ppb	2.472 ppb	2.800 ppb	94.296 %	55.217 ppb	25.233 ppb	107.056 ppb
Concentration per Run 1	57.333 ppb	2.808 ppb	3.137 ppb	91.810 %	61.225 ppb	27.708 ppb	119.021 ppb
Concentration per Run 2	51.819 ppb	2.429 ppb	2.666 ppb	98.253 %	51.266 ppb	25.363 ppb	103.856 ppb
Concentration per Run 3	49.966 ppb	2.181 ppb	2.598 ppb	92.826 %	53.161 ppb	22.628 ppb	98.292 ppb
Concentration RSD	7.2 %	12.8 %	10.5 %	3.7 %	9.6 %	10.1 %	10.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.042 %	6.671 ppb	29.896 ppb	92.436 %
Concentration per Run 1	95.241 %	7.086 ppb	32.064 ppb	91.339 %
Concentration per Run 2	96.577 %	6.486 ppb	28.767 ppb	93.073 %
Concentration per Run 3	93.309 %	6.441 ppb	28.857 ppb	92.895 %
Concentration RSD	1.7 %	5.4 %	6.3 %	1.0 %

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Analysis index: 69
Analysis label: WG873562-5D20 6020SL

Analysis started at: 3/14/2016 4:57:19 PM
User name: ALPHALAB\a1metalsinstrument

Rack: 1
Vial: 42

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	127.323 %	108.417 %	43.753 ppb	8,372.874 ppb	5,682.498 ppb	50.166 ppb	5,589.407 ppb
Concentration per Run 1	124.675 %	108.818 %	44.607 ppb	8,312.722 ppb	5,602.096 ppb	48.431 ppb	5,275.287 ppb
Concentration per Run 2	123.568 %	114.529 %	44.748 ppb	8,031.658 ppb	5,507.700 ppb	48.790 ppb	5,486.619 ppb
Concentration per Run 3	133.726 %	101.904 %	41.902 ppb	8,774.242 ppb	5,937.700 ppb	53.278 ppb	6,006.315 ppb
Concentration RSD	4.4 %	5.8 %	3.7 %	4.5 %	4.0 %	5.4 %	6.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12,267.012 ppb	92.557 %	104.600 %	48.014 ppb	48.544 ppb	80.338 ppb	5,139.012 ppb
Concentration per Run 1	11,904.187 ppb	94.158 %	106.668 %	45.404 ppb	48.069 ppb	81.094 ppb	5,027.733 ppb
Concentration per Run 2	12,395.628 ppb	93.653 %	103.015 %	48.204 ppb	49.278 ppb	81.203 ppb	5,183.031 ppb
Concentration per Run 3	12,501.222 ppb	89.860 %	104.118 %	50.434 ppb	48.284 ppb	78.718 ppb	5,206.272 ppb
Concentration RSD	2.6 %	2.5 %	1.8 %	5.2 %	1.3 %	1.7 %	1.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	49.545 ppb	50.871 ppb	51.006 ppb	48.204 ppb	91.547 %	47.682 ppb	46.781 ppb
Concentration per Run 1	50.155 ppb	49.727 ppb	52.704 ppb	48.502 ppb	91.551 %	48.552 ppb	45.876 ppb
Concentration per Run 2	49.600 ppb	51.280 ppb	51.346 ppb	47.644 ppb	89.589 %	48.443 ppb	47.990 ppb
Concentration per Run 3	48.881 ppb	51.606 ppb	48.968 ppb	48.466 ppb	93.501 %	46.051 ppb	46.477 ppb
Concentration RSD	1.3 %	2.0 %	3.7 %	1.0 %	2.1 %	3.0 %	2.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	48.395 ppb	44.913 ppb	49.343 ppb	94.050 %	49.869 ppb	47.495 ppb	51.718 ppb
Concentration per Run 1	48.027 ppb	41.601 ppb	48.852 ppb	97.330 %	49.043 ppb	47.472 ppb	50.000 ppb
Concentration per Run 2	50.479 ppb	42.764 ppb	50.667 ppb	91.320 %	50.034 ppb	49.137 ppb	55.117 ppb
Concentration per Run 3	46.678 ppb	50.374 ppb	48.509 ppb	93.501 %	50.530 ppb	45.876 ppb	50.036 ppb
Concentration RSD	4.0 %	10.6 %	2.3 %	3.2 %	1.5 %	3.4 %	5.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.468 %	49.074 ppb	48.711 ppb	90.525 %
Concentration per Run 1	97.404 %	49.259 ppb	48.532 ppb	90.001 %
Concentration per Run 2	94.973 %	48.885 ppb	49.004 ppb	91.211 %
Concentration per Run 3	94.026 %	49.079 ppb	48.597 ppb	90.362 %
Concentration RSD	1.8 %	0.4 %	0.5 %	0.7 %

Alpha ICPMSQ Full

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Analysis index: 70
Analysis label: WG873562-6D5 6020SL
Analysis started at: 3/14/2016 5:00:23 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 43

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	134.143 %	111.523 %	-0.002 ppb	14,278.802 ppb	3,153.199 ppb	1.037 ppb	3,068.596 ppb
Concentration per Run 1	130.544 %	112.726 %	-0.002 ppb	13,685.309 ppb	3,113.671 ppb	1.654 ppb	3,039.882 ppb
Concentration per Run 2	139.010 %	112.125 %	-0.004 ppb	14,332.038 ppb	3,051.626 ppb	0.911 ppb	3,014.623 ppb
Concentration per Run 3	132.874 %	109.720 %	-0.001 ppb	14,819.059 ppb	3,294.301 ppb	0.546 ppb	3,151.284 ppb
Concentration RSD	3.3 %	1.4 %	80.9 %	4.0 %	4.0 %	54.4 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	27,385.342 ppb	103.792 %	108.158 %	0.124 ppb	0.180 ppb	125.662 ppb	786.772 ppb
Concentration per Run 1	27,080.888 ppb	103.595 %	105.179 %	0.185 ppb	0.168 ppb	122.296 ppb	756.789 ppb
Concentration per Run 2	26,733.725 ppb	105.786 %	110.779 %	0.069 ppb	0.152 ppb	125.633 ppb	804.142 ppb
Concentration per Run 3	28,341.413 ppb	101.994 %	108.514 %	0.119 ppb	0.222 ppb	129.059 ppb	799.386 ppb
Concentration RSD	3.1 %	1.8 %	2.6 %	46.9 %	20.2 %	2.7 %	3.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.127 ppb	0.546 ppb	0.177 ppb	3.196 ppb	100.575 %	0.694 ppb	-0.135 ppb
Concentration per Run 1	0.167 ppb	0.692 ppb	0.248 ppb	2.729 ppb	104.665 %	0.862 ppb	-0.153 ppb
Concentration per Run 2	0.075 ppb	0.448 ppb	0.210 ppb	3.310 ppb	99.361 %	0.566 ppb	-0.132 ppb
Concentration per Run 3	0.139 ppb	0.497 ppb	0.073 ppb	3.551 ppb	97.700 %	0.654 ppb	-0.121 ppb
Concentration RSD	37.4 %	23.7 %	52.0 %	13.2 %	3.6 %	21.9 %	12.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.910 ppb	0.033 ppb	-0.013 ppb	98.919 %	0.018 ppb	0.076 ppb	14.911 ppb
Concentration per Run 1	0.871 ppb	0.054 ppb	0.014 ppb	104.690 %	0.103 ppb	0.095 ppb	13.667 ppb
Concentration per Run 2	0.883 ppb	0.017 ppb	-0.020 ppb	99.273 %	0.001 ppb	0.101 ppb	15.078 ppb
Concentration per Run 3	0.977 ppb	0.028 ppb	-0.033 ppb	92.795 %	-0.051 ppb	0.033 ppb	15.987 ppb
Concentration RSD	6.4 %	57.7 %	186.5 %	6.0 %	446.1 %	48.9 %	7.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.013 %	0.008 ppb	0.040 ppb	95.734 %
Concentration per Run 1	103.569 %	0.043 ppb	0.080 ppb	97.060 %
Concentration per Run 2	100.668 %	0.000 ppb	0.024 ppb	96.826 %
Concentration per Run 3	95.803 %	-0.020 ppb	0.015 ppb	93.317 %
Concentration RSD	3.9 %	409.3 %	87.6 %	2.2 %

Alpha ICPMSQ Full

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Analysis index: 71
Analysis label: WG873562-6D100 6020SL
Analysis started at: 3/14/2016 5:03:27 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 44

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	135.534 %	111.022 %	-0.004 ppb	699.809 ppb	147.638 ppb	-0.462 ppb	161.234 ppb
Concentration per Run 1	135.605 %	119.339 %	-0.003 ppb	658.905 ppb	126.638 ppb	-0.819 ppb	153.768 ppb
Concentration per Run 2	137.166 %	110.020 %	-0.002 ppb	697.642 ppb	160.918 ppb	-1.084 ppb	161.751 ppb
Concentration per Run 3	133.831 %	103.708 %	-0.006 ppb	742.879 ppb	155.357 ppb	0.518 ppb	168.183 ppb
Concentration RSD	1.2 %	7.1 %	54.1 %	6.0 %	12.5 %	186.0 %	4.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,367.305 ppb	101.292 %	109.890 %	0.008 ppb	0.005 ppb	5.392 ppb	39.414 ppb
Concentration per Run 1	1,315.194 ppb	102.668 %	110.469 %	0.000 ppb	-0.043 ppb	5.303 ppb	36.951 ppb
Concentration per Run 2	1,313.109 ppb	104.774 %	110.403 %	0.000 ppb	0.002 ppb	5.960 ppb	37.480 ppb
Concentration per Run 3	1,473.611 ppb	96.433 %	108.797 %	0.025 ppb	0.056 ppb	4.912 ppb	43.811 ppb
Concentration RSD	6.7 %	4.3 %	0.9 %	173.2 %	1,002.1 %	9.8 %	9.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.003 ppb	-0.055 ppb	0.205 ppb	-0.658 ppb	99.255 %	0.020 ppb	-0.085 ppb
Concentration per Run 1	-0.012 ppb	-0.101 ppb	0.208 ppb	-0.951 ppb	101.725 %	-0.007 ppb	-0.161 ppb
Concentration per Run 2	-0.012 ppb	-0.068 ppb	0.233 ppb	-0.498 ppb	99.872 %	0.032 ppb	-0.144 ppb
Concentration per Run 3	0.016 ppb	0.004 ppb	0.174 ppb	-0.524 ppb	96.166 %	0.034 ppb	0.050 ppb
Concentration RSD	599.2 %	98.2 %	14.3 %	38.7 %	2.9 %	116.1 %	138.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.128 ppb	0.006 ppb	-0.020 ppb	100.581 %	-0.025 ppb	0.018 ppb	0.732 ppb
Concentration per Run 1	0.141 ppb	0.007 ppb	-0.027 ppb	104.060 %	-0.060 ppb	-0.023 ppb	0.649 ppb
Concentration per Run 2	0.093 ppb	-0.011 ppb	-0.027 ppb	99.136 %	-0.037 ppb	0.030 ppb	0.775 ppb
Concentration per Run 3	0.149 ppb	0.022 ppb	-0.008 ppb	98.548 %	0.022 ppb	0.048 ppb	0.771 ppb
Concentration RSD	23.6 %	269.2 %	53.5 %	3.0 %	167.3 %	202.6 %	9.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.191 %	-0.013 ppb	-0.001 ppb	96.155 %
Concentration per Run 1	99.873 %	-0.027 ppb	-0.001 ppb	98.240 %
Concentration per Run 2	95.115 %	-0.009 ppb	-0.008 ppb	94.233 %
Concentration per Run 3	96.584 %	-0.004 ppb	0.005 ppb	95.994 %
Concentration RSD	2.5 %	90.8 %	460.9 %	2.1 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 72
Analysis label: L1606583-01 6020SL
Analysis started at: 3/14/2016 5:06:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 45

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	125.697 %	104.008 %	-0.005 ppb	542,318.493 ppb	67,934.878 ppb	3.645 ppb	35,094.423 ppb
Concentration per Run 1	125.801 %	108.818 %	-0.008 ppb	534,905.754 ppb	66,901.293 ppb	2.257 ppb	34,634.086 ppb
Concentration per Run 2	127.266 %	97.094 %	-0.004 ppb	553,267.747 ppb	68,075.034 ppb	4.560 ppb	34,533.701 ppb
Concentration per Run 3	124.024 %	106.112 %	-0.004 ppb	538,781.977 ppb	68,828.307 ppb	4.118 ppb	36,115.482 ppb
Concentration RSD	1.3 %	5.9 %	42.9 %	1.8 %	1.4 %	33.5 %	2.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	248,594.163 ppb	95.113 %	104.237 %	0.391 ppb	0.999 ppb	1,616.646 ppb	6,093.185 ppb
Concentration per Run 1	244,304.590 ppb	98.287 %	105.036 %	0.343 ppb	1.001 ppb	1,549.134 ppb	5,861.471 ppb
Concentration per Run 2	252,634.807 ppb	93.146 %	103.956 %	0.389 ppb	0.946 ppb	1,626.709 ppb	6,144.226 ppb
Concentration per Run 3	248,843.094 ppb	93.905 %	103.719 %	0.442 ppb	1.052 ppb	1,674.094 ppb	6,273.859 ppb
Concentration RSD	1.7 %	2.9 %	0.7 %	12.6 %	5.3 %	3.9 %	3.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.096 ppb	3.171 ppb	0.632 ppb	0.932 ppb	90.885 %	1.005 ppb	0.194 ppb
Concentration per Run 1	0.116 ppb	3.399 ppb	0.804 ppb	0.608 ppb	96.486 %	0.998 ppb	0.276 ppb
Concentration per Run 2	0.075 ppb	2.973 ppb	0.446 ppb	1.126 ppb	90.033 %	0.964 ppb	0.277 ppb
Concentration per Run 3	0.096 ppb	3.140 ppb	0.646 ppb	1.063 ppb	86.135 %	1.053 ppb	0.030 ppb
Concentration RSD	21.1 %	6.8 %	28.4 %	30.3 %	5.8 %	4.5 %	73.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.350 ppb	-0.003 ppb	-0.021 ppb	86.702 %	0.079 ppb	0.099 ppb	263.572 ppb
Concentration per Run 1	2.102 ppb	-0.005 ppb	-0.026 ppb	86.868 %	0.086 ppb	0.118 ppb	262.910 ppb
Concentration per Run 2	2.415 ppb	-0.005 ppb	-0.019 ppb	89.551 %	0.058 ppb	0.075 ppb	254.134 ppb
Concentration per Run 3	2.535 ppb	0.001 ppb	-0.018 ppb	83.687 %	0.094 ppb	0.103 ppb	273.674 ppb
Concentration RSD	9.5 %	117.3 %	19.8 %	3.4 %	23.5 %	22.0 %	3.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.612 %	-0.028 ppb	0.109 ppb	73.494 %
Concentration per Run 1	89.211 %	-0.034 ppb	0.121 ppb	75.642 %
Concentration per Run 2	87.996 %	-0.024 ppb	0.103 ppb	75.682 %
Concentration per Run 3	85.629 %	-0.025 ppb	0.104 ppb	69.159 %
Concentration RSD	2.1 %	19.2 %	9.2 %	5.1 %

Alpha ICPMSQ Full

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Analysis index: 73
Analysis label: L1606583-01D20 6020SL
Analysis started at: 3/14/2016 5:09:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 46

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	124.179 %	106.213 %	-0.007 ppb	27,888.586 ppb	3,720.718 ppb	0.020 ppb	1,807.520 ppb
Concentration per Run 1	118.589 %	105.511 %	-0.005 ppb	28,046.218 ppb	3,701.755 ppb	0.022 ppb	1,796.219 ppb
Concentration per Run 2	124.965 %	110.922 %	-0.008 ppb	27,152.399 ppb	3,761.523 ppb	0.111 ppb	1,830.219 ppb
Concentration per Run 3	128.984 %	102.205 %	-0.007 ppb	28,467.141 ppb	3,698.874 ppb	-0.074 ppb	1,796.122 ppb
Concentration RSD	4.2 %	4.1 %	19.4 %	2.4 %	1.0 %	459.8 %	1.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12,640.791 ppb	97.359 %	101.453 %	0.016 ppb	0.097 ppb	83.602 ppb	323.243 ppb
Concentration per Run 1	12,898.168 ppb	97.949 %	99.577 %	0.000 ppb	0.100 ppb	82.999 ppb	327.008 ppb
Concentration per Run 2	12,586.826 ppb	100.140 %	100.168 %	0.024 ppb	0.097 ppb	78.995 ppb	318.569 ppb
Concentration per Run 3	12,437.379 ppb	93.989 %	104.613 %	0.026 ppb	0.094 ppb	88.811 ppb	324.151 ppb
Concentration RSD	1.9 %	3.2 %	2.7 %	86.8 %	2.9 %	5.9 %	1.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.006 ppb	0.104 ppb	0.257 ppb	-0.833 ppb	100.019 %	0.065 ppb	-0.080 ppb
Concentration per Run 1	0.006 ppb	0.096 ppb	0.253 ppb	-0.815 ppb	104.409 %	0.029 ppb	-0.129 ppb
Concentration per Run 2	-0.012 ppb	0.029 ppb	0.206 ppb	-0.859 ppb	103.897 %	0.048 ppb	-0.166 ppb
Concentration per Run 3	-0.012 ppb	0.188 ppb	0.311 ppb	-0.824 ppb	91.750 %	0.119 ppb	0.056 ppb
Concentration RSD	168.3 %	76.5 %	20.4 %	2.7 %	7.2 %	72.6 %	149.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.119 ppb	-0.007 ppb	-0.031 ppb	96.681 %	-0.048 ppb	0.050 ppb	12.391 ppb
Concentration per Run 1	0.073 ppb	-0.015 ppb	-0.027 ppb	100.861 %	-0.058 ppb	0.047 ppb	12.658 ppb
Concentration per Run 2	0.164 ppb	-0.001 ppb	-0.033 ppb	94.245 %	-0.053 ppb	0.088 ppb	12.880 ppb
Concentration per Run 3	0.119 ppb	-0.006 ppb	-0.033 ppb	94.938 %	-0.033 ppb	0.014 ppb	11.634 ppb
Concentration RSD	38.4 %	100.4 %	11.4 %	3.8 %	27.0 %	75.5 %	5.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.616 %	-0.022 ppb	-0.004 ppb	94.513 %
Concentration per Run 1	97.481 %	-0.028 ppb	-0.002 ppb	96.415 %
Concentration per Run 2	97.274 %	-0.020 ppb	-0.005 ppb	93.530 %
Concentration per Run 3	98.093 %	-0.020 ppb	-0.006 ppb	93.593 %
Concentration RSD	0.4 %	20.7 %	39.5 %	1.7 %

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Analysis index: 74
Analysis label: L1606583-03 6020SL
Analysis started at: 3/14/2016 5:12:40 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 47

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	123.630 %	109.620 %	-0.001 ppb	288,890.379 ppb	23,320.151 ppb	4.865 ppb	22,038.617 ppb
Concentration per Run 1	123.366 %	105.812 %	-0.004 ppb	288,789.712 ppb	23,365.632 ppb	4.145 ppb	21,612.898 ppb
Concentration per Run 2	124.926 %	110.922 %	0.004 ppb	284,541.858 ppb	23,132.125 ppb	5.833 ppb	21,432.279 ppb
Concentration per Run 3	122.597 %	112.125 %	-0.002 ppb	293,339.567 ppb	23,462.694 ppb	4.617 ppb	23,070.673 ppb
Concentration RSD	1.0 %	3.1 %	623.8 %	1.5 %	0.7 %	17.9 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	159,211.452 ppb	94.832 %	102.615 %	1.966 ppb	0.922 ppb	397.604 ppb	111.964 ppb
Concentration per Run 1	151,099.654 ppb	98.286 %	103.369 %	1.764 ppb	1.069 ppb	389.021 ppb	117.911 ppb
Concentration per Run 2	162,881.393 ppb	93.737 %	103.782 %	2.082 ppb	0.971 ppb	398.031 ppb	107.080 ppb
Concentration per Run 3	163,653.309 ppb	92.473 %	100.693 %	2.051 ppb	0.725 ppb	405.761 ppb	110.900 ppb
Concentration RSD	4.4 %	3.2 %	1.6 %	8.9 %	19.2 %	2.1 %	4.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.488 ppb	7.104 ppb	1.097 ppb	11.152 ppb	90.858 %	2.247 ppb	5.852 ppb
Concentration per Run 1	0.545 ppb	6.570 ppb	0.823 ppb	10.586 ppb	89.458 %	2.133 ppb	6.569 ppb
Concentration per Run 2	0.439 ppb	6.979 ppb	1.463 ppb	11.054 ppb	91.367 %	2.278 ppb	5.410 ppb
Concentration per Run 3	0.480 ppb	7.765 ppb	1.004 ppb	11.817 ppb	91.750 %	2.330 ppb	5.576 ppb
Concentration RSD	11.0 %	8.5 %	30.1 %	5.6 %	1.4 %	4.6 %	10.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	6.435 ppb	-0.003 ppb	-0.021 ppb	89.811 %	0.015 ppb	2.216 ppb	108.494 ppb
Concentration per Run 1	6.468 ppb	0.000 ppb	-0.026 ppb	92.355 %	0.032 ppb	2.364 ppb	109.830 ppb
Concentration per Run 2	6.739 ppb	-0.015 ppb	-0.019 ppb	88.443 %	0.039 ppb	2.202 ppb	109.753 ppb
Concentration per Run 3	6.099 ppb	0.005 ppb	-0.019 ppb	88.636 %	-0.026 ppb	2.081 ppb	105.897 ppb
Concentration RSD	5.0 %	308.8 %	19.3 %	2.5 %	238.1 %	6.4 %	2.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.196 %	-0.018 ppb	0.586 ppb	79.850 %
Concentration per Run 1	91.479 %	-0.010 ppb	0.592 ppb	79.911 %
Concentration per Run 2	89.958 %	-0.025 ppb	0.602 ppb	81.624 %
Concentration per Run 3	89.151 %	-0.020 ppb	0.564 ppb	78.015 %
Concentration RSD	1.3 %	42.9 %	3.3 %	2.3 %

Alpha ICPMSQ Full

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Analysis index: 75
Analysis label: L1606583-03D20 6020SL

Analysis started at: 3/14/2016 5:15:46 PM
User name: ALPHALAB\a1metalsinstrument

Rack: 1
Vial: 48

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	139.399 %	114.129 %	-0.003 ppb	14,502.054 ppb	1,229.055 ppb	-0.329 ppb	1,080.969 ppb
Concentration per Run 1	135.667 %	117.536 %	-0.002 ppb	14,093.156 ppb	1,165.513 ppb	-0.122 ppb	1,069.141 ppb
Concentration per Run 2	140.090 %	117.836 %	-0.001 ppb	14,494.952 ppb	1,216.414 ppb	-0.830 ppb	1,049.234 ppb
Concentration per Run 3	142.440 %	107.014 %	-0.005 ppb	14,918.055 ppb	1,305.240 ppb	-0.035 ppb	1,124.534 ppb
Concentration RSD	2.5 %	5.4 %	73.3 %	2.8 %	5.8 %	132.6 %	3.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,793.188 ppb	105.055 %	113.675 %	0.084 ppb	0.111 ppb	19.100 ppb	5.944 ppb
Concentration per Run 1	7,520.243 ppb	105.280 %	115.326 %	0.069 ppb	0.107 ppb	19.129 ppb	4.384 ppb
Concentration per Run 2	7,757.856 ppb	106.629 %	111.858 %	0.090 ppb	0.132 ppb	19.520 ppb	6.899 ppb
Concentration per Run 3	8,101.466 ppb	103.258 %	113.841 %	0.093 ppb	0.094 ppb	18.650 ppb	6.549 ppb
Concentration RSD	3.7 %	1.6 %	1.5 %	15.7 %	17.3 %	2.3 %	22.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.025 ppb	0.205 ppb	0.197 ppb	-0.140 ppb	103.576 %	0.085 ppb	0.438 ppb
Concentration per Run 1	0.005 ppb	0.220 ppb	0.207 ppb	-0.175 ppb	101.214 %	0.106 ppb	0.639 ppb
Concentration per Run 2	0.046 ppb	0.237 ppb	0.129 ppb	0.019 ppb	107.796 %	0.063 ppb	0.409 ppb
Concentration per Run 3	0.023 ppb	0.158 ppb	0.254 ppb	-0.264 ppb	101.717 %	0.087 ppb	0.267 ppb
Concentration RSD	82.8 %	20.4 %	31.9 %	103.2 %	3.5 %	25.3 %	42.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.270 ppb	-0.006 ppb	-0.021 ppb	102.629 %	-0.077 ppb	0.103 ppb	5.047 ppb
Concentration per Run 1	0.206 ppb	-0.011 ppb	-0.027 ppb	106.835 %	-0.098 ppb	0.126 ppb	5.348 ppb
Concentration per Run 2	0.324 ppb	-0.006 ppb	-0.008 ppb	100.125 %	-0.114 ppb	0.083 ppb	5.181 ppb
Concentration per Run 3	0.281 ppb	-0.002 ppb	-0.027 ppb	100.926 %	-0.020 ppb	0.100 ppb	4.613 ppb
Concentration RSD	22.1 %	73.6 %	51.3 %	3.6 %	65.4 %	21.2 %	7.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.086 %	-0.017 ppb	0.019 ppb	95.793 %
Concentration per Run 1	103.001 %	-0.020 ppb	0.023 ppb	98.725 %
Concentration per Run 2	97.806 %	-0.015 ppb	0.013 ppb	94.777 %
Concentration per Run 3	96.450 %	-0.017 ppb	0.022 ppb	93.876 %
Concentration RSD	3.5 %	16.6 %	27.6 %	2.7 %

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Analysis index: 76
Analysis label: L1606583-04 6020SL
Analysis started at: 3/14/2016 5:18:51 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 49

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	136.358 %	113.728 %	-0.003 ppb	56,243.521 ppb	7,948.665 ppb	8.462 ppb	14,135.068 ppb
Concentration per Run 1	138.832 %	115.431 %	-0.001 ppb	54,392.213 ppb	7,681.929 ppb	8.675 ppb	14,281.896 ppb
Concentration per Run 2	138.508 %	113.327 %	0.001 ppb	55,023.373 ppb	7,776.958 ppb	7.859 ppb	13,212.928 ppb
Concentration per Run 3	131.734 %	112.425 %	-0.008 ppb	59,314.978 ppb	8,387.106 ppb	8.851 ppb	14,910.378 ppb
Concentration RSD	2.9 %	1.4 %	160.5 %	4.8 %	4.8 %	6.3 %	6.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	62,522.660 ppb	100.618 %	110.529 %	1.661 ppb	0.856 ppb	325.859 ppb	319.917 ppb
Concentration per Run 1	62,288.025 ppb	102.247 %	110.827 %	1.523 ppb	0.693 ppb	306.011 ppb	310.252 ppb
Concentration per Run 2	57,807.105 ppb	109.157 %	113.254 %	1.662 ppb	0.945 ppb	319.463 ppb	300.302 ppb
Concentration per Run 3	67,472.850 ppb	90.451 %	107.505 %	1.797 ppb	0.930 ppb	352.102 ppb	349.196 ppb
Concentration RSD	7.7 %	9.4 %	2.6 %	8.2 %	16.5 %	7.3 %	8.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.475 ppb	7.870 ppb	0.222 ppb	7.236 ppb	99.294 %	7.648 ppb	0.377 ppb
Concentration per Run 1	0.327 ppb	7.879 ppb	0.230 ppb	7.146 ppb	102.428 %	7.265 ppb	0.414 ppb
Concentration per Run 2	0.563 ppb	7.985 ppb	0.187 ppb	6.993 ppb	97.316 %	8.070 ppb	0.062 ppb
Concentration per Run 3	0.535 ppb	7.745 ppb	0.249 ppb	7.570 ppb	98.139 %	7.610 ppb	0.656 ppb
Concentration RSD	27.2 %	1.5 %	14.3 %	4.1 %	2.8 %	5.3 %	79.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	7.450 ppb	-0.009 ppb	0.005 ppb	97.351 %	-0.023 ppb	0.895 ppb	97.357 ppb
Concentration per Run 1	7.231 ppb	-0.006 ppb	0.016 ppb	100.771 %	-0.020 ppb	0.834 ppb	89.664 ppb
Concentration per Run 2	7.913 ppb	-0.015 ppb	0.005 ppb	98.460 %	-0.017 ppb	0.930 ppb	99.204 ppb
Concentration per Run 3	7.205 ppb	-0.005 ppb	-0.007 ppb	92.821 %	-0.031 ppb	0.923 ppb	103.202 ppb
Concentration RSD	5.4 %	60.5 %	239.0 %	4.2 %	32.6 %	6.0 %	7.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.639 %	-0.020 ppb	0.467 ppb	89.773 %
Concentration per Run 1	100.107 %	-0.013 ppb	0.456 ppb	90.433 %
Concentration per Run 2	94.884 %	-0.026 ppb	0.457 ppb	90.313 %
Concentration per Run 3	94.924 %	-0.022 ppb	0.489 ppb	88.574 %
Concentration RSD	3.1 %	34.0 %	4.0 %	1.2 %

Alpha ICPMSQ Full

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Analysis index: 77
Analysis label: L1606583-04D20 6020SL
Analysis started at: 3/14/2016 5:21:54 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 50

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	141.152 %	116.433 %	-0.006 ppb	2,636.296 ppb	390.969 ppb	0.139 ppb	651.733 ppb
Concentration per Run 1	135.583 %	116.634 %	-0.003 ppb	2,637.533 ppb	424.239 ppb	-0.162 ppb	623.194 ppb
Concentration per Run 2	143.549 %	122.045 %	-0.005 ppb	2,704.881 ppb	408.601 ppb	0.727 ppb	714.964 ppb
Concentration per Run 3	144.324 %	110.622 %	-0.009 ppb	2,566.475 ppb	340.066 ppb	-0.147 ppb	617.042 ppb
Concentration RSD	3.4 %	4.9 %	58.2 %	2.6 %	11.5 %	365.2 %	8.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,987.086 ppb	108.960 %	113.577 %	0.100 ppb	0.089 ppb	15.643 ppb	15.637 ppb
Concentration per Run 1	2,933.697 ppb	111.516 %	113.624 %	0.065 ppb	0.084 ppb	15.236 ppb	18.850 ppb
Concentration per Run 2	3,451.703 ppb	100.730 %	113.357 %	0.192 ppb	0.130 ppb	17.234 ppb	16.236 ppb
Concentration per Run 3	2,575.859 ppb	114.634 %	113.749 %	0.042 ppb	0.052 ppb	14.458 ppb	11.824 ppb
Concentration RSD	14.7 %	6.7 %	0.2 %	80.4 %	44.6 %	9.2 %	22.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.017 ppb	0.317 ppb	0.399 ppb	-0.490 ppb	102.279 %	0.373 ppb	-0.090 ppb
Concentration per Run 1	-0.004 ppb	0.237 ppb	0.510 ppb	-0.425 ppb	103.323 %	0.231 ppb	-0.142 ppb
Concentration per Run 2	0.042 ppb	0.367 ppb	0.408 ppb	-0.445 ppb	97.699 %	0.518 ppb	0.030 ppb
Concentration per Run 3	0.012 ppb	0.348 ppb	0.280 ppb	-0.600 ppb	105.815 %	0.369 ppb	-0.158 ppb
Concentration RSD	137.2 %	22.1 %	29.0 %	19.6 %	4.1 %	38.4 %	115.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.462 ppb	-0.009 ppb	-0.025 ppb	102.204 %	-0.082 ppb	0.057 ppb	4.698 ppb
Concentration per Run 1	0.524 ppb	-0.006 ppb	-0.021 ppb	105.043 %	-0.097 ppb	0.094 ppb	4.270 ppb
Concentration per Run 2	0.541 ppb	-0.015 ppb	-0.027 ppb	97.733 %	-0.016 ppb	0.049 ppb	5.603 ppb
Concentration per Run 3	0.321 ppb	-0.006 ppb	-0.027 ppb	103.836 %	-0.133 ppb	0.028 ppb	4.220 ppb
Concentration RSD	26.5 %	53.7 %	13.1 %	3.8 %	72.8 %	59.9 %	16.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.787 %	-0.019 ppb	0.019 ppb	97.301 %
Concentration per Run 1	103.938 %	-0.020 ppb	0.018 ppb	102.080 %
Concentration per Run 2	97.941 %	-0.020 ppb	0.020 ppb	93.191 %
Concentration per Run 3	103.480 %	-0.018 ppb	0.019 ppb	96.633 %
Concentration RSD	3.3 %	6.1 %	5.8 %	4.6 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 78 Analysis started at: 3/14/2016 5:24:58 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	135.563 %	114.229 %	90.157 ppb	10,125.557 ppb	10,258.469 ppb	102.925 ppb	10,675.929 ppb
Concentration per Run 1	136.544 %	118.738 %	88.966 ppb	9,836.196 ppb	10,073.580 ppb	97.628 ppb	10,123.395 ppb
Concentration per Run 2	133.161 %	107.014 %	91.413 ppb	10,510.240 ppb	10,404.925 ppb	104.743 ppb	10,999.229 ppb
Concentration per Run 3	136.983 %	116.934 %	90.092 ppb	10,030.233 ppb	10,296.902 ppb	106.406 ppb	10,905.164 ppb
Recovery Percentage 1			90.157 %	101.256 %	102.585 %	102.925 %	106.759 %
Concentration RSD	1.5 %	5.5 %	1.4 %	3.4 %	1.6 %	4.5 %	4.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,173.283 ppb	99.607 %	109.193 %	101.922 ppb	106.522 ppb	103.128 ppb	10,862.018 ppb
Concentration per Run 1	9,719.939 ppb	104.522 %	107.473 %	97.484 ppb	102.382 ppb	101.299 ppb	10,723.012 ppb
Concentration per Run 2	10,191.103 ppb	96.433 %	111.659 %	106.576 ppb	108.549 ppb	105.424 ppb	10,989.266 ppb
Concentration per Run 3	10,608.806 ppb	97.865 %	108.445 %	101.706 ppb	108.633 ppb	102.662 ppb	10,873.775 ppb
Recovery Percentage 1	101.733 %			101.922 %	106.522 %	103.128 %	108.620 %
Concentration RSD	4.4 %	4.3 %	2.0 %	4.5 %	3.4 %	2.0 %	1.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	112.757 ppb	109.542 ppb	110.695 ppb	102.505 ppb	97.822 %	101.487 ppb	98.979 ppb
Concentration per Run 1	111.009 ppb	105.621 ppb	111.195 ppb	101.783 ppb	98.511 %	104.375 ppb	100.293 ppb
Concentration per Run 2	113.361 ppb	111.427 ppb	108.619 ppb	100.438 ppb	98.503 %	99.545 ppb	93.249 ppb
Concentration per Run 3	113.901 ppb	111.578 ppb	112.270 ppb	105.295 ppb	96.452 %	100.542 ppb	103.395 ppb
Recovery Percentage 1	112.757 %	109.542 %	110.695 %	102.505 %		101.487 %	98.979 %
Concentration RSD	1.4 %	3.1 %	1.7 %	2.4 %	1.2 %	2.5 %	5.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	106.449 ppb	109.550 ppb	104.373 ppb	98.641 %	108.273 ppb	102.857 ppb	104.928 ppb
Concentration per Run 1	108.178 ppb	108.900 ppb	105.983 ppb	98.082 %	109.704 ppb	102.377 ppb	102.150 ppb
Concentration per Run 2	103.134 ppb	111.925 ppb	104.481 ppb	99.155 %	106.462 ppb	99.848 ppb	104.067 ppb
Concentration per Run 3	108.035 ppb	107.824 ppb	102.655 ppb	98.686 %	108.652 ppb	106.347 ppb	108.566 ppb
Recovery Percentage 1	106.449 %	109.550 %	104.373 %		108.273 %	102.857 %	104.928 %
Concentration RSD	2.7 %	1.9 %	1.6 %	0.5 %	1.5 %	3.2 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.452 %	106.427 ppb	104.713 ppb	93.325 %
Concentration per Run 1	100.348 %	106.944 ppb	104.519 ppb	94.377 %
Concentration per Run 2	97.918 %	106.999 ppb	105.534 ppb	91.717 %
Concentration per Run 3	100.090 %	105.337 ppb	104.087 ppb	93.883 %
Recovery Percentage 1		106.427 %	104.713 %	
Concentration RSD	1.3 %	0.9 %	0.7 %	1.5 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 79 Analysis started at: 3/14/2016 5:28:05 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	134.980 %	113.227 %	0.011 ppb	5.810 ppb	2.706 ppb	0.106 ppb	6.625 ppb
Concentration per Run 1	136.877 %	120.542 %	0.006 ppb	4.429 ppb	1.901 ppb	-0.643 ppb	3.419 ppb
Concentration per Run 2	129.086 %	110.321 %	0.012 ppb	4.756 ppb	4.684 ppb	1.080 ppb	2.841 ppb
Concentration per Run 3	138.978 %	108.818 %	0.015 ppb	8.247 ppb	1.535 ppb	-0.118 ppb	13.614 ppb
Recovery Percentage 1			2.184 %	5.810 %	3.866 %	1.063 %	6.625 %
Concentration RSD	3.9 %	5.6 %	41.0 %	36.4 %	63.6 %	831.2 %	91.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5.872 ppb	97.893 %	109.688 %	0.032 ppb	0.057 ppb	0.346 ppb	1.829 ppb
Concentration per Run 1	5.447 ppb	94.663 %	109.202 %	0.000 ppb	0.058 ppb	0.515 ppb	2.578 ppb
Concentration per Run 2	-3.000 ppb	105.449 %	108.950 %	0.046 ppb	0.121 ppb	0.228 ppb	-0.501 ppb
Concentration per Run 3	15.170 ppb	93.568 %	110.911 %	0.051 ppb	-0.007 ppb	0.295 ppb	3.409 ppb
Recovery Percentage 1	5.872 %			0.646 %	5.732 %	34.595 %	3.657 %
Concentration RSD	154.8 %	6.7 %	1.0 %	87.0 %	111.8 %	43.4 %	112.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.032 ppb	0.058 ppb	0.060 ppb	-0.095 ppb	98.062 %	-0.006 ppb	-0.079 ppb
Concentration per Run 1	0.025 ppb	0.039 ppb	0.125 ppb	-0.052 ppb	97.252 %	-0.025 ppb	-0.164 ppb
Concentration per Run 2	0.065 ppb	0.058 ppb	0.000 ppb	-0.360 ppb	101.981 %	-0.007 ppb	-0.149 ppb
Concentration per Run 3	0.007 ppb	0.078 ppb	0.054 ppb	0.127 ppb	94.952 %	0.015 ppb	0.077 ppb
Recovery Percentage 1	6.483 %	11.686 %	5.950 %	-0.950 %	98.062 %	-1.159 %	-1.576 %
Concentration RSD	91.8 %	32.7 %	105.6 %	258.8 %	3.7 %	343.9 %	171.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.443 ppb	0.014 ppb	0.000 ppb	100.886 %	0.055 ppb	0.058 ppb	0.059 ppb
Concentration per Run 1	0.323 ppb	0.021 ppb	0.010 ppb	100.286 %	0.057 ppb	0.029 ppb	0.089 ppb
Concentration per Run 2	0.490 ppb	0.012 ppb	-0.008 ppb	99.621 %	0.020 ppb	0.083 ppb	0.089 ppb
Concentration per Run 3	0.517 ppb	0.007 ppb	-0.003 ppb	102.752 %	0.090 ppb	0.063 ppb	0.000 ppb
Recovery Percentage 1	14.780 %	3.384 %	-0.121 %		1.848 %	2.917 %	11.803 %
Concentration RSD	23.6 %	52.5 %	3,893.3 %	1.6 %	63.4 %	46.2 %	86.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.994 %	0.020 ppb	0.016 ppb	98.177 %
Concentration per Run 1	99.372 %	0.025 ppb	0.021 ppb	99.771 %
Concentration per Run 2	99.943 %	0.016 ppb	0.023 ppb	100.308 %
Concentration per Run 3	97.668 %	0.019 ppb	0.003 ppb	94.453 %
Recovery Percentage 1		3.938 %	3.183 %	98.177 %
Concentration RSD	1.2 %	22.8 %	68.0 %	3.3 %

Alpha ICPMSQ Full

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Analysis index: 80
Analysis label: L1606583-05 6020SL
Analysis started at: 3/14/2016 5:31:38 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 51

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	142.373 %	109.620 %	-0.002 ppb	189,517.682 ppb	32,889.234 ppb	2.834 ppb	23,919.651 ppb
Concentration per Run 1	141.409 %	106.714 %	-0.001 ppb	192,107.393 ppb	32,342.366 ppb	2.672 ppb	23,353.686 ppb
Concentration per Run 2	139.795 %	112.425 %	-0.002 ppb	184,266.893 ppb	32,698.327 ppb	2.903 ppb	22,860.183 ppb
Concentration per Run 3	145.915 %	109.720 %	-0.003 ppb	192,178.759 ppb	33,627.010 ppb	2.926 ppb	25,545.084 ppb
Concentration RSD	2.2 %	2.6 %	30.1 %	2.4 %	2.0 %	5.0 %	6.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	224,833.247 ppb	103.061 %	108.725 %	0.750 ppb	1.236 ppb	1,074.667 ppb	4,129.348 ppb
Concentration per Run 1	216,808.786 ppb	108.398 %	107.699 %	0.878 ppb	1.465 ppb	1,077.488 ppb	4,109.159 ppb
Concentration per Run 2	214,156.372 ppb	106.039 %	109.888 %	0.844 ppb	1.138 ppb	1,028.677 ppb	4,028.122 ppb
Concentration per Run 3	243,534.582 ppb	94.747 %	108.587 %	0.526 ppb	1.106 ppb	1,117.836 ppb	4,250.763 ppb
Concentration RSD	7.2 %	7.1 %	1.0 %	25.9 %	16.1 %	4.2 %	2.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.611 ppb	6.397 ppb	0.149 ppb	1.210 ppb	99.739 %	3.394 ppb	-0.036 ppb
Concentration per Run 1	0.604 ppb	5.651 ppb	0.232 ppb	1.033 ppb	98.850 %	3.619 ppb	-0.182 ppb
Concentration per Run 2	0.544 ppb	6.407 ppb	0.069 ppb	1.573 ppb	101.390 %	3.176 ppb	0.057 ppb
Concentration per Run 3	0.685 ppb	7.132 ppb	0.147 ppb	1.025 ppb	98.977 %	3.387 ppb	0.017 ppb
Concentration RSD	11.6 %	11.6 %	54.7 %	26.0 %	1.4 %	6.5 %	354.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.328 ppb	0.007 ppb	-0.020 ppb	93.486 %	0.092 ppb	0.140 ppb	109.731 ppb
Concentration per Run 1	4.532 ppb	0.013 ppb	-0.020 ppb	95.345 %	-0.013 ppb	0.162 ppb	110.809 ppb
Concentration per Run 2	4.120 ppb	0.004 ppb	-0.020 ppb	92.883 %	0.092 ppb	0.128 ppb	109.803 ppb
Concentration per Run 3	4.332 ppb	0.004 ppb	-0.020 ppb	92.230 %	0.197 ppb	0.129 ppb	108.581 ppb
Concentration RSD	4.8 %	72.7 %	1.0 %	1.8 %	114.5 %	13.9 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.565 %	-0.024 ppb	0.096 ppb	82.625 %
Concentration per Run 1	93.576 %	-0.022 ppb	0.089 ppb	84.402 %
Concentration per Run 2	96.318 %	-0.028 ppb	0.085 ppb	81.594 %
Concentration per Run 3	93.800 %	-0.022 ppb	0.114 ppb	81.881 %
Concentration RSD	1.6 %	13.7 %	16.5 %	1.9 %

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Analysis index: 81
Analysis label: L1606583-05D20 6020SL
Analysis started at: 3/14/2016 5:34:41 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 52

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	150.441 %	124.350 %	-0.005 ppb	8,467.705 ppb	1,502.645 ppb	-0.422 ppb	1,096.781 ppb
Concentration per Run 1	155.099 %	128.057 %	-0.002 ppb	7,727.221 ppb	1,341.239 ppb	-0.535 ppb	993.599 ppb
Concentration per Run 2	149.231 %	125.953 %	-0.002 ppb	8,547.339 ppb	1,499.353 ppb	-0.476 ppb	1,101.068 ppb
Concentration per Run 3	146.993 %	119.039 %	-0.009 ppb	9,128.555 ppb	1,667.342 ppb	-0.255 ppb	1,195.675 ppb
Concentration RSD	2.8 %	3.8 %	90.5 %	8.3 %	10.9 %	35.0 %	9.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,054.399 ppb	111.376 %	114.918 %	0.028 ppb	0.086 ppb	50.659 ppb	178.944 ppb
Concentration per Run 1	9,135.890 ppb	120.365 %	116.850 %	0.060 ppb	0.096 ppb	42.429 ppb	153.652 ppb
Concentration per Run 2	10,175.020 ppb	110.842 %	113.845 %	0.000 ppb	0.097 ppb	53.754 ppb	206.683 ppb
Concentration per Run 3	10,852.288 ppb	102.921 %	114.060 %	0.023 ppb	0.064 ppb	55.795 ppb	176.498 ppb
Concentration RSD	8.6 %	7.8 %	1.5 %	108.6 %	21.6 %	14.2 %	14.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.028 ppb	0.196 ppb	0.197 ppb	-0.813 ppb	109.479 %	0.171 ppb	0.044 ppb
Concentration per Run 1	0.018 ppb	0.253 ppb	0.190 ppb	-0.934 ppb	119.299 %	0.054 ppb	-0.159 ppb
Concentration per Run 2	0.053 ppb	0.077 ppb	0.212 ppb	-0.921 ppb	109.265 %	0.218 ppb	0.221 ppb
Concentration per Run 3	0.014 ppb	0.259 ppb	0.188 ppb	-0.582 ppb	99.872 %	0.240 ppb	0.070 ppb
Concentration RSD	75.0 %	52.5 %	6.7 %	24.5 %	8.9 %	59.5 %	433.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.215 ppb	-0.008 ppb	-0.031 ppb	110.102 %	-0.064 ppb	0.004 ppb	4.592 ppb
Concentration per Run 1	0.222 ppb	-0.004 ppb	-0.033 ppb	119.607 %	-0.069 ppb	-0.009 ppb	4.234 ppb
Concentration per Run 2	0.265 ppb	-0.011 ppb	-0.027 ppb	104.872 %	-0.061 ppb	-0.007 ppb	4.687 ppb
Concentration per Run 3	0.158 ppb	-0.011 ppb	-0.033 ppb	105.828 %	-0.061 ppb	0.027 ppb	4.855 ppb
Concentration RSD	25.2 %	48.3 %	10.9 %	7.5 %	7.7 %	504.3 %	7.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.965 %	-0.018 ppb	-0.004 ppb	98.994 %
Concentration per Run 1	111.805 %	-0.022 ppb	-0.007 ppb	104.260 %
Concentration per Run 2	106.251 %	-0.009 ppb	-0.003 ppb	98.547 %
Concentration per Run 3	99.839 %	-0.022 ppb	-0.003 ppb	94.174 %
Concentration RSD	5.7 %	41.4 %	44.2 %	5.1 %

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Analysis index: 82
Analysis label: L1606583-06 6020SL
Analysis started at: 3/14/2016 5:37:44 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 53

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	121.816 %	112.525 %	-0.005 ppb	555,041.118 ppb	71,601.837 ppb	10.461 ppb	37,420.501 ppb
Concentration per Run 1	118.280 %	104.910 %	0.001 ppb	568,328.895 ppb	73,783.763 ppb	10.212 ppb	37,376.054 ppb
Concentration per Run 2	124.017 %	121.143 %	-0.008 ppb	530,164.414 ppb	67,721.599 ppb	9.383 ppb	36,145.344 ppb
Concentration per Run 3	123.153 %	111.523 %	-0.007 ppb	566,630.047 ppb	73,300.150 ppb	11.788 ppb	38,740.106 ppb
Concentration RSD	2.5 %	7.3 %	99.6 %	3.9 %	4.7 %	11.7 %	3.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	258,908.900 ppb	99.410 %	95.784 %	0.548 ppb	0.915 ppb	1,704.604 ppb	6,346.143 ppb
Concentration per Run 1	254,205.835 ppb	104.690 %	92.643 %	0.446 ppb	0.790 ppb	1,670.563 ppb	6,249.850 ppb
Concentration per Run 2	250,140.078 ppb	100.140 %	98.198 %	0.486 ppb	0.962 ppb	1,704.395 ppb	6,412.752 ppb
Concentration per Run 3	272,380.788 ppb	93.400 %	96.510 %	0.713 ppb	0.992 ppb	1,738.854 ppb	6,375.828 ppb
Concentration RSD	4.6 %	5.7 %	3.0 %	26.3 %	11.9 %	2.0 %	1.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.129 ppb	3.374 ppb	0.355 ppb	1.951 ppb	94.351 %	0.927 ppb	-0.081 ppb
Concentration per Run 1	0.105 ppb	3.460 ppb	0.345 ppb	1.459 ppb	92.645 %	1.038 ppb	-0.163 ppb
Concentration per Run 2	0.098 ppb	3.082 ppb	0.349 ppb	2.413 ppb	93.411 %	0.848 ppb	-0.149 ppb
Concentration per Run 3	0.184 ppb	3.581 ppb	0.372 ppb	1.980 ppb	96.997 %	0.894 ppb	0.069 ppb
Concentration RSD	37.1 %	7.7 %	4.1 %	24.5 %	2.5 %	10.7 %	161.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.367 ppb	-0.010 ppb	-0.026 ppb	90.802 %	0.133 ppb	0.093 ppb	268.057 ppb
Concentration per Run 1	2.335 ppb	-0.015 ppb	-0.033 ppb	91.578 %	0.179 ppb	0.073 ppb	274.020 ppb
Concentration per Run 2	2.294 ppb	0.000 ppb	-0.019 ppb	89.636 %	0.185 ppb	0.114 ppb	264.394 ppb
Concentration per Run 3	2.473 ppb	-0.015 ppb	-0.026 ppb	91.192 %	0.034 ppb	0.093 ppb	265.757 ppb
Concentration RSD	3.9 %	86.0 %	26.2 %	1.1 %	64.4 %	21.7 %	1.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.660 %	-0.023 ppb	0.076 ppb	76.269 %
Concentration per Run 1	89.865 %	-0.027 ppb	0.083 ppb	76.017 %
Concentration per Run 2	92.639 %	-0.015 ppb	0.080 ppb	76.673 %
Concentration per Run 3	89.478 %	-0.027 ppb	0.065 ppb	76.116 %
Concentration RSD	1.9 %	30.9 %	12.5 %	0.5 %

Alpha ICPMSQ Full

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Analysis index: 83
Analysis label: L1606583-06D20 6020SL
Analysis started at: 3/14/2016 5:40:48 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 54

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	137.339 %	111.223 %	-0.007 ppb	28,368.962 ppb	3,835.403 ppb	-0.216 ppb	1,813.110 ppb
Concentration per Run 1	135.948 %	110.922 %	-0.008 ppb	27,052.420 ppb	3,593.753 ppb	-0.070 ppb	1,729.768 ppb
Concentration per Run 2	137.443 %	107.916 %	-0.005 ppb	29,030.023 ppb	4,029.342 ppb	-0.114 ppb	1,774.291 ppb
Concentration per Run 3	138.627 %	114.830 %	-0.006 ppb	29,024.442 ppb	3,883.113 ppb	-0.465 ppb	1,935.273 ppb
Concentration RSD	1.0 %	3.1 %	23.1 %	4.0 %	5.8 %	100.3 %	6.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	13,148.213 ppb	97.444 %	108.923 %	0.040 ppb	0.094 ppb	87.234 ppb	335.486 ppb
Concentration per Run 1	11,794.579 ppb	104.185 %	109.082 %	0.069 ppb	0.151 ppb	81.869 ppb	333.746 ppb
Concentration per Run 2	13,407.247 ppb	93.821 %	111.767 %	0.000 ppb	0.075 ppb	88.555 ppb	348.903 ppb
Concentration per Run 3	14,242.812 ppb	94.326 %	105.920 %	0.050 ppb	0.057 ppb	91.278 ppb	323.808 ppb
Concentration RSD	9.5 %	6.0 %	2.7 %	89.8 %	53.2 %	5.5 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.012 ppb	0.163 ppb	0.218 ppb	-0.804 ppb	102.364 %	0.048 ppb	-0.093 ppb
Concentration per Run 1	0.022 ppb	0.212 ppb	0.266 ppb	-0.710 ppb	106.327 %	0.117 ppb	0.032 ppb
Concentration per Run 2	0.016 ppb	0.107 ppb	0.244 ppb	-0.801 ppb	99.041 %	0.032 ppb	-0.151 ppb
Concentration per Run 3	-0.003 ppb	0.170 ppb	0.144 ppb	-0.903 ppb	101.725 %	-0.007 ppb	-0.161 ppb
Concentration RSD	110.8 %	32.6 %	30.0 %	12.0 %	3.6 %	133.2 %	117.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.136 ppb	-0.002 ppb	-0.029 ppb	102.419 %	-0.021 ppb	0.011 ppb	12.589 ppb
Concentration per Run 1	0.118 ppb	-0.002 ppb	-0.027 ppb	108.147 %	-0.045 ppb	0.009 ppb	11.746 ppb
Concentration per Run 2	0.146 ppb	-0.001 ppb	-0.027 ppb	99.723 %	-0.038 ppb	-0.006 ppb	13.237 ppb
Concentration per Run 3	0.144 ppb	-0.001 ppb	-0.033 ppb	99.388 %	0.020 ppb	0.030 ppb	12.784 ppb
Concentration RSD	11.4 %	32.5 %	11.9 %	4.8 %	169.7 %	160.0 %	6.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.989 %	-0.025 ppb	-0.015 ppb	95.991 %
Concentration per Run 1	105.544 %	-0.025 ppb	-0.009 ppb	98.924 %
Concentration per Run 2	99.966 %	-0.028 ppb	-0.015 ppb	95.261 %
Concentration per Run 3	100.458 %	-0.021 ppb	-0.021 ppb	93.787 %
Concentration RSD	3.0 %	13.5 %	41.5 %	2.8 %

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Analysis index: 84 Analysis started at: 3/14/2016 5:43:52 PM Rack: 1
Analysis label: WG873565-1 6020SL User name: ALPHALAB\a1metalsinstrument Vial: 55

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	139.244 %	109.319 %	-0.003 ppb	76.013 ppb	9.457 ppb	1.999 ppb	5.574 ppb
Concentration per Run 1	135.629 %	107.315 %	0.001 ppb	86.410 ppb	9.248 ppb	2.568 ppb	10.615 ppb
Concentration per Run 2	141.740 %	109.720 %	-0.004 ppb	71.820 ppb	7.510 ppb	1.680 ppb	3.269 ppb
Concentration per Run 3	140.362 %	110.922 %	-0.006 ppb	69.809 ppb	11.614 ppb	1.750 ppb	2.839 ppb
Concentration RSD	2.3 %	1.7 %	118.4 %	11.9 %	21.8 %	24.7 %	78.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	45.178 ppb	103.370 %	109.269 %	0.070 ppb	0.758 ppb	-0.034 ppb	3.817 ppb
Concentration per Run 1	46.084 ppb	105.954 %	104.988 %	0.091 ppb	0.851 ppb	-0.063 ppb	2.254 ppb
Concentration per Run 2	53.491 ppb	104.606 %	112.382 %	0.046 ppb	0.658 ppb	-0.166 ppb	6.617 ppb
Concentration per Run 3	35.958 ppb	99.550 %	110.438 %	0.074 ppb	0.765 ppb	0.127 ppb	2.579 ppb
Concentration RSD	19.5 %	3.3 %	3.5 %	31.9 %	12.7 %	437.0 %	63.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.006 ppb	1.535 ppb	0.149 ppb	1.034 ppb	96.933 %	-0.005 ppb	-0.013 ppb
Concentration per Run 1	0.005 ppb	1.767 ppb	0.272 ppb	0.969 ppb	102.939 %	-0.007 ppb	0.036 ppb
Concentration per Run 2	-0.003 ppb	1.504 ppb	0.096 ppb	1.168 ppb	97.637 %	-0.025 ppb	-0.127 ppb
Concentration per Run 3	0.016 ppb	1.333 ppb	0.081 ppb	0.965 ppb	90.224 %	0.017 ppb	0.051 ppb
Concentration RSD	159.8 %	14.3 %	71.1 %	11.2 %	6.6 %	407.5 %	753.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.439 ppb	-0.006 ppb	-0.027 ppb	99.664 %	-0.045 ppb	0.253 ppb	0.103 ppb
Concentration per Run 1	0.409 ppb	-0.002 ppb	-0.021 ppb	104.365 %	-0.024 ppb	0.247 ppb	0.127 ppb
Concentration per Run 2	0.398 ppb	-0.006 ppb	-0.027 ppb	98.187 %	-0.017 ppb	0.335 ppb	0.135 ppb
Concentration per Run 3	0.511 ppb	-0.010 ppb	-0.033 ppb	96.439 %	-0.094 ppb	0.177 ppb	0.046 ppb
Concentration RSD	14.2 %	68.2 %	22.0 %	4.2 %	95.0 %	31.3 %	47.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.016 %	-0.028 ppb	0.013 ppb	96.265 %
Concentration per Run 1	102.233 %	-0.029 ppb	0.009 ppb	98.375 %
Concentration per Run 2	99.142 %	-0.033 ppb	0.019 ppb	94.163 %
Concentration per Run 3	98.672 %	-0.023 ppb	0.012 ppb	96.257 %
Concentration RSD	1.9 %	18.1 %	35.7 %	2.2 %

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Analysis index: 85
Analysis label: L1606544-05 6020SL
Analysis started at: 3/14/2016 5:46:56 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 56

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	130.420 %	106.313 %	-0.004 ppb	204.843 ppb	6.153 ppb	2.481 ppb	12.474 ppb
Concentration per Run 1	132.475 %	103.106 %	-0.003 ppb	213.448 ppb	6.175 ppb	2.737 ppb	9.529 ppb
Concentration per Run 2	131.087 %	107.615 %	-0.008 ppb	204.850 ppb	8.528 ppb	2.320 ppb	14.986 ppb
Concentration per Run 3	127.696 %	108.217 %	-0.002 ppb	196.232 ppb	3.756 ppb	2.386 ppb	12.906 ppb
Concentration RSD	1.9 %	2.6 %	69.6 %	4.2 %	38.8 %	9.0 %	22.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	24.392 ppb	99.354 %	103.703 %	0.089 ppb	0.996 ppb	-0.347 ppb	4.997 ppb
Concentration per Run 1	23.868 ppb	101.994 %	104.898 %	0.071 ppb	1.005 ppb	-0.507 ppb	4.629 ppb
Concentration per Run 2	19.786 ppb	96.264 %	103.391 %	0.050 ppb	0.860 ppb	-0.003 ppb	5.609 ppb
Concentration per Run 3	29.522 ppb	99.803 %	102.820 %	0.146 ppb	1.124 ppb	-0.530 ppb	4.753 ppb
Concentration RSD	20.0 %	2.9 %	1.0 %	56.5 %	13.3 %	85.9 %	10.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.013 ppb	1.917 ppb	2.008 ppb	0.850 ppb	94.441 %	-0.005 ppb	0.133 ppb
Concentration per Run 1	0.006 ppb	1.913 ppb	2.107 ppb	0.643 ppb	95.336 %	-0.025 ppb	-0.186 ppb
Concentration per Run 2	0.016 ppb	2.051 ppb	1.986 ppb	0.799 ppb	94.569 %	0.035 ppb	0.510 ppb
Concentration per Run 3	0.016 ppb	1.786 ppb	1.930 ppb	1.107 ppb	93.419 %	-0.025 ppb	0.074 ppb
Concentration RSD	44.7 %	6.9 %	4.5 %	27.8 %	1.0 %	660.2 %	264.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.560 ppb	-0.004 ppb	-0.026 ppb	96.643 %	0.062 ppb	0.612 ppb	0.151 ppb
Concentration per Run 1	0.457 ppb	0.003 ppb	-0.033 ppb	98.069 %	0.138 ppb	0.656 ppb	0.178 ppb
Concentration per Run 2	0.693 ppb	-0.006 ppb	-0.027 ppb	98.264 %	0.060 ppb	0.567 ppb	0.135 ppb
Concentration per Run 3	0.529 ppb	-0.010 ppb	-0.020 ppb	93.594 %	-0.011 ppb	0.613 ppb	0.141 ppb
Concentration RSD	21.6 %	166.8 %	24.9 %	2.7 %	120.0 %	7.3 %	15.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.116 %	-0.027 ppb	0.028 ppb	94.560 %
Concentration per Run 1	101.200 %	-0.028 ppb	0.027 ppb	97.033 %
Concentration per Run 2	99.311 %	-0.022 ppb	0.023 ppb	93.995 %
Concentration per Run 3	96.836 %	-0.031 ppb	0.034 ppb	92.652 %
Concentration RSD	2.2 %	16.6 %	18.9 %	2.4 %

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Analysis index: 86 Analysis started at: 3/14/2016 5:50:00 PM Rack: 1
Analysis label: WG873565-3 6020SL User name: ALPHALAB\a1metalsinstrument Vial: 57

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	130.529 %	106.213 %	-0.004 ppb	205.611 ppb	5.991 ppb	1.667 ppb	8.897 ppb
Concentration per Run 1	132.684 %	117.536 %	-0.004 ppb	186.719 ppb	7.464 ppb	1.847 ppb	19.197 ppb
Concentration per Run 2	130.758 %	103.106 %	-0.004 ppb	214.614 ppb	4.087 ppb	1.536 ppb	1.450 ppb
Concentration per Run 3	128.146 %	97.996 %	-0.006 ppb	215.500 ppb	6.423 ppb	1.617 ppb	6.044 ppb
Concentration RSD	1.7 %	9.5 %	25.3 %	8.0 %	28.9 %	9.7 %	103.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	18.282 ppb	96.573 %	100.374 %	0.092 ppb	1.019 ppb	-0.316 ppb	4.087 ppb
Concentration per Run 1	20.087 ppb	96.686 %	99.598 %	0.025 ppb	1.047 ppb	-0.217 ppb	4.789 ppb
Concentration per Run 2	11.931 ppb	92.136 %	100.080 %	0.129 ppb	0.969 ppb	-0.369 ppb	4.942 ppb
Concentration per Run 3	22.828 ppb	100.899 %	101.445 %	0.121 ppb	1.041 ppb	-0.361 ppb	2.531 ppb
Concentration RSD	31.0 %	4.5 %	1.0 %	63.3 %	4.3 %	27.0 %	33.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.022 ppb	1.616 ppb	1.914 ppb	3.644 ppb	94.931 %	0.002 ppb	0.109 ppb
Concentration per Run 1	0.016 ppb	1.545 ppb	1.859 ppb	3.587 ppb	96.422 %	0.014 ppb	0.488 ppb
Concentration per Run 2	0.035 ppb	1.403 ppb	1.656 ppb	3.594 ppb	97.061 %	-0.025 ppb	-0.184 ppb
Concentration per Run 3	0.016 ppb	1.900 ppb	2.228 ppb	3.750 ppb	91.310 %	0.016 ppb	0.024 ppb
Concentration RSD	50.3 %	15.8 %	15.2 %	2.5 %	3.3 %	1,400.4 %	315.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.475 ppb	-0.013 ppb	-0.024 ppb	94.278 %	0.022 ppb	0.510 ppb	0.077 ppb
Concentration per Run 1	0.550 ppb	-0.015 ppb	-0.026 ppb	96.144 %	0.025 ppb	0.414 ppb	0.181 ppb
Concentration per Run 2	0.332 ppb	-0.015 ppb	-0.020 ppb	95.511 %	-0.034 ppb	0.562 ppb	0.046 ppb
Concentration per Run 3	0.542 ppb	-0.010 ppb	-0.026 ppb	91.180 %	0.075 ppb	0.554 ppb	0.004 ppb
Concentration RSD	26.0 %	21.3 %	15.0 %	2.9 %	248.1 %	16.4 %	120.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.064 %	-0.022 ppb	0.024 ppb	94.436 %
Concentration per Run 1	100.241 %	-0.021 ppb	0.021 ppb	96.591 %
Concentration per Run 2	100.802 %	-0.024 ppb	0.020 ppb	94.500 %
Concentration per Run 3	93.149 %	-0.021 ppb	0.032 ppb	92.216 %
Concentration RSD	4.3 %	7.1 %	28.9 %	2.3 %

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3/15/2016 2:21:09 PM

Analysis index: 87
Analysis label: L1606583-10 6020TL
Analysis started at: 3/14/2016 5:53:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 58

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	131.431 %	107.515 %	-0.003 ppb	209.284 ppb	7.036 ppb	1.269 ppb	17.312 ppb
Concentration per Run 1	133.358 %	117.235 %	-0.003 ppb	194.466 ppb	5.245 ppb	0.675 ppb	9.843 ppb
Concentration per Run 2	132.337 %	102.505 %	-0.001 ppb	213.162 ppb	8.138 ppb	1.605 ppb	10.045 ppb
Concentration per Run 3	128.598 %	102.806 %	-0.005 ppb	220.223 ppb	7.726 ppb	1.526 ppb	32.048 ppb
Concentration RSD	1.9 %	7.8 %	72.2 %	6.4 %	22.2 %	40.7 %	73.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	23.670 ppb	95.927 %	101.747 %	0.125 ppb	1.065 ppb	-0.384 ppb	3.800 ppb
Concentration per Run 1	13.190 ppb	97.107 %	101.648 %	0.148 ppb	1.149 ppb	-0.463 ppb	2.495 ppb
Concentration per Run 2	37.156 ppb	97.696 %	102.470 %	0.074 ppb	1.011 ppb	-0.320 ppb	7.793 ppb
Concentration per Run 3	20.664 ppb	92.978 %	101.124 %	0.154 ppb	1.034 ppb	-0.368 ppb	1.112 ppb
Concentration RSD	51.8 %	2.7 %	0.7 %	35.4 %	7.0 %	18.9 %	92.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.009 ppb	1.288 ppb	0.949 ppb	-0.122 ppb	96.315 %	-0.019 ppb	-0.166 ppb
Concentration per Run 1	-0.003 ppb	1.283 ppb	1.032 ppb	-0.347 ppb	98.977 %	-0.006 ppb	-0.170 ppb
Concentration per Run 2	-0.012 ppb	1.449 ppb	1.087 ppb	0.158 ppb	94.696 %	-0.025 ppb	-0.173 ppb
Concentration per Run 3	-0.012 ppb	1.131 ppb	0.726 ppb	-0.176 ppb	95.272 %	-0.025 ppb	-0.154 ppb
Concentration RSD	59.0 %	12.3 %	20.5 %	210.8 %	2.4 %	58.6 %	6.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.474 ppb	-0.010 ppb	-0.026 ppb	95.274 %	0.294 ppb	0.464 ppb	0.158 ppb
Concentration per Run 1	0.418 ppb	-0.010 ppb	-0.033 ppb	95.750 %	0.364 ppb	0.473 ppb	0.094 ppb
Concentration per Run 2	0.444 ppb	-0.015 ppb	-0.026 ppb	96.505 %	0.183 ppb	0.470 ppb	0.140 ppb
Concentration per Run 3	0.561 ppb	-0.005 ppb	-0.020 ppb	93.568 %	0.335 ppb	0.448 ppb	0.241 ppb
Concentration RSD	16.0 %	46.7 %	24.9 %	1.6 %	33.2 %	3.0 %	47.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.559 %	-0.025 ppb	0.004 ppb	92.739 %
Concentration per Run 1	95.567 %	-0.022 ppb	0.000 ppb	94.499 %
Concentration per Run 2	95.708 %	-0.025 ppb	0.007 ppb	93.479 %
Concentration per Run 3	92.402 %	-0.028 ppb	0.006 ppb	90.239 %
Concentration RSD	2.0 %	12.2 %	84.1 %	2.4 %

Alpha ICPMSQ Full

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Analysis index: 88
Analysis label: WG873565-2D5 6020SL
Analysis started at: 3/14/2016 5:56:09 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 59

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	130.398 %	104.008 %	9.102 ppb	2,194.238 ppb	2,223.631 ppb	419.570 ppb	2,190.526 ppb
Concentration per Run 1	133.118 %	99.198 %	8.877 ppb	2,229.386 ppb	2,343.440 ppb	446.275 ppb	2,358.550 ppb
Concentration per Run 2	126.715 %	104.008 %	9.373 ppb	2,188.556 ppb	2,119.299 ppb	420.025 ppb	2,181.870 ppb
Concentration per Run 3	131.361 %	108.818 %	9.056 ppb	2,164.773 ppb	2,208.155 ppb	392.411 ppb	2,031.159 ppb
Concentration RSD	2.5 %	4.6 %	2.8 %	1.5 %	5.1 %	6.4 %	7.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,128.793 ppb	92.670 %	101.522 %	104.578 ppb	40.755 ppb	103.104 ppb	214.650 ppb
Concentration per Run 1	2,252.576 ppb	90.872 %	102.742 %	109.101 ppb	44.434 ppb	103.863 ppb	223.527 ppb
Concentration per Run 2	2,133.010 ppb	90.367 %	100.175 %	102.389 ppb	39.305 ppb	100.755 ppb	204.633 ppb
Concentration per Run 3	2,000.792 ppb	96.770 %	101.649 %	102.245 ppb	38.527 ppb	104.695 ppb	215.789 ppb
Concentration RSD	5.9 %	3.8 %	1.3 %	3.7 %	7.9 %	2.0 %	4.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	104.810 ppb	110.393 ppb	53.695 ppb	99.744 ppb	94.764 %	25.086 ppb	23.751 ppb
Concentration per Run 1	110.293 ppb	113.282 ppb	52.696 ppb	103.360 ppb	94.283 %	25.531 ppb	23.973 ppb
Concentration per Run 2	101.097 ppb	108.770 ppb	52.632 ppb	96.702 ppb	99.353 %	24.088 ppb	22.671 ppb
Concentration per Run 3	103.041 ppb	109.128 ppb	55.755 ppb	99.170 ppb	90.657 %	25.639 ppb	24.609 ppb
Concentration RSD	4.6 %	2.3 %	3.3 %	3.4 %	4.6 %	3.5 %	4.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	202.274 ppb	9.927 ppb	11.166 ppb	97.194 %	211.896 ppb	94.587 ppb	392.259 ppb
Concentration per Run 1	205.546 ppb	9.954 ppb	11.566 ppb	97.719 %	217.038 ppb	96.923 ppb	396.863 ppb
Concentration per Run 2	192.905 ppb	9.515 ppb	10.625 ppb	97.487 %	205.073 ppb	92.530 ppb	376.382 ppb
Concentration per Run 3	208.372 ppb	10.313 ppb	11.306 ppb	96.375 %	213.578 ppb	94.308 ppb	403.530 ppb
Concentration RSD	4.1 %	4.0 %	4.4 %	0.7 %	2.9 %	2.3 %	3.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.938 %	25.423 ppb	112.267 ppb	93.316 %
Concentration per Run 1	97.993 %	25.740 ppb	113.398 ppb	94.221 %
Concentration per Run 2	99.299 %	25.235 ppb	106.372 ppb	92.232 %
Concentration per Run 3	93.522 %	25.294 ppb	117.031 ppb	93.496 %
Concentration RSD	3.1 %	1.1 %	4.8 %	1.1 %

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Analysis index: 89
Analysis label: WG873565-6D5 6020SL
Analysis started at: 3/14/2016 5:59:15 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 60

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	131.546 %	105.411 %	-0.005 ppb	37.949 ppb	-0.259 ppb	-0.260 ppb	-3.037 ppb
Concentration per Run 1	126.805 %	100.100 %	-0.007 ppb	39.297 ppb	-0.222 ppb	-0.284 ppb	3.280 ppb
Concentration per Run 2	134.511 %	110.922 %	-0.006 ppb	39.901 ppb	0.266 ppb	-0.355 ppb	-12.039 ppb
Concentration per Run 3	133.323 %	105.210 %	-0.003 ppb	34.651 ppb	-0.821 ppb	-0.142 ppb	-0.352 ppb
Concentration RSD	3.2 %	5.1 %	39.8 %	7.6 %	210.4 %	41.5 %	263.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-9.407 ppb	101.853 %	98.786 %	0.024 ppb	0.281 ppb	-0.705 ppb	0.515 ppb
Concentration per Run 1	-14.229 ppb	102.499 %	97.642 %	0.024 ppb	0.268 ppb	-0.707 ppb	0.979 ppb
Concentration per Run 2	-11.867 ppb	103.426 %	98.853 %	0.047 ppb	0.343 ppb	-0.645 ppb	-0.477 ppb
Concentration per Run 3	-2.126 ppb	99.635 %	99.863 %	0.000 ppb	0.231 ppb	-0.765 ppb	1.044 ppb
Concentration RSD	68.2 %	1.9 %	1.1 %	99.7 %	20.3 %	8.5 %	167.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.000 ppb	0.338 ppb	0.538 ppb	-0.374 ppb	95.016 %	0.001 ppb	0.261 ppb
Concentration per Run 1	-0.003 ppb	0.201 ppb	0.532 ppb	-0.370 ppb	95.719 %	-0.025 ppb	0.472 ppb
Concentration per Run 2	0.006 ppb	0.397 ppb	0.407 ppb	-0.375 ppb	96.613 %	0.014 ppb	0.057 ppb
Concentration per Run 3	-0.003 ppb	0.418 ppb	0.674 ppb	-0.376 ppb	92.716 %	0.016 ppb	0.253 ppb
Concentration RSD	6,064.6 %	35.3 %	24.8 %	0.9 %	2.1 %	1,598.3 %	79.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.765 ppb	-0.004 ppb	-0.024 ppb	93.628 %	0.138 ppb	1.038 ppb	-0.029 ppb
Concentration per Run 1	0.640 ppb	-0.010 ppb	-0.020 ppb	96.919 %	0.142 ppb	1.196 ppb	-0.044 ppb
Concentration per Run 2	0.930 ppb	-0.005 ppb	-0.026 ppb	92.223 %	0.134 ppb	0.848 ppb	0.002 ppb
Concentration per Run 3	0.725 ppb	0.005 ppb	-0.026 ppb	91.741 %	0.136 ppb	1.070 ppb	-0.044 ppb
Concentration RSD	19.5 %	205.1 %	14.4 %	3.1 %	3.0 %	17.0 %	93.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.420 %	-0.020 ppb	0.006 ppb	92.560 %
Concentration per Run 1	95.956 %	-0.018 ppb	0.006 ppb	93.323 %
Concentration per Run 2	97.689 %	-0.021 ppb	0.003 ppb	93.343 %
Concentration per Run 3	92.617 %	-0.021 ppb	0.010 ppb	91.013 %
Concentration RSD	2.7 %	7.1 %	48.7 %	1.4 %

Analysis index: 90 Analysis started at: 3/14/2016 6:02:20 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	130.762 %	114.229 %	89.976 ppb	9,894.441 ppb	10,160.861 ppb	105.046 ppb	10,823.536 ppb
Concentration per Run 1	129.941 %	111.223 %	91.058 ppb	10,255.618 ppb	10,599.331 ppb	109.954 ppb	11,317.773 ppb
Concentration per Run 2	132.046 %	119.640 %	89.143 ppb	9,435.417 ppb	9,636.753 ppb	98.728 ppb	9,899.123 ppb
Concentration per Run 3	130.300 %	111.824 %	89.727 ppb	9,992.287 ppb	10,246.500 ppb	106.457 ppb	11,253.711 ppb
Recovery Percentage 1			89.976 %	98.944 %	101.609 %	105.046 %	108.235 %
Concentration RSD	0.9 %	4.1 %	1.1 %	4.2 %	4.8 %	5.5 %	7.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,830.924 ppb	93.147 %	100.798 %	105.796 ppb	108.685 ppb	104.669 ppb	10,737.339 ppb
Concentration per Run 1	11,162.915 ppb	91.546 %	100.421 %	106.406 ppb	111.272 ppb	105.768 ppb	10,924.562 ppb
Concentration per Run 2	10,478.313 ppb	98.034 %	102.358 %	104.584 ppb	106.164 ppb	104.444 ppb	10,349.854 ppb
Concentration per Run 3	10,851.543 ppb	89.861 %	99.613 %	106.397 ppb	108.619 ppb	103.795 ppb	10,937.600 ppb
Recovery Percentage 1	108.309 %			105.796 %	108.685 %	104.669 %	107.373 %
Concentration RSD	3.2 %	4.6 %	1.4 %	1.0 %	2.4 %	1.0 %	3.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	109.668 ppb	108.045 ppb	108.803 ppb	103.588 ppb	94.587 %	98.930 ppb	98.853 ppb
Concentration per Run 1	109.925 ppb	112.461 ppb	106.711 ppb	104.364 ppb	95.587 %	102.620 ppb	97.843 ppb
Concentration per Run 2	107.283 ppb	104.161 ppb	112.547 ppb	102.300 ppb	94.719 %	97.874 ppb	94.982 ppb
Concentration per Run 3	111.795 ppb	107.514 ppb	107.151 ppb	104.101 ppb	93.456 %	96.296 ppb	103.736 ppb
Recovery Percentage 1	109.668 %	108.045 %	108.803 %	103.588 %		98.930 %	98.853 %
Concentration RSD	2.1 %	3.9 %	3.0 %	1.1 %	1.1 %	3.3 %	4.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	106.398 ppb	108.270 ppb	108.951 ppb	92.286 %	111.202 ppb	103.552 ppb	103.720 ppb
Concentration per Run 1	104.231 ppb	106.458 ppb	107.147 ppb	95.571 %	112.302 ppb	105.182 ppb	102.096 ppb
Concentration per Run 2	107.265 ppb	108.512 ppb	110.196 ppb	91.663 %	113.032 ppb	103.108 ppb	102.689 ppb
Concentration per Run 3	107.699 ppb	109.841 ppb	109.509 ppb	89.624 %	108.273 ppb	102.367 ppb	106.377 ppb
Recovery Percentage 1	106.398 %	108.270 %	108.951 %		111.202 %	103.552 %	103.720 %
Concentration RSD	1.8 %	1.6 %	1.5 %	3.3 %	2.3 %	1.4 %	2.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.145 %	105.739 ppb	104.856 ppb	91.958 %
Concentration per Run 1	98.372 %	107.934 ppb	104.602 ppb	93.700 %
Concentration per Run 2	95.126 %	103.262 ppb	105.630 ppb	91.733 %
Concentration per Run 3	94.937 %	106.020 ppb	104.337 ppb	90.441 %
Recovery Percentage 1		105.739 %	104.856 %	
Concentration RSD	2.0 %	2.2 %	0.7 %	1.8 %

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Analysis index: 91 Analysis started at: 3/14/2016 6:05:28 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	130.141 %	109.620 %	0.015 ppb	103.798 ppb	17.982 ppb	0.203 ppb	21.366 ppb
Concentration per Run 1	125.215 %	114.529 %	0.015 ppb	6.142 ppb	1.314 ppb	-0.526 ppb	0.218 ppb
Concentration per Run 2	133.139 %	108.517 %	0.014 ppb	6.176 ppb	0.867 ppb	0.413 ppb	18.993 ppb
Concentration per Run 3	132.071 %	105.812 %	0.017 ppb	299.075 ppb	51.764 ppb	0.720 ppb	44.889 ppb
Recovery Percentage 1			3.071 %	103.798 %	25.689 %	2.025 %	21.366 %
Concentration RSD	3.3 %	4.1 %	10.7 %	162.9 %	162.7 %	320.4 %	105.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	61.109 ppb	99.158 %	102.327 %	0.116 ppb	0.165 ppb	0.386 ppb	9.924 ppb
Concentration per Run 1	0.386 ppb	104.775 %	101.633 %	0.046 ppb	0.017 ppb	-0.011 ppb	2.330 ppb
Concentration per Run 2	15.014 ppb	101.657 %	101.729 %	0.095 ppb	0.144 ppb	-0.021 ppb	2.401 ppb
Concentration per Run 3	167.927 ppb	91.041 %	103.621 %	0.208 ppb	0.333 ppb	1.190 ppb	25.039 ppb
Recovery Percentage 1	61.109 %			2.326 %	16.469 %	38.594 %	19.847 %
Concentration RSD	151.9 %	7.3 %	1.1 %	71.2 %	96.6 %	180.5 %	131.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.085 ppb	0.203 ppb	0.075 ppb	0.150 ppb	98.402 %	0.052 ppb	0.067 ppb
Concentration per Run 1	-0.003 ppb	0.127 ppb	0.024 ppb	-0.152 ppb	99.169 %	0.013 ppb	0.046 ppb
Concentration per Run 2	0.015 ppb	0.263 ppb	0.049 ppb	0.162 ppb	98.722 %	0.013 ppb	0.066 ppb
Concentration per Run 3	0.243 ppb	0.218 ppb	0.152 ppb	0.440 ppb	97.316 %	0.131 ppb	0.087 ppb
Recovery Percentage 1	16.967 %	40.517 %	7.479 %	1.498 %	98.402 %	10.442 %	1.335 %
Concentration RSD	161.8 %	34.3 %	90.5 %	197.6 %	1.0 %	130.0 %	30.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.510 ppb	0.054 ppb	0.040 ppb	97.327 %	0.156 ppb	0.238 ppb	0.124 ppb
Concentration per Run 1	0.543 ppb	0.012 ppb	-0.009 ppb	101.752 %	0.054 ppb	0.150 ppb	-0.001 ppb
Concentration per Run 2	0.491 ppb	-0.001 ppb	-0.014 ppb	95.646 %	0.026 ppb	0.272 ppb	-0.044 ppb
Concentration per Run 3	0.497 ppb	0.152 ppb	0.142 ppb	94.582 %	0.389 ppb	0.292 ppb	0.416 ppb
Recovery Percentage 1	17.013 %	13.541 %	20.010 %		5.216 %	11.892 %	24.733 %
Concentration RSD	5.6 %	156.4 %	221.5 %	4.0 %	129.2 %	32.3 %	205.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.835 %	0.066 ppb	0.081 ppb	95.084 %
Concentration per Run 1	101.619 %	0.019 ppb	0.015 ppb	96.708 %
Concentration per Run 2	94.429 %	0.033 ppb	0.009 ppb	92.516 %
Concentration per Run 3	97.457 %	0.146 ppb	0.220 ppb	96.027 %
Recovery Percentage 1		13.167 %	16.293 %	95.084 %
Concentration RSD	3.7 %	105.7 %	147.5 %	2.4 %

Alpha ICPMSQ Full

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Analysis index: 92
Analysis label: WG873565-4D20 6020SL
Analysis started at: 3/14/2016 6:16:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	125.414 %	112.425 %	4.475 ppb	1,018.290 ppb	1,026.617 ppb	197.467 ppb	1,010.053 ppb
Concentration per Run 1	125.213 %	105.812 %	4.477 ppb	1,017.132 ppb	1,034.974 ppb	190.950 ppb	938.727 ppb
Concentration per Run 2	127.628 %	113.628 %	4.428 ppb	1,048.548 ppb	1,053.980 ppb	201.786 ppb	1,045.491 ppb
Concentration per Run 3	123.399 %	117.836 %	4.521 ppb	989.189 ppb	990.898 ppb	199.665 ppb	1,045.942 ppb
Concentration RSD	1.7 %	5.4 %	1.0 %	2.9 %	3.2 %	2.9 %	6.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,009.663 ppb	92.922 %	99.523 %	53.167 ppb	20.374 ppb	49.704 ppb	108.383 ppb
Concentration per Run 1	961.967 ppb	101.151 %	97.887 %	53.089 ppb	19.520 ppb	50.230 ppb	104.963 ppb
Concentration per Run 2	1,095.494 ppb	90.198 %	98.703 %	52.585 ppb	20.930 ppb	49.303 ppb	123.117 ppb
Concentration per Run 3	971.529 ppb	87.417 %	101.978 %	53.827 ppb	20.673 ppb	49.580 ppb	97.068 ppb
Concentration RSD	7.4 %	7.8 %	2.2 %	1.2 %	3.7 %	1.0 %	12.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	53.064 ppb	53.468 ppb	27.148 ppb	48.504 ppb	96.473 %	12.461 ppb	11.904 ppb
Concentration per Run 1	53.263 ppb	54.172 ppb	26.867 ppb	48.631 ppb	95.200 %	12.623 ppb	11.903 ppb
Concentration per Run 2	55.438 ppb	53.837 ppb	28.264 ppb	49.555 ppb	94.155 %	12.531 ppb	13.586 ppb
Concentration per Run 3	50.489 ppb	52.395 ppb	26.313 ppb	47.327 ppb	100.064 %	12.228 ppb	10.224 ppb
Concentration RSD	4.7 %	1.8 %	3.7 %	2.3 %	3.3 %	1.7 %	14.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	99.844 ppb	4.850 ppb	5.597 ppb	94.481 %	110.079 ppb	48.661 ppb	198.175 ppb
Concentration per Run 1	105.020 ppb	4.916 ppb	5.347 ppb	97.599 %	112.706 ppb	49.929 ppb	202.105 ppb
Concentration per Run 2	99.129 ppb	4.875 ppb	5.517 ppb	93.678 %	108.942 ppb	47.728 ppb	195.121 ppb
Concentration per Run 3	95.384 ppb	4.757 ppb	5.928 ppb	92.166 %	108.590 ppb	48.325 ppb	197.299 ppb
Concentration RSD	4.9 %	1.7 %	5.3 %	3.0 %	2.1 %	2.3 %	1.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.117 %	12.577 ppb	56.695 ppb	94.767 %
Concentration per Run 1	99.967 %	12.542 ppb	57.805 ppb	96.451 %
Concentration per Run 2	98.823 %	12.665 ppb	55.529 ppb	93.342 %
Concentration per Run 3	95.562 %	12.523 ppb	56.751 ppb	94.509 %
Concentration RSD	2.3 %	0.6 %	2.0 %	1.7 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 93
Analysis label: WG873565-5D20 6020SL
Analysis started at: 3/14/2016 6:19:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	124.605 %	108.918 %	122.521 ppb	13,093.739 ppb	14,528.224 ppb	147.004 ppb	12,778.892 ppb
Concentration per Run 1	123.358 %	108.217 %	124.683 ppb	13,570.996 ppb	15,121.189 ppb	150.741 ppb	12,956.997 ppb
Concentration per Run 2	123.239 %	110.321 %	123.091 ppb	12,836.434 ppb	14,439.100 ppb	150.644 ppb	13,163.965 ppb
Concentration per Run 3	127.219 %	108.217 %	119.788 ppb	12,873.788 ppb	14,024.383 ppb	139.628 ppb	12,215.712 ppb
Concentration RSD	1.8 %	1.1 %	2.0 %	3.2 %	3.8 %	4.3 %	3.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	14,440.915 ppb	95.759 %	104.063 %	146.249 ppb	154.530 ppb	148.405 ppb	15,568.081 ppb
Concentration per Run 1	14,179.019 ppb	96.432 %	101.411 %	149.138 ppb	159.778 ppb	151.441 ppb	16,242.571 ppb
Concentration per Run 2	14,911.389 ppb	93.231 %	105.452 %	146.165 ppb	151.864 ppb	146.380 ppb	15,243.229 ppb
Concentration per Run 3	14,232.338 ppb	97.612 %	105.326 %	143.445 ppb	151.948 ppb	147.393 ppb	15,218.445 ppb
Concentration RSD	2.8 %	2.4 %	2.2 %	1.9 %	2.9 %	1.8 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	155.249 ppb	154.687 ppb	155.412 ppb	143.692 ppb	96.148 %	137.471 ppb	128.537 ppb
Concentration per Run 1	160.423 ppb	162.182 ppb	159.881 ppb	149.294 ppb	97.590 %	141.103 ppb	127.871 ppb
Concentration per Run 2	150.770 ppb	153.666 ppb	154.819 ppb	140.772 ppb	99.537 %	129.130 ppb	124.161 ppb
Concentration per Run 3	154.554 ppb	148.214 ppb	151.535 ppb	141.009 ppb	91.318 %	142.181 ppb	133.580 ppb
Concentration RSD	3.1 %	4.6 %	2.7 %	3.4 %	4.5 %	5.3 %	3.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	150.198 ppb	106.826 ppb	150.386 ppb	93.532 %	152.081 ppb	147.755 ppb	144.994 ppb
Concentration per Run 1	155.239 ppb	137.402 ppb	151.851 ppb	94.434 %	153.172 ppb	148.597 ppb	146.697 ppb
Concentration per Run 2	144.090 ppb	103.842 ppb	147.933 ppb	94.690 %	146.788 ppb	148.444 ppb	146.433 ppb
Concentration per Run 3	151.265 ppb	79.233 ppb	151.376 ppb	91.472 %	156.282 ppb	146.225 ppb	141.851 ppb
Concentration RSD	3.8 %	27.3 %	1.4 %	1.9 %	3.2 %	0.9 %	1.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.387 %	136.316 ppb	148.320 ppb	89.064 %
Concentration per Run 1	99.361 %	137.901 ppb	151.135 ppb	90.522 %
Concentration per Run 2	95.036 %	134.211 ppb	147.690 ppb	90.696 %
Concentration per Run 3	94.765 %	136.837 ppb	146.133 ppb	85.972 %
Concentration RSD	2.7 %	1.4 %	1.7 %	3.0 %

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Analysis index: 94
Analysis label: L1606544-01 6020SL
Analysis started at: 3/14/2016 6:22:43 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	121.566 %	105.211 %	0.005 ppb	160,059.754 ppb	114,673.952 ppb	8.095 ppb	46,787.793 ppb
Concentration per Run 1	122.065 %	98.597 %	0.010 ppb	166,583.968 ppb	117,973.393 ppb	7.759 ppb	48,054.236 ppb
Concentration per Run 2	121.590 %	107.615 %	0.001 ppb	163,292.141 ppb	117,449.030 ppb	9.045 ppb	46,294.603 ppb
Concentration per Run 3	121.044 %	109.419 %	0.004 ppb	150,303.154 ppb	108,599.434 ppb	7.481 ppb	46,014.540 ppb
Concentration RSD	0.4 %	5.5 %	91.2 %	5.4 %	4.6 %	10.3 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	218,837.903 ppb	101.292 %	107.823 %	0.152 ppb	1.150 ppb	1,760.186 ppb	207.810 ppb
Concentration per Run 1	221,643.783 ppb	102.500 %	109.450 %	0.117 ppb	1.185 ppb	1,780.254 ppb	195.657 ppb
Concentration per Run 2	221,248.945 ppb	99.297 %	108.149 %	0.171 ppb	1.157 ppb	1,775.615 ppb	202.718 ppb
Concentration per Run 3	213,620.981 ppb	102.078 %	105.869 %	0.168 ppb	1.107 ppb	1,724.687 ppb	225.056 ppb
Concentration RSD	2.1 %	1.7 %	1.7 %	19.8 %	3.5 %	1.8 %	7.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.285 ppb	4.389 ppb	0.892 ppb	1.915 ppb	96.185 %	2.928 ppb	0.663 ppb
Concentration per Run 1	1.138 ppb	4.505 ppb	0.996 ppb	1.985 ppb	101.398 %	2.837 ppb	0.821 ppb
Concentration per Run 2	1.487 ppb	4.571 ppb	0.860 ppb	2.006 ppb	94.824 %	2.934 ppb	0.480 ppb
Concentration per Run 3	1.228 ppb	4.092 ppb	0.819 ppb	1.755 ppb	92.333 %	3.012 ppb	0.686 ppb
Concentration RSD	14.1 %	5.9 %	10.4 %	7.3 %	4.9 %	3.0 %	26.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	7.264 ppb	0.102 ppb	0.009 ppb	92.592 %	0.215 ppb	0.735 ppb	196.762 ppb
Concentration per Run 1	7.103 ppb	0.084 ppb	0.006 ppb	95.277 %	0.266 ppb	0.660 ppb	194.262 ppb
Concentration per Run 2	7.620 ppb	0.108 ppb	0.001 ppb	91.649 %	0.302 ppb	0.836 ppb	204.004 ppb
Concentration per Run 3	7.070 ppb	0.114 ppb	0.021 ppb	90.849 %	0.076 ppb	0.709 ppb	192.020 ppb
Concentration RSD	4.2 %	15.9 %	117.6 %	2.5 %	56.6 %	12.4 %	3.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.344 %	0.003 ppb	0.346 ppb	81.051 %
Concentration per Run 1	95.792 %	0.007 ppb	0.357 ppb	82.218 %
Concentration per Run 2	95.778 %	0.001 ppb	0.361 ppb	80.163 %
Concentration per Run 3	94.463 %	0.000 ppb	0.320 ppb	80.772 %
Concentration RSD	0.8 %	138.0 %	6.6 %	1.3 %

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Analysis index: 95
Analysis label: L1606544-01D20 6020SL
Analysis started at: 3/14/2016 6:25:47 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	129.243 %	106.714 %	0.000 ppb	7,746.525 ppb	5,715.431 ppb	0.061 ppb	2,207.766 ppb
Concentration per Run 1	128.580 %	105.812 %	0.001 ppb	8,066.155 ppb	5,823.412 ppb	0.877 ppb	2,214.019 ppb
Concentration per Run 2	132.893 %	110.321 %	-0.006 ppb	7,762.327 ppb	5,869.398 ppb	-0.205 ppb	2,232.451 ppb
Concentration per Run 3	126.256 %	104.008 %	0.004 ppb	7,411.092 ppb	5,453.483 ppb	-0.489 ppb	2,176.828 ppb
Concentration RSD	2.6 %	3.0 %	1,147.6 %	4.2 %	4.0 %	1,181.4 %	1.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,605.584 ppb	104.466 %	113.045 %	0.008 ppb	0.114 ppb	93.332 ppb	9.772 ppb
Concentration per Run 1	11,004.713 ppb	102.584 %	115.346 %	0.023 ppb	0.187 ppb	93.200 ppb	8.011 ppb
Concentration per Run 2	10,661.967 ppb	103.342 %	113.113 %	0.000 ppb	0.095 ppb	92.793 ppb	10.854 ppb
Concentration per Run 3	10,150.071 ppb	107.472 %	110.675 %	0.000 ppb	0.059 ppb	94.002 ppb	10.450 ppb
Concentration RSD	4.1 %	2.5 %	2.1 %	173.2 %	58.3 %	0.7 %	15.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.078 ppb	0.156 ppb	0.300 ppb	-0.862 ppb	101.256 %	0.155 ppb	-0.016 ppb
Concentration per Run 1	0.093 ppb	0.192 ppb	0.255 ppb	-0.772 ppb	101.214 %	0.087 ppb	-0.137 ppb
Concentration per Run 2	0.084 ppb	0.095 ppb	0.327 ppb	-1.015 ppb	99.936 %	0.164 ppb	0.077 ppb
Concentration per Run 3	0.056 ppb	0.182 ppb	0.316 ppb	-0.797 ppb	102.619 %	0.215 ppb	0.013 ppb
Concentration RSD	25.0 %	34.1 %	12.9 %	15.5 %	1.3 %	41.5 %	700.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.441 ppb	-0.003 ppb	-0.029 ppb	101.652 %	-0.013 ppb	0.132 ppb	9.804 ppb
Concentration per Run 1	0.405 ppb	-0.007 ppb	-0.033 ppb	107.704 %	-0.080 ppb	0.158 ppb	9.233 ppb
Concentration per Run 2	0.409 ppb	-0.001 ppb	-0.020 ppb	98.986 %	0.021 ppb	0.101 ppb	10.103 ppb
Concentration per Run 3	0.509 ppb	-0.001 ppb	-0.033 ppb	98.268 %	0.022 ppb	0.138 ppb	10.074 ppb
Concentration RSD	13.4 %	95.9 %	25.0 %	5.2 %	467.2 %	21.8 %	5.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.029 %	-0.019 ppb	0.011 ppb	94.576 %
Concentration per Run 1	100.018 %	-0.017 ppb	0.009 ppb	94.480 %
Concentration per Run 2	97.893 %	-0.015 ppb	0.012 ppb	93.817 %
Concentration per Run 3	99.176 %	-0.024 ppb	0.011 ppb	95.433 %
Concentration RSD	1.1 %	25.6 %	13.6 %	0.9 %

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Analysis index: 96
Analysis label: L1606544-02 6020SL
Analysis started at: 3/14/2016 6:28:51 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	120.656 %	103.708 %	-0.003 ppb	142,144.447 ppb	125,497.235 ppb	5.074 ppb	49,151.861 ppb
Concentration per Run 1	118.482 %	115.732 %	-0.003 ppb	134,697.205 ppb	120,215.600 ppb	6.059 ppb	48,429.682 ppb
Concentration per Run 2	117.766 %	95.892 %	-0.004 ppb	152,887.312 ppb	132,469.027 ppb	4.504 ppb	51,566.505 ppb
Concentration per Run 3	125.721 %	99.499 %	-0.002 ppb	138,848.824 ppb	123,807.079 ppb	4.661 ppb	47,459.395 ppb
Concentration RSD	3.6 %	10.2 %	26.8 %	6.7 %	5.0 %	16.9 %	4.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	232,769.879 ppb	104.522 %	107.800 %	0.148 ppb	0.804 ppb	1,800.336 ppb	41.715 ppb
Concentration per Run 1	235,493.580 ppb	106.544 %	104.223 %	0.091 ppb	0.848 ppb	1,735.290 ppb	40.154 ppb
Concentration per Run 2	242,454.267 ppb	100.477 %	104.616 %	0.146 ppb	0.870 ppb	1,978.813 ppb	48.274 ppb
Concentration per Run 3	220,361.791 ppb	106.544 %	114.559 %	0.206 ppb	0.693 ppb	1,686.904 ppb	36.716 ppb
Concentration RSD	4.9 %	3.4 %	5.4 %	39.1 %	12.0 %	8.7 %	14.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.524 ppb	3.823 ppb	0.473 ppb	0.988 ppb	96.930 %	3.149 ppb	0.400 ppb
Concentration per Run 1	0.591 ppb	4.110 ppb	0.340 ppb	0.989 ppb	102.420 %	3.124 ppb	0.440 ppb
Concentration per Run 2	0.508 ppb	3.472 ppb	0.608 ppb	1.032 ppb	90.607 %	3.148 ppb	0.722 ppb
Concentration per Run 3	0.474 ppb	3.886 ppb	0.470 ppb	0.943 ppb	97.763 %	3.176 ppb	0.037 ppb
Concentration RSD	11.5 %	8.5 %	28.3 %	4.5 %	6.1 %	0.8 %	86.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.149 ppb	0.004 ppb	-0.018 ppb	94.791 %	0.027 ppb	0.300 ppb	165.261 ppb
Concentration per Run 1	2.346 ppb	0.008 ppb	-0.007 ppb	95.880 %	0.065 ppb	0.252 ppb	170.134 ppb
Concentration per Run 2	1.950 ppb	-0.006 ppb	-0.026 ppb	95.873 %	-0.014 ppb	0.216 ppb	160.728 ppb
Concentration per Run 3	2.151 ppb	0.009 ppb	-0.020 ppb	92.619 %	0.031 ppb	0.431 ppb	164.920 ppb
Concentration RSD	9.2 %	209.7 %	54.2 %	2.0 %	144.9 %	38.4 %	2.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.905 %	-0.016 ppb	0.065 ppb	81.971 %
Concentration per Run 1	95.234 %	-0.021 ppb	0.063 ppb	82.106 %
Concentration per Run 2	94.349 %	-0.008 ppb	0.074 ppb	80.506 %
Concentration per Run 3	95.132 %	-0.018 ppb	0.059 ppb	83.299 %
Concentration RSD	0.5 %	41.1 %	11.1 %	1.7 %

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Analysis index: 97
Analysis label: L1606544-02D20 6020SL
Analysis started at: 3/14/2016 6:31:55 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	123.081 %	109.319 %	-0.002 ppb	7,029.423 ppb	6,484.597 ppb	-0.114 ppb	2,572.213 ppb
Concentration per Run 1	124.778 %	112.726 %	-0.002 ppb	6,808.971 ppb	6,242.395 ppb	0.222 ppb	2,526.333 ppb
Concentration per Run 2	122.634 %	109.119 %	0.000 ppb	7,184.597 ppb	6,646.666 ppb	0.180 ppb	2,714.225 ppb
Concentration per Run 3	121.829 %	106.112 %	-0.004 ppb	7,094.701 ppb	6,564.729 ppb	-0.744 ppb	2,476.080 ppb
Concentration RSD	1.2 %	3.0 %	100.8 %	2.8 %	3.3 %	480.4 %	4.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12,699.805 ppb	98.034 %	109.675 %	0.016 ppb	0.090 ppb	95.878 ppb	0.978 ppb
Concentration per Run 1	12,691.518 ppb	102.416 %	110.603 %	0.023 ppb	0.065 ppb	96.577 ppb	0.935 ppb
Concentration per Run 2	12,880.954 ppb	94.411 %	109.784 %	0.025 ppb	0.057 ppb	97.055 ppb	1.030 ppb
Concentration per Run 3	12,526.944 ppb	97.275 %	108.636 %	0.000 ppb	0.148 ppb	94.000 ppb	0.968 ppb
Concentration RSD	1.4 %	4.1 %	0.9 %	86.7 %	56.4 %	1.7 %	4.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.035 ppb	0.164 ppb	0.306 ppb	-0.993 ppb	102.194 %	0.129 ppb	-0.025 ppb
Concentration per Run 1	0.032 ppb	0.062 ppb	0.210 ppb	-0.765 ppb	100.703 %	0.106 ppb	0.051 ppb
Concentration per Run 2	0.033 ppb	0.137 ppb	0.523 ppb	-1.351 ppb	101.597 %	0.124 ppb	-0.161 ppb
Concentration per Run 3	0.041 ppb	0.293 ppb	0.185 ppb	-0.864 ppb	104.281 %	0.157 ppb	0.035 ppb
Concentration RSD	13.9 %	71.7 %	61.6 %	31.6 %	1.8 %	19.8 %	473.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.259 ppb	-0.002 ppb	-0.031 ppb	99.226 %	-0.063 ppb	0.041 ppb	8.440 ppb
Concentration per Run 1	0.350 ppb	0.007 ppb	-0.027 ppb	101.657 %	-0.077 ppb	0.098 ppb	8.752 ppb
Concentration per Run 2	0.146 ppb	-0.006 ppb	-0.033 ppb	97.720 %	-0.075 ppb	0.030 ppb	8.016 ppb
Concentration per Run 3	0.281 ppb	-0.006 ppb	-0.033 ppb	98.302 %	-0.036 ppb	-0.005 ppb	8.552 ppb
Concentration RSD	40.1 %	487.3 %	11.3 %	2.1 %	36.6 %	127.9 %	4.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.400 %	-0.019 ppb	-0.007 ppb	92.852 %
Concentration per Run 1	101.346 %	-0.024 ppb	-0.007 ppb	94.752 %
Concentration per Run 2	100.786 %	-0.013 ppb	-0.011 ppb	91.676 %
Concentration per Run 3	96.067 %	-0.021 ppb	-0.003 ppb	92.126 %
Concentration RSD	2.9 %	29.5 %	57.0 %	1.8 %

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Analysis index: 98
Analysis label: L1606544-03 6020SL
Analysis started at: 3/14/2016 6:34:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.892 %	99.599 %	0.000 ppb	378,388.528 ppb	75,666.268 ppb	3.910 ppb	35,351.807 ppb
Concentration per Run 1	112.799 %	97.695 %	0.000 ppb	385,379.325 ppb	76,430.062 ppb	4.133 ppb	34,782.283 ppb
Concentration per Run 2	109.396 %	107.315 %	0.000 ppb	359,785.579 ppb	73,639.898 ppb	4.165 ppb	36,292.050 ppb
Concentration per Run 3	110.481 %	93.787 %	0.000 ppb	390,000.681 ppb	76,928.844 ppb	3.432 ppb	34,981.087 ppb
Concentration RSD	1.6 %	7.0 %	147.3 %	4.3 %	2.3 %	10.6 %	2.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	133,557.038 ppb	94.130 %	100.833 %	0.195 ppb	0.826 ppb	1,188.587 ppb	23.873 ppb
Concentration per Run 1	134,062.178 ppb	95.675 %	102.842 %	0.203 ppb	0.874 ppb	1,197.030 ppb	26.623 ppb
Concentration per Run 2	135,217.556 ppb	91.377 %	98.801 %	0.079 ppb	0.731 ppb	1,213.128 ppb	22.409 ppb
Concentration per Run 3	131,391.379 ppb	95.337 %	100.857 %	0.304 ppb	0.871 ppb	1,155.604 ppb	22.588 ppb
Concentration RSD	1.5 %	2.5 %	2.0 %	57.8 %	9.9 %	2.5 %	10.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.287 ppb	6.414 ppb	0.235 ppb	-0.380 ppb	91.800 %	2.172 ppb	0.264 ppb
Concentration per Run 1	0.284 ppb	6.589 ppb	0.364 ppb	-0.270 ppb	90.416 %	2.155 ppb	-0.185 ppb
Concentration per Run 2	0.288 ppb	6.376 ppb	0.184 ppb	-0.424 ppb	92.460 %	2.253 ppb	0.496 ppb
Concentration per Run 3	0.290 ppb	6.276 ppb	0.156 ppb	-0.448 ppb	92.524 %	2.108 ppb	0.483 ppb
Concentration RSD	1.2 %	2.5 %	48.0 %	25.5 %	1.3 %	3.4 %	147.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.437 ppb	-0.003 ppb	-0.019 ppb	86.515 %	0.013 ppb	0.219 ppb	196.988 ppb
Concentration per Run 1	4.647 ppb	-0.005 ppb	-0.019 ppb	87.765 %	0.061 ppb	0.276 ppb	200.194 ppb
Concentration per Run 2	4.223 ppb	0.000 ppb	-0.019 ppb	86.349 %	-0.023 ppb	0.281 ppb	192.857 ppb
Concentration per Run 3	4.440 ppb	-0.005 ppb	-0.019 ppb	85.430 %	0.000 ppb	0.099 ppb	197.913 ppb
Concentration RSD	4.8 %	98.7 %	0.8 %	1.4 %	344.5 %	47.3 %	1.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.569 %	-0.025 ppb	0.045 ppb	75.527 %
Concentration per Run 1	91.579 %	-0.026 ppb	0.039 ppb	74.638 %
Concentration per Run 2	89.838 %	-0.026 ppb	0.061 ppb	75.485 %
Concentration per Run 3	90.290 %	-0.024 ppb	0.037 ppb	76.458 %
Concentration RSD	1.0 %	3.2 %	29.4 %	1.2 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 99
Analysis label: L1606544-03D20 6020SL

Analysis started at: 3/14/2016 6:38:03 PM
User name: ALPHALAB\a1metalsinstrument

Rack: 2
Vial: 8

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	124.870 %	116.133 %	-0.003 ppb	17,116.601 ppb	3,622.691 ppb	-0.957 ppb	1,712.039 ppb
Concentration per Run 1	123.528 %	118.437 %	-0.004 ppb	16,714.855 ppb	3,510.966 ppb	-0.824 ppb	1,748.452 ppb
Concentration per Run 2	123.990 %	109.118 %	-0.003 ppb	17,674.096 ppb	3,756.794 ppb	-0.945 ppb	1,720.146 ppb
Concentration per Run 3	127.093 %	120.842 %	-0.001 ppb	16,960.852 ppb	3,600.312 ppb	-1.101 ppb	1,667.519 ppb
Concentration RSD	1.6 %	5.3 %	50.2 %	2.9 %	3.4 %	14.5 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	6,525.494 ppb	104.606 %	109.157 %	0.015 ppb	0.149 ppb	56.941 ppb	0.433 ppb
Concentration per Run 1	6,564.937 ppb	104.775 %	110.268 %	0.000 ppb	0.151 ppb	55.911 ppb	0.871 ppb
Concentration per Run 2	6,507.415 ppb	107.387 %	107.526 %	0.045 ppb	0.150 ppb	58.073 ppb	0.899 ppb
Concentration per Run 3	6,504.130 ppb	101.657 %	109.677 %	0.000 ppb	0.145 ppb	56.839 ppb	-0.470 ppb
Concentration RSD	0.5 %	2.7 %	1.3 %	173.2 %	2.2 %	1.9 %	180.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.003 ppb	0.278 ppb	0.211 ppb	-0.944 ppb	99.851 %	0.100 ppb	0.253 ppb
Concentration per Run 1	-0.012 ppb	0.340 ppb	0.156 ppb	-0.877 ppb	104.984 %	0.137 ppb	0.233 ppb
Concentration per Run 2	0.005 ppb	0.093 ppb	0.211 ppb	-1.051 ppb	97.955 %	0.110 ppb	0.248 ppb
Concentration per Run 3	-0.003 ppb	0.401 ppb	0.266 ppb	-0.904 ppb	96.613 %	0.053 ppb	0.278 ppb
Concentration RSD	274.5 %	58.7 %	26.0 %	9.9 %	4.5 %	42.8 %	9.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.200 ppb	-0.004 ppb	-0.029 ppb	98.145 %	-0.005 ppb	0.048 ppb	8.878 ppb
Concentration per Run 1	0.208 ppb	-0.006 ppb	-0.027 ppb	101.332 %	0.017 ppb	0.064 ppb	9.110 ppb
Concentration per Run 2	0.167 ppb	-0.001 ppb	-0.033 ppb	97.062 %	0.023 ppb	0.031 ppb	9.028 ppb
Concentration per Run 3	0.224 ppb	-0.006 ppb	-0.026 ppb	96.042 %	-0.054 ppb	0.050 ppb	8.496 ppb
Concentration RSD	14.6 %	64.4 %	12.5 %	2.9 %	948.5 %	34.1 %	3.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.926 %	-0.020 ppb	-0.007 ppb	92.675 %
Concentration per Run 1	101.459 %	-0.024 ppb	-0.007 ppb	94.472 %
Concentration per Run 2	99.771 %	-0.021 ppb	-0.006 ppb	91.286 %
Concentration per Run 3	98.547 %	-0.017 ppb	-0.010 ppb	92.268 %
Concentration RSD	1.5 %	16.8 %	26.2 %	1.8 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 100
Analysis label: L1606544-04 6020SL
Analysis started at: 3/14/2016 6:41:08 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	108.063 %	95.791 %	0.005 ppb	678,073.447 ppb	67,309.429 ppb	13.608 ppb	85,264.806 ppb
Concentration per Run 1	107.021 %	97.395 %	0.006 ppb	675,771.381 ppb	66,050.464 ppb	11.860 ppb	79,946.555 ppb
Concentration per Run 2	109.148 %	97.094 %	0.004 ppb	682,327.722 ppb	68,744.011 ppb	15.654 ppb	88,327.990 ppb
Concentration per Run 3	108.021 %	92.886 %	0.004 ppb	676,121.239 ppb	67,133.814 ppb	13.308 ppb	87,519.873 ppb
Concentration RSD	1.0 %	2.6 %	18.8 %	0.5 %	2.0 %	14.1 %	5.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	196,654.638 ppb	89.580 %	100.767 %	7.071 ppb	1.192 ppb	331.314 ppb	32.788 ppb
Concentration per Run 1	184,431.385 ppb	93.821 %	99.957 %	6.543 ppb	1.456 ppb	312.432 ppb	32.970 ppb
Concentration per Run 2	199,711.585 ppb	88.597 %	100.702 %	6.981 ppb	0.869 ppb	333.261 ppb	34.962 ppb
Concentration per Run 3	205,820.943 ppb	86.322 %	101.641 %	7.690 ppb	1.252 ppb	348.249 ppb	30.431 ppb
Concentration RSD	5.6 %	4.3 %	0.8 %	8.2 %	25.0 %	5.4 %	6.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.002 ppb	9.506 ppb	3.562 ppb	1.882 ppb	86.966 %	4.330 ppb	0.906 ppb
Concentration per Run 1	0.944 ppb	9.089 ppb	3.112 ppb	1.549 ppb	91.949 %	3.813 ppb	0.693 ppb
Concentration per Run 2	1.020 ppb	9.889 ppb	3.321 ppb	2.183 ppb	86.966 %	4.352 ppb	1.230 ppb
Concentration per Run 3	1.042 ppb	9.541 ppb	4.252 ppb	1.914 ppb	81.983 %	4.827 ppb	0.796 ppb
Concentration RSD	5.2 %	4.2 %	17.0 %	16.9 %	5.7 %	11.7 %	31.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	18.475 ppb	-0.006 ppb	-0.021 ppb	85.437 %	0.149 ppb	1.230 ppb	248.886 ppb
Concentration per Run 1	18.349 ppb	-0.015 ppb	-0.026 ppb	85.979 %	0.154 ppb	1.081 ppb	252.179 ppb
Concentration per Run 2	18.277 ppb	0.000 ppb	-0.033 ppb	88.054 %	0.148 ppb	1.355 ppb	247.504 ppb
Concentration per Run 3	18.798 ppb	-0.004 ppb	-0.003 ppb	82.277 %	0.144 ppb	1.252 ppb	246.975 ppb
Concentration RSD	1.5 %	127.0 %	76.2 %	3.4 %	3.7 %	11.3 %	1.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.437 %	-0.026 ppb	0.304 ppb	71.008 %
Concentration per Run 1	87.032 %	-0.030 ppb	0.306 ppb	71.734 %
Concentration per Run 2	88.872 %	-0.029 ppb	0.284 ppb	71.363 %
Concentration per Run 3	86.406 %	-0.020 ppb	0.321 ppb	69.927 %
Concentration RSD	1.5 %	21.2 %	6.1 %	1.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 101
Analysis label: L1606544-04D20 6020SL
Analysis started at: 3/14/2016 6:44:13 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	120.206 %	104.910 %	-0.006 ppb	32,515.286 ppb	3,300.782 ppb	0.038 ppb	4,186.496 ppb
Concentration per Run 1	119.026 %	113.327 %	-0.006 ppb	31,669.788 ppb	3,120.618 ppb	-0.357 ppb	4,161.500 ppb
Concentration per Run 2	120.712 %	103.407 %	-0.004 ppb	32,975.748 ppb	3,279.531 ppb	1.020 ppb	4,469.179 ppb
Concentration per Run 3	120.879 %	97.996 %	-0.008 ppb	32,900.322 ppb	3,502.199 ppb	-0.550 ppb	3,928.810 ppb
Concentration RSD	0.9 %	7.4 %	28.3 %	2.3 %	5.8 %	2,272.8 %	6.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,682.611 ppb	97.837 %	106.389 %	0.333 ppb	0.109 ppb	15.446 ppb	0.938 ppb
Concentration per Run 1	9,635.500 ppb	101.657 %	104.855 %	0.255 ppb	0.153 ppb	14.909 ppb	2.234 ppb
Concentration per Run 2	10,071.901 ppb	94.326 %	106.324 %	0.451 ppb	0.008 ppb	15.785 ppb	1.040 ppb
Concentration per Run 3	9,340.433 ppb	97.528 %	107.988 %	0.294 ppb	0.167 ppb	15.643 ppb	-0.459 ppb
Concentration RSD	3.8 %	3.8 %	1.5 %	31.2 %	80.6 %	3.0 %	143.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.044 ppb	0.414 ppb	0.415 ppb	-0.915 ppb	103.323 %	0.194 ppb	0.093 ppb
Concentration per Run 1	0.030 ppb	0.427 ppb	0.501 ppb	-1.136 ppb	110.543 %	0.232 ppb	0.013 ppb
Concentration per Run 2	0.052 ppb	0.375 ppb	0.264 ppb	-0.823 ppb	100.703 %	0.106 ppb	0.020 ppb
Concentration per Run 3	0.051 ppb	0.440 ppb	0.481 ppb	-0.786 ppb	98.722 %	0.243 ppb	0.245 ppb
Concentration RSD	28.1 %	8.3 %	31.6 %	21.0 %	6.1 %	39.2 %	142.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.994 ppb	-0.008 ppb	-0.027 ppb	101.102 %	-0.077 ppb	0.081 ppb	11.670 ppb
Concentration per Run 1	0.828 ppb	-0.002 ppb	-0.033 ppb	101.401 %	-0.096 ppb	0.116 ppb	12.101 ppb
Concentration per Run 2	0.897 ppb	-0.011 ppb	-0.027 ppb	102.585 %	-0.059 ppb	0.080 ppb	11.937 ppb
Concentration per Run 3	1.256 ppb	-0.011 ppb	-0.020 ppb	99.318 %	-0.076 ppb	0.048 ppb	10.972 ppb
Concentration RSD	23.1 %	64.9 %	23.2 %	1.6 %	24.0 %	41.9 %	5.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.762 %	-0.024 ppb	0.012 ppb	94.307 %
Concentration per Run 1	99.486 %	-0.020 ppb	0.005 ppb	96.543 %
Concentration per Run 2	100.324 %	-0.029 ppb	0.012 ppb	93.917 %
Concentration per Run 3	96.478 %	-0.023 ppb	0.018 ppb	92.461 %
Concentration RSD	2.0 %	18.1 %	57.3 %	2.2 %

Analysis index: 102 Analysis started at: 3/14/2016 6:47:18 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	116.917 %	104.810 %	97.217 ppb	10,377.647 ppb	10,534.032 ppb	105.625 ppb	10,098.700 ppb
Concentration per Run 1	117.593 %	107.615 %	97.136 ppb	10,336.713 ppb	10,966.725 ppb	107.984 ppb	10,100.300 ppb
Concentration per Run 2	118.501 %	105.211 %	97.188 ppb	9,937.148 ppb	10,263.049 ppb	106.161 ppb	9,633.914 ppb
Concentration per Run 3	114.655 %	101.603 %	97.327 ppb	10,859.081 ppb	10,372.322 ppb	102.729 ppb	10,561.886 ppb
Recovery Percentage 1			97.217 %	103.776 %	105.340 %	105.625 %	100.987 %
Concentration RSD	1.7 %	2.9 %	0.1 %	4.5 %	3.6 %	2.5 %	4.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,852.485 ppb	104.241 %	103.500 %	98.805 ppb	100.380 ppb	101.285 ppb	10,501.436 ppb
Concentration per Run 1	9,891.295 ppb	105.112 %	104.331 %	100.898 ppb	105.341 ppb	103.323 ppb	10,670.362 ppb
Concentration per Run 2	9,819.117 ppb	105.955 %	103.497 %	97.618 ppb	96.445 ppb	99.881 ppb	10,450.220 ppb
Concentration per Run 3	9,847.045 ppb	101.657 %	102.671 %	97.900 ppb	99.355 ppb	100.650 ppb	10,383.727 ppb
Recovery Percentage 1	98.525 %			98.805 %	100.380 %	101.285 %	105.014 %
Concentration RSD	0.4 %	2.2 %	0.8 %	1.8 %	4.5 %	1.8 %	1.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	105.750 ppb	107.131 ppb	108.427 ppb	101.140 ppb	98.895 %	100.163 ppb	95.907 ppb
Concentration per Run 1	104.507 ppb	106.276 ppb	107.032 ppb	101.488 ppb	102.176 %	101.799 ppb	89.055 ppb
Concentration per Run 2	104.992 ppb	106.300 ppb	107.901 ppb	98.419 ppb	99.958 %	101.237 ppb	96.528 ppb
Concentration per Run 3	107.751 ppb	108.818 ppb	110.349 ppb	103.513 ppb	94.549 %	97.452 ppb	102.138 ppb
Recovery Percentage 1	105.750 %	107.131 %	108.427 %	101.140 %		100.163 %	95.907 %
Concentration RSD	1.7 %	1.4 %	1.6 %	2.5 %	4.0 %	2.4 %	6.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	103.189 ppb	109.432 ppb	103.769 ppb	96.996 %	109.213 ppb	101.426 ppb	104.911 ppb
Concentration per Run 1	100.986 ppb	115.590 ppb	107.104 ppb	98.642 %	113.949 ppb	103.924 ppb	103.225 ppb
Concentration per Run 2	102.267 ppb	105.645 ppb	102.561 ppb	97.800 %	108.596 ppb	102.263 ppb	106.909 ppb
Concentration per Run 3	106.313 ppb	107.061 ppb	101.641 ppb	94.546 %	105.095 ppb	98.091 ppb	104.600 ppb
Recovery Percentage 1	103.189 %	109.432 %	103.769 %		109.213 %	101.426 %	104.911 %
Concentration RSD	2.7 %	4.9 %	2.8 %	2.2 %	4.1 %	3.0 %	1.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.887 %	103.944 ppb	104.641 ppb	93.696 %
Concentration per Run 1	95.920 %	105.185 ppb	108.957 ppb	93.964 %
Concentration per Run 2	98.756 %	103.102 ppb	104.518 ppb	94.335 %
Concentration per Run 3	98.985 %	103.544 ppb	100.450 ppb	92.789 %
Recovery Percentage 1		103.944 %	104.641 %	
Concentration RSD	1.7 %	1.1 %	4.1 %	0.9 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 103 Analysis started at: 3/14/2016 6:51:27 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	116.301 %	101.102 %	0.011 ppb	4.538 ppb	1.616 ppb	-0.193 ppb	8.658 ppb
Concentration per Run 1	116.208 %	101.303 %	0.015 ppb	1.085 ppb	2.233 ppb	-0.081 ppb	3.747 ppb
Concentration per Run 2	118.321 %	103.106 %	0.009 ppb	4.373 ppb	0.968 ppb	-0.581 ppb	12.438 ppb
Concentration per Run 3	114.373 %	98.898 %	0.008 ppb	8.156 ppb	1.646 ppb	0.083 ppb	9.789 ppb
Recovery Percentage 1			2.111 %	4.538 %	2.308 %	-1.930 %	8.658 %
Concentration RSD	1.7 %	2.1 %	35.4 %	78.0 %	39.2 %	179.2 %	51.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12.949 ppb	96.994 %	102.671 %	0.008 ppb	0.045 ppb	0.545 ppb	0.538 ppb
Concentration per Run 1	4.972 ppb	95.590 %	104.221 %	0.000 ppb	0.023 ppb	0.486 ppb	1.762 ppb
Concentration per Run 2	10.793 ppb	98.286 %	102.923 %	0.024 ppb	0.038 ppb	0.447 ppb	-1.196 ppb
Concentration per Run 3	23.083 ppb	97.107 %	100.868 %	0.000 ppb	0.072 ppb	0.702 ppb	1.048 ppb
Recovery Percentage 1	12.949 %			0.163 %	4.456 %	54.498 %	1.077 %
Concentration RSD	71.4 %	1.4 %	1.6 %	173.2 %	55.9 %	25.1 %	286.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.025 ppb	0.037 ppb	-0.014 ppb	0.111 ppb	97.742 %	0.033 ppb	0.272 ppb
Concentration per Run 1	0.033 ppb	0.035 ppb	-0.022 ppb	-0.132 ppb	100.703 %	0.012 ppb	0.070 ppb
Concentration per Run 2	0.025 ppb	0.139 ppb	-0.046 ppb	0.254 ppb	96.677 %	0.034 ppb	0.675 ppb
Concentration per Run 3	0.016 ppb	-0.064 ppb	0.027 ppb	0.210 ppb	95.847 %	0.054 ppb	0.071 ppb
Recovery Percentage 1	4.911 %	7.304 %	-1.357 %	1.106 %	97.742 %	6.649 %	5.438 %
Concentration RSD	36.0 %	277.7 %	276.2 %	191.4 %	2.7 %	62.3 %	128.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.396 ppb	0.012 ppb	-0.009 ppb	96.026 %	0.070 ppb	0.062 ppb	0.063 ppb
Concentration per Run 1	0.466 ppb	0.013 ppb	-0.014 ppb	96.544 %	0.162 ppb	0.068 ppb	-0.044 ppb
Concentration per Run 2	0.364 ppb	0.003 ppb	-0.014 ppb	97.992 %	0.081 ppb	0.067 ppb	0.182 ppb
Concentration per Run 3	0.357 ppb	0.019 ppb	0.000 ppb	93.542 %	-0.032 ppb	0.052 ppb	0.050 ppb
Recovery Percentage 1	13.184 %	2.910 %	-4.652 %		2.349 %	3.102 %	12.509 %
Concentration RSD	15.4 %	65.9 %	86.0 %	2.4 %	138.1 %	14.2 %	181.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.623 %	0.008 ppb	0.005 ppb	94.276 %
Concentration per Run 1	98.202 %	0.014 ppb	0.004 ppb	98.440 %
Concentration per Run 2	97.279 %	0.009 ppb	0.009 ppb	94.049 %
Concentration per Run 3	94.389 %	0.001 ppb	0.003 ppb	90.338 %
Recovery Percentage 1		1.595 %	1.036 %	94.276 %
Concentration RSD	2.1 %	83.2 %	58.8 %	4.3 %

Alpha ICPMSQ Full

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Analysis index: 104
Analysis label: wg873478-1 6020tl
Analysis started at: 3/14/2016 6:54:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 13

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.498 %	103.808 %	-0.004 ppb	3.348 ppb	0.017 ppb	0.962 ppb	-0.168 ppb
Concentration per Run 1	111.689 %	100.100 %	-0.002 ppb	5.882 ppb	-0.786 ppb	0.919 ppb	5.107 ppb
Concentration per Run 2	111.026 %	105.812 %	-0.007 ppb	2.103 ppb	0.466 ppb	1.304 ppb	-4.155 ppb
Concentration per Run 3	111.778 %	105.511 %	-0.002 ppb	2.058 ppb	0.372 ppb	0.662 ppb	-1.457 ppb
Concentration RSD	0.4 %	3.1 %	70.9 %	65.5 %	4,018.4 %	33.6 %	2,829.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	29.315 ppb	91.153 %	95.344 %	0.080 ppb	0.877 ppb	-0.570 ppb	0.403 ppb
Concentration per Run 1	21.721 ppb	93.146 %	94.948 %	0.103 ppb	0.958 ppb	-0.467 ppb	-1.196 ppb
Concentration per Run 2	26.934 ppb	84.469 %	97.677 %	0.111 ppb	0.797 ppb	-0.772 ppb	1.270 ppb
Concentration per Run 3	39.289 ppb	95.843 %	93.408 %	0.025 ppb	0.876 ppb	-0.472 ppb	1.133 ppb
Concentration RSD	30.8 %	6.5 %	2.3 %	59.3 %	9.1 %	30.6 %	344.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.009 ppb	2.223 ppb	0.057 ppb	-0.472 ppb	91.225 %	-0.011 ppb	0.070 ppb
Concentration per Run 1	-0.012 ppb	2.335 ppb	0.107 ppb	-0.453 ppb	91.758 %	-0.025 ppb	0.063 ppb
Concentration per Run 2	-0.012 ppb	2.213 ppb	0.085 ppb	-0.626 ppb	92.780 %	-0.025 ppb	-0.136 ppb
Concentration per Run 3	-0.002 ppb	2.122 ppb	-0.020 ppb	-0.338 ppb	89.138 %	0.017 ppb	0.284 ppb
Concentration RSD	63.7 %	4.8 %	118.7 %	30.7 %	2.1 %	220.2 %	298.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.624 ppb	0.003 ppb	-0.031 ppb	93.450 %	0.017 ppb	0.014 ppb	0.067 ppb
Concentration per Run 1	0.608 ppb	-0.001 ppb	-0.033 ppb	93.865 %	0.009 ppb	-0.023 ppb	0.097 ppb
Concentration per Run 2	0.637 ppb	0.015 ppb	-0.033 ppb	90.023 %	0.036 ppb	0.016 ppb	0.101 ppb
Concentration per Run 3	0.626 ppb	-0.006 ppb	-0.026 ppb	96.463 %	0.005 ppb	0.050 ppb	0.002 ppb
Concentration RSD	2.4 %	364.9 %	12.1 %	3.5 %	100.4 %	260.1 %	83.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.888 %	-0.022 ppb	0.003 ppb	91.726 %
Concentration per Run 1	93.992 %	-0.021 ppb	-0.001 ppb	91.699 %
Concentration per Run 2	92.022 %	-0.025 ppb	0.005 ppb	93.137 %
Concentration per Run 3	92.649 %	-0.020 ppb	0.006 ppb	90.343 %
Concentration RSD	1.1 %	11.1 %	123.5 %	1.5 %

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Analysis index: 105
Analysis label: l1606583-10 6020tl
Analysis started at: 3/14/2016 6:57:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 14

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	107.787 %	97.295 %	-0.002 ppb	4.698 ppb	-0.350 ppb	0.125 ppb	6.143 ppb
Concentration per Run 1	108.653 %	97.996 %	0.002 ppb	2.960 ppb	-0.128 ppb	0.174 ppb	1.581 ppb
Concentration per Run 2	108.135 %	93.787 %	-0.003 ppb	5.488 ppb	-1.403 ppb	0.546 ppb	8.729 ppb
Concentration per Run 3	106.574 %	100.100 %	-0.006 ppb	5.646 ppb	0.482 ppb	-0.346 ppb	8.118 ppb
Concentration RSD	1.0 %	3.3 %	153.8 %	32.1 %	274.9 %	358.7 %	64.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-2.056 ppb	89.271 %	92.291 %	0.099 ppb	0.953 ppb	-0.629 ppb	0.418 ppb
Concentration per Run 1	3.367 ppb	88.849 %	95.747 %	0.135 ppb	1.004 ppb	-0.628 ppb	0.431 ppb
Concentration per Run 2	0.379 ppb	89.524 %	90.971 %	0.108 ppb	0.931 ppb	-0.628 ppb	-1.196 ppb
Concentration per Run 3	-9.915 ppb	89.440 %	90.156 %	0.053 ppb	0.924 ppb	-0.632 ppb	2.019 ppb
Concentration RSD	338.8 %	0.4 %	3.3 %	42.0 %	4.7 %	0.4 %	384.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.002 ppb	2.957 ppb	0.051 ppb	-0.501 ppb	88.989 %	0.010 ppb	0.149 ppb
Concentration per Run 1	-0.012 ppb	2.435 ppb	0.060 ppb	-0.271 ppb	88.819 %	0.017 ppb	0.300 ppb
Concentration per Run 2	0.018 ppb	3.079 ppb	0.061 ppb	-0.715 ppb	87.605 %	-0.004 ppb	0.320 ppb
Concentration per Run 3	-0.012 ppb	3.356 ppb	0.032 ppb	-0.515 ppb	90.543 %	0.017 ppb	-0.171 ppb
Concentration RSD	931.6 %	16.0 %	31.8 %	44.4 %	1.7 %	118.1 %	186.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.827 ppb	0.006 ppb	-0.033 ppb	91.286 %	-0.015 ppb	0.021 ppb	0.005 ppb
Concentration per Run 1	0.655 ppb	0.009 ppb	-0.033 ppb	94.014 %	0.009 ppb	0.033 ppb	-0.044 ppb
Concentration per Run 2	0.903 ppb	0.005 ppb	-0.033 ppb	91.356 %	-0.029 ppb	0.034 ppb	0.004 ppb
Concentration per Run 3	0.923 ppb	0.005 ppb	-0.033 ppb	88.488 %	-0.026 ppb	-0.003 ppb	0.055 ppb
Concentration RSD	18.1 %	37.3 %	0.0 %	3.0 %	135.7 %	100.8 %	1,005.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.519 %	-0.025 ppb	-0.004 ppb	91.693 %
Concentration per Run 1	92.889 %	-0.022 ppb	-0.001 ppb	93.085 %
Concentration per Run 2	92.595 %	-0.029 ppb	-0.003 ppb	91.868 %
Concentration per Run 3	89.074 %	-0.026 ppb	-0.008 ppb	90.127 %
Concentration RSD	2.3 %	12.7 %	95.3 %	1.6 %

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Analysis index: 106
Analysis label: L1606755-02 6020SL
Analysis started at: 3/14/2016 7:00:43 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 11

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.599 %	94.088 %	0.003 ppb	9,992.465 ppb	5,315.401 ppb	22.344 ppb	13,035.192 ppb
Concentration per Run 1	104.737 %	100.100 %	-0.003 ppb	9,455.997 ppb	5,006.311 ppb	20.315 ppb	12,774.175 ppb
Concentration per Run 2	106.321 %	87.775 %	0.003 ppb	10,602.435 ppb	5,640.976 ppb	24.677 ppb	13,604.720 ppb
Concentration per Run 3	105.738 %	94.389 %	0.007 ppb	9,918.963 ppb	5,298.917 ppb	22.040 ppb	12,726.680 ppb
Concentration RSD	0.8 %	6.6 %	207.5 %	5.8 %	6.0 %	9.8 %	3.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	35,161.161 ppb	85.929 %	91.594 %	0.214 ppb	1.164 ppb	2,094.123 ppb	8,062.906 ppb
Concentration per Run 1	33,570.307 ppb	89.018 %	90.501 %	0.161 ppb	1.186 ppb	2,004.339 ppb	7,888.654 ppb
Concentration per Run 2	37,250.286 ppb	82.699 %	94.070 %	0.200 ppb	1.086 ppb	2,156.248 ppb	8,253.531 ppb
Concentration per Run 3	34,662.891 ppb	86.069 %	90.212 %	0.282 ppb	1.219 ppb	2,121.781 ppb	8,046.534 ppb
Concentration RSD	5.4 %	3.7 %	2.3 %	28.8 %	6.0 %	3.8 %	2.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	13.207 ppb	21.825 ppb	0.329 ppb	47.131 ppb	87.051 %	8.983 ppb	0.064 ppb
Concentration per Run 1	12.292 ppb	20.050 ppb	0.213 ppb	46.605 ppb	91.758 %	8.358 ppb	0.530 ppb
Concentration per Run 2	13.374 ppb	22.225 ppb	0.309 ppb	46.995 ppb	87.797 %	8.752 ppb	-0.195 ppb
Concentration per Run 3	13.954 ppb	23.199 ppb	0.465 ppb	47.792 ppb	81.600 %	9.839 ppb	-0.143 ppb
Concentration RSD	6.4 %	7.4 %	38.6 %	1.3 %	5.9 %	8.5 %	632.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.349 ppb	-0.005 ppb	-0.010 ppb	90.456 %	0.063 ppb	0.664 ppb	99.400 ppb
Concentration per Run 1	2.370 ppb	-0.010 ppb	-0.013 ppb	91.262 %	0.075 ppb	0.865 ppb	102.157 ppb
Concentration per Run 2	2.422 ppb	0.000 ppb	-0.019 ppb	89.793 %	0.079 ppb	0.567 ppb	99.889 ppb
Concentration per Run 3	2.257 ppb	-0.005 ppb	0.002 ppb	90.314 %	0.035 ppb	0.561 ppb	96.153 ppb
Concentration RSD	3.6 %	102.9 %	104.7 %	0.8 %	38.4 %	26.2 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.129 %	0.443 ppb	0.508 ppb	88.727 %
Concentration per Run 1	91.125 %	0.410 ppb	0.529 ppb	88.604 %
Concentration per Run 2	88.228 %	0.478 ppb	0.506 ppb	87.938 %
Concentration per Run 3	91.032 %	0.442 ppb	0.490 ppb	89.639 %
Concentration RSD	1.8 %	7.7 %	3.8 %	1.0 %

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Analysis index: 107
Analysis label: L1606755-02D20 6020SL
Analysis started at: 3/14/2016 7:03:48 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 12

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.763 %	93.587 %	0.001 ppb	473.857 ppb	261.981 ppb	0.403 ppb	626.027 ppb
Concentration per Run 1	109.890 %	92.284 %	0.003 ppb	466.395 ppb	251.120 ppb	0.309 ppb	592.589 ppb
Concentration per Run 2	113.474 %	95.892 %	-0.001 ppb	458.730 ppb	261.324 ppb	0.136 ppb	609.687 ppb
Concentration per Run 3	108.924 %	92.585 %	0.002 ppb	496.445 ppb	273.500 ppb	0.764 ppb	675.803 ppb
Concentration RSD	2.2 %	2.1 %	200.5 %	4.2 %	4.3 %	80.6 %	7.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,587.683 ppb	92.697 %	94.332 %	0.017 ppb	0.069 ppb	99.325 ppb	378.506 ppb
Concentration per Run 1	1,440.603 ppb	96.601 %	94.400 %	0.000 ppb	0.074 ppb	94.865 ppb	364.301 ppb
Concentration per Run 2	1,658.288 ppb	94.326 %	95.551 %	0.052 ppb	0.011 ppb	98.286 ppb	373.644 ppb
Concentration per Run 3	1,664.160 ppb	87.165 %	93.044 %	0.000 ppb	0.124 ppb	104.822 ppb	397.574 ppb
Concentration RSD	8.0 %	5.3 %	1.3 %	173.2 %	81.7 %	5.1 %	4.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.705 ppb	0.776 ppb	0.585 ppb	1.868 ppb	89.415 %	0.385 ppb	-0.121 ppb
Concentration per Run 1	0.653 ppb	0.844 ppb	0.305 ppb	1.528 ppb	92.972 %	0.341 ppb	-0.195 ppb
Concentration per Run 2	0.680 ppb	0.595 ppb	0.768 ppb	1.787 ppb	87.669 %	0.363 ppb	0.035 ppb
Concentration per Run 3	0.781 ppb	0.888 ppb	0.681 ppb	2.288 ppb	87.605 %	0.450 ppb	-0.202 ppb
Concentration RSD	9.6 %	20.4 %	42.1 %	20.7 %	3.4 %	14.9 %	111.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.066 ppb	-0.010 ppb	-0.028 ppb	92.258 %	-0.078 ppb	0.040 ppb	4.478 ppb
Concentration per Run 1	0.007 ppb	-0.010 ppb	-0.033 ppb	95.447 %	-0.113 ppb	0.032 ppb	4.830 ppb
Concentration per Run 2	0.047 ppb	-0.005 ppb	-0.019 ppb	89.553 %	-0.112 ppb	0.016 ppb	4.278 ppb
Concentration per Run 3	0.144 ppb	-0.015 ppb	-0.033 ppb	91.772 %	-0.008 ppb	0.073 ppb	4.325 ppb
Concentration RSD	106.7 %	50.2 %	28.1 %	3.2 %	77.2 %	73.3 %	6.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.907 %	0.007 ppb	0.039 ppb	90.941 %
Concentration per Run 1	94.970 %	0.006 ppb	0.035 ppb	91.755 %
Concentration per Run 2	92.452 %	0.021 ppb	0.034 ppb	91.335 %
Concentration per Run 3	88.298 %	-0.005 ppb	0.049 ppb	89.733 %
Concentration RSD	3.7 %	185.4 %	21.5 %	1.2 %

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Analysis index: 108
Analysis label: wg873478-2d5 6020tl
Analysis started at: 3/14/2016 7:06:54 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 15

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.992 %	100.902 %	9.115 ppb	1,887.597 ppb	1,902.145 ppb	364.585 ppb	1,880.728 ppb
Concentration per Run 1	113.341 %	102.505 %	9.060 ppb	1,827.928 ppb	1,845.288 ppb	344.359 ppb	1,808.928 ppb
Concentration per Run 2	113.809 %	107.916 %	9.158 ppb	1,796.762 ppb	1,825.630 ppb	337.954 ppb	1,855.561 ppb
Concentration per Run 3	111.826 %	92.284 %	9.126 ppb	2,038.103 ppb	2,035.517 ppb	411.442 ppb	1,977.695 ppb
Concentration RSD	0.9 %	7.9 %	0.5 %	7.0 %	6.1 %	11.2 %	4.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,871.344 ppb	93.428 %	97.718 %	91.871 ppb	35.938 ppb	92.247 ppb	190.463 ppb
Concentration per Run 1	1,725.104 ppb	95.253 %	97.722 %	86.543 ppb	33.219 ppb	84.214 ppb	178.185 ppb
Concentration per Run 2	1,884.735 ppb	94.664 %	99.294 %	93.287 ppb	36.948 ppb	100.078 ppb	195.152 ppb
Concentration per Run 3	2,004.192 ppb	90.366 %	96.137 %	95.782 ppb	37.645 ppb	92.451 ppb	198.050 ppb
Concentration RSD	7.5 %	2.9 %	1.6 %	5.2 %	6.6 %	8.6 %	5.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	91.296 ppb	95.465 ppb	46.583 ppb	97.357 ppb	95.334 %	20.788 ppb	19.444 ppb
Concentration per Run 1	85.160 ppb	90.056 ppb	44.093 ppb	92.043 ppb	99.665 %	19.681 ppb	18.439 ppb
Concentration per Run 2	94.407 ppb	98.184 ppb	48.912 ppb	102.434 ppb	89.116 %	22.876 ppb	22.391 ppb
Concentration per Run 3	94.321 ppb	98.156 ppb	46.746 ppb	97.595 ppb	97.222 %	19.808 ppb	17.502 ppb
Concentration RSD	5.8 %	4.9 %	5.2 %	5.3 %	5.8 %	8.7 %	13.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	180.069 ppb	9.014 ppb	10.031 ppb	92.831 %	197.830 ppb	90.839 ppb	370.948 ppb
Concentration per Run 1	163.714 ppb	8.209 ppb	9.021 ppb	100.724 %	174.569 ppb	82.155 ppb	341.204 ppb
Concentration per Run 2	188.617 ppb	9.714 ppb	10.469 ppb	91.558 %	202.122 ppb	90.400 ppb	375.149 ppb
Concentration per Run 3	187.875 ppb	9.120 ppb	10.602 ppb	86.210 %	216.799 ppb	99.961 ppb	396.490 ppb
Concentration RSD	7.9 %	8.4 %	8.7 %	7.9 %	10.8 %	9.8 %	7.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.668 %	22.107 ppb	102.182 ppb	94.305 %
Concentration per Run 1	101.748 %	20.703 ppb	94.793 ppb	99.571 %
Concentration per Run 2	96.082 %	22.670 ppb	101.818 ppb	93.092 %
Concentration per Run 3	89.174 %	22.948 ppb	109.934 ppb	90.250 %
Concentration RSD	6.6 %	5.5 %	7.4 %	5.1 %

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Analysis index: 109
Analysis label: l1606591-02 6020tl
Analysis started at: 3/14/2016 7:09:58 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 16

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	119.259 %	107.215 %	-0.001 ppb	48,113.365 ppb	87,766.778 ppb	15.322 ppb	4,309.602 ppb
Concentration per Run 1	118.300 %	103.708 %	-0.004 ppb	49,957.522 ppb	92,171.617 ppb	15.547 ppb	4,349.321 ppb
Concentration per Run 2	119.336 %	110.321 %	0.004 ppb	46,833.357 ppb	83,514.949 ppb	13.159 ppb	4,218.399 ppb
Concentration per Run 3	120.139 %	107.615 %	-0.004 ppb	47,549.217 ppb	87,613.769 ppb	17.261 ppb	4,361.086 ppb
Concentration RSD	0.8 %	3.1 %	323.4 %	3.4 %	4.9 %	13.4 %	1.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	61,320.662 ppb	94.326 %	99.225 %	0.327 ppb	1.223 ppb	106.431 ppb	47.642 ppb
Concentration per Run 1	64,089.265 ppb	94.073 %	96.961 %	0.339 ppb	1.248 ppb	109.445 ppb	43.974 ppb
Concentration per Run 2	60,768.251 ppb	96.433 %	100.176 %	0.277 ppb	1.280 ppb	99.496 ppb	48.683 ppb
Concentration per Run 3	59,104.470 ppb	92.473 %	100.539 %	0.365 ppb	1.141 ppb	110.352 ppb	50.270 ppb
Concentration RSD	4.1 %	2.1 %	2.0 %	13.9 %	6.0 %	5.7 %	6.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.306 ppb	3.395 ppb	3.867 ppb	16.342 ppb	87.882 %	0.291 ppb	-0.012 ppb
Concentration per Run 1	0.238 ppb	4.278 ppb	3.356 ppb	16.952 ppb	83.197 %	0.293 ppb	-0.157 ppb
Concentration per Run 2	0.225 ppb	2.587 ppb	4.304 ppb	15.200 ppb	90.927 %	0.267 ppb	-0.131 ppb
Concentration per Run 3	0.456 ppb	3.320 ppb	3.940 ppb	16.873 ppb	89.521 %	0.314 ppb	0.252 ppb
Concentration RSD	42.4 %	25.0 %	12.4 %	6.1 %	4.7 %	8.0 %	1,937.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.546 ppb	0.027 ppb	0.010 ppb	86.537 %	0.596 ppb	1.167 ppb	32.431 ppb
Concentration per Run 1	4.444 ppb	0.000 ppb	-0.026 ppb	88.814 %	0.700 ppb	1.196 ppb	31.834 ppb
Concentration per Run 2	4.509 ppb	0.001 ppb	-0.004 ppb	84.313 %	0.518 ppb	1.154 ppb	32.438 ppb
Concentration per Run 3	4.685 ppb	0.079 ppb	0.059 ppb	86.485 %	0.570 ppb	1.152 ppb	33.021 ppb
Concentration RSD	2.7 %	169.4 %	449.9 %	2.6 %	15.7 %	2.1 %	1.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.747 %	0.012 ppb	0.747 ppb	81.643 %
Concentration per Run 1	94.246 %	-0.021 ppb	0.649 ppb	82.195 %
Concentration per Run 2	91.529 %	-0.017 ppb	0.686 ppb	81.131 %
Concentration per Run 3	89.466 %	0.074 ppb	0.904 ppb	81.603 %
Concentration RSD	2.6 %	445.1 %	18.5 %	0.7 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 110
Analysis label: l1606591-02d20 6020tl
Analysis started at: 3/14/2016 7:13:02 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 17

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	120.245 %	104.008 %	-0.005 ppb	2,484.048 ppb	4,993.433 ppb	-0.529 ppb	236.912 ppb
Concentration per Run 1	121.072 %	105.211 %	-0.004 ppb	2,348.520 ppb	4,795.220 ppb	-0.153 ppb	224.313 ppb
Concentration per Run 2	119.562 %	93.487 %	-0.001 ppb	2,706.586 ppb	5,253.669 ppb	-0.672 ppb	265.926 ppb
Concentration per Run 3	120.101 %	113.327 %	-0.011 ppb	2,397.038 ppb	4,931.410 ppb	-0.763 ppb	220.498 ppb
Concentration RSD	0.6 %	9.6 %	98.1 %	7.8 %	4.7 %	62.2 %	10.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,158.638 ppb	96.854 %	103.969 %	0.025 ppb	0.028 ppb	4.670 ppb	3.407 ppb
Concentration per Run 1	2,946.416 ppb	100.899 %	103.704 %	0.024 ppb	0.066 ppb	4.066 ppb	0.941 ppb
Concentration per Run 2	3,388.427 ppb	94.494 %	104.696 %	0.051 ppb	0.010 ppb	5.420 ppb	5.011 ppb
Concentration per Run 3	3,141.072 ppb	95.169 %	103.507 %	0.000 ppb	0.010 ppb	4.523 ppb	4.268 ppb
Concentration RSD	7.0 %	3.6 %	0.6 %	102.6 %	113.2 %	14.7 %	63.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.006 ppb	0.157 ppb	0.103 ppb	-0.360 ppb	94.079 %	0.002 ppb	-0.010 ppb
Concentration per Run 1	0.014 ppb	0.128 ppb	0.116 ppb	-0.283 ppb	102.173 %	-0.007 ppb	-0.179 ppb
Concentration per Run 2	0.007 ppb	0.188 ppb	0.082 ppb	-0.437 ppb	91.183 %	-0.004 ppb	0.272 ppb
Concentration per Run 3	-0.002 ppb	0.155 ppb	0.110 ppb	-0.359 ppb	88.883 %	0.017 ppb	-0.124 ppb
Concentration RSD	129.2 %	19.3 %	17.8 %	21.3 %	7.5 %	648.0 %	2,360.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.440 ppb	-0.010 ppb	-0.022 ppb	92.698 %	-0.031 ppb	0.211 ppb	1.310 ppb
Concentration per Run 1	0.308 ppb	-0.006 ppb	-0.020 ppb	94.441 %	-0.012 ppb	0.163 ppb	1.456 ppb
Concentration per Run 2	0.506 ppb	-0.015 ppb	-0.019 ppb	90.516 %	-0.028 ppb	0.191 ppb	1.470 ppb
Concentration per Run 3	0.505 ppb	-0.010 ppb	-0.026 ppb	93.136 %	-0.051 ppb	0.280 ppb	1.005 ppb
Concentration RSD	26.0 %	45.8 %	17.6 %	2.2 %	64.5 %	28.8 %	20.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.234 %	-0.011 ppb	0.010 ppb	90.139 %
Concentration per Run 1	94.138 %	-0.006 ppb	0.006 ppb	90.650 %
Concentration per Run 2	90.414 %	-0.015 ppb	0.005 ppb	91.369 %
Concentration per Run 3	92.149 %	-0.012 ppb	0.019 ppb	88.400 %
Concentration RSD	2.0 %	43.7 %	77.5 %	1.7 %

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Analysis index: 111
Analysis label: wg873478-3 6020tl
Analysis started at: 3/14/2016 7:16:06 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 18

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	121.148 %	102.405 %	-0.005 ppb	50,495.641 ppb	92,239.124 ppb	20.148 ppb	4,608.846 ppb
Concentration per Run 1	121.950 %	104.309 %	-0.004 ppb	50,335.011 ppb	92,126.150 ppb	17.832 ppb	4,815.488 ppb
Concentration per Run 2	121.152 %	103.106 %	-0.007 ppb	50,812.717 ppb	92,846.324 ppb	18.747 ppb	4,523.552 ppb
Concentration per Run 3	120.343 %	99.800 %	-0.004 ppb	50,339.195 ppb	91,744.899 ppb	23.864 ppb	4,487.499 ppb
Concentration RSD	0.7 %	2.3 %	26.3 %	0.5 %	0.6 %	16.1 %	3.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	64,123.025 ppb	91.630 %	100.112 %	0.245 ppb	1.291 ppb	106.241 ppb	56.241 ppb
Concentration per Run 1	67,663.318 ppb	91.377 %	98.758 %	0.211 ppb	1.358 ppb	110.951 ppb	69.670 ppb
Concentration per Run 2	62,828.877 ppb	91.377 %	101.481 %	0.235 ppb	1.085 ppb	104.343 ppb	48.731 ppb
Concentration per Run 3	61,876.880 ppb	92.135 %	100.096 %	0.290 ppb	1.431 ppb	103.428 ppb	50.321 ppb
Concentration RSD	4.8 %	0.5 %	1.4 %	16.6 %	14.1 %	3.9 %	20.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.278 ppb	3.321 ppb	2.987 ppb	12.826 ppb	90.203 %	0.179 ppb	0.137 ppb
Concentration per Run 1	0.302 ppb	3.480 ppb	3.241 ppb	12.533 ppb	89.841 %	0.164 ppb	0.536 ppb
Concentration per Run 2	0.275 ppb	3.389 ppb	2.879 ppb	12.558 ppb	94.377 %	0.156 ppb	-0.168 ppb
Concentration per Run 3	0.256 ppb	3.093 ppb	2.840 ppb	13.385 ppb	86.391 %	0.216 ppb	0.044 ppb
Concentration RSD	8.2 %	6.1 %	7.4 %	3.8 %	4.4 %	18.2 %	263.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.841 ppb	-0.001 ppb	-0.017 ppb	88.005 %	0.437 ppb	0.182 ppb	33.364 ppb
Concentration per Run 1	4.302 ppb	0.005 ppb	-0.012 ppb	90.383 %	0.309 ppb	0.190 ppb	32.666 ppb
Concentration per Run 2	3.584 ppb	-0.010 ppb	-0.033 ppb	87.106 %	0.478 ppb	0.238 ppb	33.756 ppb
Concentration per Run 3	3.638 ppb	0.001 ppb	-0.004 ppb	86.525 %	0.524 ppb	0.118 ppb	33.671 ppb
Concentration RSD	10.4 %	523.1 %	88.5 %	2.4 %	26.0 %	33.3 %	1.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.557 %	-0.010 ppb	0.254 ppb	79.651 %
Concentration per Run 1	92.615 %	-0.011 ppb	0.245 ppb	80.793 %
Concentration per Run 2	89.727 %	-0.012 ppb	0.271 ppb	79.463 %
Concentration per Run 3	92.330 %	-0.005 ppb	0.245 ppb	78.697 %
Concentration RSD	1.7 %	44.2 %	6.0 %	1.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 112
Analysis label: wg873478-3d20 6020tl
Analysis started at: 3/14/2016 7:19:10 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 19

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	123.877 %	108.818 %	-0.004 ppb	2,422.570 ppb	4,970.830 ppb	-0.164 ppb	246.224 ppb
Concentration per Run 1	127.379 %	112.125 %	-0.005 ppb	2,402.618 ppb	5,004.532 ppb	0.258 ppb	240.471 ppb
Concentration per Run 2	121.606 %	114.529 %	-0.005 ppb	2,403.745 ppb	4,899.896 ppb	0.127 ppb	259.616 ppb
Concentration per Run 3	122.647 %	99.800 %	-0.002 ppb	2,461.347 ppb	5,008.061 ppb	-0.877 ppb	238.584 ppb
Concentration RSD	2.5 %	7.3 %	42.5 %	1.4 %	1.2 %	378.4 %	4.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,164.041 ppb	97.500 %	105.485 %	0.016 ppb	0.109 ppb	4.291 ppb	1.771 ppb
Concentration per Run 1	3,353.396 ppb	99.297 %	104.401 %	0.000 ppb	0.085 ppb	4.876 ppb	2.474 ppb
Concentration per Run 2	3,088.814 ppb	95.337 %	106.683 %	0.025 ppb	0.139 ppb	4.155 ppb	2.572 ppb
Concentration per Run 3	3,049.912 ppb	97.865 %	105.370 %	0.024 ppb	0.102 ppb	3.844 ppb	0.269 ppb
Concentration RSD	5.2 %	2.1 %	1.1 %	86.6 %	25.7 %	12.3 %	73.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.009 ppb	0.182 ppb	0.115 ppb	-0.452 ppb	97.913 %	0.007 ppb	0.256 ppb
Concentration per Run 1	-0.012 ppb	0.204 ppb	0.171 ppb	-0.291 ppb	97.253 %	0.014 ppb	0.062 ppb
Concentration per Run 2	-0.003 ppb	0.074 ppb	0.125 ppb	-0.426 ppb	96.678 %	0.014 ppb	0.043 ppb
Concentration per Run 3	-0.012 ppb	0.268 ppb	0.049 ppb	-0.637 ppb	99.809 %	-0.006 ppb	0.661 ppb
Concentration RSD	60.7 %	54.5 %	53.4 %	38.6 %	1.7 %	162.8 %	137.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.198 ppb	-0.009 ppb	-0.024 ppb	96.477 %	-0.047 ppb	0.038 ppb	1.605 ppb
Concentration per Run 1	0.207 ppb	-0.015 ppb	-0.026 ppb	94.162 %	0.009 ppb	0.071 ppb	1.771 ppb
Concentration per Run 2	0.202 ppb	-0.006 ppb	-0.027 ppb	98.956 %	-0.095 ppb	0.012 ppb	1.310 ppb
Concentration per Run 3	0.184 ppb	-0.006 ppb	-0.020 ppb	96.312 %	-0.054 ppb	0.032 ppb	1.733 ppb
Concentration RSD	6.1 %	60.0 %	15.1 %	2.5 %	111.5 %	77.6 %	15.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.441 %	-0.020 ppb	-0.003 ppb	91.040 %
Concentration per Run 1	90.888 %	-0.018 ppb	-0.001 ppb	92.368 %
Concentration per Run 2	96.790 %	-0.022 ppb	-0.012 ppb	92.310 %
Concentration per Run 3	92.644 %	-0.020 ppb	0.003 ppb	88.444 %
Concentration RSD	3.2 %	10.0 %	241.2 %	2.5 %

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3/15/2016 2:21:09 PM

Analysis index: 113
Analysis label: wg873478-4d20 6020tl
Analysis started at: 3/14/2016 7:22:14 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 20

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	127.428 %	113.527 %	2.283 ppb	2,975.472 ppb	5,601.445 ppb	100.911 ppb	747.443 ppb
Concentration per Run 1	129.399 %	106.714 %	2.277 ppb	3,126.752 ppb	5,765.386 ppb	104.070 ppb	760.908 ppb
Concentration per Run 2	126.063 %	116.634 %	2.266 ppb	2,877.594 ppb	5,558.571 ppb	96.820 ppb	727.993 ppb
Concentration per Run 3	126.820 %	117.235 %	2.305 ppb	2,922.068 ppb	5,480.377 ppb	101.843 ppb	753.428 ppb
Concentration RSD	1.4 %	5.2 %	0.9 %	4.5 %	2.6 %	3.7 %	2.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,821.464 ppb	98.174 %	106.004 %	26.495 ppb	10.106 ppb	30.776 ppb	52.451 ppb
Concentration per Run 1	3,870.686 ppb	98.707 %	103.339 %	27.525 ppb	9.737 ppb	30.607 ppb	56.499 ppb
Concentration per Run 2	3,577.508 ppb	99.803 %	105.605 %	25.795 ppb	10.212 ppb	29.650 ppb	48.185 ppb
Concentration per Run 3	4,016.199 ppb	96.012 %	109.069 %	26.166 ppb	10.370 ppb	32.072 ppb	52.667 ppb
Concentration RSD	5.8 %	2.0 %	2.7 %	3.4 %	3.3 %	4.0 %	7.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	26.339 ppb	26.152 ppb	13.288 ppb	25.160 ppb	97.458 %	6.200 ppb	6.464 ppb
Concentration per Run 1	27.042 ppb	26.683 ppb	13.585 ppb	26.754 ppb	96.223 %	6.432 ppb	7.143 ppb
Concentration per Run 2	26.187 ppb	26.265 ppb	12.973 ppb	24.027 ppb	95.519 %	6.352 ppb	6.963 ppb
Concentration per Run 3	25.789 ppb	25.509 ppb	13.306 ppb	24.698 ppb	100.631 %	5.816 ppb	5.286 ppb
Concentration RSD	2.4 %	2.3 %	2.3 %	5.6 %	2.8 %	5.4 %	15.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	51.401 ppb	2.517 ppb	2.807 ppb	97.972 %	54.556 ppb	24.507 ppb	102.299 ppb
Concentration per Run 1	54.010 ppb	2.718 ppb	2.929 ppb	96.436 %	54.838 ppb	23.747 ppb	101.011 ppb
Concentration per Run 2	50.135 ppb	2.375 ppb	2.740 ppb	100.622 %	53.103 ppb	25.548 ppb	99.952 ppb
Concentration per Run 3	50.059 ppb	2.457 ppb	2.753 ppb	96.859 %	55.725 ppb	24.226 ppb	105.935 ppb
Concentration RSD	4.4 %	7.1 %	3.8 %	2.4 %	2.4 %	3.8 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.079 %	6.323 ppb	27.062 ppb	89.696 %
Concentration per Run 1	97.658 %	6.429 ppb	27.051 ppb	88.644 %
Concentration per Run 2	96.590 %	6.456 ppb	27.412 ppb	89.617 %
Concentration per Run 3	96.990 %	6.085 ppb	26.723 ppb	90.826 %
Concentration RSD	0.6 %	3.3 %	1.3 %	1.2 %

Analysis index: 114 Analysis started at: 3/14/2016 7:25:19 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	117.052 %	105.912 %	96.386 ppb	9,740.304 ppb	10,006.821 ppb	96.545 ppb	10,132.560 ppb
Concentration per Run 1	116.715 %	107.615 %	97.089 ppb	9,588.691 ppb	9,876.630 ppb	89.170 ppb	9,977.037 ppb
Concentration per Run 2	117.541 %	100.701 %	95.865 ppb	10,048.191 ppb	10,266.234 ppb	98.388 ppb	10,028.475 ppb
Concentration per Run 3	116.901 %	109.419 %	96.204 ppb	9,584.030 ppb	9,877.600 ppb	102.078 ppb	10,392.168 ppb
Recovery Percentage 1			96.386 %	97.403 %	100.068 %	96.545 %	101.326 %
Concentration RSD	0.4 %	4.3 %	0.7 %	2.7 %	2.2 %	6.9 %	2.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,227.777 ppb	96.826 %	100.270 %	98.920 ppb	99.497 ppb	94.987 ppb	10,100.865 ppb
Concentration per Run 1	9,875.443 ppb	99.550 %	100.389 %	96.067 ppb	96.493 ppb	90.711 ppb	9,661.523 ppb
Concentration per Run 2	10,318.492 ppb	96.180 %	100.483 %	101.112 ppb	101.025 ppb	94.528 ppb	10,393.708 ppb
Concentration per Run 3	10,489.395 ppb	94.747 %	99.937 %	99.582 ppb	100.972 ppb	99.722 ppb	10,247.362 ppb
Recovery Percentage 1	102.278 %			98.920 %	99.497 %	94.987 %	101.009 %
Concentration RSD	3.1 %	2.5 %	0.3 %	2.6 %	2.6 %	4.8 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	102.058 ppb	101.416 ppb	102.675 ppb	98.929 ppb	96.265 %	96.233 ppb	91.303 ppb
Concentration per Run 1	99.196 ppb	100.687 ppb	104.663 ppb	98.740 ppb	96.861 %	97.972 ppb	88.220 ppb
Concentration per Run 2	104.034 ppb	104.497 ppb	103.864 ppb	98.451 ppb	97.752 %	92.898 ppb	95.041 ppb
Concentration per Run 3	102.944 ppb	99.063 ppb	99.499 ppb	99.596 ppb	94.182 %	97.830 ppb	90.647 ppb
Recovery Percentage 1	102.058 %	101.416 %	102.675 %	98.929 %		96.233 %	91.303 %
Concentration RSD	2.5 %	2.8 %	2.7 %	0.6 %	1.9 %	3.0 %	3.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	99.764 ppb	106.174 ppb	100.637 ppb	95.630 %	104.112 ppb	100.518 ppb	98.105 ppb
Concentration per Run 1	100.635 ppb	108.756 ppb	99.806 ppb	96.475 %	98.696 ppb	99.563 ppb	93.917 ppb
Concentration per Run 2	97.762 ppb	102.752 ppb	99.398 ppb	95.366 %	107.400 ppb	100.768 ppb	101.031 ppb
Concentration per Run 3	100.896 ppb	107.013 ppb	102.708 ppb	95.048 %	106.239 ppb	101.224 ppb	99.366 ppb
Recovery Percentage 1	99.764 %	106.174 %	100.637 %		104.112 %	100.518 %	98.105 %
Concentration RSD	1.7 %	2.9 %	1.8 %	0.8 %	4.5 %	0.9 %	3.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.511 %	101.487 ppb	105.528 ppb	90.130 %
Concentration per Run 1	94.556 %	98.026 ppb	102.970 ppb	92.369 %
Concentration per Run 2	91.855 %	105.285 ppb	106.804 ppb	88.551 %
Concentration per Run 3	91.122 %	101.152 ppb	106.810 ppb	89.469 %
Recovery Percentage 1		101.487 %	105.528 %	
Concentration RSD	2.0 %	3.6 %	2.1 %	2.2 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 115 Analysis started at: 3/14/2016 7:28:26 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.900 %	102.705 %	0.017 ppb	2.963 ppb	2.064 ppb	-0.171 ppb	0.755 ppb
Concentration per Run 1	112.299 %	103.106 %	0.013 ppb	5.651 ppb	2.235 ppb	0.084 ppb	3.728 ppb
Concentration per Run 2	112.648 %	107.014 %	0.017 ppb	1.909 ppb	1.591 ppb	-0.246 ppb	-1.531 ppb
Concentration per Run 3	116.752 %	97.996 %	0.020 ppb	1.330 ppb	2.367 ppb	-0.350 ppb	0.068 ppb
Recovery Percentage 1			3.336 %	2.963 %	2.949 %	-1.708 %	0.755 %
Concentration RSD	2.2 %	4.4 %	18.6 %	79.2 %	20.1 %	132.7 %	357.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	11.808 ppb	92.276 %	97.047 %	0.035 ppb	0.074 ppb	0.405 ppb	2.200 ppb
Concentration per Run 1	16.025 ppb	93.399 %	98.266 %	0.025 ppb	0.043 ppb	0.080 ppb	1.095 ppb
Concentration per Run 2	9.965 ppb	91.546 %	97.059 %	0.026 ppb	0.081 ppb	0.771 ppb	1.978 ppb
Concentration per Run 3	9.435 ppb	91.883 %	95.818 %	0.052 ppb	0.097 ppb	0.363 ppb	3.528 ppb
Recovery Percentage 1	11.808 %			0.693 %	7.358 %	40.493 %	4.401 %
Concentration RSD	31.0 %	1.1 %	1.3 %	43.9 %	37.8 %	85.7 %	56.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.030 ppb	0.033 ppb	0.039 ppb	0.136 ppb	92.780 %	-0.011 ppb	-0.010 ppb
Concentration per Run 1	0.035 ppb	0.076 ppb	0.028 ppb	0.171 ppb	96.358 %	-0.025 ppb	0.051 ppb
Concentration per Run 2	0.037 ppb	-0.024 ppb	0.058 ppb	0.148 ppb	90.352 %	0.017 ppb	-0.145 ppb
Concentration per Run 3	0.017 ppb	0.047 ppb	0.031 ppb	0.089 ppb	91.630 %	-0.025 ppb	0.064 ppb
Recovery Percentage 1	5.934 %	6.636 %	3.903 %	1.361 %	92.780 %	-2.255 %	-0.200 %
Concentration RSD	36.7 %	154.9 %	42.1 %	31.1 %	3.4 %	214.9 %	1,168.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.478 ppb	0.020 ppb	-0.004 ppb	90.137 %	0.106 ppb	0.141 ppb	0.004 ppb
Concentration per Run 1	0.446 ppb	0.014 ppb	0.013 ppb	94.112 %	0.090 ppb	0.052 ppb	0.003 ppb
Concentration per Run 2	0.479 ppb	0.031 ppb	-0.012 ppb	87.327 %	0.105 ppb	0.116 ppb	0.053 ppb
Concentration per Run 3	0.510 ppb	0.015 ppb	-0.012 ppb	88.972 %	0.124 ppb	0.254 ppb	-0.044 ppb
Recovery Percentage 1	15.941 %	5.019 %	-1.868 %		3.541 %	7.035 %	0.780 %
Concentration RSD	6.7 %	48.6 %	383.1 %	3.9 %	16.1 %	73.5 %	1,245.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.781 %	0.012 ppb	0.022 ppb	90.507 %
Concentration per Run 1	92.651 %	0.018 ppb	0.013 ppb	91.675 %
Concentration per Run 2	94.673 %	0.011 ppb	0.025 ppb	90.105 %
Concentration per Run 3	88.019 %	0.008 ppb	0.028 ppb	89.741 %
Recovery Percentage 1		2.440 %	4.429 %	90.507 %
Concentration RSD	3.7 %	41.1 %	37.3 %	1.1 %

Alpha ICPMSQ Full

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Analysis index: 116
Analysis label: wg873478-5d20 6020tl
Analysis started at: 3/14/2016 7:31:34 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 21

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.945 %	104.609 %	44.663 ppb	6,928.412 ppb	9,403.578 ppb	46.340 ppb	4,977.014 ppb
Concentration per Run 1	112.084 %	103.407 %	45.248 ppb	7,241.928 ppb	9,595.129 ppb	49.122 ppb	5,374.573 ppb
Concentration per Run 2	108.966 %	107.615 %	44.335 ppb	6,707.809 ppb	9,468.761 ppb	43.819 ppb	4,928.886 ppb
Concentration per Run 3	111.785 %	102.806 %	44.408 ppb	6,835.500 ppb	9,146.844 ppb	46.080 ppb	4,627.584 ppb
Concentration RSD	1.6 %	2.5 %	1.1 %	4.0 %	2.5 %	5.7 %	7.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8,060.089 ppb	93.091 %	96.821 %	47.056 ppb	45.947 ppb	51.586 ppb	4,845.025 ppb
Concentration per Run 1	8,636.409 ppb	86.575 %	97.485 %	49.468 ppb	48.509 ppb	54.372 ppb	5,105.827 ppb
Concentration per Run 2	8,122.996 ppb	93.231 %	92.879 %	47.085 ppb	44.422 ppb	47.716 ppb	4,611.655 ppb
Concentration per Run 3	7,420.863 ppb	99.466 %	100.099 %	44.615 ppb	44.910 ppb	52.671 ppb	4,817.594 ppb
Concentration RSD	7.6 %	6.9 %	3.8 %	5.2 %	4.9 %	6.7 %	5.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	47.672 ppb	48.669 ppb	47.053 ppb	46.225 ppb	93.890 %	45.988 ppb	44.951 ppb
Concentration per Run 1	50.671 ppb	53.332 ppb	48.461 ppb	46.573 ppb	96.591 %	46.710 ppb	43.378 ppb
Concentration per Run 2	46.549 ppb	47.913 ppb	47.377 ppb	46.087 ppb	95.467 %	45.065 ppb	48.855 ppb
Concentration per Run 3	45.797 ppb	44.764 ppb	45.320 ppb	46.016 ppb	89.612 %	46.191 ppb	42.621 ppb
Concentration RSD	5.5 %	8.9 %	3.4 %	0.7 %	4.0 %	1.8 %	7.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	45.749 ppb	47.158 ppb	47.730 ppb	92.324 %	-0.002 ppb	48.280 ppb	49.446 ppb
Concentration per Run 1	44.547 ppb	46.865 ppb	47.271 ppb	95.461 %	-0.033 ppb	47.605 ppb	50.939 ppb
Concentration per Run 2	44.480 ppb	43.905 ppb	46.947 ppb	91.908 %	0.033 ppb	48.475 ppb	51.485 ppb
Concentration per Run 3	48.219 ppb	50.705 ppb	48.970 ppb	89.603 %	-0.006 ppb	48.760 ppb	45.912 ppb
Concentration RSD	4.7 %	7.2 %	2.3 %	3.2 %	1,460.8 %	1.2 %	6.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.413 %	47.253 ppb	48.138 ppb	89.789 %
Concentration per Run 1	94.470 %	46.237 ppb	47.627 ppb	92.730 %
Concentration per Run 2	91.889 %	46.738 ppb	48.071 ppb	89.705 %
Concentration per Run 3	90.881 %	48.783 ppb	48.717 ppb	86.933 %
Concentration RSD	2.0 %	2.9 %	1.1 %	3.2 %

Alpha ICPMSQ Full

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Analysis index: 117
Analysis label: wg873478-6d5 6020tl
Analysis started at: 3/14/2016 7:34:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 22

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	120.601 %	103.307 %	0.003 ppb	9,627.214 ppb	19,534.656 ppb	2.546 ppb	912.053 ppb
Concentration per Run 1	121.118 %	96.493 %	-0.004 ppb	9,733.843 ppb	19,821.750 ppb	2.466 ppb	898.917 ppb
Concentration per Run 2	120.500 %	101.303 %	0.007 ppb	9,729.523 ppb	19,655.788 ppb	3.647 ppb	897.240 ppb
Concentration per Run 3	120.185 %	112.125 %	0.006 ppb	9,418.276 ppb	19,126.430 ppb	1.526 ppb	940.002 ppb
Concentration RSD	0.4 %	7.7 %	211.6 %	1.9 %	1.9 %	41.7 %	2.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12,615.070 ppb	97.107 %	104.608 %	0.090 ppb	0.248 ppb	21.299 ppb	11.222 ppb
Concentration per Run 1	12,678.864 ppb	99.129 %	107.015 %	0.146 ppb	0.324 ppb	21.827 ppb	11.306 ppb
Concentration per Run 2	12,921.575 ppb	98.118 %	102.522 %	0.073 ppb	0.247 ppb	21.065 ppb	9.140 ppb
Concentration per Run 3	12,244.769 ppb	94.075 %	104.289 %	0.051 ppb	0.175 ppb	21.005 ppb	13.219 ppb
Concentration RSD	2.7 %	2.8 %	2.2 %	55.2 %	30.1 %	2.2 %	18.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.040 ppb	0.773 ppb	0.641 ppb	2.870 ppb	97.125 %	0.040 ppb	0.243 ppb
Concentration per Run 1	0.033 ppb	0.879 ppb	0.630 ppb	3.061 ppb	96.997 %	0.033 ppb	0.012 ppb
Concentration per Run 2	0.061 ppb	0.847 ppb	0.653 ppb	2.487 ppb	97.508 %	0.053 ppb	0.238 ppb
Concentration per Run 3	0.025 ppb	0.594 ppb	0.641 ppb	3.062 ppb	96.869 %	0.033 ppb	0.481 ppb
Concentration RSD	46.6 %	20.2 %	1.9 %	11.6 %	0.3 %	27.7 %	96.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.089 ppb	0.041 ppb	-0.015 ppb	94.031 %	0.015 ppb	0.108 ppb	6.393 ppb
Concentration per Run 1	1.107 ppb	0.052 ppb	-0.007 ppb	93.194 %	-0.052 ppb	0.184 ppb	7.711 ppb
Concentration per Run 2	1.169 ppb	0.047 ppb	-0.020 ppb	94.550 %	0.068 ppb	0.088 ppb	6.070 ppb
Concentration per Run 3	0.991 ppb	0.023 ppb	-0.020 ppb	94.349 %	0.028 ppb	0.051 ppb	5.399 ppb
Concentration RSD	8.3 %	38.1 %	49.8 %	0.8 %	408.8 %	63.4 %	18.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.585 %	-0.004 ppb	0.162 ppb	88.033 %
Concentration per Run 1	94.890 %	0.014 ppb	0.172 ppb	88.297 %
Concentration per Run 2	94.838 %	-0.009 ppb	0.164 ppb	87.335 %
Concentration per Run 3	94.028 %	-0.016 ppb	0.151 ppb	88.469 %
Concentration RSD	0.5 %	435.2 %	6.5 %	0.7 %

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Analysis index: 118
Analysis label: wg873478-6d100 6020tl
Analysis started at: 3/14/2016 7:37:44 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 23

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	121.815 %	105.712 %	0.004 ppb	1,951.172 ppb	3,925.683 ppb	0.206 ppb	188.175 ppb
Concentration per Run 1	120.519 %	108.217 %	0.004 ppb	1,954.385 ppb	3,965.137 ppb	1.658 ppb	170.937 ppb
Concentration per Run 2	122.198 %	109.419 %	0.003 ppb	1,889.659 ppb	3,765.075 ppb	-0.490 ppb	198.644 ppb
Concentration per Run 3	122.729 %	99.499 %	0.006 ppb	2,009.474 ppb	4,046.837 ppb	-0.549 ppb	194.944 ppb
Concentration RSD	0.9 %	5.1 %	27.8 %	3.1 %	3.7 %	609.4 %	8.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,707.947 ppb	99.185 %	108.596 %	0.000 ppb	0.089 ppb	3.445 ppb	2.391 ppb
Concentration per Run 1	2,855.199 ppb	98.539 %	108.212 %	0.000 ppb	0.037 ppb	3.456 ppb	1.696 ppb
Concentration per Run 2	2,485.474 ppb	102.921 %	108.249 %	0.000 ppb	0.095 ppb	3.408 ppb	3.756 ppb
Concentration per Run 3	2,783.168 ppb	96.096 %	109.326 %	0.000 ppb	0.135 ppb	3.473 ppb	1.720 ppb
Concentration RSD	7.2 %	3.5 %	0.6 %		55.6 %	1.0 %	49.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.009 ppb	0.164 ppb	0.218 ppb	0.143 ppb	102.109 %	0.012 ppb	0.019 ppb
Concentration per Run 1	0.024 ppb	0.296 ppb	0.211 ppb	0.513 ppb	101.917 %	0.012 ppb	0.225 ppb
Concentration per Run 2	0.014 ppb	-0.003 ppb	0.209 ppb	0.016 ppb	101.023 %	0.031 ppb	0.045 ppb
Concentration per Run 3	-0.012 ppb	0.198 ppb	0.234 ppb	-0.100 ppb	103.387 %	-0.007 ppb	-0.214 ppb
Concentration RSD	212.7 %	93.2 %	6.3 %	227.5 %	1.2 %	157.8 %	1,183.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.215 ppb	0.005 ppb	0.003 ppb	97.422 %	-0.016 ppb	0.025 ppb	1.382 ppb
Concentration per Run 1	0.267 ppb	0.003 ppb	-0.002 ppb	97.972 %	0.042 ppb	0.013 ppb	0.825 ppb
Concentration per Run 2	0.183 ppb	0.013 ppb	-0.001 ppb	96.496 %	-0.035 ppb	0.013 ppb	1.700 ppb
Concentration per Run 3	0.196 ppb	-0.001 ppb	0.011 ppb	97.798 %	-0.055 ppb	0.049 ppb	1.620 ppb
Concentration RSD	21.1 %	147.5 %	259.9 %	0.8 %	322.2 %	83.5 %	35.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.887 %	0.000 ppb	0.029 ppb	90.311 %
Concentration per Run 1	95.218 %	0.009 ppb	0.025 ppb	90.994 %
Concentration per Run 2	96.039 %	-0.004 ppb	0.020 ppb	91.970 %
Concentration per Run 3	93.405 %	-0.005 ppb	0.043 ppb	87.969 %
Concentration RSD	1.4 %	8,832.5 %	40.3 %	2.3 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 119
Analysis label: l1606583-01 6020tl
Analysis started at: 3/14/2016 7:40:49 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 24

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	109.840 %	97.094 %	0.031 ppb	565,120.566 ppb	73,174.681 ppb	409.348 ppb	38,566.169 ppb
Concentration per Run 1	108.840 %	96.192 %	0.031 ppb	561,007.375 ppb	73,308.612 ppb	411.587 ppb	37,554.633 ppb
Concentration per Run 2	109.278 %	98.597 %	0.030 ppb	577,308.183 ppb	74,581.310 ppb	404.603 ppb	40,946.745 ppb
Concentration per Run 3	111.402 %	96.493 %	0.033 ppb	557,046.141 ppb	71,634.120 ppb	411.853 ppb	37,197.130 ppb
Concentration RSD	1.2 %	1.3 %	5.3 %	1.9 %	2.0 %	1.0 %	5.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	270,866.219 ppb	83.598 %	94.888 %	2.088 ppb	3.305 ppb	1,767.072 ppb	6,970.103 ppb
Concentration per Run 1	256,321.113 ppb	87.586 %	95.125 %	2.165 ppb	3.067 ppb	1,708.074 ppb	6,880.119 ppb
Concentration per Run 2	290,368.373 ppb	79.414 %	95.362 %	2.195 ppb	3.410 ppb	1,868.423 ppb	7,347.897 ppb
Concentration per Run 3	265,909.170 ppb	83.795 %	94.178 %	1.903 ppb	3.438 ppb	1,724.719 ppb	6,682.291 ppb
Concentration RSD	6.5 %	4.9 %	0.7 %	7.7 %	6.2 %	5.0 %	4.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.499 ppb	4.925 ppb	6.932 ppb	18.261 ppb	84.877 %	1.709 ppb	0.537 ppb
Concentration per Run 1	0.517 ppb	4.372 ppb	6.652 ppb	17.841 ppb	87.094 %	1.759 ppb	1.690 ppb
Concentration per Run 2	0.554 ppb	5.188 ppb	7.517 ppb	19.402 ppb	80.833 %	1.684 ppb	-0.167 ppb
Concentration per Run 3	0.426 ppb	5.216 ppb	6.628 ppb	17.540 ppb	86.703 %	1.682 ppb	0.087 ppb
Concentration RSD	13.2 %	9.7 %	7.3 %	5.5 %	4.1 %	2.6 %	187.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.251 ppb	0.014 ppb	-0.006 ppb	82.725 %	0.917 ppb	0.225 ppb	272.745 ppb
Concentration per Run 1	2.196 ppb	0.027 ppb	-0.018 ppb	85.058 %	0.897 ppb	0.225 ppb	271.233 ppb
Concentration per Run 2	2.416 ppb	0.012 ppb	0.019 ppb	82.814 %	0.947 ppb	0.210 ppb	268.698 ppb
Concentration per Run 3	2.140 ppb	0.002 ppb	-0.018 ppb	80.301 %	0.909 ppb	0.239 ppb	278.303 ppb
Concentration RSD	6.5 %	94.0 %	383.7 %	2.9 %	2.9 %	6.4 %	1.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.937 %	-0.018 ppb	9.988 ppb	71.136 %
Concentration per Run 1	85.584 %	-0.024 ppb	9.872 ppb	73.036 %
Concentration per Run 2	83.823 %	-0.013 ppb	9.980 ppb	71.192 %
Concentration per Run 3	82.404 %	-0.018 ppb	10.111 ppb	69.180 %
Concentration RSD	1.9 %	28.5 %	1.2 %	2.7 %

Alpha ICPMSQ Full

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Analysis index: 120
Analysis label: l1606583-01d20 6020tl
Analysis started at: 3/14/2016 7:43:55 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 25

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	114.936 %	103.507 %	0.001 ppb	38,254.864 ppb	5,037.662 ppb	29.314 ppb	2,458.118 ppb
Concentration per Run 1	113.645 %	101.603 %	0.000 ppb	37,754.872 ppb	4,958.933 ppb	26.705 ppb	2,382.943 ppb
Concentration per Run 2	115.334 %	97.695 %	-0.001 ppb	40,306.288 ppb	5,367.139 ppb	32.269 ppb	2,651.963 ppb
Concentration per Run 3	115.830 %	111.223 %	0.003 ppb	36,703.432 ppb	4,786.915 ppb	28.970 ppb	2,339.447 ppb
Concentration RSD	1.0 %	6.7 %	460.7 %	4.8 %	5.9 %	9.5 %	6.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	17,755.874 ppb	95.815 %	99.831 %	0.157 ppb	0.236 ppb	121.067 ppb	475.485 ppb
Concentration per Run 1	16,808.683 ppb	102.331 %	100.412 %	0.190 ppb	0.315 ppb	116.675 ppb	487.485 ppb
Concentration per Run 2	18,782.806 ppb	89.945 %	97.928 %	0.079 ppb	0.186 ppb	130.147 ppb	465.814 ppb
Concentration per Run 3	17,676.134 ppb	95.169 %	101.152 %	0.202 ppb	0.207 ppb	116.379 ppb	473.156 ppb
Concentration RSD	5.6 %	6.5 %	1.7 %	43.0 %	29.4 %	6.5 %	2.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.028 ppb	0.294 ppb	0.568 ppb	0.530 ppb	94.313 %	0.062 ppb	0.063 ppb
Concentration per Run 1	0.069 ppb	0.401 ppb	0.508 ppb	0.461 ppb	95.911 %	0.054 ppb	0.077 ppb
Concentration per Run 2	-0.002 ppb	0.229 ppb	0.518 ppb	0.713 ppb	92.844 %	0.056 ppb	0.286 ppb
Concentration per Run 3	0.016 ppb	0.251 ppb	0.677 ppb	0.417 ppb	94.185 %	0.075 ppb	-0.174 ppb
Concentration RSD	133.2 %	32.0 %	16.8 %	30.1 %	1.6 %	19.1 %	367.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.162 ppb	-0.005 ppb	-0.015 ppb	93.473 %	-0.079 ppb	0.045 ppb	18.109 ppb
Concentration per Run 1	0.152 ppb	-0.015 ppb	-0.007 ppb	95.931 %	-0.054 ppb	0.050 ppb	17.552 ppb
Concentration per Run 2	0.176 ppb	0.004 ppb	-0.026 ppb	92.742 %	-0.072 ppb	0.071 ppb	17.481 ppb
Concentration per Run 3	0.157 ppb	-0.005 ppb	-0.013 ppb	91.747 %	-0.113 ppb	0.015 ppb	19.295 ppb
Concentration RSD	7.9 %	183.7 %	63.4 %	2.3 %	37.8 %	62.8 %	5.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.101 %	-0.022 ppb	0.713 ppb	90.168 %
Concentration per Run 1	97.999 %	-0.017 ppb	0.694 ppb	91.603 %
Concentration per Run 2	93.906 %	-0.023 ppb	0.741 ppb	89.001 %
Concentration per Run 3	93.397 %	-0.026 ppb	0.702 ppb	89.901 %
Concentration RSD	2.7 %	21.2 %	3.5 %	1.5 %

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Analysis index: 121
Analysis label: l1606583-02 6020tl
Analysis started at: 3/14/2016 7:46:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 26

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.974 %	100.401 %	0.287 ppb	71,661.426 ppb	17,448.882 ppb	3,955.345 ppb	16,772.927 ppb
Concentration per Run 1	112.516 %	101.303 %	0.287 ppb	71,883.413 ppb	17,282.941 ppb	3,844.540 ppb	16,281.810 ppb
Concentration per Run 2	111.570 %	98.597 %	0.308 ppb	71,140.563 ppb	17,211.738 ppb	3,898.258 ppb	16,507.324 ppb
Concentration per Run 3	111.835 %	101.303 %	0.266 ppb	71,960.303 ppb	17,851.969 ppb	4,123.237 ppb	17,529.646 ppb
Concentration RSD	0.4 %	1.6 %	7.4 %	0.6 %	2.0 %	3.7 %	4.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	147,082.881 ppb	87.277 %	92.818 %	13.359 ppb	18.609 ppb	779.272 ppb	12,182.097 ppb
Concentration per Run 1	145,120.042 ppb	88.091 %	94.927 %	13.651 ppb	18.768 ppb	791.693 ppb	12,376.668 ppb
Concentration per Run 2	146,040.160 ppb	90.703 %	91.977 %	13.209 ppb	18.431 ppb	759.032 ppb	11,868.903 ppb
Concentration per Run 3	150,088.441 ppb	83.036 %	91.550 %	13.217 ppb	18.628 ppb	787.093 ppb	12,300.720 ppb
Concentration RSD	1.8 %	4.5 %	2.0 %	1.9 %	0.9 %	2.3 %	2.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	4.863 ppb	25.293 ppb	35.982 ppb	100.609 ppb	86.977 %	7.853 ppb	2.310 ppb
Concentration per Run 1	4.918 ppb	25.223 ppb	35.707 ppb	101.113 ppb	88.477 %	8.184 ppb	1.881 ppb
Concentration per Run 2	5.105 ppb	23.986 ppb	36.367 ppb	98.547 ppb	86.575 %	7.567 ppb	1.908 ppb
Concentration per Run 3	4.565 ppb	26.672 ppb	35.872 ppb	102.166 ppb	85.880 %	7.808 ppb	3.140 ppb
Concentration RSD	5.6 %	5.3 %	1.0 %	1.9 %	1.5 %	4.0 %	31.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.790 ppb	0.057 ppb	0.138 ppb	85.417 %	3.241 ppb	0.540 ppb	139.567 ppb
Concentration per Run 1	4.078 ppb	0.065 ppb	0.155 ppb	84.669 %	3.102 ppb	0.475 ppb	136.643 ppb
Concentration per Run 2	3.765 ppb	0.053 ppb	0.109 ppb	86.965 %	3.151 ppb	0.483 ppb	138.775 ppb
Concentration per Run 3	3.526 ppb	0.054 ppb	0.149 ppb	84.617 %	3.470 ppb	0.664 ppb	143.281 ppb
Concentration RSD	7.3 %	11.2 %	18.3 %	1.6 %	6.2 %	19.8 %	2.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.102 %	0.060 ppb	57.827 ppb	78.376 %
Concentration per Run 1	86.432 %	0.061 ppb	57.372 ppb	78.015 %
Concentration per Run 2	87.505 %	0.062 ppb	56.760 ppb	79.119 %
Concentration per Run 3	84.368 %	0.056 ppb	59.349 ppb	77.994 %
Concentration RSD	1.9 %	5.3 %	2.3 %	0.8 %

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Analysis index: 122
Analysis label: l1606583-02d20 6020tl
Analysis started at: 3/14/2016 7:50:03 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 27

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.642 %	98.898 %	0.016 ppb	4,852.567 ppb	1,232.087 ppb	281.238 ppb	1,103.965 ppb
Concentration per Run 1	111.754 %	103.708 %	0.015 ppb	4,778.405 ppb	1,224.273 ppb	285.176 ppb	1,080.530 ppb
Concentration per Run 2	113.388 %	100.401 %	0.019 ppb	4,784.529 ppb	1,231.555 ppb	285.656 ppb	1,108.826 ppb
Concentration per Run 3	112.785 %	92.585 %	0.013 ppb	4,994.767 ppb	1,240.432 ppb	272.880 ppb	1,122.540 ppb
Concentration RSD	0.7 %	5.8 %	19.6 %	2.5 %	0.7 %	2.6 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,611.414 ppb	90.956 %	95.685 %	0.983 ppb	1.440 ppb	54.881 ppb	862.629 ppb
Concentration per Run 1	9,905.954 ppb	90.198 %	94.655 %	0.848 ppb	1.401 ppb	51.933 ppb	843.434 ppb
Concentration per Run 2	9,344.771 ppb	91.124 %	95.287 %	0.793 ppb	1.313 ppb	53.981 ppb	847.143 ppb
Concentration per Run 3	9,583.519 ppb	91.546 %	97.114 %	1.306 ppb	1.607 ppb	58.731 ppb	897.309 ppb
Concentration RSD	2.9 %	0.8 %	1.3 %	28.7 %	10.5 %	6.4 %	3.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.305 ppb	1.730 ppb	2.796 ppb	6.794 ppb	87.988 %	0.636 ppb	0.033 ppb
Concentration per Run 1	0.360 ppb	1.323 ppb	2.464 ppb	6.147 ppb	91.438 %	0.554 ppb	0.257 ppb
Concentration per Run 2	0.255 ppb	2.074 ppb	2.798 ppb	7.916 ppb	88.755 %	0.657 ppb	0.019 ppb
Concentration per Run 3	0.302 ppb	1.793 ppb	3.125 ppb	6.318 ppb	83.772 %	0.697 ppb	-0.178 ppb
Concentration RSD	17.3 %	21.9 %	11.8 %	14.4 %	4.4 %	11.6 %	668.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.339 ppb	-0.007 ppb	-0.006 ppb	91.630 %	0.090 ppb	0.041 ppb	9.032 ppb
Concentration per Run 1	0.269 ppb	-0.010 ppb	0.000 ppb	94.460 %	0.028 ppb	0.051 ppb	9.057 ppb
Concentration per Run 2	0.337 ppb	0.000 ppb	-0.019 ppb	91.040 %	0.013 ppb	0.015 ppb	8.183 ppb
Concentration per Run 3	0.411 ppb	-0.010 ppb	0.002 ppb	89.389 %	0.229 ppb	0.055 ppb	9.856 ppb
Concentration RSD	20.8 %	85.3 %	196.7 %	2.8 %	133.6 %	54.1 %	9.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.509 %	-0.014 ppb	4.024 ppb	91.316 %
Concentration per Run 1	93.003 %	-0.015 ppb	4.049 ppb	91.820 %
Concentration per Run 2	90.547 %	-0.011 ppb	3.972 ppb	92.139 %
Concentration per Run 3	90.977 %	-0.015 ppb	4.052 ppb	89.989 %
Concentration RSD	1.4 %	15.6 %	1.1 %	1.3 %

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Analysis index: 123
Analysis label: l1606583-03 6020tl
Analysis started at: 3/14/2016 7:53:08 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 28

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	115.162 %	98.798 %	0.027 ppb	297,307.421 ppb	24,524.646 ppb	301.478 ppb	21,518.131 ppb
Concentration per Run 1	116.476 %	96.192 %	0.023 ppb	290,532.746 ppb	23,478.369 ppb	294.687 ppb	20,954.907 ppb
Concentration per Run 2	115.030 %	100.100 %	0.039 ppb	310,388.798 ppb	26,607.416 ppb	324.108 ppb	23,434.963 ppb
Concentration per Run 3	113.980 %	100.100 %	0.019 ppb	291,000.718 ppb	23,488.151 ppb	285.638 ppb	20,164.523 ppb
Concentration RSD	1.1 %	2.3 %	39.1 %	3.8 %	7.4 %	6.7 %	7.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	159,346.371 ppb	92.894 %	99.435 %	2.370 ppb	1.972 ppb	406.610 ppb	647.642 ppb
Concentration per Run 1	144,154.711 ppb	96.938 %	101.312 %	2.140 ppb	1.680 ppb	362.555 ppb	557.140 ppb
Concentration per Run 2	184,648.713 ppb	84.216 %	98.238 %	2.458 ppb	2.455 ppb	479.182 ppb	751.630 ppb
Concentration per Run 3	149,235.688 ppb	97.529 %	98.754 %	2.512 ppb	1.781 ppb	378.092 ppb	634.156 ppb
Concentration RSD	13.8 %	8.1 %	1.7 %	8.5 %	21.3 %	15.6 %	15.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.840 ppb	8.262 ppb	4.447 ppb	23.642 ppb	92.874 %	2.461 ppb	5.081 ppb
Concentration per Run 1	0.721 ppb	7.842 ppb	4.061 ppb	21.412 ppb	99.474 %	2.322 ppb	4.929 ppb
Concentration per Run 2	0.989 ppb	8.832 ppb	4.777 ppb	27.351 ppb	82.543 %	2.868 ppb	6.214 ppb
Concentration per Run 3	0.811 ppb	8.111 ppb	4.502 ppb	22.164 ppb	96.606 %	2.194 ppb	4.101 ppb
Concentration RSD	16.2 %	6.2 %	8.1 %	13.7 %	9.8 %	14.5 %	21.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	5.785 ppb	0.000 ppb	0.002 ppb	87.417 %	0.435 ppb	2.291 ppb	114.116 ppb
Concentration per Run 1	5.365 ppb	0.005 ppb	0.014 ppb	90.727 %	0.350 ppb	2.096 ppb	106.975 ppb
Concentration per Run 2	6.679 ppb	-0.004 ppb	-0.002 ppb	80.611 %	0.669 ppb	2.609 ppb	125.900 ppb
Concentration per Run 3	5.310 ppb	0.000 ppb	-0.006 ppb	90.914 %	0.286 ppb	2.169 ppb	109.474 ppb
Concentration RSD	13.4 %	5,122.8 %	557.3 %	6.7 %	47.1 %	12.1 %	9.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.641 %	-0.012 ppb	10.306 ppb	76.572 %
Concentration per Run 1	89.819 %	-0.006 ppb	9.888 ppb	77.105 %
Concentration per Run 2	83.143 %	-0.015 ppb	11.115 ppb	72.892 %
Concentration per Run 3	89.960 %	-0.016 ppb	9.914 ppb	79.721 %
Concentration RSD	4.4 %	46.7 %	6.8 %	4.5 %

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Analysis index: 124
Analysis label: l1606583-03d20 6020tl
Analysis started at: 3/14/2016 7:56:12 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 29

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	122.773 %	100.401 %	-0.002 ppb	24,631.732 ppb	2,187.683 ppb	29.476 ppb	1,882.102 ppb
Concentration per Run 1	120.843 %	93.787 %	0.001 ppb	25,828.231 ppb	2,300.749 ppb	28.681 ppb	1,846.423 ppb
Concentration per Run 2	120.945 %	101.904 %	-0.002 ppb	24,551.332 ppb	2,178.030 ppb	30.825 ppb	1,882.882 ppb
Concentration per Run 3	126.531 %	105.511 %	-0.006 ppb	23,515.634 ppb	2,084.268 ppb	28.922 ppb	1,917.002 ppb
Concentration RSD	2.7 %	6.0 %	171.5 %	4.7 %	5.0 %	4.0 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	13,359.304 ppb	98.230 %	103.988 %	0.286 ppb	0.216 ppb	35.028 ppb	51.284 ppb
Concentration per Run 1	13,145.342 ppb	99.550 %	104.247 %	0.317 ppb	0.150 ppb	34.866 ppb	47.266 ppb
Concentration per Run 2	13,762.369 ppb	97.612 %	101.107 %	0.244 ppb	0.214 ppb	35.149 ppb	48.593 ppb
Concentration per Run 3	13,170.200 ppb	97.528 %	106.609 %	0.297 ppb	0.283 ppb	35.070 ppb	57.993 ppb
Concentration RSD	2.6 %	1.2 %	2.7 %	13.2 %	30.7 %	0.4 %	11.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.067 ppb	0.661 ppb	0.376 ppb	1.341 ppb	96.081 %	0.154 ppb	0.772 ppb
Concentration per Run 1	0.071 ppb	0.760 ppb	0.350 ppb	1.473 ppb	93.164 %	0.219 ppb	0.303 ppb
Concentration per Run 2	0.087 ppb	0.669 ppb	0.357 ppb	1.076 ppb	100.191 %	0.069 ppb	0.278 ppb
Concentration per Run 3	0.043 ppb	0.555 ppb	0.422 ppb	1.473 ppb	94.888 %	0.174 ppb	1.736 ppb
Concentration RSD	32.8 %	15.6 %	10.5 %	17.1 %	3.8 %	49.8 %	108.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.444 ppb	-0.009 ppb	-0.024 ppb	97.590 %	-0.036 ppb	0.194 ppb	9.485 ppb
Concentration per Run 1	0.411 ppb	-0.006 ppb	-0.026 ppb	96.571 %	-0.015 ppb	0.232 ppb	9.069 ppb
Concentration per Run 2	0.461 ppb	-0.006 ppb	-0.027 ppb	98.760 %	-0.037 ppb	0.192 ppb	9.674 ppb
Concentration per Run 3	0.459 ppb	-0.015 ppb	-0.020 ppb	97.438 %	-0.055 ppb	0.158 ppb	9.713 ppb
Concentration RSD	6.5 %	60.3 %	15.0 %	1.1 %	56.3 %	19.1 %	3.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.288 %	-0.023 ppb	0.895 ppb	92.879 %
Concentration per Run 1	97.427 %	-0.020 ppb	0.917 ppb	92.973 %
Concentration per Run 2	95.903 %	-0.030 ppb	0.838 ppb	92.845 %
Concentration per Run 3	95.534 %	-0.018 ppb	0.930 ppb	92.820 %
Concentration RSD	1.0 %	28.5 %	5.5 %	0.1 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 125
Analysis label: l1606583-04 6020tl
Analysis started at: 3/14/2016 7:59:17 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 30

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.438 %	95.691 %	0.217 ppb	52,291.054 ppb	8,416.751 ppb	3,557.079 ppb	12,196.845 ppb
Concentration per Run 1	112.286 %	93.787 %	0.213 ppb	51,783.649 ppb	8,210.391 ppb	3,372.949 ppb	11,764.420 ppb
Concentration per Run 2	112.849 %	94.990 %	0.219 ppb	54,251.419 ppb	8,538.232 ppb	3,701.045 ppb	13,074.229 ppb
Concentration per Run 3	112.181 %	98.297 %	0.220 ppb	50,838.094 ppb	8,501.631 ppb	3,597.243 ppb	11,751.886 ppb
Concentration RSD	0.3 %	2.4 %	1.8 %	3.4 %	2.1 %	4.7 %	6.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	62,325.945 ppb	86.912 %	95.390 %	11.797 ppb	11.555 ppb	375.429 ppb	6,719.720 ppb
Concentration per Run 1	58,475.440 ppb	91.630 %	94.545 %	10.771 ppb	9.735 ppb	351.540 ppb	6,497.734 ppb
Concentration per Run 2	67,230.524 ppb	82.952 %	96.458 %	11.933 ppb	12.423 ppb	386.788 ppb	7,015.638 ppb
Concentration per Run 3	61,271.872 ppb	86.153 %	95.167 %	12.686 ppb	12.507 ppb	387.959 ppb	6,645.788 ppb
Concentration RSD	7.2 %	5.0 %	1.0 %	8.2 %	13.6 %	5.5 %	4.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	3.877 ppb	28.563 ppb	55.583 ppb	80.263 ppb	84.613 %	7.863 ppb	1.530 ppb
Concentration per Run 1	3.596 ppb	26.590 ppb	53.870 ppb	77.659 ppb	83.381 %	7.590 ppb	1.522 ppb
Concentration per Run 2	4.144 ppb	30.304 ppb	57.846 ppb	80.741 ppb	86.000 %	7.350 ppb	1.165 ppb
Concentration per Run 3	3.891 ppb	28.795 ppb	55.032 ppb	82.389 ppb	84.459 %	8.648 ppb	1.901 ppb
Concentration RSD	7.1 %	6.5 %	3.7 %	3.0 %	1.6 %	8.8 %	24.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	6.416 ppb	0.035 ppb	0.128 ppb	88.826 %	1.935 ppb	1.167 ppb	99.670 ppb
Concentration per Run 1	6.398 ppb	0.040 ppb	0.076 ppb	91.561 %	1.862 ppb	0.802 ppb	95.793 ppb
Concentration per Run 2	6.706 ppb	0.032 ppb	0.178 ppb	87.829 %	1.842 ppb	1.121 ppb	97.739 ppb
Concentration per Run 3	6.144 ppb	0.032 ppb	0.130 ppb	87.087 %	2.101 ppb	1.578 ppb	105.477 ppb
Concentration RSD	4.4 %	14.3 %	40.0 %	2.7 %	7.4 %	33.4 %	5.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.570 %	0.028 ppb	27.308 ppb	85.328 %
Concentration per Run 1	92.868 %	0.024 ppb	25.800 ppb	87.619 %
Concentration per Run 2	87.224 %	0.018 ppb	27.879 ppb	83.784 %
Concentration per Run 3	85.619 %	0.042 ppb	28.245 ppb	84.579 %
Concentration RSD	4.3 %	44.3 %	4.8 %	2.4 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 126 Analysis started at: 3/14/2016 8:02:21 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	115.495 %	98.196 %	95.467 ppb	9,974.143 ppb	10,249.826 ppb	99.858 ppb	10,175.148 ppb
Concentration per Run 1	115.206 %	95.892 %	95.819 ppb	10,103.792 ppb	10,582.140 ppb	101.401 ppb	10,439.392 ppb
Concentration per Run 2	114.306 %	104.910 %	95.994 ppb	9,708.716 ppb	9,909.694 ppb	97.896 ppb	10,490.586 ppb
Concentration per Run 3	116.975 %	93.787 %	94.587 ppb	10,109.922 ppb	10,257.643 ppb	100.278 ppb	9,595.468 ppb
Recovery Percentage 1			95.467 %	99.741 %	102.498 %	99.858 %	101.751 %
Concentration RSD	1.2 %	6.0 %	0.8 %	2.3 %	3.3 %	1.8 %	4.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,918.497 ppb	92.304 %	99.725 %	103.144 ppb	104.656 ppb	100.875 ppb	10,377.210 ppb
Concentration per Run 1	9,738.368 ppb	92.726 %	99.092 %	102.946 ppb	104.807 ppb	101.003 ppb	10,551.505 ppb
Concentration per Run 2	10,271.274 ppb	90.282 %	99.721 %	105.757 ppb	108.398 ppb	101.802 ppb	10,190.767 ppb
Concentration per Run 3	9,745.847 ppb	93.905 %	100.361 %	100.730 ppb	100.761 ppb	99.819 ppb	10,389.359 ppb
Recovery Percentage 1	99.185 %			103.144 %	104.656 %	100.875 %	103.772 %
Concentration RSD	3.1 %	2.0 %	0.6 %	2.4 %	3.7 %	1.0 %	1.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	105.950 ppb	106.677 ppb	106.209 ppb	101.870 ppb	91.945 %	99.724 ppb	92.957 ppb
Concentration per Run 1	105.026 ppb	102.300 ppb	105.269 ppb	101.145 ppb	97.492 %	96.346 ppb	87.691 ppb
Concentration per Run 2	106.297 ppb	109.397 ppb	107.231 ppb	102.291 ppb	90.420 %	100.098 ppb	99.436 ppb
Concentration per Run 3	106.528 ppb	108.334 ppb	106.127 ppb	102.175 ppb	87.923 %	102.728 ppb	91.743 ppb
Recovery Percentage 1	105.950 %	106.677 %	106.209 %	101.870 %		99.724 %	92.957 %
Concentration RSD	0.8 %	3.6 %	0.9 %	0.6 %	5.4 %	3.2 %	6.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	104.177 ppb	110.729 ppb	104.616 ppb	92.064 %	105.829 ppb	100.540 ppb	100.246 ppb
Concentration per Run 1	99.926 ppb	106.651 ppb	103.744 ppb	94.680 %	103.928 ppb	98.776 ppb	98.589 ppb
Concentration per Run 2	105.914 ppb	112.568 ppb	105.091 ppb	92.074 %	108.965 ppb	101.664 ppb	102.337 ppb
Concentration per Run 3	106.692 ppb	112.968 ppb	105.013 ppb	89.439 %	104.594 ppb	101.178 ppb	99.812 ppb
Recovery Percentage 1	104.177 %	110.729 %	104.616 %		105.829 %	100.540 %	100.246 %
Concentration RSD	3.6 %	3.2 %	0.7 %	2.8 %	2.6 %	1.5 %	1.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.274 %	103.757 ppb	106.750 ppb	88.036 %
Concentration per Run 1	92.509 %	103.433 ppb	106.554 ppb	89.825 %
Concentration per Run 2	92.415 %	102.411 ppb	105.555 ppb	89.045 %
Concentration per Run 3	88.897 %	105.429 ppb	108.142 ppb	85.237 %
Recovery Percentage 1		103.757 %	106.750 %	
Concentration RSD	2.3 %	1.5 %	1.2 %	2.8 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 127 Analysis started at: 3/14/2016 8:05:28 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	115.933 %	99.499 %	0.017 ppb	5.900 ppb	1.058 ppb	-0.308 ppb	13.750 ppb
Concentration per Run 1	114.523 %	106.413 %	0.015 ppb	7.626 ppb	0.432 ppb	0.435 ppb	22.618 ppb
Concentration per Run 2	118.275 %	92.585 %	0.020 ppb	6.329 ppb	0.560 ppb	-0.470 ppb	21.775 ppb
Concentration per Run 3	115.001 %	99.499 %	0.014 ppb	3.746 ppb	2.181 ppb	-0.888 ppb	-3.143 ppb
Recovery Percentage 1			3.318 %	5.900 %	1.511 %	-3.077 %	13.750 %
Concentration RSD	1.8 %	6.9 %	19.8 %	33.5 %	92.2 %	219.8 %	106.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	4.306 ppb	92.810 %	97.243 %	0.035 ppb	0.085 ppb	0.204 ppb	5.372 ppb
Concentration per Run 1	10.563 ppb	87.670 %	97.336 %	0.081 ppb	0.032 ppb	0.251 ppb	8.438 ppb
Concentration per Run 2	10.397 ppb	89.945 %	99.343 %	0.000 ppb	0.153 ppb	0.207 ppb	3.614 ppb
Concentration per Run 3	-8.043 ppb	100.814 %	95.052 %	0.024 ppb	0.070 ppb	0.154 ppb	4.065 ppb
Recovery Percentage 1	4.306 %			0.702 %	8.488 %	20.366 %	10.744 %
Concentration RSD	248.4 %	7.6 %	2.2 %	118.3 %	72.7 %	23.9 %	49.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.023 ppb	0.058 ppb	0.023 ppb	0.192 ppb	91.076 %	0.009 ppb	-0.173 ppb
Concentration per Run 1	0.008 ppb	0.123 ppb	0.057 ppb	0.132 ppb	93.291 %	0.036 ppb	-0.155 ppb
Concentration per Run 2	0.028 ppb	-0.060 ppb	0.006 ppb	0.219 ppb	90.416 %	-0.004 ppb	-0.171 ppb
Concentration per Run 3	0.035 ppb	0.111 ppb	0.005 ppb	0.224 ppb	89.522 %	-0.004 ppb	-0.193 ppb
Recovery Percentage 1	4.663 %	11.588 %	2.263 %	1.920 %	91.076 %	1.811 %	-3.457 %
Concentration RSD	59.8 %	175.9 %	131.5 %	26.9 %	2.2 %	254.2 %	10.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.381 ppb	0.027 ppb	-0.011 ppb	94.590 %	0.067 ppb	0.045 ppb	0.050 ppb
Concentration per Run 1	0.415 ppb	0.028 ppb	-0.020 ppb	94.407 %	0.008 ppb	0.033 ppb	0.096 ppb
Concentration per Run 2	0.471 ppb	0.032 ppb	-0.001 ppb	97.326 %	0.141 ppb	0.031 ppb	0.002 ppb
Concentration per Run 3	0.257 ppb	0.020 ppb	-0.013 ppb	92.037 %	0.053 ppb	0.072 ppb	0.051 ppb
Recovery Percentage 1	12.701 %	6.657 %	-5.606 %		2.243 %	2.263 %	9.923 %
Concentration RSD	29.1 %	24.2 %	84.6 %	2.8 %	100.8 %	51.2 %	95.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.316 %	0.017 ppb	0.018 ppb	90.556 %
Concentration per Run 1	94.168 %	0.019 ppb	0.013 ppb	93.870 %
Concentration per Run 2	94.575 %	0.033 ppb	0.019 ppb	88.756 %
Concentration per Run 3	94.205 %	0.000 ppb	0.021 ppb	89.040 %
Recovery Percentage 1		3.490 %	3.561 %	90.556 %
Concentration RSD	0.2 %	94.4 %	23.8 %	3.2 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 128
Analysis label: l1606583-04d20 6020tl
Analysis started at: 3/14/2016 8:08:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 31

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.285 %	94.188 %	0.019 ppb	4,188.922 ppb	724.338 ppb	304.698 ppb	997.251 ppb
Concentration per Run 1	114.273 %	93.487 %	0.023 ppb	4,134.309 ppb	708.402 ppb	293.495 ppb	1,003.792 ppb
Concentration per Run 2	113.541 %	89.278 %	0.022 ppb	4,402.671 ppb	764.975 ppb	326.157 ppb	1,007.598 ppb
Concentration per Run 3	112.040 %	99.800 %	0.014 ppb	4,029.787 ppb	699.637 ppb	294.440 ppb	980.363 ppb
Concentration RSD	1.0 %	5.6 %	26.0 %	4.6 %	4.9 %	6.1 %	1.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,110.461 ppb	90.788 %	95.942 %	0.921 ppb	0.880 ppb	28.883 ppb	542.235 ppb
Concentration per Run 1	4,942.134 ppb	95.674 %	97.024 %	1.080 ppb	0.831 ppb	30.095 ppb	536.627 ppb
Concentration per Run 2	5,175.091 ppb	87.671 %	94.567 %	0.627 ppb	0.818 ppb	29.251 ppb	527.466 ppb
Concentration per Run 3	5,214.158 ppb	89.018 %	96.234 %	1.056 ppb	0.991 ppb	27.301 ppb	562.611 ppb
Concentration RSD	2.9 %	4.7 %	1.3 %	27.7 %	10.9 %	5.0 %	3.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.331 ppb	2.208 ppb	4.979 ppb	6.198 ppb	89.988 %	0.634 ppb	0.195 ppb
Concentration per Run 1	0.371 ppb	2.233 ppb	4.827 ppb	6.332 ppb	94.377 %	0.618 ppb	0.236 ppb
Concentration per Run 2	0.310 ppb	2.188 ppb	5.492 ppb	6.073 ppb	88.883 %	0.763 ppb	0.081 ppb
Concentration per Run 3	0.311 ppb	2.201 ppb	4.617 ppb	6.191 ppb	86.703 %	0.521 ppb	0.268 ppb
Concentration RSD	10.5 %	1.0 %	9.2 %	2.1 %	4.4 %	19.2 %	51.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.472 ppb	0.000 ppb	-0.005 ppb	89.560 %	0.150 ppb	0.160 ppb	8.343 ppb
Concentration per Run 1	0.614 ppb	-0.005 ppb	0.001 ppb	89.617 %	0.079 ppb	0.094 ppb	8.479 ppb
Concentration per Run 2	0.396 ppb	0.000 ppb	-0.006 ppb	90.650 %	0.182 ppb	0.171 ppb	8.614 ppb
Concentration per Run 3	0.406 ppb	0.005 ppb	-0.012 ppb	88.412 %	0.190 ppb	0.216 ppb	7.936 ppb
Concentration RSD	26.1 %	5,000.0 %	121.5 %	1.3 %	41.2 %	38.3 %	4.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.254 %	-0.006 ppb	2.292 ppb	89.066 %
Concentration per Run 1	91.891 %	0.002 ppb	2.306 ppb	91.406 %
Concentration per Run 2	90.055 %	-0.006 ppb	2.311 ppb	88.258 %
Concentration per Run 3	88.816 %	-0.014 ppb	2.259 ppb	87.535 %
Concentration RSD	1.7 %	132.2 %	1.3 %	2.3 %

Alpha ICPMSQ Full

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Analysis index: 129
Analysis label: l1606583-05 6020tl
Analysis started at: 3/14/2016 8:11:41 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 32

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	117.921 %	98.297 %	0.486 ppb	171,256.751 ppb	37,949.785 ppb	7,728.203 ppb	22,747.602 ppb
Concentration per Run 1	117.158 %	93.487 %	0.534 ppb	181,688.514 ppb	39,516.608 ppb	8,041.108 ppb	23,986.829 ppb
Concentration per Run 2	118.154 %	100.100 %	0.512 ppb	164,718.630 ppb	37,261.235 ppb	7,568.675 ppb	22,092.387 ppb
Concentration per Run 3	118.452 %	101.303 %	0.413 ppb	167,363.108 ppb	37,071.512 ppb	7,574.825 ppb	22,163.590 ppb
Concentration RSD	0.6 %	4.3 %	13.3 %	5.3 %	3.6 %	3.5 %	4.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	236,330.487 ppb	92.192 %	94.762 %	21.698 ppb	29.589 ppb	1,462.121 ppb	25,706.008 ppb
Concentration per Run 1	236,687.658 ppb	91.294 %	97.358 %	20.402 ppb	29.791 ppb	1,411.423 ppb	25,677.213 ppb
Concentration per Run 2	241,516.982 ppb	92.978 %	94.605 %	22.651 ppb	29.412 ppb	1,471.877 ppb	24,994.172 ppb
Concentration per Run 3	230,786.823 ppb	92.304 %	92.324 %	22.040 ppb	29.564 ppb	1,503.063 ppb	26,446.640 ppb
Concentration RSD	2.3 %	0.9 %	2.7 %	5.4 %	0.6 %	3.2 %	2.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	6.672 ppb	27.552 ppb	102.412 ppb	163.403 ppb	85.580 %	13.008 ppb	3.033 ppb
Concentration per Run 1	6.473 ppb	27.749 ppb	102.872 ppb	165.639 ppb	87.454 %	12.789 ppb	3.286 ppb
Concentration per Run 2	6.459 ppb	25.589 ppb	101.701 ppb	158.764 ppb	87.199 %	12.845 ppb	2.568 ppb
Concentration per Run 3	7.084 ppb	29.318 ppb	102.663 ppb	165.807 ppb	82.088 %	13.390 ppb	3.246 ppb
Concentration RSD	5.4 %	6.8 %	0.6 %	2.5 %	3.5 %	2.6 %	13.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.977 ppb	0.331 ppb	0.277 ppb	83.080 %	19.099 ppb	0.828 ppb	246.902 ppb
Concentration per Run 1	4.442 ppb	0.365 ppb	0.186 ppb	84.064 %	19.831 ppb	0.627 ppb	243.407 ppb
Concentration per Run 2	5.566 ppb	0.357 ppb	0.380 ppb	84.751 %	17.405 ppb	0.896 ppb	243.613 ppb
Concentration per Run 3	4.924 ppb	0.271 ppb	0.265 ppb	80.424 %	20.060 ppb	0.960 ppb	253.687 ppb
Concentration RSD	11.3 %	15.7 %	35.2 %	2.8 %	7.7 %	21.3 %	2.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.103 %	0.125 ppb	339.771 ppb	74.156 %
Concentration per Run 1	83.157 %	0.139 ppb	336.489 ppb	74.598 %
Concentration per Run 2	81.560 %	0.109 ppb	341.368 ppb	74.736 %
Concentration per Run 3	81.592 %	0.126 ppb	341.457 ppb	73.135 %
Concentration RSD	1.1 %	12.4 %	0.8 %	1.2 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 130
Analysis label: l1606583-05d20 6020tl
Analysis started at: 3/14/2016 8:14:45 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 33

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	14.337 %	90.381 %	0.472 ppb	15,653.437 ppb	3,605.104 ppb	770.333 ppb	2,142.659 ppb
Concentration per Run 1	16.487 %	95.290 %	0.569 ppb	15,001.210 ppb	3,383.494 ppb	675.970 ppb	1,918.636 ppb
Concentration per Run 2	15.069 %	91.984 %	0.370 ppb	15,116.167 ppb	3,450.832 ppb	768.060 ppb	2,192.460 ppb
Concentration per Run 3	11.453 %	83.867 %	0.478 ppb	16,842.933 ppb	3,980.987 ppb	866.968 ppb	2,316.879 ppb
Concentration RSD	18.1 %	6.5 %	21.0 %	6.6 %	9.1 %	12.4 %	9.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	23,231.750 ppb	82.363 %	12.419 %	2.130 ppb	2.953 ppb	141.612 ppb	2,490.267 ppb
Concentration per Run 1	20,660.915 ppb	92.809 %	14.475 %	1.947 ppb	2.222 ppb	121.876 ppb	2,189.422 ppb
Concentration per Run 2	22,643.007 ppb	79.498 %	12.702 %	1.971 ppb	2.835 ppb	143.193 ppb	2,417.058 ppb
Concentration per Run 3	26,391.327 ppb	74.780 %	10.082 %	2.473 ppb	3.801 ppb	159.768 ppb	2,864.320 ppb
Concentration RSD	12.5 %	11.4 %	17.8 %	13.9 %	27.0 %	13.4 %	13.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.594 ppb	2.738 ppb	10.704 ppb	15.729 ppb	86.179 %	1.241 ppb	0.467 ppb
Concentration per Run 1	0.702 ppb	2.765 ppb	9.796 ppb	13.513 ppb	96.422 %	1.115 ppb	0.509 ppb
Concentration per Run 2	0.501 ppb	2.830 ppb	10.518 ppb	15.862 ppb	83.260 %	1.407 ppb	0.048 ppb
Concentration per Run 3	0.578 ppb	2.619 ppb	11.799 ppb	17.811 ppb	78.853 %	1.202 ppb	0.844 ppb
Concentration RSD	17.0 %	4.0 %	9.5 %	13.7 %	10.6 %	12.1 %	85.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.598 ppb	0.008 ppb	-0.004 ppb	84.734 %	1.602 ppb	0.062 ppb	21.778 ppb
Concentration per Run 1	0.464 ppb	0.009 ppb	-0.013 ppb	94.146 %	1.487 ppb	0.089 ppb	20.108 ppb
Concentration per Run 2	0.564 ppb	0.006 ppb	0.010 ppb	86.129 %	1.262 ppb	-0.023 ppb	19.889 ppb
Concentration per Run 3	0.765 ppb	0.009 ppb	-0.008 ppb	73.927 %	2.058 ppb	0.120 ppb	25.337 ppb
Concentration RSD	25.6 %	20.9 %	328.2 %	12.0 %	25.6 %	121.9 %	14.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.737 %	-0.012 ppb	31.781 ppb	82.453 %
Concentration per Run 1	93.179 %	-0.012 ppb	28.728 ppb	93.466 %
Concentration per Run 2	84.621 %	-0.004 ppb	30.243 ppb	81.275 %
Concentration per Run 3	73.410 %	-0.020 ppb	36.372 ppb	72.617 %
Concentration RSD	11.8 %	68.2 %	12.7 %	12.7 %

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Analysis index: 131
Analysis label: l1606583-06 6020tl
Analysis started at: 3/14/2016 8:17:50 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 34

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	6.473 %	6.613 %	0.561 ppb	19,265,559.601 ppb	2,507,850.743 ppb	12,686.788 ppb
Concentration per Run 1	6.486 %	4.809 %	0.428 ppb	25,075,874.239 ppb	3,312,938.486 ppb	15,998.945 ppb
Concentration per Run 2	6.572 %	6.914 %	0.706 ppb	17,274,420.443 ppb	2,177,472.872 ppb	11,471.195 ppb
Concentration per Run 3	6.361 %	8.116 %	0.549 ppb	15,446,384.122 ppb	2,033,140.872 ppb	10,590.223 ppb
Concentration RSD	1.6 %	25.3 %	24.8 %	26.5 %	28.0 %	22.9 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	3,661,423.512 ppb	72,574,363.303 ppb	0.281 %	2.154 %	474.025 ppb	1,428.389 ppb
Concentration per Run 1	4,647,910.281 ppb	86,078,109.690 ppb	0.253 %	2.225 %	495.094 ppb	1,630.793 ppb
Concentration per Run 2	3,269,877.357 ppb	61,442,920.604 ppb	0.337 %	2.115 %	539.979 ppb	1,245.604 ppb
Concentration per Run 3	3,066,482.900 ppb	70,202,059.615 ppb	0.253 %	2.123 %	387.003 ppb	1,408.769 ppb
Concentration RSD	23.5 %	17.2 %	17.3 %	2.8 %	16.6 %	13.5 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	647,275.559 ppb	2,517,263.791 ppb	137.412 ppb	1,890.984 ppb	1,885.180 ppb	4,096.675 ppb
Concentration per Run 1	740,152.911 ppb	2,888,021.468 ppb	171.577 ppb	2,281.193 ppb	2,155.676 ppb	4,617.663 ppb
Concentration per Run 2	585,246.008 ppb	2,280,542.909 ppb	116.249 ppb	1,686.850 ppb	1,713.455 ppb	3,842.511 ppb
Concentration per Run 3	616,427.759 ppb	2,383,226.995 ppb	124.411 ppb	1,704.911 ppb	1,786.409 ppb	3,829.853 ppb
Concentration RSD	12.7 %	12.9 %	21.7 %	17.9 %	12.6 %	11.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.380 %	388.546 ppb	41.256 ppb	1,545.621 ppb	21.107 ppb	40.882 ppb
Concentration per Run 1	0.319 %	437.209 ppb	161.816 ppb	1,790.846 ppb	27.050 ppb	22.257 ppb
Concentration per Run 2	0.383 %	374.764 ppb	8.512 ppb	1,541.189 ppb	5.001 ppb	44.790 ppb
Concentration per Run 3	0.439 %	353.665 ppb	-46.561 ppb	1,304.828 ppb	31.269 ppb	55.600 ppb
Concentration RSD	15.8 %	11.2 %	261.7 %	15.7 %	66.8 %	41.6 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.016 %	15,041.165 ppb	1,691.351 ppb	1,943,750.302 ppb	0.022 %	6.625 ppb
Concentration per Run 1	0.027 %	3,997.696 ppb	342.278 ppb	1,370,852.675 ppb	0.020 %	4.967 ppb
Concentration per Run 2	0.019 %	6,122.928 ppb	778.141 ppb	1,374,583.231 ppb	0.026 %	8.297 ppb
Concentration per Run 3	0.002 %	35,002.870 ppb	3,953.633 ppb	3,085,814.999 ppb	0.020 %	6.612 ppb
Concentration RSD	81.4 %	115.2 %	116.6 %	50.9 %	17.3 %	25.1 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	39,022.230 ppb	0.341 %
Concentration per Run 1	42,457.391 ppb	0.395 %
Concentration per Run 2	31,310.055 ppb	0.331 %
Concentration per Run 3	43,299.245 ppb	0.297 %
Concentration RSD	17.1 %	14.6 %

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Analysis label: l1606583-06d20 6020tl
Analysis started at: 3/14/2016 8:20:55 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 35

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.534 %	0.401 %	2.079 ppb	24,998,380.357 ppb	3,494,294.222 ppb	18,049.623 ppb
Concentration per Run 1	0.536 %	0.301 %	2.335 ppb	28,643,146.472 ppb	4,005,252.866 ppb	19,619.289 ppb
Concentration per Run 2	0.525 %	0.601 %	1.584 ppb	15,262,576.648 ppb	2,129,986.894 ppb	11,658.792 ppb
Concentration per Run 3	0.541 %	0.301 %	2.317 ppb	31,089,417.950 ppb	4,347,642.905 ppb	22,870.788 ppb
Concentration RSD	1.6 %	43.3 %	20.6 %	34.1 %	34.2 %	32.0 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	5,502,621.414 ppb	230,203,373.373 ppb	0.000 %	0.324 %	1,211.310 ppb	1,972.205 ppb
Concentration per Run 1	6,196,182.494 ppb	259,954,998.513 ppb	0.000 %	0.325 %	726.785 ppb	1,224.102 ppb
Concentration per Run 2	3,324,128.862 ppb	140,385,671.967 ppb	0.000 %	0.329 %	1,271.875 ppb	2,346.253 ppb
Concentration per Run 3	6,987,552.887 ppb	290,269,449.639 ppb	0.000 %	0.318 %	1,635.269 ppb	2,346.260 ppb
Concentration RSD	35.0 %	34.4 %		1.7 %	37.7 %	32.9 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	701,895.815 ppb	2,205,246.325 ppb	86.500 ppb	1,803.471 ppb	1,070.918 ppb	3,048.463 ppb
Concentration per Run 1	669,244.854 ppb	2,157,767.699 ppb	86.500 ppb	1,302.468 ppb	696.077 ppb	2,491.081 ppb
Concentration per Run 2	704,245.305 ppb	2,218,031.355 ppb	115.338 ppb	1,803.469 ppb	1,285.114 ppb	3,195.141 ppb
Concentration per Run 3	732,197.288 ppb	2,239,939.921 ppb	57.663 ppb	2,304.477 ppb	1,231.562 ppb	3,459.166 ppb
Concentration RSD	4.5 %	1.9 %	33.3 %	27.8 %	30.4 %	16.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.064 %	253.117 ppb	-219.331 ppb	740.061 ppb	29.834 ppb	87.361 ppb
Concentration per Run 1	0.064 %	212.979 ppb	-140.316 ppb	842.239 ppb	36.838 ppb	101.582 ppb
Concentration per Run 2	0.064 %	242.810 ppb	-221.792 ppb	610.483 ppb	26.098 ppb	52.438 ppb
Concentration per Run 3	0.064 %	303.564 ppb	-295.886 ppb	767.462 ppb	26.566 ppb	108.063 ppb
Concentration RSD	0.0 %	18.2 %	35.5 %	16.0 %	20.3 %	34.8 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.004 %	28,708.618 ppb	2,510.563 ppb	842,664.968 ppb	0.003 %	116.293 ppb
Concentration per Run 1	0.000 %	82,723.180 ppb	6,242.140 ppb	1,397,309.254 ppb	0.003 %	105.868 ppb
Concentration per Run 2	0.006 %	967.815 ppb	616.717 ppb	484,968.918 ppb	0.003 %	98.530 ppb
Concentration per Run 3	0.006 %	2,434.860 ppb	672.833 ppb	645,716.733 ppb	0.002 %	144.481 ppb
Concentration RSD	91.0 %	163.0 %	128.7 %	57.8 %	21.7 %	21.2 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	24,271.142 ppb	0.025 %
Concentration per Run 1	20,452.816 ppb	0.027 %
Concentration per Run 2	21,903.326 ppb	0.032 %
Concentration per Run 3	30,457.284 ppb	0.015 %
Concentration RSD	22.3 %	34.3 %

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Analysis label: l1606591-01 6020tl
Analysis started at: 3/14/2016 8:24:00 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 36

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	18.586 %	15.631 %	0.030 ppb	1,426,022.527 ppb	375,453.527 ppb	45.363 ppb
Concentration per Run 1	18.374 %	15.932 %	0.036 ppb	1,319,731.267 ppb	344,775.268 ppb	57.568 ppb
Concentration per Run 2	18.938 %	16.232 %	0.034 ppb	1,378,224.432 ppb	369,498.819 ppb	46.090 ppb
Concentration per Run 3	18.447 %	14.729 %	0.020 ppb	1,580,111.882 ppb	412,086.494 ppb	32.430 ppb
Concentration RSD	1.7 %	5.1 %	29.8 %	9.6 %	9.1 %	27.7 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	469,251.985 ppb	10,702,222.695 ppb	0.028 %	0.880 %	75.707 ppb	1,746.150 ppb
Concentration per Run 1	437,703.977 ppb	10,843,602.054 ppb	0.000 %	0.880 %	90.848 ppb	1,938.237 ppb
Concentration per Run 2	474,477.825 ppb	12,206,049.380 ppb	0.000 %	0.912 %	136.273 ppb	2,295.317 ppb
Concentration per Run 3	495,574.153 ppb	9,057,016.651 ppb	0.084 %	0.848 %	0.000 ppb	1,004.896 ppb
Concentration RSD	6.2 %	14.8 %	173.2 %	3.6 %	91.7 %	38.2 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	84,465.923 ppb	26,783.005 ppb	85.236 ppb	2,510.013 ppb	375.677 ppb	4,651.672 ppb
Concentration per Run 1	98,992.955 ppb	34,901.488 ppb	86.500 ppb	2,780.536 ppb	468.502 ppb	4,691.467 ppb
Concentration per Run 2	103,230.076 ppb	28,057.804 ppb	122.548 ppb	3,156.320 ppb	414.954 ppb	5,769.673 ppb
Concentration per Run 3	51,174.739 ppb	17,389.724 ppb	46.660 ppb	1,593.182 ppb	243.576 ppb	3,493.875 ppb
Concentration RSD	34.2 %	33.0 %	44.5 %	32.5 %	31.3 %	24.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.298 %	87.855 ppb	-11.878 ppb	3,207.222 ppb	15.776 ppb	26.981 ppb
Concentration per Run 1	0.255 %	121.689 ppb	-13.794 ppb	3,549.043 ppb	27.539 ppb	25.193 ppb
Concentration per Run 2	0.255 %	91.207 ppb	10.186 ppb	3,600.288 ppb	8.351 ppb	41.253 ppb
Concentration per Run 3	0.383 %	50.668 ppb	-32.027 ppb	2,472.336 ppb	11.437 ppb	14.498 ppb
Concentration RSD	24.7 %	40.6 %	178.2 %	19.9 %	65.3 %	49.9 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.003 %	-6,072.420 ppb	-17,102.552 ppb	11,891,083.324 ppb	0.002 %	11.967 ppb
Concentration per Run 1	-0.001 %	-25,062.974 ppb	-56,509.055 ppb	31,425,267.597 ppb	0.001 %	9.506 ppb
Concentration per Run 2	0.005 %	3,655.428 ppb	3,176.979 ppb	2,323,173.748 ppb	0.002 %	9.016 ppb
Concentration per Run 3	0.006 %	3,190.286 ppb	2,024.419 ppb	1,924,808.626 ppb	0.003 %	17.379 ppb
Concentration RSD	100.8 %	270.9 %	199.6 %	142.3 %	50.0 %	39.2 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	4,069.427 ppb	0.087 %
Concentration per Run 1	6,481.508 ppb	0.097 %
Concentration per Run 2	3,240.720 ppb	0.087 %
Concentration per Run 3	2,486.054 ppb	0.076 %
Concentration RSD	52.2 %	12.3 %

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Analysis label: l1606591-01d20 6020tl
Analysis started at: 3/14/2016 8:27:06 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 37

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	1.112 %	1.202 %	0.596 ppb	1,049,110.057 ppb	294,265.633 ppb	233.162 ppb
Concentration per Run 1	1.132 %	0.902 %	0.371 ppb	1,342,036.799 ppb	378,914.980 ppb	372.066 ppb
Concentration per Run 2	1.079 %	1.202 %	0.788 ppb	988,967.350 ppb	275,573.178 ppb	194.544 ppb
Concentration per Run 3	1.126 %	1.503 %	0.627 ppb	816,326.023 ppb	228,308.741 ppb	132.878 ppb
Concentration RSD	2.6 %	25.0 %	35.3 %	25.5 %	26.2 %	53.3 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	353,737.153 ppb	10,609,820.508 ppb	0.000 %	0.247 %		Infinity ppb
Concentration per Run 1	441,109.594 ppb	11,263,013.734 ppb	0.000 %	0.214 %	Infinity ppb	Infinity ppb
Concentration per Run 2	341,209.500 ppb	10,655,683.337 ppb	0.000 %	0.264 %		Infinity ppb
Concentration per Run 3	278,892.366 ppb	9,910,764.453 ppb	0.000 %	0.263 %	Infinity ppb	Infinity ppb
Concentration RSD	23.1 %	6.4 %		11.6 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb			Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	-636,342.041 ppb	187,679.171 ppb	-275,154.590 ppb	-0.015 ppb	-3,994.845 ppb
Concentration per Run 1	0.000 %	-272,718.909 ppb	752,822.410 ppb	-143,559.438 ppb	-0.015 ppb	-4,793.809 ppb
Concentration per Run 2	0.000 %	-0.025 ppb	-194,530.964 ppb	-305,063.159 ppb	-0.015 ppb	-7,190.692 ppb
Concentration per Run 3	0.000 %	-1,636,307.189 ppb	4,746.067 ppb	-376,841.174 ppb	-0.015 ppb	-0.033 ppb
Concentration RSD		137.8 %	266.1 %	43.4 %	0.0 %	91.7 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.000 %	-62,164.450 ppb	13,193.923 ppb	-859,914.633 ppb	0.001 %	118.993 ppb
Concentration per Run 1	0.000 %	-29,939.182 ppb	-0.023 ppb	1,075,189.858 ppb	0.001 %	207.689 ppb
Concentration per Run 2	0.000 %	-21,552.692 ppb	-0.023 ppb	-4,098,922.037 ppb	0.000 %	55.903 ppb
Concentration per Run 3	0.000 %	-135,001.476 ppb	39,581.815 ppb	443,988.280 ppb	0.002 %	93.387 ppb
Concentration RSD	24.7 %	101.7 %	173.2 %	328.3 %	100.0 %	66.4 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.021 %
Concentration per Run 1	976.625 ppb	0.018 %
Concentration per Run 2	Infinity ppb	0.024 %
Concentration per Run 3	1,021.020 ppb	0.022 %
Concentration RSD		14.7 %

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Analysis index: 135
Analysis label: l1606591-03 6020tl
Analysis started at: 3/14/2016 8:30:11 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 38

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	5.034 %	4.609 %	0.168 ppb	2,571,262.116 ppb	5,684,872.146 ppb	1,272.667 ppb
Concentration per Run 1	4.978 %	4.509 %	0.103 ppb	2,528,292.570 ppb	5,477,638.212 ppb	1,278.518 ppb
Concentration per Run 2	4.978 %	4.208 %	0.161 ppb	2,849,666.869 ppb	6,340,461.351 ppb	1,479.917 ppb
Concentration per Run 3	5.145 %	5.110 %	0.239 ppb	2,335,826.909 ppb	5,236,516.875 ppb	1,059.567 ppb
Concentration RSD	1.9 %	10.0 %	40.6 %	10.1 %	10.2 %	16.5 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	1,000,060.799 ppb	47,001,668.744 ppb	0.056 %	1.310 %	-17,908.892 ppb	-35,370.356 ppb
Concentration per Run 1	942,580.223 ppb	35,376,226.860 ppb	0.084 %	1.253 %	764.299 ppb	2,675.630 ppb
Concentration per Run 2	1,193,329.110 ppb	70,474,360.534 ppb	0.000 %	1.333 %	-55,236.418 ppb	-111,132.499 ppb
Concentration per Run 3	864,273.065 ppb	35,154,418.839 ppb	0.084 %	1.345 %	745.443 ppb	2,345.800 ppb
Concentration RSD	17.2 %	43.3 %	86.6 %	3.8 %	180.5 %	185.5 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	-117,797.854 ppb	-2,140,647.117 ppb	-735.889 ppb	-23,766.121 ppb	-80,160.546 ppb	-78,288.879 ppb
Concentration per Run 1	13,381.608 ppb	228,803.090 ppb	100.463 ppb	4,929.536 ppb	18,511.276 ppb	18,792.933 ppb
Concentration per Run 2	-376,799.001 ppb	-6,866,232.056 ppb	-2,435.169 ppb	-79,539.390 ppb	-270,921.828 ppb	-267,069.678 ppb
Concentration per Run 3	10,023.830 ppb	215,487.615 ppb	127.039 ppb	3,311.492 ppb	11,928.913 ppb	13,410.109 ppb
Concentration RSD	190.4 %	191.2 %	200.0 %	203.3 %	206.1 %	208.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.054 %	-836.791 ppb	-11,406.471 ppb	-192,277.767 ppb	134.716 ppb	922.623 ppb
Concentration per Run 1	0.056 %	860.459 ppb	7,094.182 ppb	14,231.392 ppb	56.788 ppb	722.228 ppb
Concentration per Run 2	-0.008 %	-3,664.228 ppb	-45,954.567 ppb	-599,890.221 ppb	304.902 ppb	1,447.917 ppb
Concentration per Run 3	0.113 %	293.395 ppb	4,640.971 ppb	8,825.528 ppb	42.457 ppb	597.723 ppb
Concentration RSD	111.8 %	294.6 %	262.5 %	183.6 %	109.5 %	49.8 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.004 %	143,628.992 ppb	2,381.938 ppb	1,225,804.723 ppb	0.008 %	16.495 ppb
Concentration per Run 1	0.006 %	612.852 ppb	1,975.934 ppb	1,048,604.815 ppb	0.007 %	13.856 ppb
Concentration per Run 2	0.006 %	3,063.254 ppb	932.522 ppb	1,225,067.236 ppb	0.007 %	14.289 ppb
Concentration per Run 3	-0.001 %	427,210.871 ppb	4,237.359 ppb	1,403,742.119 ppb	0.011 %	21.341 ppb
Concentration RSD	105.0 %	171.0 %	70.9 %	14.5 %	31.5 %	25.5 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	19,290.055 ppb	0.077 %
Concentration per Run 1	21,624.537 ppb	0.085 %
Concentration per Run 2	22,986.673 ppb	0.073 %
Concentration per Run 3	13,258.954 ppb	0.073 %
Concentration RSD	27.3 %	8.8 %

Alpha ICPMSQ Full

3/15/2016 2:21:09 PM

Analysis index: 136
Analysis label: l1606591-03d20 6020tl
Analysis started at: 3/14/2016 8:33:15 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 39

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.433 %	0.701 %	2.298 ppb	1,422,180.532 ppb	3,317,414.527 ppb	1,156.899 ppb
Concentration per Run 1	0.432 %	0.902 %	3.183 ppb	858,257.567 ppb	1,991,628.918 ppb	1,044.780 ppb
Concentration per Run 2	0.454 %	0.902 %	3.052 ppb	848,007.950 ppb	1,989,047.297 ppb	521.557 ppb
Concentration per Run 3	0.414 %	0.301 %	0.660 ppb	2,560,276.078 ppb	5,971,567.367 ppb	1,904.358 ppb
Concentration RSD	4.6 %	49.5 %	61.8 %	69.3 %	69.3 %	60.3 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	695,644.390 ppb	38,991,026.788 ppb	0.000 %	0.302 %	Infinity ppb	Infinity ppb
Concentration per Run 1	411,428.691 ppb	23,993,086.322 ppb	0.000 %	0.330 %	Infinity ppb	Infinity ppb
Concentration per Run 2	381,746.340 ppb	22,125,089.989 ppb	0.000 %	0.300 %	Infinity ppb	Infinity ppb
Concentration per Run 3	1,293,758.139 ppb	70,854,904.053 ppb	0.000 %	0.276 %	Infinity ppb	Infinity ppb
Concentration RSD	74.5 %	70.8 %		9.0 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	10,546.064 ppb	31,692.039 ppb	3,860.717 ppb	-0.015 ppb	83.660 ppb
Concentration per Run 1	0.000 %	3,040.194 ppb	8,815.370 ppb	3,067.371 ppb	-0.015 ppb	53.407 ppb
Concentration per Run 2	0.000 %	4,094.164 ppb	1,638.196 ppb	2,065.379 ppb	-0.015 ppb	89.925 ppb
Concentration per Run 3	0.000 %	24,503.834 ppb	84,622.550 ppb	6,449.401 ppb	-0.015 ppb	107.648 ppb
Concentration RSD		114.7 %	145.1 %	59.5 %	0.0 %	33.1 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.025 %	123.083 ppb	82.950 ppb	33,154.168 ppb	0.010 %	91.785 ppb
Concentration per Run 1	0.026 %	-0.133 ppb	145.979 ppb	24,265.240 ppb	0.015 %	153.006 ppb
Concentration per Run 2	0.038 %	211.130 ppb	102.894 ppb	18,646.786 ppb	0.011 %	63.395 ppb
Concentration per Run 3	0.013 %	158.252 ppb	-0.023 ppb	56,550.478 ppb	0.003 %	58.955 ppb
Concentration RSD	49.8 %	89.3 %	90.4 %	61.7 %	61.9 %	57.8 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,973.331 ppb	0.037 %
Concentration per Run 1	811.744 ppb	0.027 %
Concentration per Run 2	1,260.766 ppb	0.045 %
Concentration per Run 3	3,847.484 ppb	0.038 %
Concentration RSD	83.0 %	24.4 %

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Analysis index: 137
Analysis label: l1606591-04 6020tl
Analysis started at: 3/14/2016 8:36:20 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 40

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	1.656 %	1.002 %	0.683 ppb	1,280,718.192 ppb	11,503,000.943 ppb	967.952 ppb
Concentration per Run 1	1.702 %	0.902 %	0.557 ppb	1,212,119.040 ppb	10,612,812.149 ppb	1,007.407 ppb
Concentration per Run 2	1.624 %	1.503 %	0.834 ppb	728,764.729 ppb	6,504,030.692 ppb	608.745 ppb
Concentration per Run 3	1.642 %	0.601 %	0.659 ppb	1,901,270.807 ppb	17,392,159.988 ppb	1,287.705 ppb
Concentration RSD	2.5 %	45.8 %	20.5 %	46.0 %	47.8 %	35.2 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	1,079,105.616 ppb	453,837,210.442 ppb	0.028 %	1.297 %	Infinity ppb	Infinity ppb
Concentration per Run 1	1,131,358.671 ppb	514,035,857.559 ppb	0.000 %	1.240 %	Infinity ppb	Infinity ppb
Concentration per Run 2	480,190.529 ppb	94,387,499.825 ppb	0.084 %	1.343 %	1,375.757 ppb	1,824.246 ppb
Concentration per Run 3	1,625,767.648 ppb	753,088,273.943 ppb	0.000 %	1.309 %	-52,167.647 ppb	-66,333.511 ppb
Concentration RSD	53.2 %	73.5 %	173.2 %	4.1 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	926.371 ppb	24,866.765 ppb	87.904 ppb	4,692.515 ppb	13,138.548 ppb	8,324.821 ppb
Concentration per Run 3	-36,665.278 ppb	-924,650.356 ppb	-1,948.135 ppb	-88,847.438 ppb	-142,003.102 ppb	-92,653.282 ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.016 %	7,168.695 ppb	522.762 ppb	14,359.262 ppb	28.943 ppb	67.560 ppb
Concentration per Run 1	0.000 %	24,688.659 ppb	11,940.715 ppb	10,613.829 ppb	35.829 ppb	21.666 ppb
Concentration per Run 2	0.056 %	650.316 ppb	-245.333 ppb	4,327.125 ppb	17.368 ppb	27.414 ppb
Concentration per Run 3	-0.008 %	-3,832.889 ppb	-10,127.094 ppb	28,136.832 ppb	33.633 ppb	153.600 ppb
Concentration RSD	214.8 %	214.0 %	2,114.5 %	85.9 %	34.8 %	110.4 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.023 %	446.593 ppb	401.228 ppb	378,586.195 ppb	0.017 %	19.226 ppb
Concentration per Run 1	0.031 %	313.905 ppb	361.531 ppb	293,120.101 ppb	0.015 %	13.674 ppb
Concentration per Run 2	0.019 %	403.094 ppb	647.815 ppb	374,062.689 ppb	0.021 %	23.225 ppb
Concentration per Run 3	0.019 %	622.779 ppb	194.337 ppb	468,575.797 ppb	0.015 %	20.779 ppb
Concentration RSD	32.1 %	35.6 %	57.2 %	23.2 %	18.4 %	25.8 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,099.926 ppb	0.069 %
Concentration per Run 1	1,109.830 ppb	0.066 %
Concentration per Run 2	953.276 ppb	0.072 %
Concentration per Run 3	1,236.672 ppb	0.069 %
Concentration RSD	12.9 %	4.3 %

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Analysis index: 138 Analysis started at: 3/14/2016 8:39:25 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.061 %	0.000 %	177,246.579 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.062 %	0.000 %	178,210.896 ppb	34,752,855.664 ppb	32,831,002.528 ppb	276,639.702 ppb
Concentration per Run 2	0.062 %	0.000 %	170,253.450 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.059 %	0.000 %	183,275.390 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1			177,246.579 %	Infinity %	Infinity %	Infinity %
Concentration RSD	2.7 %		3.7 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.196 %	434,342.926 ppb	380,560.127 ppb
Concentration per Run 1	17,741,737.971 ppb	15,397,952.797 ppb	0.084 %	0.174 %	211,868.947 ppb	231,715.226 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.219 %	760,290.227 ppb	624,922.147 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.194 %	330,869.604 ppb	285,043.008 ppb
Recovery Percentage 1	Infinity %	Infinity %			434,342.926 %	380,560.127 %
Concentration RSD			173.2 %	11.3 %	66.4 %	56.0 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	314,034.523 ppb	30,514,637.082 ppb	319,435.995 ppb	326,789.849 ppb	1,908,715.401 ppb	-1,928,081.995 ppb
Concentration per Run 1	311,484.453 ppb	37,564,929.525 ppb	488,354.630 ppb	551,352.442 ppb	5,397,811.795 ppb	-6,033,222.547 ppb
Concentration per Run 2	435,356.910 ppb	37,324,436.992 ppb	324,810.818 ppb	292,230.918 ppb	226,107.749 ppb	171,431.649 ppb
Concentration per Run 3	195,262.204 ppb	16,654,544.727 ppb	145,142.537 ppb	136,786.188 ppb	102,226.660 ppb	77,544.914 ppb
Recovery Percentage 1	314,034.523 %	305,146.371 %	319,435.995 %	326,789.849 %	1,908,715.401 %	-1,928,081.995 %
Concentration RSD	38.2 %	39.3 %	53.7 %	64.1 %	158.3 %	184.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.076 %	-25,746.651 ppb	-11,685.208 ppb	288,177.305 ppb	-366,206.901 ppb	-211,427.450 ppb
Concentration per Run 1	-0.034 %	-262,693.917 ppb	-213,481.702 ppb	-194,761.622 ppb	-160,588.679 ppb	-129,914.294 ppb
Concentration per Run 2	0.082 %	128,565.719 ppb	121,748.850 ppb	738,157.815 ppb	-644,715.419 ppb	-343,022.518 ppb
Concentration per Run 3	0.180 %	56,888.245 ppb	56,677.229 ppb	321,135.721 ppb	-293,316.605 ppb	-161,345.537 ppb
Recovery Percentage 1		-25,746.651 %	-11,685.208 %	288,177.305 %	-366,206.901 %	-211,427.450 %
Concentration RSD	141.3 %	809.1 %	1,521.3 %	162.2 %	68.3 %	54.4 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.079 %	-198,764.105 ppb	-188,177.743 ppb	-443,828.627 ppb	0.009 %	361,873.467 ppb
Concentration per Run 1	-0.092 %	-153,572.703 ppb	-144,281.825 ppb	-327,438.599 ppb	0.013 %	367,749.408 ppb
Concentration per Run 2	-0.045 %	-296,349.192 ppb	-280,178.853 ppb	-718,190.639 ppb	0.010 %	369,220.358 ppb
Concentration per Run 3	-0.099 %	-146,370.420 ppb	-140,072.550 ppb	-285,856.643 ppb	0.005 %	348,650.636 ppb
Recovery Percentage 1		-198,764.105 %	-188,177.743 %	-443,828.627 %		361,873.467 %
Concentration RSD	36.9 %	42.6 %	42.4 %	53.7 %	40.5 %	3.2 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,565,424.853 ppb	0.037 %
Concentration per Run 1	991,484.010 ppb	0.037 %
Concentration per Run 2	1,279,911.679 ppb	0.034 %
Concentration per Run 3	2,424,878.871 ppb	0.039 %
Recovery Percentage 1	1,565,424.853 %	
Concentration RSD	48.4 %	6.5 %

Alpha ICPMSQ Full

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Analysis index: 139 Analysis started at: 3/14/2016 8:42:32 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.045 %	0.100 %	87.464 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.044 %	0.301 %	90.714 ppb	45,079.809 ppb	19,210.692 ppb	1,343.763 ppb
Concentration per Run 2	0.040 %	0.000 %	106.690 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.051 %	0.000 %	64.988 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1			17,492.809 %	Infinity %	Infinity %	Infinity %
Concentration RSD	12.3 %	173.2 %	24.1 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.000 %	0.193 %	Infinity ppb	Infinity ppb
Concentration per Run 1	140,372.633 ppb	822,083.966 ppb	0.000 %	0.186 %	181.696 ppb	1,632.152 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.195 %	Infinity ppb	Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.199 %	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %			Infinity %	Infinity %
Concentration RSD				3.2 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	10,030.203 ppb	35,585.299 ppb	144.175 ppb	500.865 ppb	321.241 ppb	2,843.112 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.021 %	-58,044.413 ppb	47,617.951 ppb	-22,425.034 ppb	-1,561.443 ppb	-834.163 ppb
Concentration per Run 1	0.064 %	181.775 ppb	-377.267 ppb	1,238.012 ppb	495.435 ppb	193.974 ppb
Concentration per Run 2	0.000 %	48,818.231 ppb	10,380.519 ppb	22,842.742 ppb	1,299.398 ppb	572.042 ppb
Concentration per Run 3	0.000 %	-223,133.245 ppb	132,850.601 ppb	-91,355.855 ppb	-6,479.160 ppb	-3,268.507 ppb
Recovery Percentage 1	0.021 %	-11,608,882.520 %	952,359.024 %	-747,501.121 %	-390,360.627 %	-417,081.706 %
Concentration RSD	173.2 %	249.9 %	155.4 %	270.5 %	274.0 %	253.7 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.005 %	-5,700.592 ppb	-9,843.371 ppb	5,750.212 ppb	0.006 %	368.245 ppb
Concentration per Run 1	0.011 %	3,919.888 ppb	657.963 ppb	2,047.607 ppb	0.011 %	481.925 ppb
Concentration per Run 2	0.005 %	6,939.327 ppb	771.672 ppb	3,297.443 ppb	0.003 %	392.618 ppb
Concentration per Run 3	-0.001 %	-27,960.991 ppb	-30,959.748 ppb	11,905.586 ppb	0.003 %	230.193 ppb
Recovery Percentage 1		-190,019.739 %	-492,168.546 %	1,150,042.331 %		73,649.085 %
Concentration RSD	122.1 %	339.2 %	185.8 %	93.3 %	75.8 %	34.7 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2,057.879 ppb	0.024 %
Concentration per Run 1	1,083.188 ppb	0.021 %
Concentration per Run 2	2,693.207 ppb	0.019 %
Concentration per Run 3	2,397.242 ppb	0.031 %
Recovery Percentage 1	411,575.816 %	0.024 %
Concentration RSD	41.6 %	26.5 %

Alpha ICPMSQ Full

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Analysis index: 140
Analysis label: l1606591-04d20 6020tl
Analysis started at: 3/14/2016 8:45:40 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 41

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.154 %	0.100 %	21.322 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.155 %	0.000 %	22.917 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.151 %	0.000 %	20.692 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.156 %	0.301 %	20.357 ppb	276,206.215 ppb	2,303,007.211 ppb	1,007.407 ppb
Concentration RSD	1.9 %	173.2 %	6.5 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.000 %	0.299 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.288 %	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.320 %	1,271.875 ppb	714.022 ppb
Concentration per Run 3	328,279.523 ppb	100,552,597.027 ppb	0.000 %	0.289 %	Infinity ppb	Infinity ppb
Concentration RSD				6.1 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	2,094.998 ppb	19,160.736 ppb	144.175 ppb	1,402.668 ppb	1,285.114 ppb	1,699.015 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.021 %	16,724.396 ppb	2,774.145 ppb	3,533.390 ppb	384.614 ppb	273.931 ppb
Concentration per Run 1	0.000 %	12,828.216 ppb	6,695.359 ppb	4,220.478 ppb	279.356 ppb	225.458 ppb
Concentration per Run 2	0.064 %	30.408 ppb	-320.392 ppb	1,469.086 ppb	377.895 ppb	323.075 ppb
Concentration per Run 3	0.000 %	37,314.564 ppb	1,947.469 ppb	4,910.606 ppb	496.593 ppb	273.261 ppb
Concentration RSD	173.2 %	113.3 %	129.1 %	51.5 %	28.3 %	17.8 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.008 %	-15,794.193 ppb	261.820 ppb	133,880.497 ppb	0.004 %	246.565 ppb
Concentration per Run 1	0.012 %	1,144.912 ppb	314.700 ppb	62,438.148 ppb	0.005 %	232.690 ppb
Concentration per Run 2	-0.001 %	-49,009.601 ppb	-0.023 ppb	279,727.154 ppb	0.004 %	254.219 ppb
Concentration per Run 3	0.012 %	482.111 ppb	470.785 ppb	59,476.190 ppb	0.003 %	252.786 ppb
Concentration RSD	92.8 %	182.1 %	91.6 %	94.3 %	25.0 %	4.9 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,563.620 ppb	0.028 %
Concentration per Run 1	1,242.995 ppb	0.032 %
Concentration per Run 2	1,464.968 ppb	0.027 %
Concentration per Run 3	1,982.897 ppb	0.025 %
Concentration RSD	24.3 %	12.9 %

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Analysis index: 141
Analysis label: l1606591-05 6020tl
Analysis started at: 3/14/2016 8:48:45 PM
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Rack: 2
Vial: 42

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)
Concentration average	0.434 %	0.601 %	3.092 ppb	6,097,130.045 ppb	17,368,145.790 ppb
Concentration per Run 1	0.437 %	0.902 %	1.712 ppb	3,430,362.446 ppb	9,533,488.527 ppb
Concentration per Run 2	0.427 %	0.301 %	3.537 ppb	10,078,873.312 ppb	28,767,059.375 ppb
Concentration per Run 3	0.436 %	0.601 %	4.025 ppb	4,782,154.376 ppb	13,803,889.469 ppb
Concentration RSD	1.3 %	50.0 %	39.4 %	57.6 %	58.2 %

Category	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)
Concentration average	4,092.595 ppb	4,654,407.841 ppb	652,508,247.560 ppb	0.028 %	0.862 %
Concentration per Run 1	2,390.213 ppb	2,585,038.181 ppb	432,061,952.947 ppb	0.000 %	0.882 %
Concentration per Run 2	6,949.726 ppb	8,872,349.494 ppb	1,415,361,897.232 ppb	0.000 %	0.827 %
Concentration per Run 3	2,937.846 ppb	2,505,835.847 ppb	110,100,892.503 ppb	0.084 %	0.876 %
Concentration RSD	60.8 %	78.5 %	104.2 %	173.2 %	3.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)
Concentration average	-2,371.148 ppb	-28,051.756 ppb	-254,456.196 ppb	-80,722.912 ppb	-769.160 ppb
Concentration per Run 1	378.328 ppb	4,142.153 ppb	32,219.944 ppb	15,198.403 ppb	180.123 ppb
Concentration per Run 2	-7,671.621 ppb	-90,456.018 ppb	-820,726.769 ppb	-277,393.262 ppb	-2,678.686 ppb
Concentration per Run 3	179.847 ppb	2,158.598 ppb	25,138.238 ppb	20,026.125 ppb	191.083 ppb
Concentration RSD	193.6 %	192.7 %	192.7 %	211.0 %	215.0 %

Category	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)
Concentration average	-20,888.718 ppb	-5,587.810 ppb	-11,664.938 ppb	0.080 %	-2,115.820 ppb
Concentration per Run 1	3,442.475 ppb	817.610 ppb	1,667.146 ppb	0.184 %	126.594 ppb
Concentration per Run 2	-69,385.144 ppb	-18,991.932 ppb	-40,133.906 ppb	-0.008 %	-7,174.032 ppb
Concentration per Run 3	3,276.516 ppb	1,410.893 ppb	3,471.947 ppb	0.064 %	699.977 ppb
Concentration RSD	201.1 %	207.8 %	211.5 %	120.9 %	207.5 %

Category	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	1,800.259 ppb	-22,757.681 ppb	-376.961 ppb	-888.844 ppb	0.001 %
Concentration per Run 1	388.995 ppb	2,734.939 ppb	146.930 ppb	81.385 ppb	0.005 %
Concentration per Run 2	2,758.612 ppb	-81,987.738 ppb	-1,467.963 ppb	-2,857.226 ppb	-0.001 %
Concentration per Run 3	2,253.169 ppb	10,979.756 ppb	190.149 ppb	109.308 ppb	-0.001 %
Concentration RSD	69.3 %	226.1 %	250.7 %	191.8 %	279.1 %

Category	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-28,085.279 ppb	-8,677.104 ppb	2,977,807.023 ppb	0.007 %	40.444 ppb
Concentration per Run 1	4,061.217 ppb	2,635.331 ppb	1,008,434.193 ppb	0.011 %	56.115 ppb
Concentration per Run 2	-34,401.195 ppb	-49,400.596 ppb	4,673,267.418 ppb	0.004 %	35.719 ppb
Concentration per Run 3	-53,915.859 ppb	20,733.954 ppb	3,251,719.457 ppb	0.005 %	29.496 ppb
Concentration RSD	105.0 %	419.6 %	62.0 %	50.8 %	34.4 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,099.454 ppb	0.067 %
Concentration per Run 1	568.206 ppb	0.060 %
Concentration per Run 2	1,753.526 ppb	0.066 %
Concentration per Run 3	976.629 ppb	0.076 %
Concentration RSD	54.8 %	11.5 %

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Analysis label: l1606591-05d20 6020tl
Analysis started at: 3/14/2016 8:51:50 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 43

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.076 %	0.000 %	11.475 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.075 %	0.000 %	10.461 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.080 %	0.000 %	11.382 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.072 %	0.000 %	12.582 ppb	3,415,719.694 ppb	8,786,293.774 ppb	3,773.718 ppb
Concentration RSD	5.3 %		9.3 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.271 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.279 %	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.279 %	Infinity ppb	Infinity ppb
Concentration per Run 3	498,358.232 ppb	9,320,113.139 ppb	0.084 %	0.257 %	71.793 ppb	221.091 ppb
Concentration RSD			173.2 %	4.7 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	3,699.305 ppb	7,316.592 ppb	20.375 ppb	731.611 ppb	180.249 ppb	1,514.100 ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	-130,381.935 ppb	72,822.479 ppb	-17,192.213 ppb	-1,512.133 ppb	-4,644.636 ppb
Concentration per Run 1	0.000 %	50,913.823 ppb	22,439.648 ppb	9,492.014 ppb	92.384 ppb	447.441 ppb
Concentration per Run 2	0.000 %	-467,516.508 ppb	199,275.789 ppb	-66,652.166 ppb	-5,090.765 ppb	-14,381.315 ppb
Concentration per Run 3	0.000 %	25,456.880 ppb	-3,247.999 ppb	5,583.514 ppb	461.981 ppb	-0.033 ppb
Concentration RSD		224.1 %	151.4 %	249.4 %	205.3 %	181.6 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.004 %	-7,502.497 ppb	-839.990 ppb	936,345.686 ppb	0.001 %	301.464 ppb
Concentration per Run 1	0.006 %	992.796 ppb	650.586 ppb	173,362.593 ppb	0.001 %	221.740 ppb
Concentration per Run 2	-0.001 %	-24,493.083 ppb	-4,146.449 ppb	2,468,459.562 ppb	0.001 %	478.942 ppb
Concentration per Run 3	0.006 %	992.796 ppb	975.891 ppb	167,214.902 ppb	0.001 %	203.709 ppb
Concentration RSD	101.6 %	196.1 %	341.4 %	141.7 %	0.0 %	51.1 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2,515.619 ppb	0.013 %
Concentration per Run 1	1,420.564 ppb	0.011 %
Concentration per Run 2	4,173.006 ppb	0.015 %
Concentration per Run 3	1,953.289 ppb	0.014 %
Concentration RSD	58.0 %	18.4 %

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Analysis index: 143
Analysis label: l1606591-06 6020tl
Analysis started at: 3/14/2016 8:54:54 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 44

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	2.260 %	2.505 %	0.399 ppb	1,683,142.788 ppb	10,065,951.845 ppb	827.578 ppb
Concentration per Run 1	2.222 %	1.804 %	0.300 ppb	2,054,506.991 ppb	12,472,890.274 ppb	1,138.213 ppb
Concentration per Run 2	2.249 %	3.908 %	0.546 ppb	1,000,608.786 ppb	5,955,091.304 ppb	351.942 ppb
Concentration per Run 3	2.308 %	1.804 %	0.351 ppb	1,994,312.587 ppb	11,769,873.959 ppb	992.578 ppb
Concentration RSD	1.9 %	48.5 %	32.5 %	35.2 %	35.5 %	50.5 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	562,610.783 ppb	71,438,362.843 ppb	0.056 %	1.472 %	-4,040.769 ppb	-38,833.743 ppb
Concentration per Run 1	803,049.966 ppb	129,043,394.699 ppb	0.000 %	1.546 %	-4,602.972 ppb	-53,411.010 ppb
Concentration per Run 2	358,720.310 ppb	57,363,403.801 ppb	0.000 %	1.431 %	-7,671.633 ppb	-63,749.037 ppb
Concentration per Run 3	526,062.073 ppb	27,908,290.029 ppb	0.168 %	1.439 %	152.298 ppb	658.819 ppb
Concentration RSD	39.9 %	72.8 %	173.2 %	4.4 %	97.6 %	89.1 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	-249,999.652 ppb	-2,503,272.745 ppb	-556.672 ppb	-56,597.090 ppb	-38,779.163 ppb	-41,127.043 ppb
Concentration per Run 1	-375,532.982 ppb	-3,698,775.383 ppb	-1,217.594 ppb	-79,539.336 ppb	-58,786.488 ppb	-61,438.689 ppb
Concentration per Run 2	-380,590.966 ppb	-3,883,738.691 ppb	-487.042 ppb	-92,232.121 ppb	-59,238.792 ppb	-63,668.279 ppb
Concentration per Run 3	6,124.991 ppb	72,695.839 ppb	34.619 ppb	1,980.187 ppb	1,687.792 ppb	1,725.839 ppb
Concentration RSD	88.7 %	89.2 %	113.0 %	90.3 %	90.4 %	90.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.059 %	-3,321.349 ppb	-2,570.832 ppb	-223,457.100 ppb	-278.973 ppb	-193.898 ppb
Concentration per Run 1	-0.008 %	-5,236.276 ppb	-3,400.319 ppb	-582,020.010 ppb	445.915 ppb	283.841 ppb
Concentration per Run 2	-0.008 %	-4,869.626 ppb	-4,251.858 ppb	-93,229.073 ppb	-1,304.307 ppb	-865.501 ppb
Concentration per Run 3	0.191 %	141.856 ppb	-60.318 ppb	4,877.782 ppb	21.474 ppb	-0.033 ppb
Concentration RSD	195.5 %	90.5 %	86.2 %	140.7 %	327.3 %	308.8 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.004 %	-18,083.094 ppb	5,173.912 ppb	2,114,294.157 ppb	0.005 %	20.859 ppb
Concentration per Run 1	0.006 %	2,716.027 ppb	314.530 ppb	1,415,079.068 ppb	0.005 %	23.711 ppb
Concentration per Run 2	-0.001 %	-58,292.334 ppb	14,885.887 ppb	2,933,856.131 ppb	0.007 %	19.220 ppb
Concentration per Run 3	0.006 %	1,327.026 ppb	321.320 ppb	1,993,947.271 ppb	0.002 %	19.645 ppb
Concentration RSD	104.9 %	192.6 %	162.6 %	36.3 %	48.0 %	11.9 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2,933.937 ppb	0.055 %
Concentration per Run 1	2,113.142 ppb	0.050 %
Concentration per Run 2	1,450.175 ppb	0.054 %
Concentration per Run 3	5,238.495 ppb	0.060 %
Concentration RSD	69.0 %	9.7 %

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Analysis index: 144
Analysis label: l1606591-06d20 6020tl
Analysis started at: 3/14/2016 8:57:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 45

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.218 %	0.100 %	4.423 ppb	3,769,120.705 ppb	19,956,262.502 ppb	1,707.559 ppb
Concentration per Run 1	0.220 %	0.301 %	4.802 ppb	1,009,701.519 ppb	5,940,911.445 ppb	1,007.407 ppb
Concentration per Run 2	0.219 %	0.000 %	3.606 ppb	5,242,941.361 ppb	26,982,669.995 ppb	1,371.202 ppb
Concentration per Run 3	0.214 %	0.000 %	4.861 ppb	5,054,719.233 ppb	26,945,206.067 ppb	2,744.068 ppb
Concentration RSD	1.4 %	173.2 %	16.0 %	63.5 %	60.8 %	53.6 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	385,881.803 ppb	24,887,667.070 ppb	0.056 %	0.303 %	9.991 ppb	457.073 ppb
Concentration per Run 1	514,222.549 ppb	62,482,436.742 ppb	0.000 %	0.291 %	0.000 ppb	918.050 ppb
Concentration per Run 2	328,776.628 ppb	5,999,716.115 ppb	0.084 %	0.295 %	29.974 ppb	158.354 ppb
Concentration per Run 3	314,646.231 ppb	6,180,848.354 ppb	0.084 %	0.325 %	0.000 ppb	294.816 ppb
Concentration RSD	28.9 %	130.8 %	86.6 %	6.1 %	173.2 %	88.6 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	2,346.302 ppb	25,327.763 ppb	-0.012 ppb	593.340 ppb	728.963 ppb	1,683.339 ppb
Concentration per Run 1	4,490.493 ppb	46,535.037 ppb	-0.012 ppb	400.666 ppb	588.980 ppb	1,376.320 ppb
Concentration per Run 2	1,236.448 ppb	13,350.305 ppb	-0.012 ppb	403.827 ppb	335.888 ppb	993.011 ppb
Concentration per Run 3	1,311.967 ppb	16,097.945 ppb	-0.012 ppb	975.525 ppb	1,262.022 ppb	2,680.685 ppb
Concentration RSD	79.2 %	72.7 %	0.0 %	55.8 %	65.7 %	52.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.043 %	Infinity ppb	-Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.064 %	30.407 ppb	-129.708 ppb	1,353.948 ppb	37.537 ppb	-0.033 ppb
Concentration per Run 2	0.064 %	30.404 ppb	-341.527 ppb	1,291.440 ppb	-0.015 ppb	101.582 ppb
Concentration per Run 3	0.000 %	Infinity ppb	-Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD	86.6 %					

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.000 %		Infinity ppb	Infinity ppb	0.000 %	179.765 ppb
Concentration per Run 1	0.000 %	-21,552.692 ppb	-4,300.062 ppb	-2,552,557.268 ppb	0.000 %	175.770 ppb
Concentration per Run 2	0.000 %	-21,552.692 ppb	-10,750.093 ppb	-7,266,451.571 ppb	0.000 %	102.517 ppb
Concentration per Run 3	0.000 %		Infinity ppb	Infinity ppb	0.000 %	261.009 ppb
Concentration RSD	107.9 %					44.1 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.010 %
Concentration per Run 1	Infinity ppb	0.008 %
Concentration per Run 2	Infinity ppb	0.014 %
Concentration per Run 3	Infinity ppb	0.007 %
Concentration RSD		38.6 %

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Analysis index: 145
Analysis label: l1606591-07 6020tl
Analysis started at: 3/14/2016 9:01:04 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 46

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)
Concentration average	4.590 %	3.607 %	1.257 ppb	3,399,726.373 ppb	6,801,361.669 ppb
Concentration per Run 1	4.609 %	4.809 %	1.137 ppb	2,262,125.409 ppb	4,551,407.497 ppb
Concentration per Run 2	4.522 %	3.908 %	1.349 ppb	2,736,956.062 ppb	5,388,939.392 ppb
Concentration per Run 3	4.639 %	2.104 %	1.283 ppb	5,200,097.646 ppb	10,463,738.119 ppb
Concentration RSD	1.3 %	38.2 %	8.7 %	46.4 %	47.0 %

Category	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)
Concentration average	1,977.064 ppb	809,851.972 ppb	64,766,414.468 ppb	0.112 %	1.430 %
Concentration per Run 1	1,351.582 ppb	484,537.093 ppb	25,566,410.905 ppb	0.168 %	1.440 %
Concentration per Run 2	1,698.197 ppb	604,690.871 ppb	28,493,329.227 ppb	0.168 %	1.387 %
Concentration per Run 3	2,881.413 ppb	1,340,327.953 ppb	140,239,503.274 ppb	0.000 %	1.464 %
Concentration RSD	40.6 %	57.2 %	100.9 %	86.6 %	2.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	89.923 ppb	950.528 ppb	62,864.050 ppb	1,362,449.925 ppb	346.352 ppb
Concentration per Run 2	197.431 ppb	1,019.774 ppb	85,770.523 ppb	2,028,550.202 ppb	499.477 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD					

Category	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	0.043 %	-84,746,928.775 ppb
Concentration per Run 1	1,907.509 ppb	470.264 ppb	3,940.467 ppb	0.128 %	9,706.793 ppb
Concentration per Run 2	3,740.027 ppb	2,073.380 ppb	11,809.530 ppb	0.000 %	-68,522,637.912 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	0.000 %	-185,727,855.206 ppb
Concentration RSD				173.2 %	110.8 %

Category	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	72,805.025 ppb	-1,410,957.231 ppb	-1,567.304 ppb	-782.295 ppb	0.000 %
Concentration per Run 1	158.428 ppb	7,008.403 ppb	-0.015 ppb	50.066 ppb	0.000 %
Concentration per Run 2	-313,147.184 ppb	-1,153,062.628 ppb	-742.413 ppb	-0.033 ppb	-0.001 %
Concentration per Run 3	531,403.831 ppb	-3,086,817.466 ppb	-3,959.485 ppb	-2,396.919 ppb	0.000 %
Concentration RSD	586.4 %	110.8 %	134.3 %	178.8 %	74.2 %

Category	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-50,768.344 ppb	17,241.875 ppb	6,614,731.519 ppb	0.004 %	37.580 ppb
Concentration per Run 1	14,169.091 ppb	24,188.197 ppb	3,489,204.446 ppb	0.007 %	23.666 ppb
Concentration per Run 2	-31,469.804 ppb	-25,238.144 ppb	8,636,629.927 ppb	0.003 %	43.368 ppb
Concentration per Run 3	-135,004.318 ppb	52,775.573 ppb	7,718,360.185 ppb	0.003 %	45.707 ppb
Concentration RSD	150.6 %	228.9 %	41.5 %	43.3 %	32.2 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	23,981.144 ppb	0.046 %
Concentration per Run 1	13,719.495 ppb	0.050 %
Concentration per Run 2	28,771.433 ppb	0.048 %
Concentration per Run 3	29,452.504 ppb	0.040 %
Concentration RSD	37.1 %	11.2 %

Alpha ICPMSQ Full

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Analysis index: 146
Analysis label: l1606591-07d20 6020tl
Analysis started at: 3/14/2016 9:04:09 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 47

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.361 %	0.301 %	3.671 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.361 %	0.301 %	3.027 ppb	2,419,084.937 ppb	5,134,032.522 ppb	1,792.240 ppb
Concentration per Run 2	0.363 %	0.601 %	3.760 ppb	1,290,980.669 ppb	2,686,179.997 ppb	1,063.467 ppb
Concentration per Run 3	0.358 %	0.000 %	4.228 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD	0.8 %	100.0 %	16.5 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.000 %	0.299 %		Infinity ppb
Concentration per Run 1	834,711.085 ppb	71,677,808.735 ppb	0.000 %	0.303 %	Infinity ppb	Infinity ppb
Concentration per Run 2	368,857.215 ppb	34,380,213.502 ppb	0.000 %	0.312 %		Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.282 %		Infinity ppb
Concentration RSD				5.2 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	-6,992,509.865 ppb	-124,873.917 ppb	-152,454.065 ppb	89.596 ppb	-1,162.309 ppb
Concentration per Run 1	0.000 %	703,630.471 ppb	35,793.745 ppb	9,205.582 ppb	268.817 ppb	108.460 ppb
Concentration per Run 2	0.000 %	-8,181,585.137 ppb	-676,116.205 ppb	-215,339.582 ppb	-0.015 ppb	-1,797.698 ppb
Concentration per Run 3	0.000 %	-13,499,574.930 ppb	265,700.708 ppb	-251,228.195 ppb	-0.015 ppb	-1,797.690 ppb
Concentration RSD		102.6 %	393.2 %	92.6 %	173.2 %	94.7 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.002 %	-18,089.257 ppb	-9,838.908 ppb	1,590,126.285 ppb	0.003 %	244.855 ppb
Concentration per Run 1	0.006 %	302.062 ppb	-0.023 ppb	131,587.390 ppb	0.007 %	346.922 ppb
Concentration per Run 2	0.000 %	-27,284.930 ppb	-0.023 ppb	2,711,165.260 ppb	0.001 %	284.385 ppb
Concentration per Run 3	0.000 %	-27,284.901 ppb	-29,516.677 ppb	1,927,626.204 ppb	0.001 %	103.257 ppb
Concentration RSD	208.9 %	88.0 %	173.2 %	83.2 %	108.3 %	51.7 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	5,534.440 ppb	0.010 %
Concentration per Run 1	1,154.209 ppb	0.006 %
Concentration per Run 2	8,967.601 ppb	0.008 %
Concentration per Run 3	6,481.510 ppb	0.017 %
Concentration RSD	72.1 %	54.5 %

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Analysis index: 147
Analysis label: l1606591-08 6020tl
Analysis started at: 3/14/2016 9:07:14 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 48

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.270 %	0.601 %	2.626 ppb	26,110,707.712 ppb	69,036,845.730 ppb	6,559.490 ppb
Concentration per Run 1	0.266 %	1.202 %	3.807 ppb	3,654,335.787 ppb	10,675,884.947 ppb	1,231.646 ppb
Concentration per Run 2	0.266 %	0.000 %	1.246 ppb	67,905,140.250 ppb	177,617,478.470 ppb	16,472.754 ppb
Concentration per Run 3	0.277 %	0.601 %	2.825 ppb	6,772,647.099 ppb	18,817,173.773 ppb	1,974.070 ppb
Concentration RSD	2.3 %	100.0 %	49.2 %	138.7 %	136.3 %	131.0 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	1,743,024.023 ppb	235,149,451.503 ppb	0.056 %	0.999 %	-1,851.738 ppb	-29,338.333 ppb
Concentration per Run 1	1,076,306.405 ppb	416,684,167.203 ppb	0.000 %	0.956 %	-6,137.297 ppb	-93,040.320 ppb
Concentration per Run 2	2,918,092.174 ppb	159,959,157.639 ppb	0.084 %	1.015 %	330.807 ppb	2,150.109 ppb
Concentration per Run 3	1,234,673.489 ppb	128,805,029.666 ppb	0.084 %	1.025 %	251.275 ppb	2,875.210 ppb
Concentration RSD	58.6 %	67.2 %	86.6 %	3.7 %	200.4 %	188.0 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	-2,260,796.273 ppb	-161,632.265 ppb	-614.788 ppb	-21,934.169 ppb	-863.731 ppb	-2,629.608 ppb
Concentration per Run 1	-7,548,114.141 ppb	-554,790.507 ppb	-1,948.137 ppb	-85,462.620 ppb	-6,330.609 ppb	-19,820.321 ppb
Concentration per Run 2	384,039.892 ppb	40,623.649 ppb	22.238 ppb	9,984.553 ppb	2,026.657 ppb	6,101.016 ppb
Concentration per Run 3	381,685.428 ppb	29,270.062 ppb	81.536 ppb	9,675.559 ppb	1,712.761 ppb	5,830.480 ppb
Concentration RSD	202.5 %	210.7 %	187.9 %	250.8 %	548.4 %	566.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	-0.005 %	-549,880.761 ppb	72,976.074 ppb	-171,656.904 ppb	-1,650.286 ppb	-1,185.470 ppb
Concentration per Run 1	-0.008 %	-6,663.691 ppb	547.314 ppb	-45,329.573 ppb	-1,304.306 ppb	-1,298.236 ppb
Concentration per Run 2	-0.008 %	-6,665.780 ppb	2,498.336 ppb	-38,951.290 ppb	-676.938 ppb	-460.477 ppb
Concentration per Run 3	0.000 %	-1,636,312.814 ppb	215,882.572 ppb	-430,689.849 ppb	-2,969.615 ppb	-1,797.696 ppb
Concentration RSD	86.6 %	171.1 %	169.6 %	130.7 %	71.8 %	57.0 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.001 %	-160,537.490 ppb	36,051.503 ppb	4,146,334.570 ppb	0.007 %	34.667 ppb
Concentration per Run 1	-0.001 %	-394,753.614 ppb	5,160.202 ppb	2,328,661.773 ppb	0.010 %	37.504 ppb
Concentration per Run 2	-0.001 %	-41,463.599 ppb	82,973.772 ppb	5,585,297.304 ppb	0.004 %	34.107 ppb
Concentration per Run 3	-0.001 %	-45,395.257 ppb	20,020.536 ppb	4,525,044.635 ppb	0.005 %	32.391 ppb
Concentration RSD	7.5 %	126.4 %	114.6 %	40.1 %	44.1 %	7.5 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	937.005 ppb	0.048 %
Concentration per Run 1	542.556 ppb	0.048 %
Concentration per Run 2	1,309.586 ppb	0.046 %
Concentration per Run 3	958.873 ppb	0.048 %
Concentration RSD	41.0 %	2.9 %

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Analysis index: 148
Analysis label: l1606591-08d20 6020tl
Analysis started at: 3/14/2016 9:10:20 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 49

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.055 %	0.000 %	12.276 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.058 %	0.000 %	11.120 ppb	4,632,215.932 ppb	12,298,848.703 ppb	3,430.501 ppb
Concentration per Run 2	0.052 %	0.000 %	15.897 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.055 %	0.000 %	9.810 ppb	4,761,446.881 ppb	12,803,975.012 ppb	4,116.935 ppb
Concentration RSD	5.5 %		26.1 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.056 %	0.251 %	Infinity ppb	Infinity ppb
Concentration per Run 1	249,131.568 ppb	10,858,948.477 ppb	0.084 %	0.256 %	35.896 ppb	417.685 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.265 %	Infinity ppb	Infinity ppb
Concentration per Run 3	294,091.992 ppb	11,504,877.019 ppb	0.084 %	0.233 %	0.000 ppb	270.240 ppb
Concentration RSD			86.6 %	6.6 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	26,681.381 ppb	4,389.463 ppb	-0.012 ppb	731.612 ppb	270.396 ppb	1,455.771 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb		Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	26,263.442 ppb	1,462.357 ppb	40.762 ppb	975.526 ppb	90.101 ppb	1,864.076 ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	-528,594.551 ppb	-260,000.758 ppb	-81,447.089 ppb	-0.015 ppb	92.628 ppb
Concentration per Run 1	0.000 %	12,344.334 ppb	-19,543.547 ppb	2,978.264 ppb	-0.015 ppb	54.214 ppb
Concentration per Run 2	0.000 %	38,185.337 ppb	-39,269.803 ppb	3,908.449 ppb	-0.015 ppb	223.704 ppb
Concentration per Run 3	0.000 %	-1,636,313.325 ppb	-721,188.923 ppb	-251,227.979 ppb	-0.015 ppb	-0.033 ppb
Concentration RSD		181.5 %	153.7 %	180.5 %	0.0 %	126.0 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.006 %	-6,756.230 ppb	-7,166.765 ppb	-5,949,970.003 ppb	0.005 %	73.892 ppb
Concentration per Run 1	0.013 %	303.854 ppb	-0.023 ppb	57,919.787 ppb	0.012 %	101.752 ppb
Concentration per Run 2	0.006 %	980.148 ppb	-0.023 ppb	165,480.239 ppb	0.002 %	52.835 ppb
Concentration per Run 3	0.000 %	-21,552.692 ppb	-21,500.249 ppb	-18,073,310.034 ppb	0.000 %	67.090 ppb
Concentration RSD	102.3 %	189.7 %	173.2 %	176.5 %	135.2 %	34.0 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.020 %
Concentration per Run 1	177.540 ppb	0.024 %
Concentration per Run 2	976.628 ppb	0.025 %
Concentration per Run 3	Infinity ppb	0.012 %
Concentration RSD		35.8 %

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Analysis index: 149
Analysis label: l1606616-01 6020tl
Analysis started at: 3/14/2016 9:13:25 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 50

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	2.777 %	1.904 %	0.568 ppb	1,066,914.881 ppb	2,902,185.680 ppb	3,234.855 ppb
Concentration per Run 1	2.808 %	1.503 %	0.341 ppb	1,179,262.049 ppb	3,273,304.560 ppb	3,361.924 ppb
Concentration per Run 2	2.751 %	3.006 %	0.608 ppb	592,941.725 ppb	1,564,774.087 ppb	1,691.340 ppb
Concentration per Run 3	2.770 %	1.202 %	0.756 ppb	1,428,540.869 ppb	3,868,478.394 ppb	4,651.301 ppb
Concentration RSD	1.0 %	50.8 %	37.0 %	40.2 %	41.2 %	45.9 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	2,867,519.158 ppb	260,717,332.629 ppb	0.000 %	1.161 %	835.807 ppb	2,427.924 ppb
Concentration per Run 1	3,122,043.048 ppb	290,432,407.953 ppb	0.000 %	1.236 %	508.750 ppb	1,877.037 ppb
Concentration per Run 2	1,579,903.316 ppb	146,753,462.123 ppb	0.000 %	1.090 %	1,090.186 ppb	2,720.374 ppb
Concentration per Run 3	3,900,611.110 ppb	344,966,127.810 ppb	0.000 %	1.157 %	908.485 ppb	2,686.360 ppb
Concentration RSD	41.2 %	39.3 %		6.3 %	35.6 %	19.7 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	478,326.798 ppb	305,541.305 ppb	326.174 ppb	3,164.084 ppb	707.987 ppb	11,711.522 ppb
Concentration per Run 1	326,157.774 ppb	207,525.822 ppb	219.154 ppb	2,044.021 ppb	481.891 ppb	7,825.073 ppb
Concentration per Run 2	568,154.556 ppb	364,133.532 ppb	365.265 ppb	3,841.026 ppb	731.786 ppb	13,199.941 ppb
Concentration per Run 3	540,668.063 ppb	344,964.561 ppb	394.104 ppb	3,607.203 ppb	910.284 ppb	14,109.551 ppb
Concentration RSD	27.7 %	28.0 %	28.8 %	30.9 %	30.4 %	29.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.234 %	273.228 ppb	232.852 ppb	3,469.068 ppb	-0.015 ppb	46.986 ppb
Concentration per Run 1	0.319 %	200.843 ppb	61.249 ppb	2,512.119 ppb	-0.015 ppb	65.372 ppb
Concentration per Run 2	0.191 %	284.079 ppb	393.282 ppb	3,799.073 ppb	-0.015 ppb	38.985 ppb
Concentration per Run 3	0.191 %	334.763 ppb	244.026 ppb	4,096.011 ppb	-0.015 ppb	36.600 ppb
Concentration RSD	31.5 %	24.7 %	71.4 %	24.3 %	0.0 %	34.0 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.003 %	-22,310.115 ppb	-6,990.134 ppb	40,115,537.443 ppb	0.001 %	22.656 ppb
Concentration per Run 1	-0.003 %	-22,098.884 ppb	-6,680.078 ppb	-2,794,197.864 ppb	0.001 %	35.822 ppb
Concentration per Run 2	-0.003 %	-23,278.767 ppb	-4,517.513 ppb	125,931,912.383 ppb	0.003 %	15.400 ppb
Concentration per Run 3	-0.002 %	-21,552.692 ppb	-9,772.811 ppb	-2,791,102.189 ppb	0.000 %	16.746 ppb
Concentration RSD	23.1 %	4.0 %	37.8 %	185.3 %	114.6 %	50.4 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.041 %
Concentration per Run 1	13,140.747 ppb	0.033 %
Concentration per Run 2	5,268.128 ppb	0.043 %
Concentration per Run 3	Infinity ppb	0.047 %
Concentration RSD		17.6 %

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Analysis index: 150 Analysis started at: 3/14/2016 9:16:30 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.042 %	0.100 %	236,113.989 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.043 %	0.000 %	232,844.945 ppb	34,475,540.715 ppb	33,095,548.964 ppb	306,501.812 ppb
Concentration per Run 2	0.043 %	0.301 %	240,120.071 ppb	6,272,402.113 ppb	6,893,052.577 ppb	67,609.669 ppb
Concentration per Run 3	0.039 %	0.000 %	235,376.952 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1			236,113.989 %	Infinity %	Infinity %	Infinity %
Concentration RSD	5.0 %	173.2 %	1.6 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.056 %	0.189 %	231,111.228 ppb	226,786.606 ppb
Concentration per Run 1	17,960,927.258 ppb	15,645,528.715 ppb	0.084 %	0.181 %	158,734.059 ppb	171,764.806 ppb
Concentration per Run 2	10,438,765.598 ppb	13,463,098.195 ppb	0.084 %	0.180 %	236,418.281 ppb	252,315.659 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.206 %	298,181.344 ppb	256,279.354 ppb
Recovery Percentage 1	Infinity %	Infinity %			231,111.228 %	226,786.606 %
Concentration RSD			86.6 %	7.5 %	30.2 %	21.0 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	258,402.049 ppb	34,318,639.770 ppb	700,309.224 ppb	2,675,315.210 ppb	-39,200.471 ppb	-10,183.911 ppb
Concentration per Run 1	180,830.230 ppb	20,162,204.380 ppb	220,829.790 ppb	212,431.886 ppb	253,283.286 ppb	214,412.199 ppb
Concentration per Run 2	421,959.478 ppb	67,747,850.337 ppb	1,747,447.248 ppb	7,687,690.644 ppb	-465,744.828 ppb	-317,448.355 ppb
Concentration per Run 3	172,416.438 ppb	15,045,864.594 ppb	132,650.634 ppb	125,823.100 ppb	94,860.129 ppb	72,484.423 ppb
Recovery Percentage 1	258,402.049 %	343,186.398 %	700,309.224 %	2,675,315.210 %	-39,200.471 %	-10,183.911 %
Concentration RSD	54.8 %	84.7 %	129.6 %	162.3 %	963.8 %	2,704.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.048 %	112,472.073 ppb	794,504.299 ppb	138,409.097 ppb	-112,757.412 ppb	-81,474.353 ppb
Concentration per Run 1	0.029 %	416,169.913 ppb	2,423,265.227 ppb	-114,128.576 ppb	-67,832.591 ppb	-50,027.969 ppb
Concentration per Run 2	-0.076 %	-134,549.248 ppb	-90,843.451 ppb	-127,833.060 ppb	-117,880.888 ppb	-98,964.931 ppb
Concentration per Run 3	0.191 %	55,795.556 ppb	51,091.122 ppb	657,188.927 ppb	-152,558.757 ppb	-95,430.160 ppb
Recovery Percentage 1		112,472.073 %	794,504.299 %	138,409.097 %	-112,757.412 %	-81,474.353 %
Concentration RSD	278.5 %	248.7 %	177.8 %	324.6 %	37.8 %	33.5 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.168 %	-90,274.524 ppb	-86,723.838 ppb	-167,811.792 ppb	0.001 %	543,586.954 ppb
Concentration per Run 1	-0.240 %	-57,149.891 ppb	-54,829.704 ppb	-107,570.551 ppb	0.000 %	565,787.689 ppb
Concentration per Run 2	-0.117 %	-118,047.424 ppb	-113,869.137 ppb	-212,198.353 ppb	0.001 %	538,596.198 ppb
Concentration per Run 3	-0.147 %	-95,626.258 ppb	-91,472.673 ppb	-183,666.473 ppb	0.003 %	526,376.975 ppb
Recovery Percentage 1		-90,274.524 %	-86,723.838 %	-167,811.792 %		543,586.954 %
Concentration RSD	38.1 %	34.1 %	34.4 %	32.2 %	114.6 %	3.7 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.024 %
Concentration per Run 1	Infinity ppb	0.024 %
Concentration per Run 2	11,975,804.144 ppb	0.025 %
Concentration per Run 3	3,947,590.024 ppb	0.025 %
Recovery Percentage 1	Infinity %	
Concentration RSD		2.8 %

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Analysis index: 151 Analysis started at: 3/14/2016 9:19:37 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.037 %	0.100 %	66.977 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.036 %	0.000 %	65.261 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.040 %	0.000 %	83.181 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.034 %	0.301 %	52.490 ppb	22,082.605 ppb	4,062.638 ppb	1,119.525 ppb
Recovery Percentage 1			13,395.439 %	Infinity %	Infinity %	Infinity %
Concentration RSD	8.0 %	173.2 %	23.0 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.000 %	0.183 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.195 %	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.199 %	Infinity ppb	Infinity ppb
Concentration per Run 3	110,704.642 ppb	496,946.806 ppb	0.000 %	0.157 %	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %			Infinity %	Infinity %
Concentration RSD				12.4 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	-98,481.381 ppb	-2,987.370 ppb	-80,253.646 ppb	-6,269.183 ppb	-1,581.305 ppb
Concentration per Run 1	0.000 %	-102,269.197 ppb	103,789.334 ppb	-42,618.946 ppb	-4,454.419 ppb	-1,797.690 ppb
Concentration per Run 2	0.000 %	-90,906.158 ppb	-80,132.093 ppb	-119,633.277 ppb	-9,898.720 ppb	-1,597.954 ppb
Concentration per Run 3	0.000 %	-102,268.788 ppb	-32,619.352 ppb	-78,508.716 ppb	-4,454.410 ppb	-1,348.271 ppb
Recovery Percentage 1	0.000 %	-19,696,276.255 %	-59,747.407 %	-2,675,121.535 %	-1,567,295.764 %	-790,652.567 %
Concentration RSD		6.7 %	3,195.9 %	48.0 %	50.1 %	14.2 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.001 %	-22,292.585 ppb	-4,132.883 ppb	-3,881.439 ppb	0.000 %	603.508 ppb
Concentration per Run 1	-0.002 %	-21,552.692 ppb	-4,031.310 ppb	-0.044 ppb	0.000 %	696.093 ppb
Concentration per Run 2	-0.001 %	-23,772.372 ppb	-2,992.302 ppb	-0.044 ppb	0.001 %	532.701 ppb
Concentration per Run 3	-0.002 %	-21,552.692 ppb	-5,375.037 ppb	-11,644.229 ppb	0.000 %	581.729 ppb
Recovery Percentage 1		-743,086.181 %	-206,644.149 %	-776,287.864 %		120,701.601 %
Concentration RSD	29.6 %	5.7 %	28.9 %	173.2 %	173.2 %	13.9 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.011 %
Concentration per Run 1	Infinity ppb	0.011 %
Concentration per Run 2	5,416.035 ppb	0.012 %
Concentration per Run 3	Infinity ppb	0.012 %
Recovery Percentage 1	Infinity %	0.011 %
Concentration RSD		6.0 %

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Analysis index: 152
Analysis label: l1606763-01 6020tl
Analysis started at: 3/14/2016 9:22:46 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 51

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	3.907 %	3.206 %	13.735 ppb	3,006,067.438 ppb	603,024.458 ppb	256,203.776 ppb
Concentration per Run 1	3.908 %	2.405 %	14.998 ppb	3,590,293.662 ppb	715,645.705 ppb	305,892.226 ppb
Concentration per Run 2	3.891 %	4.509 %	13.539 ppb	2,450,155.384 ppb	497,929.726 ppb	215,420.349 ppb
Concentration per Run 3	3.921 %	2.705 %	12.669 ppb	2,977,753.268 ppb	595,497.943 ppb	247,298.751 ppb
Concentration RSD	0.4 %	35.5 %	8.6 %	19.0 %	18.1 %	17.9 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	488,623.594 ppb	4,996,045.357 ppb	2.554 %	5.676 %	870.270 ppb	732.004 ppb
Concentration per Run 1	555,685.464 ppb	5,600,488.191 ppb	2.189 %	5.696 %	988.485 ppb	858.843 ppb
Concentration per Run 2	482,099.360 ppb	5,325,610.301 ppb	2.357 %	5.714 %	905.005 ppb	738.630 ppb
Concentration per Run 3	428,085.958 ppb	4,062,037.578 ppb	3.115 %	5.620 %	717.320 ppb	598.539 ppb
Concentration RSD	13.1 %	16.4 %	19.3 %	0.9 %	16.0 %	17.8 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	52,042.941 ppb	1,522,659.711 ppb	520.295 ppb	4,898.589 ppb	4,328.772 ppb	8,330.990 ppb
Concentration per Run 1	60,212.955 ppb	1,722,577.025 ppb	604.970 ppb	5,744.083 ppb	5,066.799 ppb	9,847.475 ppb
Concentration per Run 2	52,650.969 ppb	1,588,510.165 ppb	519.582 ppb	4,785.418 ppb	4,224.115 ppb	7,717.696 ppb
Concentration per Run 3	43,264.899 ppb	1,256,891.943 ppb	436.334 ppb	4,166.265 ppb	3,695.402 ppb	7,427.798 ppb
Concentration RSD	16.3 %	15.7 %	16.2 %	16.2 %	16.0 %	15.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.866 %	1,795.606 ppb	433.141 ppb	960.316 ppb	37.238 ppb	250.425 ppb
Concentration per Run 1	0.672 %	2,202.558 ppb	405.327 ppb	1,172.962 ppb	51.457 ppb	313.695 ppb
Concentration per Run 2	1.055 %	1,470.132 ppb	369.013 ppb	748.662 ppb	27.860 ppb	149.673 ppb
Concentration per Run 3	0.871 %	1,714.128 ppb	525.082 ppb	959.325 ppb	32.396 ppb	287.906 ppb
Concentration RSD	22.1 %	20.8 %	18.9 %	22.1 %	33.6 %	35.2 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.014 %	19,292.807 ppb	1,932.335 ppb	125,413.371 ppb	0.300 %	93.125 ppb
Concentration per Run 1	0.001 %	26,906.599 ppb	2,493.049 ppb	118,238.012 ppb	0.319 %	104.320 ppb
Concentration per Run 2	0.027 %	14,158.652 ppb	1,500.152 ppb	142,186.937 ppb	0.259 %	89.918 ppb
Concentration per Run 3	0.015 %	16,813.169 ppb	1,803.803 ppb	115,815.165 ppb	0.322 %	85.136 ppb
Concentration RSD	89.9 %	34.9 %	26.3 %	11.6 %	11.9 %	10.7 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	26,904.113 ppb	0.146 %
Concentration per Run 1	24,683.063 ppb	0.138 %
Concentration per Run 2	31,268.474 ppb	0.147 %
Concentration per Run 3	24,760.800 ppb	0.154 %
Concentration RSD	14.0 %	5.3 %

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Analysis index: 153
Analysis label: l1606763-01d20 6020tl
Analysis started at: 3/14/2016 9:25:51 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 52

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.246 %	0.301 %	15.891 ppb	5,104,268.488 ppb	1,016,592.893 ppb	396,194.808 ppb
Concentration per Run 1	0.244 %	0.000 %	18.127 ppb	12,256,382.359 ppb	2,381,622.349 ppb	889,364.822 ppb
Concentration per Run 2	0.254 %	0.601 %	14.429 ppb	1,131,928.591 ppb	235,979.903 ppb	118,750.323 ppb
Concentration per Run 3	0.241 %	0.301 %	15.119 ppb	1,924,494.514 ppb	432,176.426 ppb	180,469.278 ppb
Concentration RSD	2.7 %	100.0 %	12.4 %	121.6 %	116.7 %	108.1 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	572,344.203 ppb	5,710,860.869 ppb	0.140 %	0.514 %	955.934 ppb	924.097 ppb
Concentration per Run 1	957,082.836 ppb	8,766,035.676 ppb	0.084 %	0.566 %	1,199.006 ppb	1,287.181 ppb
Concentration per Run 2	335,676.547 ppb	4,021,957.559 ppb	0.168 %	0.491 %	803.045 ppb	640.766 ppb
Concentration per Run 3	424,273.226 ppb	4,344,589.372 ppb	0.168 %	0.485 %	865.751 ppb	844.345 ppb
Concentration RSD	58.7 %	46.4 %	34.6 %	8.7 %	22.3 %	35.8 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	51,872.432 ppb	1,522,509.062 ppb	516.914 ppb	4,391.991 ppb	3,852.865 ppb	7,294.497 ppb
Concentration per Run 1	76,607.278 ppb	2,242,307.649 ppb	812.156 ppb	6,463.585 ppb	5,744.781 ppb	10,635.771 ppb
Concentration per Run 2	33,843.096 ppb	951,972.093 ppb	301.774 ppb	2,750.354 ppb	2,020.264 ppb	3,864.324 ppb
Concentration per Run 3	45,166.922 ppb	1,373,247.444 ppb	436.812 ppb	3,962.035 ppb	3,793.549 ppb	7,383.397 ppb
Concentration RSD	42.7 %	43.2 %	51.2 %	43.1 %	48.4 %	46.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.106 %	1,019.344 ppb	111.362 ppb	718.366 ppb	44.304 ppb	176.797 ppb
Concentration per Run 1	0.064 %	1,184.369 ppb	-306.890 ppb	881.096 ppb	110.772 ppb	173.876 ppb
Concentration per Run 2	0.191 %	385.162 ppb	-117.122 ppb	382.608 ppb	22.156 ppb	108.682 ppb
Concentration per Run 3	0.064 %	1,488.502 ppb	758.099 ppb	891.394 ppb	-0.015 ppb	247.832 ppb
Concentration RSD	69.3 %	55.9 %	510.1 %	40.5 %	132.3 %	39.4 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.004 %	7,245.311 ppb	1,267.602 ppb	98,392.165 ppb	0.019 %	208.477 ppb
Concentration per Run 1	0.005 %	5,192.946 ppb	1,792.859 ppb	87,706.637 ppb	0.020 %	219.075 ppb
Concentration per Run 2	0.004 %	7,686.447 ppb	877.544 ppb	109,507.610 ppb	0.016 %	133.954 ppb
Concentration per Run 3	0.004 %	8,856.539 ppb	1,132.403 ppb	97,962.247 ppb	0.020 %	272.402 ppb
Concentration RSD	8.6 %	25.8 %	37.3 %	11.1 %	10.2 %	33.5 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	26,525.272 ppb	0.018 %
Concentration per Run 1	24,687.449 ppb	0.024 %
Concentration per Run 2	30,176.389 ppb	0.021 %
Concentration per Run 3	24,711.977 ppb	0.009 %
Concentration RSD	11.9 %	41.9 %

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Analysis index: 154
Analysis label: l1606577-01d5 6020tl
Analysis started at: 3/14/2016 9:28:56 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 53

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.321 %	0.701 %	9.297 ppb	4,317,047.370 ppb	3,930,175.423 ppb	130,570.489 ppb
Concentration per Run 1	0.396 %	0.902 %	9.284 ppb	2,304,023.783 ppb	2,113,423.131 ppb	67,572.323 ppb
Concentration per Run 2	0.315 %	0.902 %	11.190 ppb	3,503,566.838 ppb	3,175,419.084 ppb	107,579.837 ppb
Concentration per Run 3	0.252 %	0.301 %	7.415 ppb	7,143,551.490 ppb	6,501,684.056 ppb	216,559.308 ppb
Concentration RSD	22.5 %	49.5 %	20.3 %	58.4 %	58.3 %	59.1 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	25,821,222.911 ppb	3,064,690.459 ppb	0.365 %	0.325 %	34,442.828 ppb	9,982.606 ppb
Concentration per Run 1	14,214,734.977 ppb	1,685,528.174 ppb	0.505 %	0.365 %	21,059.859 ppb	6,110.380 ppb
Concentration per Run 2	22,810,165.659 ppb	2,589,678.221 ppb	0.421 %	0.309 %	32,253.162 ppb	9,408.009 ppb
Concentration per Run 3	40,438,768.098 ppb	4,918,864.981 ppb	0.168 %	0.301 %	50,015.462 ppb	14,429.430 ppb
Concentration RSD	51.8 %	54.4 %	48.0 %	10.8 %	42.4 %	42.0 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	15,001.680 ppb	118,193.275 ppb	1,550.422 ppb	18,081.984 ppb	2,661.790 ppb	2,482.201 ppb
Concentration per Run 1	9,120.939 ppb	73,922.972 ppb	1,007.279 ppb	12,215.367 ppb	1,757.155 ppb	1,881.958 ppb
Concentration per Run 2	15,077.856 ppb	124,764.724 ppb	1,748.503 ppb	19,769.982 ppb	3,048.446 ppb	2,799.955 ppb
Concentration per Run 3	20,806.245 ppb	155,892.130 ppb	1,895.483 ppb	22,260.605 ppb	3,179.769 ppb	2,764.691 ppb
Concentration RSD	38.9 %	35.0 %	30.7 %	28.9 %	29.5 %	21.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.272 %	15,007.211 ppb	250.244 ppb	461.861 ppb	2.221 ppb	33.938 ppb
Concentration per Run 1	0.319 %	11,427.050 ppb	7.732 ppb	294.058 ppb	-0.015 ppb	24.643 ppb
Concentration per Run 2	0.248 %	19,527.829 ppb	365.485 ppb	544.304 ppb	6.692 ppb	30.347 ppb
Concentration per Run 3	0.248 %	14,066.755 ppb	377.515 ppb	547.220 ppb	-0.015 ppb	46.825 ppb
Concentration RSD	15.2 %	27.5 %	84.0 %	31.5 %	174.4 %	33.9 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.099 %	155.982 ppb	254.934 ppb	70,290.402 ppb	0.124 %	64.633 ppb
Concentration per Run 1	0.159 %	69.833 ppb	136.451 ppb	26,146.144 ppb	0.224 %	54.403 ppb
Concentration per Run 2	0.108 %	106.369 ppb	264.013 ppb	61,260.384 ppb	0.099 %	47.157 ppb
Concentration per Run 3	0.031 %	291.744 ppb	364.337 ppb	123,464.678 ppb	0.049 %	92.337 ppb
Concentration RSD	64.6 %	76.3 %	44.8 %	70.1 %	72.5 %	37.5 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	467.517 ppb	0.122 %
Concentration per Run 1	156.746 ppb	0.177 %
Concentration per Run 2	458.554 ppb	0.115 %
Concentration per Run 3	787.251 ppb	0.074 %
Concentration RSD	67.5 %	42.4 %

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Analysis index: 155
Analysis label: l1606577-01d20 6020tl
Analysis started at: 3/14/2016 9:32:01 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 54

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.101 %	0.200 %	13.665 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.087 %	0.000 %	12.758 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.086 %	0.000 %	12.650 ppb	7,482,550.453 ppb	6,850,405.488 ppb	183,456.632 ppb
Concentration per Run 3	0.129 %	0.601 %	15.587 ppb	1,740,317.805 ppb	1,820,609.026 ppb	66,824.712 ppb
Concentration RSD	24.4 %	173.2 %	12.2 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.056 %	0.228 %	135,114.762 ppb	34,296.058 ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.198 %	255,262.103 ppb	64,388.273 ppb
Concentration per Run 2	18,561,985.969 ppb	1,700,051.951 ppb	0.168 %	0.225 %	20,903.934 ppb	5,846.301 ppb
Concentration per Run 3	31,248,174.016 ppb	20,883,321.389 ppb	0.000 %	0.261 %	129,178.247 ppb	32,653.599 ppb
Concentration RSD			173.2 %	13.9 %	86.8 %	85.4 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	38,066.206 ppb	250,846.959 ppb	3,053.276 ppb	33,655.551 ppb	3,664.393 ppb	4,141.091 ppb
Concentration per Run 1	70,529.274 ppb	473,609.225 ppb	5,191.099 ppb	55,723.748 ppb	5,462.073 ppb	5,923.419 ppb
Concentration per Run 2	10,202.224 ppb	68,137.778 ppb	1,257.804 ppb	15,475.408 ppb	2,398.450 ppb	2,673.938 ppb
Concentration per Run 3	33,467.120 ppb	210,793.875 ppb	2,710.924 ppb	29,767.496 ppb	3,132.655 ppb	3,825.916 ppb
Concentration RSD	79.9 %	82.0 %	65.1 %	60.6 %	43.7 %	39.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.085 %	15,843.579 ppb	142.441 ppb	766.497 ppb	12.156 ppb	217.662 ppb
Concentration per Run 1	0.064 %	19,962.224 ppb	402.347 ppb	954.540 ppb	-0.015 ppb	203.197 ppb
Concentration per Run 2	0.064 %	16,431.621 ppb	-192.111 ppb	672.735 ppb	-0.015 ppb	300.563 ppb
Concentration per Run 3	0.128 %	11,136.892 ppb	217.088 ppb	672.214 ppb	36.498 ppb	149.225 ppb
Concentration RSD	43.3 %	28.0 %	213.5 %	21.2 %	173.4 %	35.2 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.000 %	3,223.899 ppb	5,803.521 ppb	273,539.682 ppb	0.014 %	236.764 ppb
Concentration per Run 1	0.000 %	3,086.104 ppb	2,647.700 ppb	170,981.037 ppb	0.021 %	185.635 ppb
Concentration per Run 2	0.000 %	4,414.112 ppb	12,859.554 ppb	394,081.042 ppb	0.008 %	231.933 ppb
Concentration per Run 3	0.000 %	2,171.482 ppb	1,903.307 ppb	255,556.968 ppb	0.014 %	292.724 ppb
Concentration RSD	43.3 %	35.0 %	105.5 %	41.2 %	46.2 %	22.7 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,250.395 ppb	0.032 %
Concentration per Run 1	672.890 ppb	0.033 %
Concentration per Run 2	2,067.495 ppb	0.030 %
Concentration per Run 3	1,010.800 ppb	0.033 %
Concentration RSD	58.2 %	6.4 %

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Analysis index: 156
Analysis label: l1606577-01d200 6020tl
Analysis started at: 3/14/2016 9:35:06 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 55

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.042 %	0.000 %	18.254 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.044 %	0.000 %	17.078 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.045 %	0.000 %	16.281 ppb	2,548,931.649 ppb	2,205,905.790 ppb	74,820.168 ppb
Concentration per Run 3	0.039 %	0.000 %	21.403 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD	7.6 %		15.1 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.206 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.200 %	Infinity ppb	Infinity ppb
Concentration per Run 2	6,402,635.097 ppb	672,574.536 ppb	0.084 %	0.222 %	7,179.834 ppb	1,744.732 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.196 %	Infinity ppb	Infinity ppb
Concentration RSD			173.2 %	6.8 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	5,191.436 ppb	39,515.085 ppb	428.115 ppb	7,073.608 ppb	1,802.911 ppb	5,013.864 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.000 %	Infinity ppb	Infinity ppb	Infinity ppb		
Concentration per Run 1	0.000 %	-25,635,696.142 ppb	-812,920.118 ppb	-47,853.026 ppb	-0.015 ppb	-11,984.465 ppb
Concentration per Run 2	0.000 %	Infinity ppb	Infinity ppb	Infinity ppb		
Concentration per Run 3	0.000 %	-33,135,510.023 ppb	-227,743.602 ppb	-53,834.330 ppb	-0.015 ppb	-10,786.021 ppb
Concentration RSD						

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.000 %	-34,447.610 ppb	4,294.677 ppb	115,840.952 ppb	0.004 %	182.005 ppb
Concentration per Run 1	0.000 %	-135,004.318 ppb	8,795.898 ppb	145,032.910 ppb	0.003 %	221.057 ppb
Concentration per Run 2	0.000 %	-0.133 ppb	-0.023 ppb	113,496.007 ppb	0.004 %	179.640 ppb
Concentration per Run 3	0.000 %	31,661.621 ppb	4,088.155 ppb	88,993.938 ppb	0.004 %	145.317 ppb
Concentration RSD	91.7 %	256.9 %	102.5 %	24.3 %	15.7 %	20.8 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,008.692 ppb	0.022 %
Concentration per Run 1	1,450.167 ppb	0.024 %
Concentration per Run 2	821.248 ppb	0.017 %
Concentration per Run 3	754.660 ppb	0.026 %
Concentration RSD	38.0 %	22.3 %

Alpha ICPMSQ Full

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Analysis index: 157
Analysis label: l1606577-02d5 6020tl
Analysis started at: 3/14/2016 9:38:11 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 56

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.121 %	0.200 %	21.102 ppb	5,298,270.857 ppb	8,699,741.536 ppb	106,502.884 ppb
Concentration per Run 1	0.078 %	0.000 %	19.258 ppb	11,061,696.359 ppb	17,919,921.752 ppb	205,767.783 ppb
Concentration per Run 2	0.112 %	0.301 %	26.821 ppb	2,246,922.767 ppb	3,816,567.346 ppb	52,252.409 ppb
Concentration per Run 3	0.173 %	0.301 %	17.228 ppb	2,586,193.446 ppb	4,362,735.510 ppb	61,488.462 ppb
Concentration RSD	40.1 %	86.6 %	24.0 %	94.3 %	91.8 %	80.8 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	16,256,265.350 ppb	9,394,361.662 ppb	0.281 %	0.388 %	11,042.761 ppb	25,165.188 ppb
Concentration per Run 1	27,216,545.231 ppb	14,731,148.931 ppb	0.168 %	0.257 %	18,404.467 ppb	42,002.392 ppb
Concentration per Run 2	10,228,107.930 ppb	6,380,501.823 ppb	0.337 %	0.431 %	6,724.468 ppb	15,205.167 ppb
Concentration per Run 3	11,324,142.889 ppb	7,071,434.232 ppb	0.337 %	0.476 %	7,999.348 ppb	18,288.005 ppb
Concentration RSD	58.5 %	49.3 %	34.6 %	29.9 %	58.0 %	58.3 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	46,008.012 ppb	701,250.847 ppb	2,531.053 ppb	51,637.782 ppb	39,078.230 ppb	204,638.515 ppb
Concentration per Run 1	81,898.019 ppb	1,277,516.903 ppb	4,906.992 ppb	101,024.886 ppb	87,657.404 ppb	476,555.371 ppb
Concentration per Run 2	25,341.400 ppb	363,349.531 ppb	1,230.381 ppb	23,136.386 ppb	12,521.603 ppb	58,401.340 ppb
Concentration per Run 3	30,784.617 ppb	462,886.106 ppb	1,455.788 ppb	30,752.075 ppb	17,055.682 ppb	78,958.833 ppb
Concentration RSD	67.8 %	71.5 %	81.4 %	83.2 %	107.8 %	115.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.144 %	-27,327.029 ppb	-445.773 ppb	-71,231.498 ppb	79.989 ppb	358.675 ppb
Concentration per Run 1	-0.015 %	-96,343.238 ppb	-1,661.019 ppb	-218,456.047 ppb	202.660 ppb	789.268 ppb
Concentration per Run 2	0.255 %	5,800.940 ppb	76.315 ppb	1,914.950 ppb	25.012 ppb	184.694 ppb
Concentration per Run 3	0.191 %	8,561.211 ppb	247.386 ppb	2,846.603 ppb	12.295 ppb	102.063 ppb
Concentration RSD	98.2 %	218.8 %	236.9 %	179.0 %	133.1 %	104.6 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.006 %	2,738.828 ppb	10,474.552 ppb	119,094.227 ppb	0.045 %	70.440 ppb
Concentration per Run 1	0.012 %	1,093.565 ppb	5,993.881 ppb	111,466.313 ppb	0.040 %	94.448 ppb
Concentration per Run 2	0.006 %	1,791.174 ppb	8,035.916 ppb	102,601.351 ppb	0.048 %	55.263 ppb
Concentration per Run 3	-0.001 %	5,331.745 ppb	17,393.859 ppb	143,215.016 ppb	0.046 %	61.609 ppb
Concentration RSD	112.0 %	83.0 %	58.0 %	17.9 %	8.8 %	29.9 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	8,048.933 ppb	0.045 %
Concentration per Run 1	8,756.818 ppb	0.034 %
Concentration per Run 2	7,313.450 ppb	0.051 %
Concentration per Run 3	8,076.531 ppb	0.050 %
Concentration RSD	9.0 %	20.6 %

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Analysis index: 158
Analysis label: l1606577-02d20 6020tl
Analysis started at: 3/14/2016 9:41:16 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 57

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.056 %	0.000 %	14.887 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.058 %	0.000 %	16.738 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.055 %	0.000 %	17.694 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.055 %	0.000 %	10.230 ppb	4,683,978.772 ppb	7,678,891.946 ppb	87,519.497 ppb
Concentration RSD	3.0 %		27.3 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.230 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.253 %	41,249.426 ppb	84,599.234 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.235 %	Infinity ppb	Infinity ppb
Concentration per Run 3	10,825,395.876 ppb	5,981,413.440 ppb	0.084 %	0.203 %	5,905.545 ppb	12,915.830 ppb
Concentration RSD			173.2 %	11.0 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	103,336.665 ppb	1,256,744.903 ppb	3,201.093 ppb	58,232.157 ppb	24,744.227 ppb	93,721.885 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	24,712.943 ppb	362,465.087 ppb	1,170.486 ppb	20,157.421 ppb	11,961.145 ppb	53,902.886 ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.043 %	-16,359,695.134 ppb	-262,934.829 ppb	-126,187.253 ppb	36.686 ppb	-1,261.129 ppb
Concentration per Run 1	0.064 %	5,446.853 ppb	1,539.497 ppb	2,189.859 ppb	36.838 ppb	609.656 ppb
Concentration per Run 2	0.000 %	-49,089,857.190 ppb	-790,778.271 ppb	-382,825.947 ppb	-0.015 ppb	-4,793.806 ppb
Concentration per Run 3	0.064 %	5,324.936 ppb	434.288 ppb	2,074.330 ppb	73.236 ppb	400.762 ppb
Concentration RSD	86.6 %	173.3 %	173.9 %	176.1 %	99.8 %	242.7 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.000 %	11,774.491 ppb	24,434.226 ppb	156,159.674 ppb	0.008 %	155.480 ppb
Concentration per Run 1	0.000 %	9,126.755 ppb	17,175.103 ppb	153,318.887 ppb	0.009 %	196.401 ppb
Concentration per Run 2	0.000 %	22,430.811 ppb	35,451.617 ppb	176,846.867 ppb	0.008 %	132.681 ppb
Concentration per Run 3	0.000 %	3,765.906 ppb	20,675.957 ppb	138,313.267 ppb	0.009 %	137.359 ppb
Concentration RSD	50.0 %	81.6 %	39.7 %	12.4 %	7.5 %	22.8 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	10,485.367 ppb	0.036 %
Concentration per Run 1	11,044.810 ppb	0.025 %
Concentration per Run 2	10,998.492 ppb	0.040 %
Concentration per Run 3	9,412.798 ppb	0.043 %
Concentration RSD	8.9 %	26.9 %

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Analysis index: 159
Analysis label: l1606577-02d200 6020tl
Analysis started at: 3/14/2016 9:44:21 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 58

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.035 %	0.000 %	20.810 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.037 %	0.000 %	20.771 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.036 %	0.000 %	16.442 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.033 %	0.000 %	25.218 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration RSD	5.0 %		21.1 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.000 %	0.226 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.239 %	Infinity ppb	Infinity ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.210 %	6,541.153 ppb	15,098.814 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.229 %	7,267.965 ppb	14,078.593 ppb
Concentration RSD				6.5 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	20,660.936 ppb	213,524.323 ppb	663.251 ppb	10,721.707 ppb	3,801.950 ppb	16,778.226 ppb
Concentration per Run 3	15,719.773 ppb	257,325.377 ppb	317.199 ppb	11,022.328 ppb	3,801.942 ppb	17,071.607 ppb
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.043 %	-3,817,404.576 ppb	331,957.780 ppb	-35,541.911 ppb	-1,319.838 ppb	34.444 ppb
Concentration per Run 1	0.000 %	-11,454,219.577 ppb	996,383.012 ppb	-107,668.744 ppb	-3,959.485 ppb	-0.033 ppb
Concentration per Run 2	0.064 %	1,004.253 ppb	-256.288 ppb	282.062 ppb	-0.015 ppb	-0.033 ppb
Concentration per Run 3	0.064 %	1,001.596 ppb	-253.386 ppb	760.950 ppb	-0.015 ppb	103.399 ppb
Concentration RSD	86.6 %	173.3 %	173.3 %	175.7 %	173.2 %	173.4 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	0.002 %	-24,867.804 ppb	37,334.278 ppb	185,978.849 ppb	0.002 %	132.204 ppb
Concentration per Run 1	0.000 %	-49,009.684 ppb	136,604.681 ppb	149,182.419 ppb	0.002 %	95.930 ppb
Concentration per Run 2	0.000 %	-25,906.862 ppb	-27,000.000 ppb	387,488.161 ppb	0.001 %	131.224 ppb
Concentration per Run 3	0.006 %	313.136 ppb	2,398.153 ppb	21,265.965 ppb	0.003 %	169.458 ppb
Concentration RSD	208.9 %	99.2 %	233.6 %	99.9 %	50.0 %	27.8 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9,692.849 ppb	0.011 %
Concentration per Run 1	7,946.622 ppb	0.009 %
Concentration per Run 2	16,692.486 ppb	0.013 %
Concentration per Run 3	4,439.438 ppb	0.011 %
Concentration RSD	65.1 %	16.4 %

Alpha ICPMSQ Full

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Analysis index: 160 Analysis started at: 3/14/2016 9:47:26 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.032 %	0.000 %	289,332.997 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.030 %	0.000 %	295,251.778 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.036 %	0.000 %	267,572.554 ppb	37,679,611.761 ppb	36,380,868.793 ppb	325,379.863 ppb
Concentration per Run 3	0.029 %	0.000 %	305,174.658 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1			289,332.997 %	Infinity %	Infinity %	Infinity %
Concentration RSD	10.9 %		6.7 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.218 %	504,507.338 ppb	425,731.049 ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.219 %	278,119.642 ppb	240,092.699 ppb
Concentration per Run 2	19,644,670.979 ppb	15,809,771.605 ppb	0.084 %	0.220 %	114,866.421 ppb	115,736.700 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	0.000 %	0.217 %	1,120,535.952 ppb	921,363.749 ppb
Recovery Percentage 1	Infinity %	Infinity %			504,507.338 %	425,731.049 %
Concentration RSD			173.2 %	0.7 %	107.0 %	101.9 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	307,481.327 ppb	26,518,879.325 ppb	231,284.826 ppb	204,278.418 ppb	163,592.011 ppb	126,148.597 ppb
Concentration per Run 1	166,367.140 ppb	14,177,553.753 ppb	122,769.507 ppb	110,855.426 ppb	84,170.967 ppb	61,190.729 ppb
Concentration per Run 2	105,319.261 ppb	9,904,348.229 ppb	95,794.326 ppb	85,926.771 ppb	76,140.961 ppb	58,305.867 ppb
Concentration per Run 3	650,757.578 ppb	55,474,735.992 ppb	475,290.645 ppb	416,053.057 ppb	330,464.104 ppb	258,949.193 ppb
Recovery Percentage 1	307,481.327 %	265,188.793 %	231,284.826 %	204,278.418 %	163,592.011 %	126,148.597 %
Concentration RSD	97.2 %	94.9 %	91.6 %	90.0 %	88.4 %	91.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.163 %	100,076.166 ppb	129,891.264 ppb	710,333.646 ppb	-111,619.991 ppb	-70,923.365 ppb
Concentration per Run 1	0.210 %	45,962.300 ppb	41,240.503 ppb	1,616,868.223 ppb	-116,334.226 ppb	-70,494.131 ppb
Concentration per Run 2	0.221 %	48,831.341 ppb	48,454.722 ppb	647,228.005 ppb	-146,003.853 ppb	-89,621.494 ppb
Concentration per Run 3	0.060 %	205,434.855 ppb	299,978.567 ppb	-133,095.290 ppb	-72,521.894 ppb	-52,654.470 ppb
Recovery Percentage 1		100,076.166 %	129,891.264 %	710,333.646 %	-111,619.991 %	-70,923.365 %
Concentration RSD	55.1 %	91.2 %	113.4 %	123.4 %	33.1 %	26.1 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.204 %	-73,623.512 ppb	-70,258.800 ppb	-137,369.566 ppb	0.002 %	604,493.604 ppb
Concentration per Run 1	-0.185 %	-72,852.700 ppb	-67,951.718 ppb	-141,126.585 ppb	0.004 %	621,811.518 ppb
Concentration per Run 2	-0.172 %	-89,544.137 ppb	-86,795.891 ppb	-163,110.990 ppb	0.001 %	730,743.448 ppb
Concentration per Run 3	-0.253 %	-58,473.699 ppb	-56,028.792 ppb	-107,871.122 ppb	0.001 %	460,925.846 ppb
Recovery Percentage 1		-73,623.512 %	-70,258.800 %	-137,369.566 %		604,493.604 %
Concentration RSD	21.4 %	21.1 %	22.1 %	20.2 %	86.6 %	22.5 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9,318,269.314 ppb	0.023 %
Concentration per Run 1	2,875,891.253 ppb	0.020 %
Concentration per Run 2	12,571,627.694 ppb	0.019 %
Concentration per Run 3	12,507,288.996 ppb	0.031 %
Recovery Percentage 1	9,318,269.314 %	
Concentration RSD	59.9 %	28.0 %

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Analysis index: 161 Analysis started at: 3/14/2016 9:50:33 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.028 %	0.100 %	105.466 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.030 %	0.000 %	115.859 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.028 %	0.000 %	104.691 ppb	51,446.924 ppb	10,005.698 ppb	1,371.202 ppb
Concentration per Run 3	0.025 %	0.301 %	95.850 ppb	22,901.975 ppb	4,801.560 ppb	558.930 ppb
Recovery Percentage 1			21,093.290 %	Infinity %	Infinity %	Infinity %
Concentration RSD	8.5 %	173.2 %	9.5 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.056 %	0.198 %	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.218 %	Infinity ppb	Infinity ppb
Concentration per Run 2	32,056.413 ppb	16,207.412 ppb	0.168 %	0.164 %	49.004 ppb	87.655 ppb
Concentration per Run 3	79,058.954 ppb	270,077.975 ppb	0.000 %	0.211 %	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %			Infinity %	Infinity %
Concentration RSD			173.2 %	14.6 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	1,641.188 ppb	6,927.864 ppb	60.238 ppb	289.062 ppb	97.847 ppb	1,694.047 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %
Concentration RSD						

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.021 %	-58,315.163 ppb	-23,189.700 ppb	-29,675.791 ppb	-3,331.623 ppb	-438.197 ppb
Concentration per Run 1	0.000 %	-130,904.168 ppb	-2,277.397 ppb	-51,681.306 ppb	-5,939.268 ppb	-1,438.155 ppb
Concentration per Run 2	0.064 %	182.767 ppb	415.151 ppb	2,423.496 ppb	1,241.553 ppb	1,483.975 ppb
Concentration per Run 3	0.000 %	-44,224.087 ppb	-67,706.854 ppb	-39,769.562 ppb	-5,297.154 ppb	-1,360.409 ppb
Recovery Percentage 1	0.021 %	-11,663,032.518 %	-463,794.001 %	-989,193.023 %	-832,905.773 %	-219,098.296 %
Concentration RSD	173.2 %	114.3 %	166.4 %	95.8 %	119.3 %	380.0 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.003 %	-22,070.481 ppb	-2,959.353 ppb	-35,956.193 ppb	0.001 %	609.765 ppb
Concentration per Run 1	-0.002 %	-23,106.058 ppb	-4,024.291 ppb	-92,318.298 ppb	0.002 %	462.424 ppb
Concentration per Run 2	-0.003 %	-21,552.692 ppb	-2,529.428 ppb	-5,479.632 ppb	0.000 %	427.134 ppb
Concentration per Run 3	-0.004 %	-21,552.692 ppb	-2,324.339 ppb	-10,070.650 ppb	0.000 %	939.737 ppb
Recovery Percentage 1		-735,682.696 %	-147,967.646 %	-7,191,238.700 %		121,953.014 %
Concentration RSD	19.5 %	4.1 %	31.4 %	135.9 %	173.2 %	47.0 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.010 %
Concentration per Run 1	2,841.184 ppb	0.012 %
Concentration per Run 2	Infinity ppb	0.013 %
Concentration per Run 3	Infinity ppb	0.006 %
Recovery Percentage 1	Infinity %	0.010 %
Concentration RSD		37.1 %

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Analysis index: 162 Analysis started at: 3/14/2016 9:53:41 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)
Concentration average	0.033 %	0.000 %	289,657.473 ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.029 %	0.000 %	300,987.121 ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.037 %	0.000 %	269,084.187 ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.032 %	0.000 %	298,901.112 ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1			289,657.473 %	Infinity %	Infinity %
Concentration RSD	11.4 %		6.2 %		

Category	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	0.000 %	0.204 %
Concentration per Run 1	Infinity ppb	Infinity ppb	Infinity ppb	0.000 %	0.212 %
Concentration per Run 2	Infinity ppb	Infinity ppb	Infinity ppb	0.000 %	0.201 %
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	0.000 %	0.199 %
Recovery Percentage 1	Infinity %	Infinity %	Infinity %		
Concentration RSD					3.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)
Concentration average	-393,036.945 ppb	-309,699.299 ppb	-195,231.148 ppb	-18,537,539.245 ppb	-155,763.699 ppb
Concentration per Run 1	310,969.252 ppb	254,071.566 ppb	175,398.540 ppb	15,052,999.685 ppb	131,210.625 ppb
Concentration per Run 2	1,780,696.778 ppb	1,489,595.211 ppb	1,070,061.704 ppb	88,223,315.262 ppb	773,725.127 ppb
Concentration per Run 3	-3,270,776.866 ppb	-2,672,764.673 ppb	-1,831,153.689 ppb	-158,888,932.682 ppb	-1,372,226.849 ppb
Recovery Percentage 1	-393,036.945 %	-309,699.299 %	-195,231.148 %	-185,375.392 %	-155,763.699 %
Concentration RSD	661.1 %	690.2 %	761.0 %	684.7 %	707.1 %

Category	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)
Concentration average	-155,072.642 ppb	-117,348.907 ppb	-98,951.529 ppb	0.074 %	-42,772.321 ppb
Concentration per Run 1	111,278.760 ppb	87,956.921 ppb	65,965.419 ppb	0.206 %	49,678.797 ppb
Concentration per Run 2	688,548.408 ppb	521,443.052 ppb	392,280.911 ppb	0.037 %	320,676.597 ppb
Concentration per Run 3	-1,265,045.095 ppb	-961,446.694 ppb	-755,100.917 ppb	-0.019 %	-498,672.356 ppb
Recovery Percentage 1	-155,072.642 %	-117,348.907 %	-98,951.529 %		-42,772.321 %
Concentration RSD	647.2 %	649.7 %	597.5 %	157.3 %	975.9 %

Category	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	82,688.201 ppb	-335,122.380 ppb	-163,813.281 ppb	-121,512.827 ppb	-0.163 %
Concentration per Run 1	52,183.626 ppb	-462,660.058 ppb	-82,951.404 ppb	-54,042.357 ppb	-0.250 %
Concentration per Run 2	608,721.612 ppb	-163,587.500 ppb	-93,042.537 ppb	-68,031.941 ppb	-0.191 %
Concentration per Run 3	-412,840.636 ppb	-379,119.580 ppb	-315,445.901 ppb	-242,464.182 ppb	-0.049 %
Recovery Percentage 1	82,688.201 %	-335,122.380 %	-163,813.281 %	-121,512.827 %	
Concentration RSD	618.5 %	46.0 %	80.2 %	86.4 %	63.3 %

Category	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-145,223.875 ppb	-132,278.871 ppb	-261,846.802 ppb	0.002 %	584,948.636 ppb
Concentration per Run 1	-56,239.423 ppb	-52,958.434 ppb	-108,529.096 ppb	0.002 %	594,815.941 ppb
Concentration per Run 2	-76,310.456 ppb	-70,816.846 ppb	-137,851.678 ppb	0.003 %	688,743.254 ppb
Concentration per Run 3	-303,121.746 ppb	-273,061.332 ppb	-539,159.631 ppb	0.001 %	471,286.713 ppb
Recovery Percentage 1	-145,223.875 %	-132,278.871 %	-261,846.802 %		584,948.636 %
Concentration RSD	94.4 %	92.4 %	91.9 %	50.0 %	18.6 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	7,420,572.250 ppb	0.024 %
Concentration per Run 1	6,103,065.825 ppb	0.022 %
Concentration per Run 2	4,174,428.957 ppb	0.020 %
Concentration per Run 3	11,984,221.969 ppb	0.028 %
Recovery Percentage 1	7,420,572.250 %	
Concentration RSD	54.8 %	18.0 %

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Analysis index: 163 Analysis started at: 3/14/2016 9:56:49 PM Rack: 4
Analysis label: LLCV User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.024 %	0.100 %	1,848.550 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.026 %	0.000 %	1,843.824 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.025 %	0.000 %	1,730.157 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 3	0.021 %	0.301 %	1,971.669 ppb	90,280.573 ppb	51,548.390 ppb	8,195.980 ppb
Recovery Percentage 1			369,710.029 %	Infinity %	Infinity %	Infinity %
Concentration RSD	11.2 %	173.2 %	6.5 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.187 %	-271,512.065 ppb	-53,790.393 ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.191 %	-408,174.084 ppb	-89,594.198 ppb
Concentration per Run 2	Infinity ppb	Infinity ppb	0.000 %	0.201 %	-417,383.626 ppb	-74,086.940 ppb
Concentration per Run 3	143,235.403 ppb	152,790.165 ppb	0.084 %	0.169 %	11,021.514 ppb	2,309.959 ppb
Recovery Percentage 1	Infinity %	Infinity %			-5,430,241.309 %	-5,379,039.306 %
Concentration RSD			173.2 %	8.5 %	90.1 %	91.5 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	-36,911.599 ppb	-1,331,976.857 ppb	-12,173.140 ppb	-15,437.382 ppb	-37,366.798 ppb	-135,546.739 ppb
Concentration per Run 1	-64,480.278 ppb	-2,172,977.442 ppb	-19,238.333 ppb	-24,538.139 ppb	-66,926.737 ppb	-234,117.433 ppb
Concentration per Run 2	-48,043.948 ppb	-1,964,921.695 ppb	-19,238.286 ppb	-24,538.260 ppb	-58,786.665 ppb	-229,162.104 ppb
Concentration per Run 3	1,789.427 ppb	141,968.567 ppb	1,957.200 ppb	2,764.254 ppb	13,613.009 ppb	56,639.318 ppb
Recovery Percentage 1	-7,382,319.880 %	-2,663,953.713 %	-2,434,627.910 %	-3,087,476.331 %	-3,736,679.796 %	-1,355,467.393 %
Concentration RSD	93.5 %	96.2 %	100.5 %	102.1 %	118.7 %	122.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	-0.005 %	-148,047.189 ppb	-289,319.449 ppb	-52,851.228 ppb	-64,284.101 ppb	20,343.799 ppb
Concentration per Run 1	-0.008 %	-7,048.219 ppb	-53,739.670 ppb	-33,633.200 ppb	-11,903.818 ppb	-4,914.682 ppb
Concentration per Run 2	-0.008 %	-7,224.432 ppb	-39,809.760 ppb	-65,306.576 ppb	-162,123.195 ppb	72,527.258 ppb
Concentration per Run 3	0.000 %	-429,868.917 ppb	-774,408.917 ppb	-59,613.908 ppb	-18,825.289 ppb	-6,581.179 ppb
Recovery Percentage 1		-29,609,437.866 %	-5,786,388.984 %	-5,285,122.832 %	-16,071,025.149 %	10,171,899.397 %
Concentration RSD	86.6 %	164.9 %	145.2 %	31.9 %	131.9 %	222.2 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.004 %	14,852.479 ppb	8,588.292 ppb	42,910.508 ppb	0.000 %	4,255.436 ppb
Concentration per Run 1	-0.006 %	-21,552.692 ppb	-11,075.709 ppb	-33,873.647 ppb	0.000 %	5,221.987 ppb
Concentration per Run 2	0.001 %	87,662.822 ppb	55,061.052 ppb	189,445.741 ppb	0.000 %	3,180.259 ppb
Concentration per Run 3	-0.006 %	-21,552.692 ppb	-18,220.466 ppb	-26,840.569 ppb	0.000 %	4,364.061 ppb
Recovery Percentage 1		2,970,495.858 %	1,717,658.487 %	8,582,101.638 %		851,087.118 %
Concentration RSD	117.9 %	424.5 %	470.5 %	295.9 %		24.1 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.018 %
Concentration per Run 1	Infinity ppb	0.014 %
Concentration per Run 2	Infinity ppb	0.022 %
Concentration per Run 3	Infinity ppb	0.017 %
Recovery Percentage 1	Infinity %	
Concentration RSD		24.0 %

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Analysis index: 164 Analysis started at: 3/14/2016 9:59:56 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	0.024 %	0.100 %	85.995 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	0.023 %	0.000 %	73.177 ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 2	0.026 %	0.000 %	70.440 ppb	97,378.664 ppb	12,315.025 ppb	3,773.718 ppb
Concentration per Run 3	0.021 %	0.301 %	114.367 ppb	20,116.244 ppb	-1.403 ppb	895.287 ppb
Recovery Percentage 1			17,198.921 %	Infinity %	Infinity %	Infinity %
Concentration RSD	10.0 %	173.2 %	28.6 %			

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	0.028 %	0.176 %		Infinity ppb
Concentration per Run 1	Infinity ppb	Infinity ppb	0.000 %	0.176 %	363.393 ppb	918.050 ppb
Concentration per Run 2	89,854.613 ppb	47,326.880 ppb	0.084 %	0.190 %	35.896 ppb	196.518 ppb
Concentration per Run 3	104,771.062 ppb	382,034.105 ppb	0.000 %	0.161 %		Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %				Infinity %
Concentration RSD			173.2 %	8.0 %		

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Concentration per Run 1	8,982.120 ppb	10,948.455 ppb	144.175 ppb	701.267 ppb	267.693 ppb	2,960.455 ppb
Concentration per Run 2	3,460.572 ppb	10,243.687 ppb	101.922 ppb	812.915 ppb	180.248 ppb	6,588.768 ppb
Concentration per Run 3	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb	Infinity ppb
Recovery Percentage 1	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %	Infinity %
Concentration RSD						

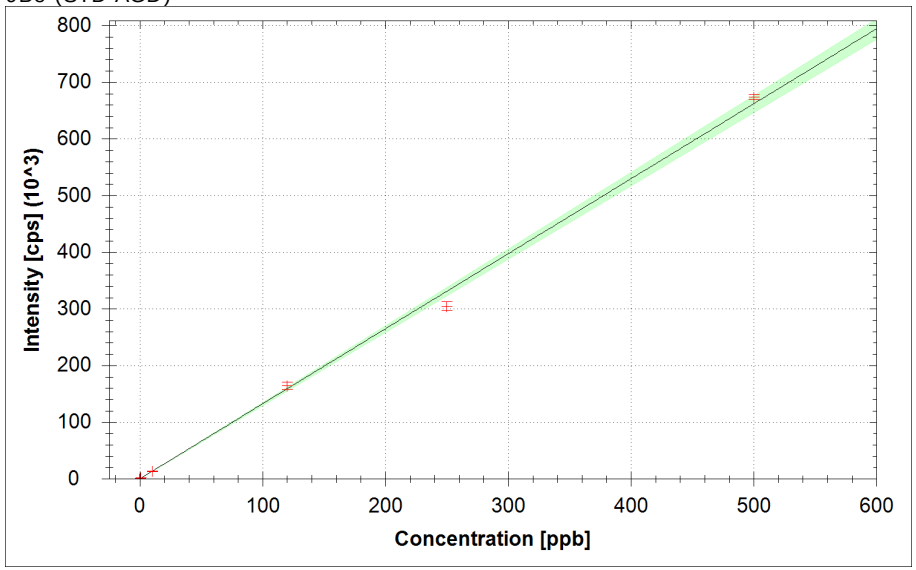
Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	0.021 %	-57,330.423 ppb	-63,262.985 ppb	-49,974.774 ppb	-1,468.169 ppb	-1,022.839 ppb
Concentration per Run 1	0.064 %	30.416 ppb	435.127 ppb	628.453 ppb	316.406 ppb	360.921 ppb
Concentration per Run 2	0.000 %	-62,934.687 ppb	153,288.479 ppb	-88,343.916 ppb	-2,741.170 ppb	-553.156 ppb
Concentration per Run 3	0.000 %	-109,086.997 ppb	-343,512.560 ppb	-62,208.857 ppb	-1,979.743 ppb	-2,876.281 ppb
Recovery Percentage 1	0.021 %	-11,466,084.521 %	-1,265,259.701 %	-1,665,825.785 %	-367,042.211 %	-511,419.507 %
Concentration RSD	173.2 %	95.5 %	402.2 %	91.5 %	108.4 %	163.2 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	-0.001 %	-21,552.692 ppb	-4,336.791 ppb	-14,331.402 ppb	0.000 %	1,636.687 ppb
Concentration per Run 1	-0.001 %	-21,552.692 ppb	-3,307.730 ppb	-14,331.376 ppb	0.000 %	4,139.422 ppb
Concentration per Run 2	-0.001 %	-21,552.692 ppb	-8,269.280 ppb	-28,662.786 ppb	0.000 %	435.043 ppb
Concentration per Run 3	-0.001 %	-21,552.692 ppb	-1,433.364 ppb	-0.044 ppb	0.000 %	335.597 ppb
Recovery Percentage 1		-718,423.074 %	-216,839.569 %	-2,866,280.407 %		327,337.481 %
Concentration RSD	8.4 %		81.4 %	100.0 %		132.5 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	Infinity ppb	0.009 %
Concentration per Run 1	Infinity ppb	0.001 %
Concentration per Run 2	Infinity ppb	0.011 %
Concentration per Run 3	Infinity ppb	0.014 %
Recovery Percentage 1	Infinity %	0.009 %
Concentration RSD		77.5 %

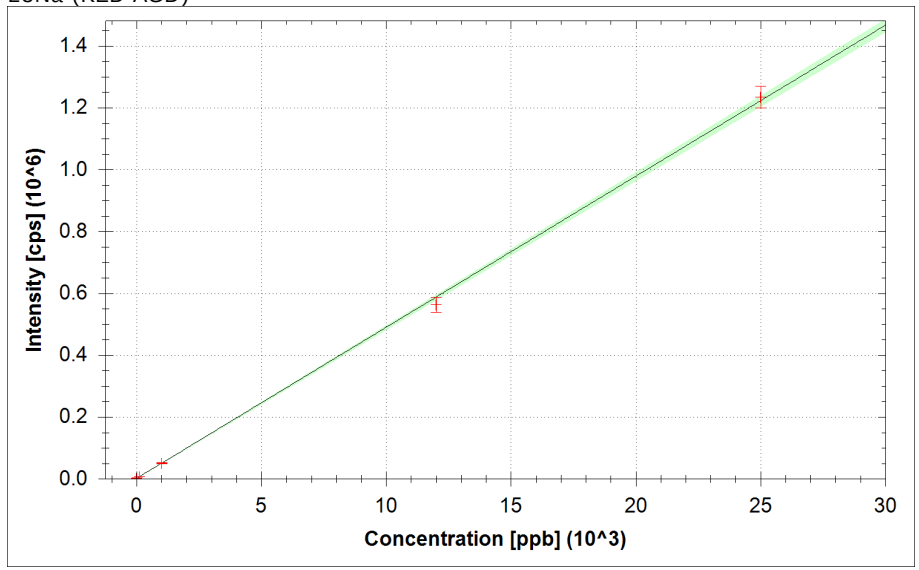
Calibration Curves:

9Be (STD AGD)



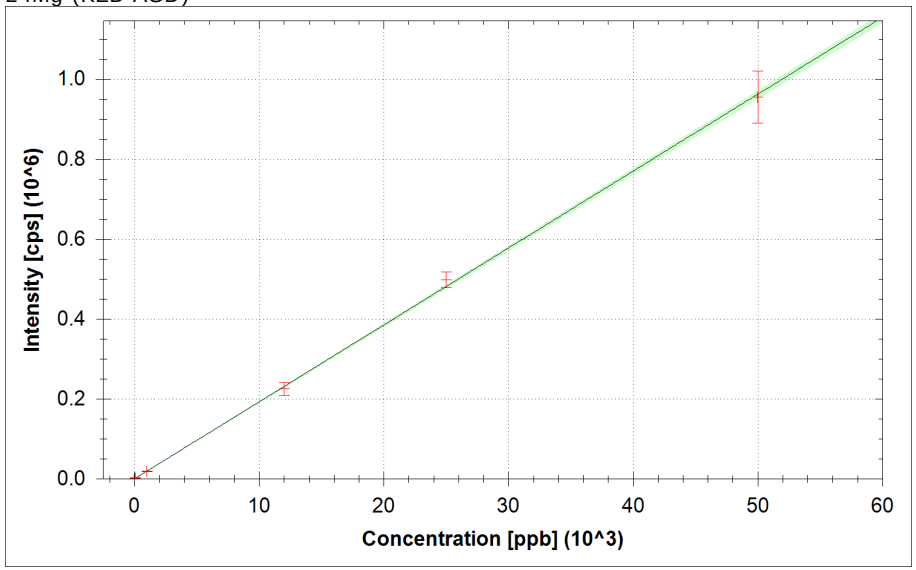
f(x) = 1323.5420*x + 14.6667
R^2 = 0.9977
BEC = 0.011 ppb
LoD = 0.0070 ppb

23Na (KED AGD)



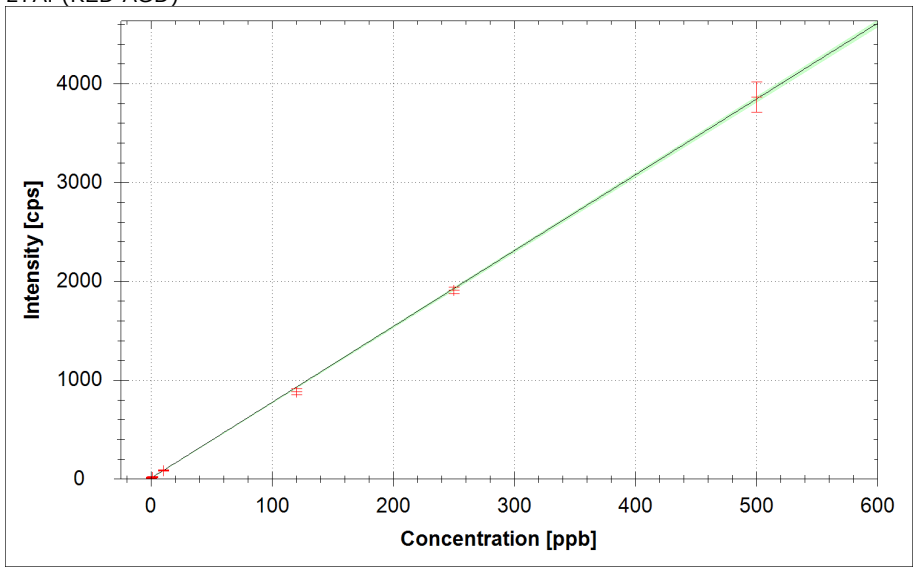
f(x) = 48.8358*x + 1429.5786
R^2 = 0.9994
BEC = 29.273 ppb
LoD = 5.2710 ppb

24Mg (KED AGD)



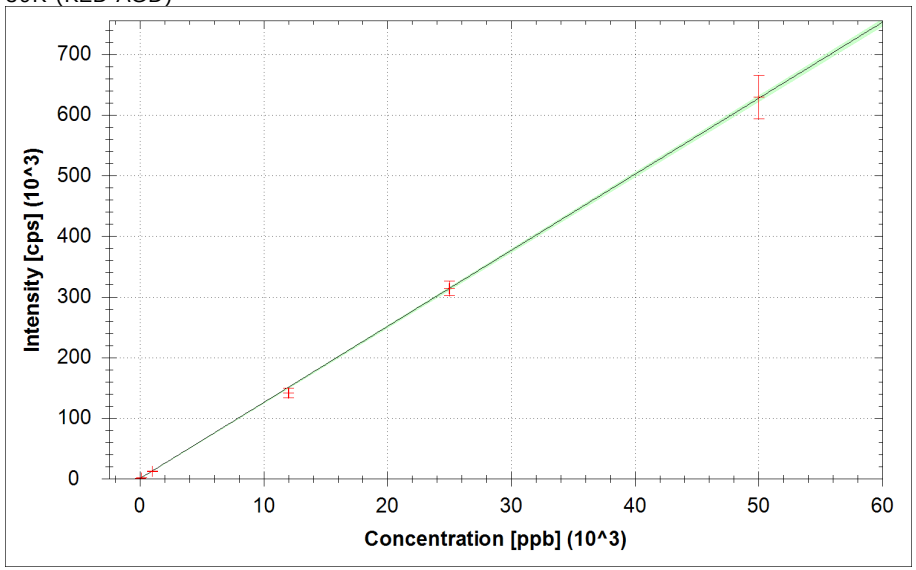
f(x) = 19.2469*x + 26.6040
R^2 = 0.9996
BEC = 1.382 ppb
LoD = 2.3543 ppb

27Al (KED AGD)



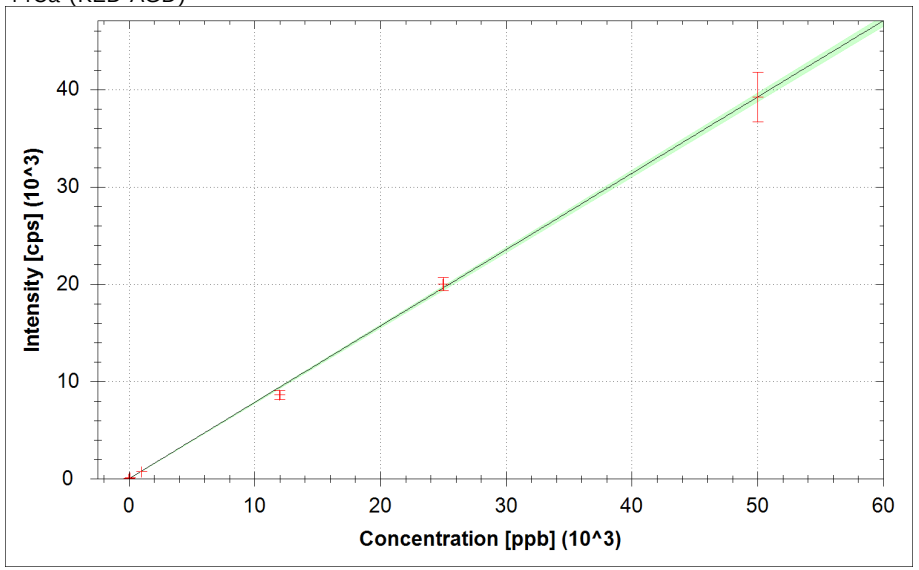
f(x) = 7.6700*x + 7.6866
R^2 = 0.9998
BEC = 1.002 ppb
LoD = 1.2777 ppb

39K (KED AGD)



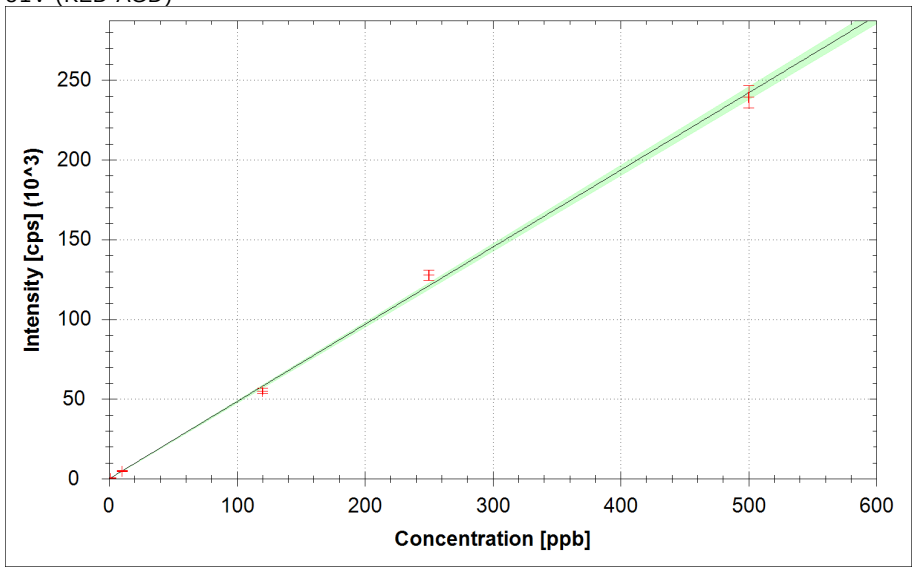
f(x) = 12.5351*x + 526.5971
R^2 = 0.9997
BEC = 42.010 ppb
LoD = 6.2001 ppb

44Ca (KED AGD)



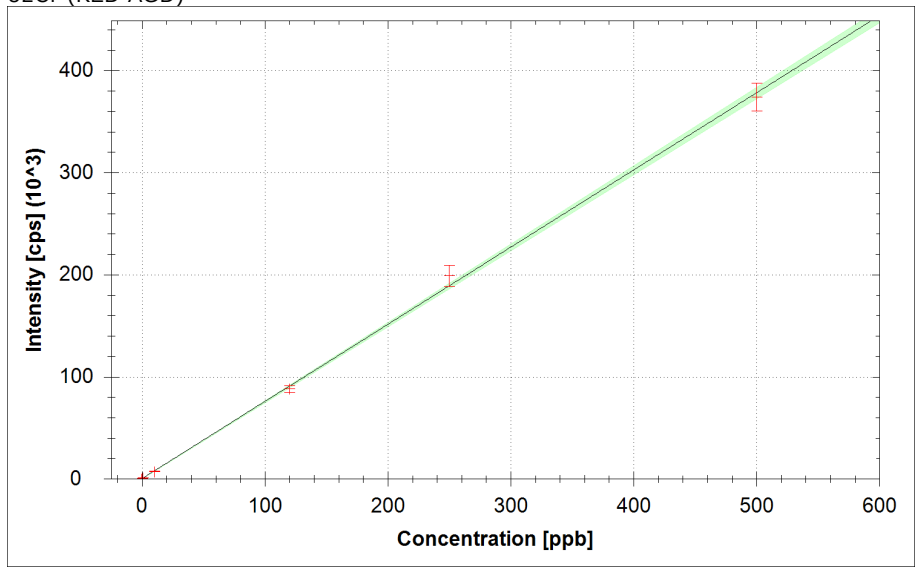
f(x) = 0.7843*x + 8.8499
R^2 = 0.9994
BEC = 11.284 ppb
LoD = 17.2055 ppb

51V (KED AGD)



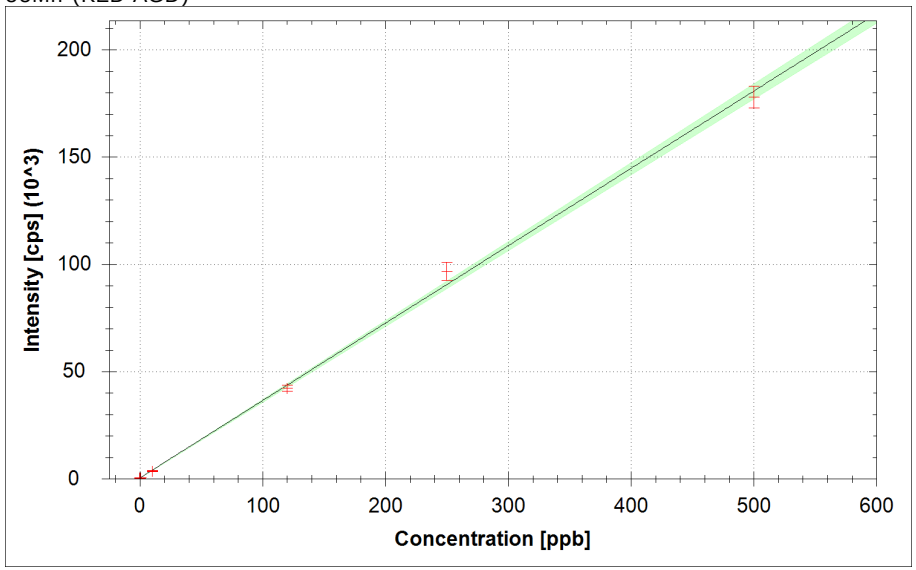
f(x) = 483.8654*x
R^2 = 0.9988
BEC = 0.000 ppb
LoD = 0.0000 ppb

52Cr (KED AGD)



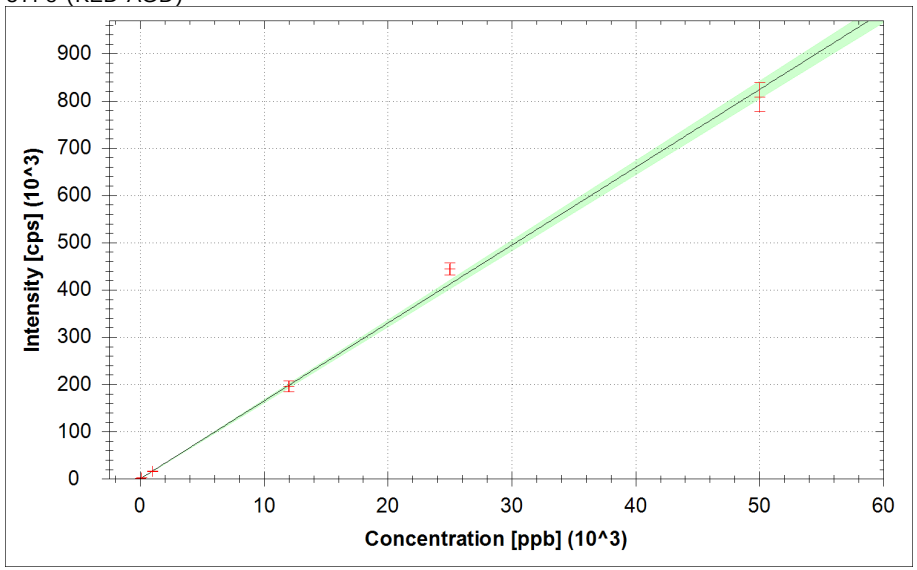
f(x) = 756.1320*x + 69.9872
R^2 = 0.9990
BEC = 0.093 ppb
LoD = 0.0391 ppb

55Mn (KED AGD)



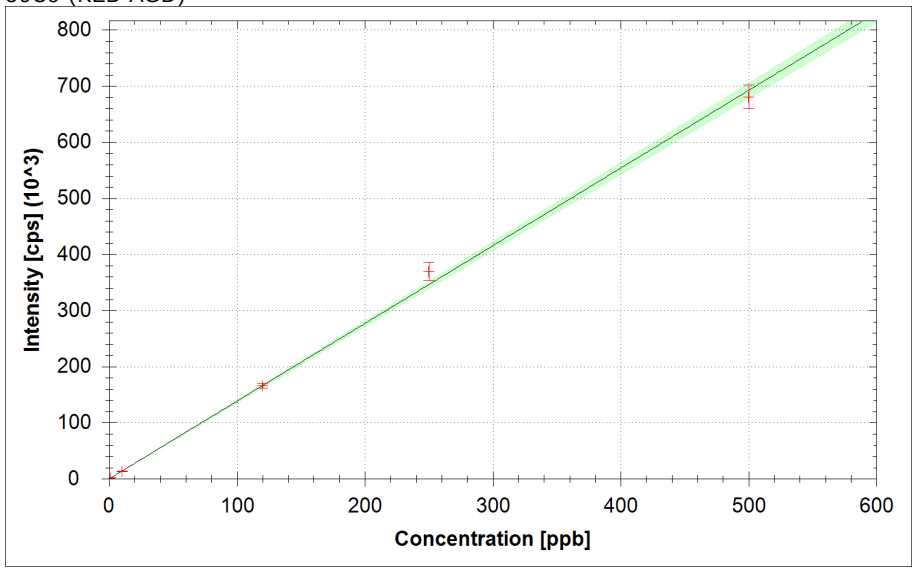
f(x) = 360.6541*x + 393.3739
R^2 = 0.9983
BEC = 1.091 ppb
LoD = 0.7582 ppb

57Fe (KED AGD)



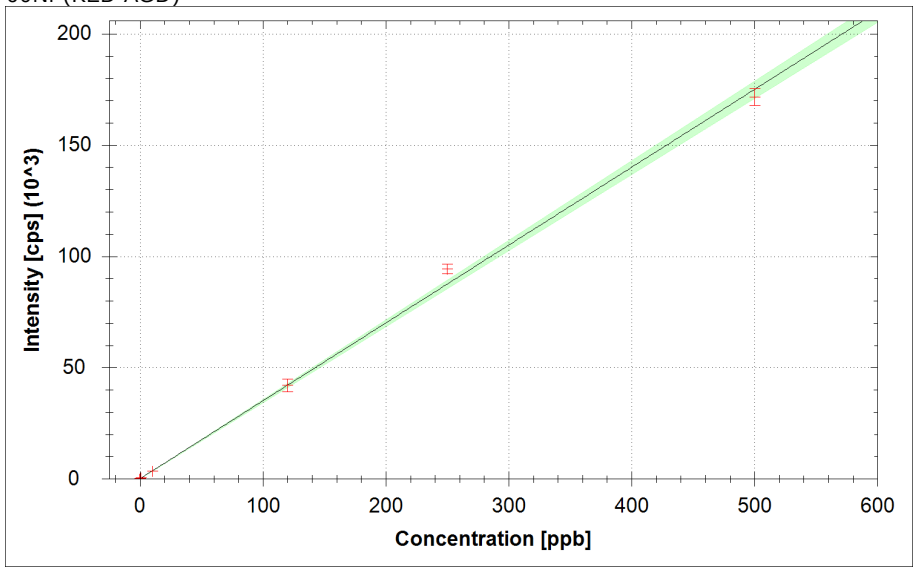
f(x) = 16.4764*x + 13.5612
R^2 = 0.9977
BEC = 0.823 ppb
LoD = 4.2768 ppb

59Co (KED AGD)



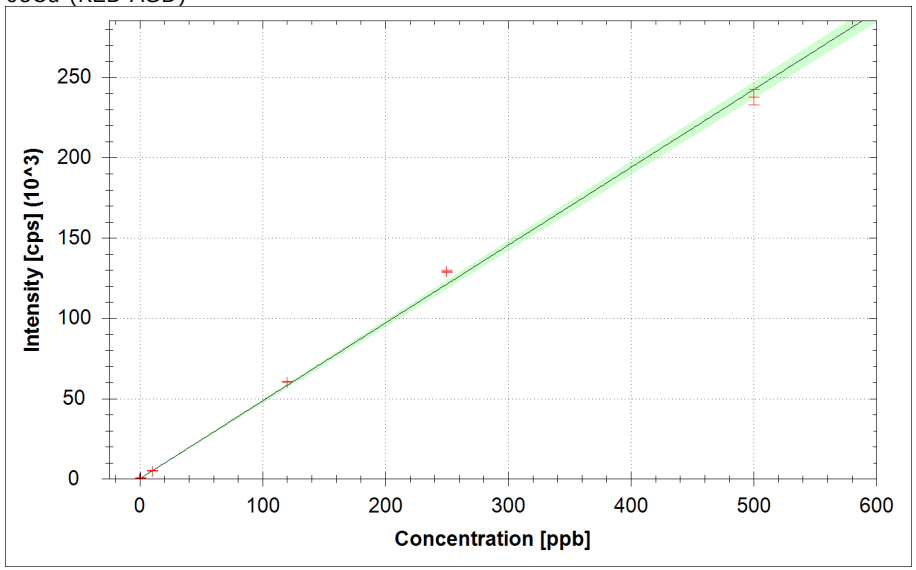
f(x) = 1384.4105*x
R^2 = 0.9983
BEC = 0.000 ppb
LoD = 0.0000 ppb

60Ni (KED AGD)



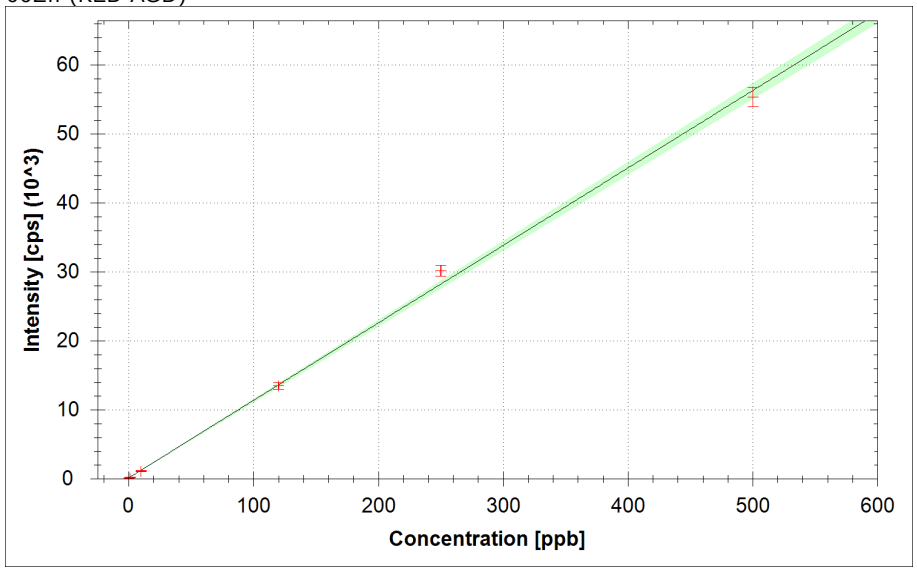
f(x) = 349.8951*x + 37.0029
R^2 = 0.9978
BEC = 0.106 ppb
LoD = 0.1868 ppb

65Cu (KED AGD)



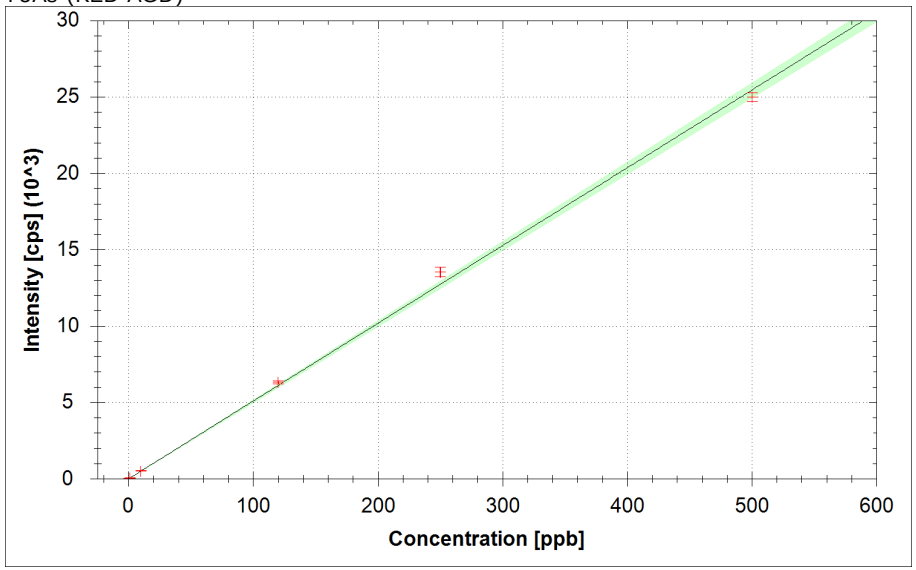
f(x) = 484.5324*x + 26.9941
R^2 = 0.9982
BEC = 0.056 ppb
LoD = 0.0992 ppb

66Zn (KED AGD)



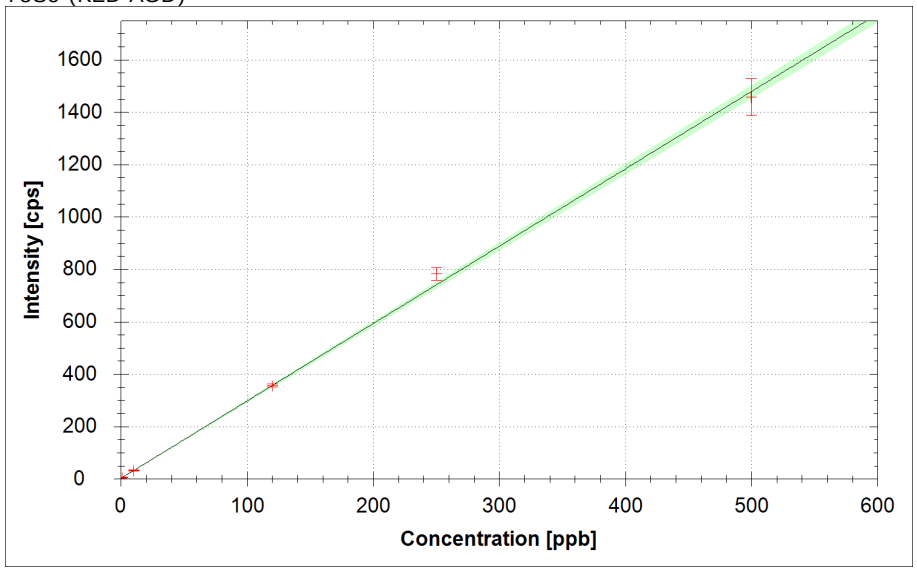
f(x) = 112.2879*x + 143.6688
R^2 = 0.9983
BEC = 1.279 ppb
LoD = 0.5441 ppb

75As (KED AGD)



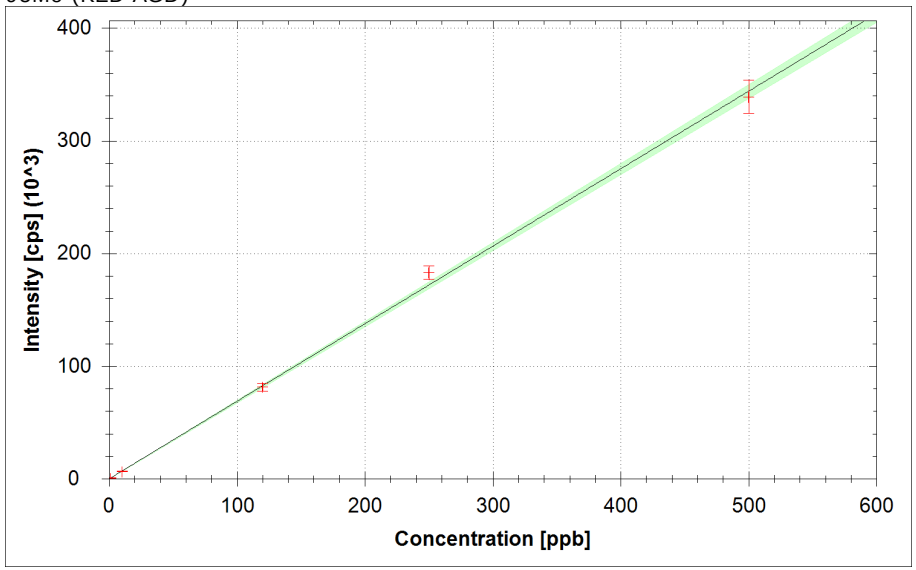
f(x) = 50.8696*x + 0.8063
R^2 = 0.9984
BEC = 0.016 ppb
LoD = 0.0824 ppb

78Se (KED AGD)



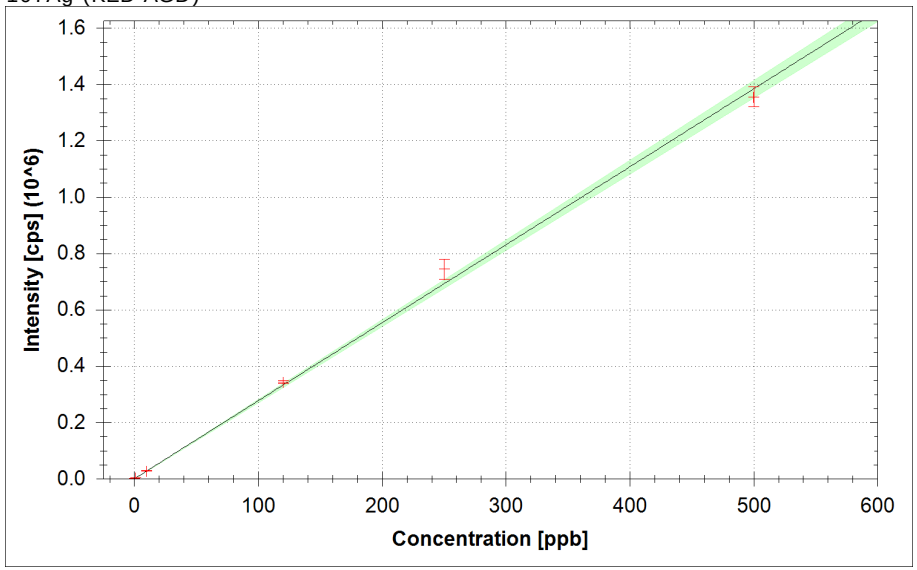
f(x) = 2.9533*x + 1.7751
R^2 = 0.9988
BEC = 0.601 ppb
LoD = 2.3536 ppb

95Mo (KED AGD)



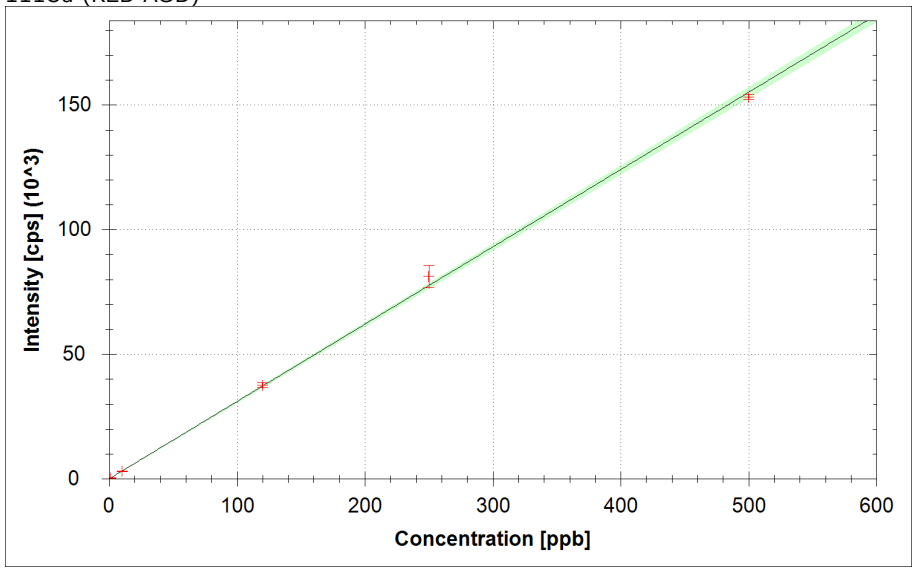
f(x) = 687.9050*x
R^2 = 0.9986
BEC = 0.000 ppb
LoD = 0.0000 ppb

107Ag (KED AGD)



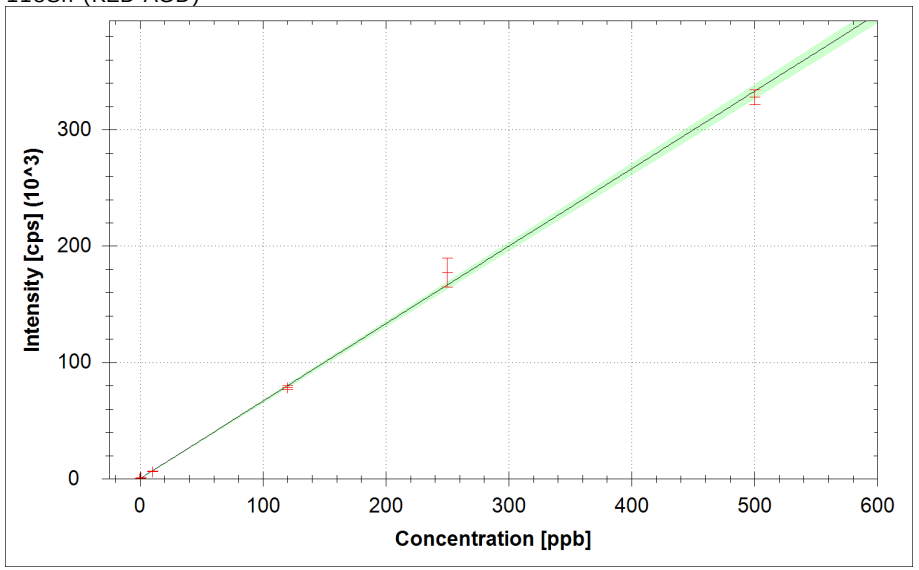
f(x) = 2767.4620*x + 29.7546
R^2 = 0.9978
BEC = 0.011 ppb
LoD = 0.0319 ppb

111Cd (KED AGD)



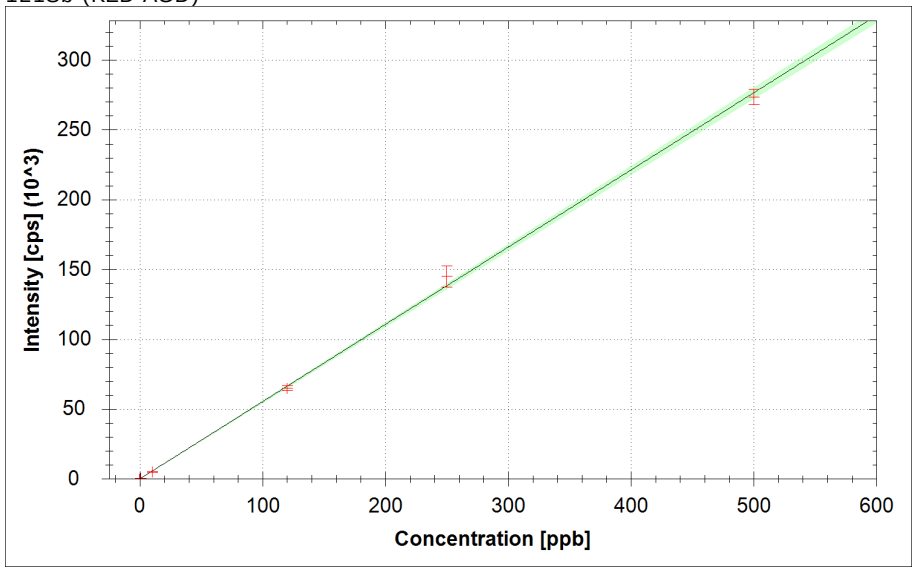
f(x) = 310.0832*x
R^2 = 0.9992
BEC = 0.000 ppb
LoD = 0.0000 ppb

118Sn (KED AGD)



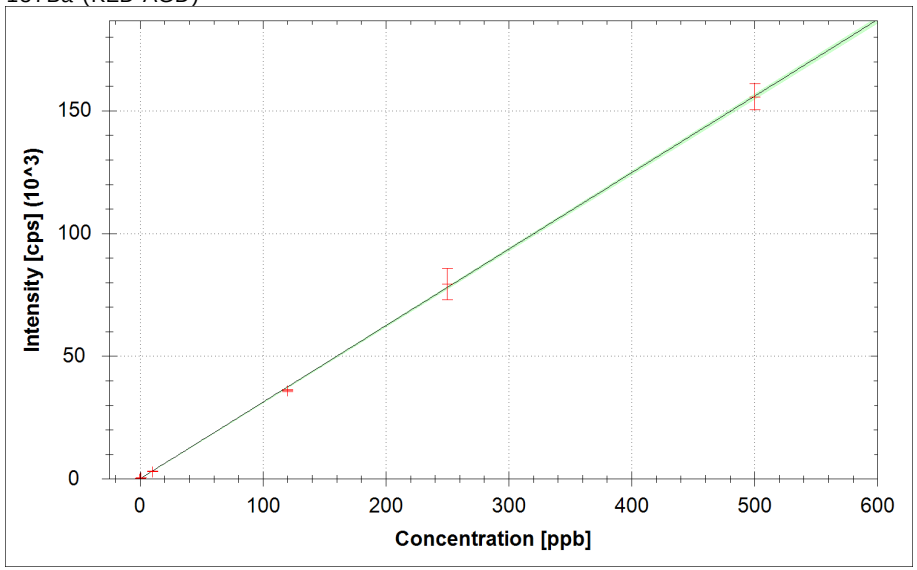
f(x) = 665.5403*x + 80.1835
R^2 = 0.9985
BEC = 0.120 ppb
LoD = 0.0841 ppb

121Sb (KED AGD)



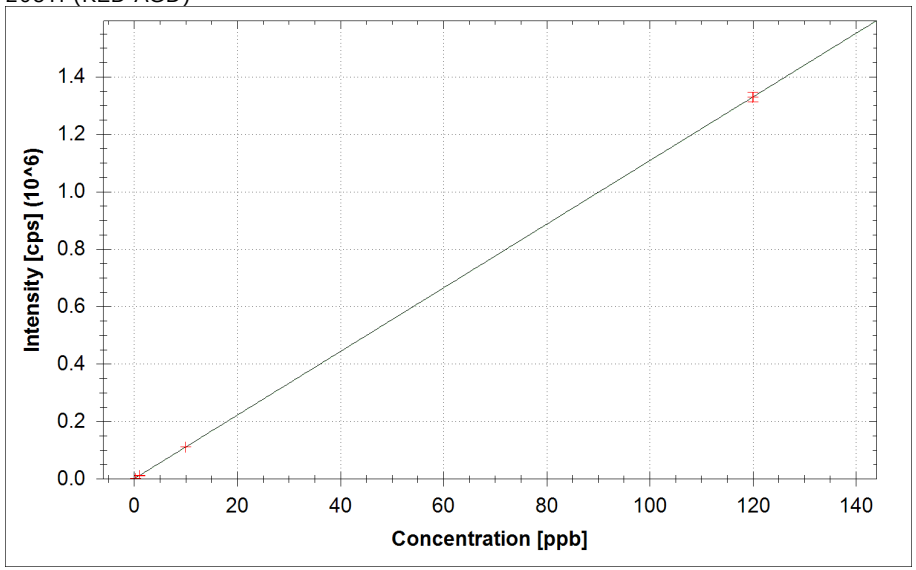
f(x) = 552.8838*x + 6.6692
R^2 = 0.9992
BEC = 0.012 ppb
LoD = 0.0314 ppb

137Ba (KED AGD)



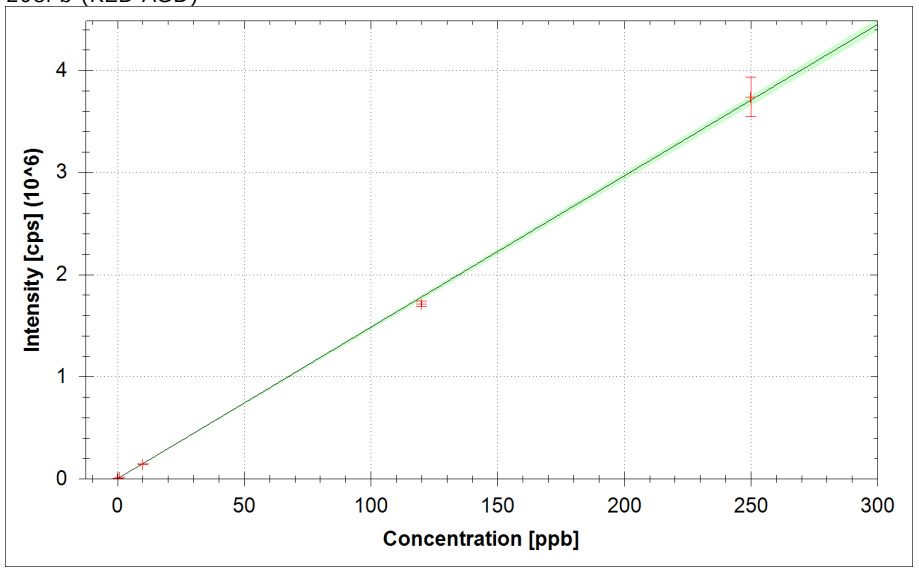
f(x) = 311.7403*x + 13.5078
R^2 = 0.9998
BEC = 0.043 ppb
LoD = 0.1493 ppb

205Tl (KED AGD)



f(x) = 11077.6684*x + 163.9577
R^2 = 1.0000
BEC = 0.015 ppb
LoD = 0.0167 ppb

208Pb (KED AGD)



f(x) = 14822.5037*x + 343.0330
R^2 = 0.9995
BEC = 0.023 ppb
LoD = 0.0131 ppb

Standards:

Analysis Index: 3
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 3/15/2016 12:55:16 PM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 50000
Rack: 0
Vial: 2

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	98.662 %		
6Li (KED AGD)	88.862 %		
9Be (STD AGD)	0.197 ppb	7.6 %	0.200 ppb
23Na (KED AGD)	25.567 ppb	0.7 %	20.000 ppb
24Mg (KED AGD)	21.667 ppb	17.4 %	20.000 ppb
27Al (KED AGD)	0.624 ppb	69.9 %	0.200 ppb
39K (KED AGD)	23.194 ppb	27.7 %	20.000 ppb
44Ca (KED AGD)	14.107 ppb	25.0 %	20.000 ppb
45Sc (KED AGD)	98.147 %		
45Sc (STD AGD)	102.214 %		
51V (KED AGD)	0.205 ppb	6.9 %	0.200 ppb
52Cr (KED AGD)	0.191 ppb	48.5 %	0.200 ppb
55Mn (KED AGD)	-0.521 ppb	24.4 %	0.200 ppb
57Fe (KED AGD)	20.170 ppb	5.8 %	20.000 ppb
59Co (KED AGD)	0.231 ppb	15.8 %	0.200 ppb
60Ni (KED AGD)	0.139 ppb	52.9 %	0.200 ppb
65Cu (KED AGD)	0.335 ppb	19.9 %	0.200 ppb
66Zn (KED AGD)	-0.383 ppb	26.9 %	0.200 ppb
74Ge (KED AGD)	96.138 %		
75As (KED AGD)	0.197 ppb	16.3 %	0.200 ppb
78Se (KED AGD)	-0.769 ppb	91.4 %	0.200 ppb
95Mo (KED AGD)	0.192 ppb	16.6 %	0.200 ppb
107Ag (KED AGD)	0.209 ppb	14.6 %	0.200 ppb
111Cd (KED AGD)	0.193 ppb	13.2 %	0.200 ppb
115In (KED AGD)	100.507 %		
118Sn (KED AGD)	0.125 ppb	62.6 %	0.200 ppb
121Sb (KED AGD)	0.181 ppb	7.0 %	0.200 ppb
137Ba (KED AGD)	0.219 ppb	54.1 %	0.200 ppb
159Tb (KED AGD)	94.971 %		
205Tl (KED AGD)	0.201 ppb	5.0 %	0.200 ppb
208Pb (KED AGD)	0.199 ppb	15.4 %	0.200 ppb
209Bi (KED AGD)	97.921 %		

Standards:

Analysis Index: 4
Analysis Name: 1.0/100 Cal
Analysis Type: STD
Analysis Started at: 3/15/2016 12:58:19 PM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 10000
Rack: 0
Vial: 3

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	97.746 %		
6Li (KED AGD)	89.265 %		
9Be (STD AGD)	1.035 ppb	5.9 %	1.000 ppb
23Na (KED AGD)	105.384 ppb	5.5 %	100.000 ppb
24Mg (KED AGD)	106.857 ppb	7.5 %	100.000 ppb
27Al (KED AGD)	1.179 ppb	53.1 %	1.000 ppb
39K (KED AGD)	106.886 ppb	3.4 %	100.000 ppb
44Ca (KED AGD)	92.379 ppb	5.3 %	100.000 ppb
45Sc (KED AGD)	94.609 %		
45Sc (STD AGD)	101.570 %		
51V (KED AGD)	0.910 ppb	31.6 %	1.000 ppb
52Cr (KED AGD)	1.180 ppb	5.8 %	1.000 ppb
55Mn (KED AGD)	-0.041 ppb	118.3 %	1.000 ppb
57Fe (KED AGD)	107.589 ppb	2.1 %	100.000 ppb
59Co (KED AGD)	1.068 ppb	9.4 %	1.000 ppb
60Ni (KED AGD)	1.154 ppb	8.9 %	1.000 ppb
65Cu (KED AGD)	1.343 ppb	17.0 %	1.000 ppb
66Zn (KED AGD)	0.361 ppb	45.9 %	1.000 ppb
74Ge (KED AGD)	98.738 %		
75As (KED AGD)	0.995 ppb	21.2 %	1.000 ppb
78Se (KED AGD)	0.512 ppb	188.1 %	1.000 ppb
95Mo (KED AGD)	0.874 ppb	20.9 %	1.000 ppb
107Ag (KED AGD)	1.003 ppb	6.3 %	1.000 ppb
111Cd (KED AGD)	1.033 ppb	10.5 %	1.000 ppb
115In (KED AGD)	99.082 %		
118Sn (KED AGD)	1.016 ppb	13.0 %	1.000 ppb
121Sb (KED AGD)	0.833 ppb	9.4 %	1.000 ppb
137Ba (KED AGD)	1.101 ppb	15.8 %	1.000 ppb
159Tb (KED AGD)	95.551 %		
205Tl (KED AGD)	0.981 ppb	3.4 %	1.000 ppb
208Pb (KED AGD)	0.952 ppb	2.4 %	1.000 ppb
209Bi (KED AGD)	98.281 %		

Standards:

Analysis Index: 5
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 3/15/2016 1:01:23 PM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 1000
Rack: 0
Vial: 4

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	93.561 %		
6Li (KED AGD)	90.879 %		
9Be (STD AGD)	10.066 ppb	4.0 %	10.000 ppb
23Na (KED AGD)	988.126 ppb	4.0 %	1,000.000 ppb
24Mg (KED AGD)	985.933 ppb	3.5 %	1,000.000 ppb
27Al (KED AGD)	9.909 ppb	7.2 %	10.000 ppb
39K (KED AGD)	945.527 ppb	4.1 %	1,000.000 ppb
44Ca (KED AGD)	910.862 ppb	2.8 %	1,000.000 ppb
45Sc (KED AGD)	92.924 %		
45Sc (STD AGD)	98.454 %		
51V (KED AGD)	9.914 ppb	4.7 %	10.000 ppb
52Cr (KED AGD)	9.260 ppb	3.8 %	10.000 ppb
55Mn (KED AGD)	8.804 ppb	7.5 %	10.000 ppb
57Fe (KED AGD)	960.952 ppb	5.9 %	1,000.000 ppb
59Co (KED AGD)	9.639 ppb	6.6 %	10.000 ppb
60Ni (KED AGD)	9.710 ppb	2.1 %	10.000 ppb
65Cu (KED AGD)	10.098 ppb	4.9 %	10.000 ppb
66Zn (KED AGD)	8.664 ppb	4.7 %	10.000 ppb
74Ge (KED AGD)	98.215 %		
75As (KED AGD)	10.079 ppb	2.9 %	10.000 ppb
78Se (KED AGD)	10.278 ppb	9.1 %	10.000 ppb
95Mo (KED AGD)	9.427 ppb	5.8 %	10.000 ppb
107Ag (KED AGD)	10.114 ppb	4.0 %	10.000 ppb
111Cd (KED AGD)	9.663 ppb	4.2 %	10.000 ppb
115In (KED AGD)	96.742 %		
118Sn (KED AGD)	9.314 ppb	4.3 %	10.000 ppb
121Sb (KED AGD)	9.005 ppb	3.7 %	10.000 ppb
137Ba (KED AGD)	9.554 ppb	2.7 %	10.000 ppb
159Tb (KED AGD)	95.298 %		
205Tl (KED AGD)	10.015 ppb	0.5 %	10.000 ppb
208Pb (KED AGD)	9.623 ppb	1.9 %	10.000 ppb
209Bi (KED AGD)	94.002 %		

Standards:

Analysis Index: 6
Analysis Name: 120/12000
Analysis Type: STD
Analysis Started at: 3/15/2016 1:04:27 PM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 83.3333333
Rack: 0
Vial: 5

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	90.124 %		
6Li (KED AGD)	87.328 %		
9Be (STD AGD)	123.828 ppb	4.1 %	120.000 ppb
23Na (KED AGD)	11,481.124 ppb	4.3 %	12,000.000 ppb
24Mg (KED AGD)	11,684.076 ppb	7.0 %	12,000.000 ppb
27Al (KED AGD)	113.722 ppb	3.7 %	120.000 ppb
39K (KED AGD)	11,260.604 ppb	5.6 %	12,000.000 ppb
44Ca (KED AGD)	10,980.720 ppb	5.4 %	12,000.000 ppb
45Sc (KED AGD)	92.009 %		
45Sc (STD AGD)	93.918 %		
51V (KED AGD)	113.590 ppb	3.2 %	120.000 ppb
52Cr (KED AGD)	116.206 ppb	3.9 %	120.000 ppb
55Mn (KED AGD)	116.180 ppb	3.5 %	120.000 ppb
57Fe (KED AGD)	11,884.438 ppb	5.8 %	12,000.000 ppb
59Co (KED AGD)	119.840 ppb	2.6 %	120.000 ppb
60Ni (KED AGD)	120.004 ppb	6.7 %	120.000 ppb
65Cu (KED AGD)	124.386 ppb	0.2 %	120.000 ppb
66Zn (KED AGD)	118.771 ppb	3.7 %	120.000 ppb
74Ge (KED AGD)	87.177 %		
75As (KED AGD)	124.076 ppb	1.7 %	120.000 ppb
78Se (KED AGD)	119.995 ppb	1.7 %	120.000 ppb
95Mo (KED AGD)	118.207 ppb	4.2 %	120.000 ppb
107Ag (KED AGD)	124.235 ppb	1.8 %	120.000 ppb
111Cd (KED AGD)	120.920 ppb	2.7 %	120.000 ppb
115In (KED AGD)	90.693 %		
118Sn (KED AGD)	117.618 ppb	2.1 %	120.000 ppb
121Sb (KED AGD)	117.326 ppb	2.8 %	120.000 ppb
137Ba (KED AGD)	115.148 ppb	1.5 %	120.000 ppb
159Tb (KED AGD)	90.412 %		
205Tl (KED AGD)	119.999 ppb	1.2 %	120.000 ppb
208Pb (KED AGD)	115.535 ppb	1.5 %	120.000 ppb
209Bi (KED AGD)	89.546 %		

Standards:

Analysis Index: 7
Analysis Name: 250/25000
Analysis Type: STD
Analysis Started at: 3/15/2016 1:07:32 PM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 40
Rack: 0
Vial: 6

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	91.877 %		
6Li (KED AGD)	87.409 %		
9Be (STD AGD)	229.991 ppb	2.6 %	250.000 ppb
23Na (KED AGD)	25,249.510 ppb	2.8 %	25,000.000 ppb
24Mg (KED AGD)	25,854.734 ppb	4.0 %	25,000.000 ppb
27Al (KED AGD)	247.543 ppb	1.8 %	250.000 ppb
39K (KED AGD)	25,010.147 ppb	3.9 %	25,000.000 ppb
44Ca (KED AGD)	25,487.473 ppb	3.4 %	25,000.000 ppb
45Sc (KED AGD)	82.961 %		
45Sc (STD AGD)	94.082 %		
51V (KED AGD)	263.784 ppb	2.5 %	250.000 ppb
52Cr (KED AGD)	262.893 ppb	5.2 %	250.000 ppb
55Mn (KED AGD)	267.084 ppb	4.4 %	250.000 ppb
57Fe (KED AGD)	26,979.384 ppb	2.9 %	25,000.000 ppb
59Co (KED AGD)	267.041 ppb	4.4 %	250.000 ppb
60Ni (KED AGD)	269.428 ppb	2.2 %	250.000 ppb
65Cu (KED AGD)	266.772 ppb	0.6 %	250.000 ppb
66Zn (KED AGD)	267.110 ppb	2.6 %	250.000 ppb
74Ge (KED AGD)	83.506 %		
75As (KED AGD)	265.771 ppb	2.4 %	250.000 ppb
78Se (KED AGD)	264.043 ppb	3.1 %	250.000 ppb
95Mo (KED AGD)	265.784 ppb	3.3 %	250.000 ppb
107Ag (KED AGD)	268.751 ppb	4.8 %	250.000 ppb
111Cd (KED AGD)	261.741 ppb	5.6 %	250.000 ppb
115In (KED AGD)	85.084 %		
118Sn (KED AGD)	265.893 ppb	7.0 %	250.000 ppb
121Sb (KED AGD)	262.062 ppb	5.1 %	250.000 ppb
137Ba (KED AGD)	254.388 ppb	8.2 %	250.000 ppb
159Tb (KED AGD)	85.180 %		
205Tl (KED AGD)	202.965 ppb	5.2 %	250.000 ppb
208Pb (KED AGD)	252.159 ppb	5.2 %	250.000 ppb
209Bi (KED AGD)	85.573 %		

Standards:

Analysis Index: 8
Analysis Name: 500/50000
Analysis Type: STD
Analysis Started at: 3/15/2016 1:10:38 PM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 20
Rack: 0
Vial: 7

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	86.116 %		
6Li (KED AGD)	83.777 %		
9Be (STD AGD)	509.084 ppb	0.6 %	500.000 ppb
23Na (KED AGD)	45,508.027 ppb	4.3 %	50,000.000 ppb
24Mg (KED AGD)	49,648.722 ppb	6.8 %	50,000.000 ppb
27Al (KED AGD)	502.737 ppb	4.0 %	500.000 ppb
39K (KED AGD)	50,173.456 ppb	5.7 %	50,000.000 ppb
44Ca (KED AGD)	50,002.691 ppb	6.5 %	50,000.000 ppb
45Sc (KED AGD)	82.383 %		
45Sc (STD AGD)	88.786 %		
51V (KED AGD)	494.648 ppb	2.9 %	500.000 ppb
52Cr (KED AGD)	494.478 ppb	3.7 %	500.000 ppb
55Mn (KED AGD)	492.401 ppb	2.9 %	500.000 ppb
57Fe (KED AGD)	49,038.809 ppb	3.8 %	50,000.000 ppb
59Co (KED AGD)	491.525 ppb	3.1 %	500.000 ppb
60Ni (KED AGD)	490.291 ppb	2.2 %	500.000 ppb
65Cu (KED AGD)	490.559 ppb	2.0 %	500.000 ppb
66Zn (KED AGD)	491.768 ppb	2.5 %	500.000 ppb
74Ge (KED AGD)	91.113 %		
75As (KED AGD)	491.134 ppb	1.1 %	500.000 ppb
78Se (KED AGD)	492.976 ppb	4.9 %	500.000 ppb
95Mo (KED AGD)	492.550 ppb	4.3 %	500.000 ppb
107Ag (KED AGD)	489.606 ppb	2.6 %	500.000 ppb
111Cd (KED AGD)	493.915 ppb	0.7 %	500.000 ppb
115In (KED AGD)	88.793 %		
118Sn (KED AGD)	492.639 ppb	1.9 %	500.000 ppb
121Sb (KED AGD)	494.631 ppb	2.0 %	500.000 ppb
137Ba (KED AGD)	498.979 ppb	3.4 %	500.000 ppb
159Tb (KED AGD)	87.690 %		
205Tl (KED AGD)	377.362 ppb	1.5 %	500.000 ppb
208Pb (KED AGD)	420.749 ppb	1.4 %	500.000 ppb
209Bi (KED AGD)	88.326 %		

Analysis index: 1 Analysis started at: 3/15/2016 12:49:07 PM Rack: 0
Analysis label: rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	99.715 %	101.937 %	0.000 ppb	-3.757 ppb	-1.210 ppb	-0.222 ppb	-4.566 ppb
Concentration per Run 1	101.197 %	102.421 %	-0.005 ppb	-2.677 ppb	-1.382 ppb	-0.219 ppb	-7.182 ppb
Concentration per Run 2	98.589 %	99.031 %	0.001 ppb	-4.935 ppb	-0.866 ppb	-0.099 ppb	-1.391 ppb
Concentration per Run 3	99.359 %	104.359 %	0.003 ppb	-3.660 ppb	-1.382 ppb	-0.350 ppb	-5.125 ppb
Concentration RSD	1.3 %	2.6 %	930.0 %	30.1 %	24.6 %	56.4 %	64.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-6.790 ppb	98.845 %	99.891 %	0.000 ppb	-0.039 ppb	-0.822 ppb	-0.218 ppb
Concentration per Run 1	-1.560 ppb	97.785 %	101.637 %	0.000 ppb	-0.026 ppb	-0.701 ppb	-0.217 ppb
Concentration per Run 2	-9.367 ppb	102.696 %	98.802 %	0.000 ppb	-0.054 ppb	-0.928 ppb	-0.230 ppb
Concentration per Run 3	-9.443 ppb	96.053 %	99.235 %	0.000 ppb	-0.038 ppb	-0.837 ppb	-0.208 ppb
Concentration RSD	66.7 %	3.5 %	1.5 %		35.6 %	13.9 %	5.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.007 ppb	-0.031 ppb	-0.022 ppb	-0.929 ppb	102.600 %	0.008 ppb	-0.876 ppb
Concentration per Run 1	0.000 ppb	-0.021 ppb	-0.015 ppb	-1.000 ppb	103.403 %	0.032 ppb	-1.057 ppb
Concentration per Run 2	0.014 ppb	0.006 ppb	-0.015 ppb	-0.861 ppb	101.854 %	0.008 ppb	-1.077 ppb
Concentration per Run 3	0.007 ppb	-0.077 ppb	-0.035 ppb	-0.926 ppb	102.543 %	-0.016 ppb	-0.495 ppb
Concentration RSD	99.0 %	138.9 %	52.8 %	7.5 %	0.8 %	296.5 %	37.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.005 ppb	-0.002 ppb	0.008 ppb	105.068 %	-0.082 ppb	0.005 ppb	-0.022 ppb
Concentration per Run 1	0.000 ppb	-0.004 ppb	0.000 ppb	112.021 %	-0.107 ppb	0.004 ppb	-0.013 ppb
Concentration per Run 2	0.000 ppb	0.007 ppb	0.019 ppb	103.545 %	-0.048 ppb	0.005 ppb	-0.043 ppb
Concentration per Run 3	0.014 ppb	-0.007 ppb	0.006 ppb	99.636 %	-0.090 ppb	0.006 ppb	-0.011 ppb
Concentration RSD	173.2 %	478.2 %	113.3 %	6.0 %	37.3 %	17.5 %	80.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.262 %	-0.001 ppb	-0.012 ppb	101.171 %
Concentration per Run 1	101.200 %	-0.005 ppb	-0.013 ppb	102.434 %
Concentration per Run 2	101.415 %	0.001 ppb	-0.014 ppb	101.805 %
Concentration per Run 3	98.170 %	0.001 ppb	-0.009 ppb	99.276 %
Concentration RSD	1.8 %	320.3 %	22.7 %	1.7 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 2 Analysis started at: 3/15/2016 12:52:09 PM Rack: 4
Analysis label: Blank TT User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD			0.2 %	0.1 %	0.6 %	0.4 %	0.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD	0.5 %				0.1 %	0.2 %	1.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb
Concentration RSD		0.6 %	0.6 %	0.1 %		1.7 %	1.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD		1.0 %			0.2 %	0.9 %	1.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD		0.4 %	0.2 %	

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 3
Analysis label: 0.2/20 Cal
Analysis started at: 3/15/2016 12:55:16 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 0
Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.662 %	88.862 %	0.197 ppb	25.567 ppb	21.667 ppb	0.624 ppb	23.194 ppb
Concentration per Run 1	98.707 %	89.830 %	0.181 ppb	25.696 ppb	24.851 ppb	0.357 ppb	22.979 ppb
Concentration per Run 2	98.041 %	92.494 %	0.200 ppb	25.371 ppb	17.491 ppb	0.388 ppb	29.728 ppb
Concentration per Run 3	99.239 %	84.261 %	0.211 ppb	25.634 ppb	22.659 ppb	1.127 ppb	16.874 ppb
Concentration RSD			7.6 %	0.7 %	17.4 %	69.9 %	27.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	14.107 ppb	98.147 %	102.214 %	0.205 ppb	0.191 ppb	-0.521 ppb	20.170 ppb
Concentration per Run 1	10.887 ppb	101.180 %	102.862 %	0.208 ppb	0.294 ppb	-0.442 ppb	21.517 ppb
Concentration per Run 2	17.885 ppb	94.897 %	101.302 %	0.217 ppb	0.115 ppb	-0.453 ppb	19.434 ppb
Concentration per Run 3	13.548 ppb	98.364 %	102.479 %	0.189 ppb	0.163 ppb	-0.668 ppb	19.560 ppb
Concentration RSD	25.0 %			6.9 %	48.5 %	24.4 %	5.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.231 ppb	0.139 ppb	0.335 ppb	-0.383 ppb	96.138 %	0.197 ppb	-0.769 ppb
Concentration per Run 1	0.238 ppb	0.218 ppb	0.398 ppb	-0.457 ppb	93.021 %	0.221 ppb	-0.736 ppb
Concentration per Run 2	0.263 ppb	0.073 ppb	0.265 ppb	-0.265 ppb	97.266 %	0.161 ppb	-1.487 ppb
Concentration per Run 3	0.191 ppb	0.127 ppb	0.344 ppb	-0.427 ppb	98.126 %	0.209 ppb	-0.083 ppb
Concentration RSD	15.8 %	52.9 %	19.9 %	26.9 %		16.3 %	91.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.192 ppb	0.209 ppb	0.193 ppb	100.507 %	0.125 ppb	0.181 ppb	0.219 ppb
Concentration per Run 1	0.225 ppb	0.234 ppb	0.181 ppb	100.219 %	0.135 ppb	0.188 ppb	0.351 ppb
Concentration per Run 2	0.190 ppb	0.175 ppb	0.222 ppb	101.964 %	0.042 ppb	0.167 ppb	0.119 ppb
Concentration per Run 3	0.162 ppb	0.219 ppb	0.176 ppb	99.338 %	0.198 ppb	0.190 ppb	0.188 ppb
Concentration RSD	16.6 %	14.6 %	13.2 %		62.6 %	7.0 %	54.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.971 %	0.201 ppb	0.199 ppb	97.921 %
Concentration per Run 1	95.161 %	0.196 ppb	0.192 ppb	100.420 %
Concentration per Run 2	95.334 %	0.212 ppb	0.233 ppb	94.079 %
Concentration per Run 3	94.420 %	0.194 ppb	0.173 ppb	99.264 %
Concentration RSD		5.0 %	15.4 %	

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 4 Analysis started at: 3/15/2016 12:58:19 PM Rack: 0
Analysis label: 1.0/100 Cal User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.746 %	89.265 %	1.035 ppb	105.384 ppb	106.857 ppb	1.179 ppb	106.886 ppb
Concentration per Run 1	100.422 %	87.651 %	0.979 ppb	110.780 ppb	116.109 ppb	1.286 ppb	106.128 ppb
Concentration per Run 2	93.519 %	94.673 %	1.101 ppb	99.321 ppb	102.529 ppb	0.506 ppb	103.671 ppb
Concentration per Run 3	99.296 %	85.472 %	1.026 ppb	106.052 ppb	101.933 ppb	1.744 ppb	110.860 ppb
Concentration RSD			5.9 %	5.5 %	7.5 %	53.1 %	3.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	92.379 ppb	94.609 %	101.570 %	0.910 ppb	1.180 ppb	-0.041 ppb	107.589 ppb
Concentration per Run 1	90.764 ppb	94.176 %	102.028 %	0.752 ppb	1.181 ppb	-0.096 ppb	107.260 ppb
Concentration per Run 2	97.924 ppb	95.403 %	100.584 %	1.242 ppb	1.248 ppb	-0.004 ppb	109.971 ppb
Concentration per Run 3	88.450 ppb	94.248 %	102.097 %	0.737 ppb	1.112 ppb	-0.023 ppb	105.537 ppb
Concentration RSD	5.3 %			31.6 %	5.8 %	118.3 %	2.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.068 ppb	1.154 ppb	1.343 ppb	0.361 ppb	98.738 %	0.995 ppb	0.512 ppb
Concentration per Run 1	1.131 ppb	1.247 ppb	1.538 ppb	0.267 ppb	104.091 %	0.764 ppb	-0.138 ppb
Concentration per Run 2	0.953 ppb	1.172 ppb	1.093 ppb	0.552 ppb	92.563 %	1.177 ppb	0.056 ppb
Concentration per Run 3	1.119 ppb	1.043 ppb	1.399 ppb	0.264 ppb	99.560 %	1.045 ppb	1.618 ppb
Concentration RSD	9.4 %	8.9 %	17.0 %	45.9 %		21.2 %	188.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.874 ppb	1.003 ppb	1.033 ppb	99.082 %	1.016 ppb	0.833 ppb	1.101 ppb
Concentration per Run 1	0.665 ppb	1.074 ppb	0.935 ppb	97.274 %	1.165 ppb	0.922 ppb	1.300 ppb
Concentration per Run 2	1.002 ppb	0.956 ppb	1.149 ppb	98.829 %	0.915 ppb	0.777 ppb	0.975 ppb
Concentration per Run 3	0.956 ppb	0.978 ppb	1.016 ppb	101.143 %	0.968 ppb	0.798 ppb	1.029 ppb
Concentration RSD	20.9 %	6.3 %	10.5 %		13.0 %	9.4 %	15.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.551 %	0.981 ppb	0.952 ppb	98.281 %
Concentration per Run 1	93.767 %	1.010 ppb	0.937 ppb	96.814 %
Concentration per Run 2	96.547 %	0.988 ppb	0.978 ppb	97.717 %
Concentration per Run 3	96.337 %	0.944 ppb	0.942 ppb	100.311 %
Concentration RSD		3.4 %	2.4 %	

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 5 Analysis started at: 3/15/2016 1:01:23 PM Rack: 0
Analysis label: 10/1000 Cal User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	93.561 %	90.879 %	10.066 ppb	988.126 ppb	985.933 ppb	9.909 ppb	945.527 ppb
Concentration per Run 1	95.060 %	93.462 %	9.663 ppb	1,022.779 ppb	1,017.679 ppb	9.798 ppb	984.159 ppb
Concentration per Run 2	90.826 %	86.925 %	10.465 ppb	944.824 ppb	949.031 ppb	10.667 ppb	906.077 ppb
Concentration per Run 3	94.796 %	92.252 %	10.070 ppb	996.774 ppb	991.091 ppb	9.262 ppb	946.345 ppb
Concentration RSD			4.0 %	4.0 %	3.5 %	7.2 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	910.862 ppb	92.924 %	98.454 %	9.914 ppb	9.260 ppb	8.804 ppb	960.952 ppb
Concentration per Run 1	938.867 ppb	90.277 %	96.742 %	10.449 ppb	9.422 ppb	8.400 ppb	1,013.347 ppb
Concentration per Run 2	904.177 ppb	97.713 %	101.074 %	9.622 ppb	8.852 ppb	8.449 ppb	900.938 ppb
Concentration per Run 3	889.541 ppb	90.782 %	97.546 %	9.670 ppb	9.507 ppb	9.565 ppb	968.571 ppb
Concentration RSD	2.8 %			4.7 %	3.8 %	7.5 %	5.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	9.639 ppb	9.710 ppb	10.098 ppb	8.664 ppb	98.215 %	10.079 ppb	10.278 ppb
Concentration per Run 1	10.135 ppb	9.736 ppb	10.657 ppb	9.098 ppb	100.478 %	10.386 ppb	9.823 ppb
Concentration per Run 2	8.916 ppb	9.499 ppb	9.711 ppb	8.296 ppb	100.980 %	9.797 ppb	9.653 ppb
Concentration per Run 3	9.865 ppb	9.896 ppb	9.926 ppb	8.597 ppb	93.186 %	10.054 ppb	11.359 ppb
Concentration RSD	6.6 %	2.1 %	4.9 %	4.7 %		2.9 %	9.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	9.427 ppb	10.114 ppb	9.663 ppb	96.742 %	9.314 ppb	9.005 ppb	9.554 ppb
Concentration per Run 1	9.704 ppb	10.321 ppb	9.297 ppb	97.397 %	9.173 ppb	8.857 ppb	9.743 ppb
Concentration per Run 2	8.796 ppb	9.642 ppb	10.106 ppb	98.431 %	8.999 ppb	8.774 ppb	9.659 ppb
Concentration per Run 3	9.781 ppb	10.377 ppb	9.586 ppb	94.398 %	9.770 ppb	9.385 ppb	9.260 ppb
Concentration RSD	5.8 %	4.0 %	4.2 %		4.3 %	3.7 %	2.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.298 %	10.015 ppb	9.623 ppb	94.002 %
Concentration per Run 1	96.677 %	10.014 ppb	9.622 ppb	97.362 %
Concentration per Run 2	95.336 %	9.962 ppb	9.443 ppb	92.848 %
Concentration per Run 3	93.882 %	10.070 ppb	9.803 ppb	91.796 %
Concentration RSD		0.5 %	1.9 %	

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 6 Analysis started at: 3/15/2016 1:04:27 PM Rack: 0
Analysis label: 120/12000 User name: ALPHALAB\a1metalsinstrument Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.124 %	87.328 %	123.828 ppb	11,481.124 ppb	11,684.076 ppb	113.722 ppb	11,260.604 ppb
Concentration per Run 1	86.281 %	85.472 %	129.390 ppb	12,018.229 ppb	12,586.059 ppb	118.556 ppb	11,809.881 ppb
Concentration per Run 2	91.566 %	90.314 %	119.544 ppb	11,046.058 ppb	11,001.695 ppb	110.857 ppb	11,408.142 ppb
Concentration per Run 3	92.527 %	86.198 %	122.551 ppb	11,379.085 ppb	11,464.474 ppb	111.753 ppb	10,563.791 ppb
Concentration RSD			4.1 %	4.3 %	7.0 %	3.7 %	5.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,980.720 ppb	92.009 %	93.918 %	113.590 ppb	116.206 ppb	116.180 ppb	11,884.438 ppb
Concentration per Run 1	11,640.715 ppb	87.750 %	93.854 %	117.731 ppb	121.343 ppb	120.790 ppb	12,676.686 ppb
Concentration per Run 2	10,825.534 ppb	92.082 %	92.747 %	112.236 ppb	114.557 ppb	113.090 ppb	11,480.088 ppb
Concentration per Run 3	10,475.913 ppb	96.197 %	95.153 %	110.805 ppb	112.719 ppb	114.661 ppb	11,496.540 ppb
Concentration RSD	5.4 %			3.2 %	3.9 %	3.5 %	5.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	119.840 ppb	120.004 ppb	124.386 ppb	118.771 ppb	87.177 %	124.076 ppb	119.995 ppb
Concentration per Run 1	123.076 ppb	127.511 ppb	124.599 ppb	123.728 ppb	87.009 %	124.337 ppb	121.591 ppb
Concentration per Run 2	119.507 ppb	120.970 ppb	124.491 ppb	117.051 ppb	87.556 %	121.847 ppb	120.712 ppb
Concentration per Run 3	116.937 ppb	111.531 ppb	124.069 ppb	115.536 ppb	86.966 %	126.044 ppb	117.682 ppb
Concentration RSD	2.6 %	6.7 %	0.2 %	3.7 %		1.7 %	1.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	118.207 ppb	124.235 ppb	120.920 ppb	90.693 %	117.618 ppb	117.326 ppb	115.148 ppb
Concentration per Run 1	123.789 ppb	126.611 ppb	123.496 ppb	90.048 %	119.685 ppb	117.974 ppb	114.430 ppb
Concentration per Run 2	116.441 ppb	123.791 ppb	121.986 ppb	89.040 %	118.345 ppb	120.192 ppb	117.120 ppb
Concentration per Run 3	114.391 ppb	122.304 ppb	117.277 ppb	92.992 %	114.824 ppb	113.813 ppb	113.895 ppb
Concentration RSD	4.2 %	1.8 %	2.7 %		2.1 %	2.8 %	1.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.412 %	119.999 ppb	115.535 ppb	89.546 %
Concentration per Run 1	90.368 %	121.685 ppb	117.219 ppb	88.579 %
Concentration per Run 2	89.321 %	118.946 ppb	115.708 ppb	89.049 %
Concentration per Run 3	91.546 %	119.365 ppb	113.677 ppb	91.010 %
Concentration RSD		1.2 %	1.5 %	

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 7 Analysis started at: 3/15/2016 1:07:32 PM Rack: 0
Analysis label: 250/25000 User name: ALPHALAB\a1metalsinstrument Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	91.877 %	87.409 %	229.991 ppb	25,249.510 ppb	25,854.734 ppb	247.543 ppb	25,010.147 ppb
Concentration per Run 1	95.112 %	90.072 %	224.320 ppb	24,646.668 ppb	25,635.886 ppb	245.506 ppb	24,446.850 ppb
Concentration per Run 2	90.672 %	84.261 %	229.436 ppb	26,041.707 ppb	26,978.920 ppb	252.635 ppb	26,148.888 ppb
Concentration per Run 3	89.848 %	87.893 %	236.217 ppb	25,060.154 ppb	24,949.396 ppb	244.487 ppb	24,434.703 ppb
Concentration RSD			2.6 %	2.8 %	4.0 %	1.8 %	3.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	25,487.473 ppb	82.961 %	94.082 %	263.784 ppb	262.893 ppb	267.084 ppb	26,979.384 ppb
Concentration per Run 1	26,177.057 ppb	85.367 %	98.237 %	268.751 ppb	278.640 ppb	280.738 ppb	27,231.370 ppb
Concentration per Run 2	25,753.858 ppb	80.242 %	91.926 %	266.384 ppb	254.558 ppb	260.713 ppb	27,599.990 ppb
Concentration per Run 3	24,531.505 ppb	83.273 %	92.085 %	256.218 ppb	255.480 ppb	259.801 ppb	26,106.792 ppb
Concentration RSD	3.4 %			2.5 %	5.2 %	4.4 %	2.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	267.041 ppb	269.428 ppb	266.772 ppb	267.110 ppb	83.506 %	265.771 ppb	264.043 ppb
Concentration per Run 1	266.437 ppb	268.424 ppb	268.058 ppb	273.400 ppb	82.297 %	272.213 ppb	273.410 ppb
Concentration per Run 2	279.022 ppb	275.742 ppb	267.239 ppb	268.225 ppb	83.575 %	265.643 ppb	260.688 ppb
Concentration per Run 3	255.663 ppb	264.118 ppb	265.019 ppb	259.705 ppb	84.645 %	259.458 ppb	258.031 ppb
Concentration RSD	4.4 %	2.2 %	0.6 %	2.6 %		2.4 %	3.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	265.784 ppb	268.751 ppb	261.741 ppb	85.084 %	265.893 ppb	262.062 ppb	254.388 ppb
Concentration per Run 1	275.269 ppb	282.257 ppb	278.149 ppb	83.345 %	286.095 ppb	277.347 ppb	276.856 ppb
Concentration per Run 2	263.917 ppb	267.669 ppb	257.364 ppb	85.716 %	262.261 ppb	256.725 ppb	250.549 ppb
Concentration per Run 3	258.166 ppb	256.327 ppb	249.710 ppb	86.191 %	249.323 ppb	252.113 ppb	235.760 ppb
Concentration RSD	3.3 %	4.8 %	5.6 %		7.0 %	5.1 %	8.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.180 %	202.965 ppb	252.159 ppb	85.573 %
Concentration per Run 1	83.399 %	213.147 ppb	266.145 ppb	84.849 %
Concentration per Run 2	85.148 %	203.694 ppb	250.013 ppb	84.673 %
Concentration per Run 3	86.992 %	192.054 ppb	240.318 ppb	87.198 %
Concentration RSD		5.2 %	5.2 %	

Analysis index: 8 Analysis started at: 3/15/2016 1:10:38 PM Rack: 0
Analysis label: 500/50000 User name: ALPHALAB\a1metalsinstrument Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.116 %	83.777 %	509.084 ppb	45,508.027 ppb	49,648.722 ppb	502.737 ppb	50,173.456 ppb
Concentration per Run 1	86.455 %	83.292 %	506.472 ppb	46,410.006 ppb	49,588.321 ppb	500.462 ppb	52,734.777 ppb
Concentration per Run 2	86.261 %	86.440 %	508.324 ppb	43,276.768 ppb	46,302.941 ppb	484.038 ppb	47,057.899 ppb
Concentration per Run 3	85.633 %	81.598 %	512.457 ppb	46,837.308 ppb	53,054.904 ppb	523.710 ppb	50,727.692 ppb
Concentration RSD			0.6 %	4.3 %	6.8 %	4.0 %	5.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	50,002.691 ppb	82.383 %	88.786 %	494.648 ppb	494.478 ppb	492.401 ppb	49,038.809 ppb
Concentration per Run 1	53,721.935 ppb	80.675 %	87.113 %	510.257 ppb	515.338 ppb	491.968 ppb	50,540.265 ppb
Concentration per Run 2	47,714.652 ppb	85.223 %	89.182 %	481.623 ppb	486.648 ppb	506.811 ppb	49,614.487 ppb
Concentration per Run 3	48,571.485 ppb	81.252 %	90.062 %	492.064 ppb	481.450 ppb	478.424 ppb	46,961.674 ppb
Concentration RSD	6.5 %			2.9 %	3.7 %	2.9 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	491.525 ppb	490.291 ppb	490.559 ppb	491.768 ppb	91.113 %	491.134 ppb	492.976 ppb
Concentration per Run 1	506.868 ppb	502.460 ppb	502.074 ppb	504.486 ppb	90.547 %	494.665 ppb	519.153 ppb
Concentration per Run 2	476.390 ppb	481.430 ppb	483.940 ppb	491.221 ppb	89.499 %	493.621 ppb	487.765 ppb
Concentration per Run 3	491.318 ppb	486.981 ppb	485.663 ppb	479.597 ppb	93.293 %	485.117 ppb	472.009 ppb
Concentration RSD	3.1 %	2.2 %	2.0 %	2.5 %		1.1 %	4.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	492.550 ppb	489.606 ppb	493.915 ppb	88.793 %	492.639 ppb	494.631 ppb	498.979 ppb
Concentration per Run 1	504.191 ppb	500.293 ppb	496.777 ppb	89.361 %	495.974 ppb	484.571 ppb	484.074 ppb
Concentration per Run 2	505.593 ppb	475.470 ppb	490.308 ppb	90.102 %	481.891 ppb	494.912 ppb	495.332 ppb
Concentration per Run 3	467.867 ppb	493.054 ppb	494.661 ppb	86.915 %	500.052 ppb	504.410 ppb	517.531 ppb
Concentration RSD	4.3 %	2.6 %	0.7 %		1.9 %	2.0 %	3.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.690 %	377.362 ppb	420.749 ppb	88.326 %
Concentration per Run 1	85.980 %	371.735 ppb	418.271 ppb	90.461 %
Concentration per Run 2	90.205 %	382.996 ppb	427.573 ppb	87.540 %
Concentration per Run 3	86.886 %	377.355 ppb	416.403 ppb	86.978 %
Concentration RSD		1.5 %	1.4 %	

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 9 Analysis started at: 3/15/2016 1:13:44 PM Rack: 0
Analysis label: Rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.891 %	86.037 %	0.085 ppb	1.195 ppb	2.044 ppb	0.159 ppb	-6.537 ppb
Concentration per Run 1	85.791 %	85.230 %	0.094 ppb	1.833 ppb	4.045 ppb	-0.247 ppb	-10.809 ppb
Concentration per Run 2	86.030 %	86.198 %	0.085 ppb	1.718 ppb	1.078 ppb	-0.073 ppb	0.256 ppb
Concentration per Run 3	85.851 %	86.682 %	0.075 ppb	0.032 ppb	1.008 ppb	0.796 ppb	-9.058 ppb
Concentration RSD	0.1 %	0.9 %	11.5 %	84.4 %	84.8 %	352.0 %	91.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-4.949 ppb	85.656 %	88.674 %	0.048 ppb	0.004 ppb	-0.931 ppb	4.089 ppb
Concentration per Run 1	-3.290 ppb	87.244 %	88.626 %	0.023 ppb	-0.018 ppb	-0.935 ppb	3.257 ppb
Concentration per Run 2	-11.520 ppb	82.479 %	87.123 %	0.050 ppb	-0.029 ppb	-0.958 ppb	4.228 ppb
Concentration per Run 3	-0.036 ppb	87.244 %	90.273 %	0.071 ppb	0.060 ppb	-0.899 ppb	4.781 ppb
Concentration RSD	119.6 %	3.2 %	1.8 %	49.8 %	1,139.7 %	3.2 %	18.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.036 ppb	-0.030 ppb	0.038 ppb	-0.897 ppb	88.108 %	0.574 ppb	-0.090 ppb
Concentration per Run 1	0.032 ppb	-0.010 ppb	0.058 ppb	-1.024 ppb	92.104 %	0.358 ppb	0.263 ppb
Concentration per Run 2	0.034 ppb	-0.072 ppb	0.041 ppb	-0.862 ppb	86.426 %	0.808 ppb	-1.515 ppb
Concentration per Run 3	0.042 ppb	-0.007 ppb	0.016 ppb	-0.804 ppb	85.795 %	0.557 ppb	0.983 ppb
Concentration RSD	13.9 %	124.0 %	55.1 %	12.7 %	3.9 %	39.3 %	1,435.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.341 ppb	0.084 ppb	0.089 ppb	90.394 %	0.012 ppb	2.334 ppb	-0.008 ppb
Concentration per Run 1	1.005 ppb	0.091 ppb	0.090 ppb	92.944 %	0.074 ppb	2.246 ppb	-0.009 ppb
Concentration per Run 2	1.575 ppb	0.098 ppb	0.057 ppb	90.726 %	-0.038 ppb	2.354 ppb	0.027 ppb
Concentration per Run 3	1.442 ppb	0.064 ppb	0.118 ppb	87.513 %	0.000 ppb	2.401 ppb	-0.043 ppb
Concentration RSD	22.2 %	21.3 %	34.5 %	3.0 %	480.9 %	3.4 %	412.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.372 %	0.058 ppb	0.033 ppb	93.190 %
Concentration per Run 1	92.685 %	0.067 ppb	0.033 ppb	93.500 %
Concentration per Run 2	92.582 %	0.063 ppb	0.027 ppb	92.665 %
Concentration per Run 3	88.849 %	0.043 ppb	0.040 ppb	93.406 %
Concentration RSD	2.4 %	22.0 %	19.0 %	0.5 %

Analysis index: 10 Analysis started at: 3/15/2016 1:16:46 PM Rack: 0
Analysis label: XICV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	69.149 %	79.257 %	144.883 ppb	10,739.696 ppb	10,739.360 ppb	101.777 ppb	10,180.947 ppb
Concentration per Run 1	68.991 %	76.513 %	145.451 ppb	10,998.091 ppb	11,138.179 ppb	102.105 ppb	10,022.095 ppb
Concentration per Run 2	69.197 %	78.450 %	144.558 ppb	11,051.143 ppb	10,917.482 ppb	108.807 ppb	10,651.351 ppb
Concentration per Run 3	69.259 %	82.808 %	144.639 ppb	10,169.853 ppb	10,162.421 ppb	94.419 ppb	9,869.394 ppb
Recovery Percentage 1			144.883 %	107.397 %	107.394 %	101.777 %	101.809 %
Concentration RSD	0.2 %	4.1 %	0.3 %	4.6 %	4.8 %	7.1 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,870.173 ppb	83.995 %	66.670 %	102.524 ppb	101.446 ppb	100.249 ppb	10,243.110 ppb
Concentration per Run 1	9,641.809 ppb	85.656 %	69.056 %	101.662 ppb	102.731 ppb	105.231 ppb	10,348.249 ppb
Concentration per Run 2	10,300.957 ppb	82.263 %	64.858 %	101.437 ppb	103.945 ppb	101.166 ppb	10,229.898 ppb
Concentration per Run 3	9,667.753 ppb	84.068 %	66.095 %	104.473 ppb	97.663 ppb	94.349 ppb	10,151.182 ppb
Recovery Percentage 1	98.702 %			102.524 %	101.446 %	100.249 %	102.431 %
Concentration RSD	3.8 %	2.0 %	3.2 %	1.7 %	3.3 %	5.5 %	1.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	103.783 ppb	107.136 ppb	108.119 ppb	101.728 ppb	87.351 %	104.186 ppb	98.474 ppb
Concentration per Run 1	101.898 ppb	109.651 ppb	107.214 ppb	99.228 ppb	88.679 %	104.978 ppb	91.413 ppb
Concentration per Run 2	104.178 ppb	108.465 ppb	110.837 ppb	102.590 ppb	88.487 %	102.550 ppb	99.119 ppb
Concentration per Run 3	105.271 ppb	103.292 ppb	106.307 ppb	103.365 ppb	84.887 %	105.031 ppb	104.889 ppb
Recovery Percentage 1	103.783 %	107.136 %	108.119 %	101.728 %		104.186 %	98.474 %
Concentration RSD	1.7 %	3.2 %	2.2 %	2.2 %	2.4 %	1.4 %	6.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	102.821 ppb	106.390 ppb	103.105 ppb	88.839 %	105.892 ppb	106.038 ppb	102.213 ppb
Concentration per Run 1	103.080 ppb	108.464 ppb	104.740 ppb	89.308 %	105.629 ppb	109.303 ppb	103.211 ppb
Concentration per Run 2	100.434 ppb	104.635 ppb	103.464 ppb	87.765 %	105.588 ppb	101.997 ppb	104.509 ppb
Concentration per Run 3	104.950 ppb	106.071 ppb	101.110 ppb	89.443 %	106.460 ppb	106.815 ppb	98.918 ppb
Recovery Percentage 1	102.821 %	106.390 %	103.105 %		105.892 %	106.038 %	102.213 %
Concentration RSD	2.2 %	1.8 %	1.8 %	1.0 %	0.5 %	3.5 %	2.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.910 %	105.985 ppb	103.293 ppb	89.262 %
Concentration per Run 1	88.102 %	106.979 ppb	103.683 ppb	90.653 %
Concentration per Run 2	87.504 %	105.441 ppb	100.958 ppb	90.419 %
Concentration per Run 3	88.125 %	105.535 ppb	105.237 ppb	86.715 %
Recovery Percentage 1		105.985 %	103.293 %	
Concentration RSD	0.4 %	0.8 %	2.1 %	2.5 %

Analysis index: 11 Analysis started at: 3/15/2016 1:19:54 PM Rack: 0
Analysis label: XICB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.301 %	83.454 %	0.051 ppb	5.598 ppb	2.176 ppb	0.398 ppb	6.358 ppb
Concentration per Run 1	84.516 %	79.418 %	0.050 ppb	7.852 ppb	3.760 ppb	0.284 ppb	3.712 ppb
Concentration per Run 2	85.846 %	83.777 %	0.054 ppb	6.192 ppb	2.336 ppb	0.086 ppb	14.091 ppb
Concentration per Run 3	85.542 %	87.167 %	0.051 ppb	2.751 ppb	0.433 ppb	0.824 ppb	1.271 ppb
Recovery Percentage 1			10.278 %	5.598 %	3.109 %	3.984 %	6.358 %
Concentration RSD	0.8 %	4.7 %	4.3 %	46.5 %	76.7 %	95.9 %	107.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	17.595 ppb	83.587 %	87.224 %	0.025 ppb	0.012 ppb	0.229 ppb	3.227 ppb
Concentration per Run 1	19.074 ppb	82.479 %	86.104 %	0.074 ppb	-0.014 ppb	0.258 ppb	1.328 ppb
Concentration per Run 2	33.603 ppb	83.923 %	88.994 %	0.000 ppb	0.001 ppb	0.339 ppb	2.720 ppb
Concentration per Run 3	0.107 ppb	84.357 %	86.573 %	0.000 ppb	0.048 ppb	0.090 ppb	5.634 ppb
Recovery Percentage 1	17.595 %			0.495 %	1.186 %	22.888 %	6.455 %
Concentration RSD	95.5 %	1.2 %	1.8 %	173.2 %	272.9 %	55.5 %	68.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.054 ppb	0.028 ppb	0.048 ppb	0.585 ppb	86.904 %	0.191 ppb	-0.830 ppb
Concentration per Run 1	0.034 ppb	0.096 ppb	-0.032 ppb	0.435 ppb	87.688 %	0.209 ppb	-0.276 ppb
Concentration per Run 2	0.067 ppb	0.027 ppb	0.111 ppb	0.667 ppb	88.089 %	0.179 ppb	-0.745 ppb
Concentration per Run 3	0.060 ppb	-0.038 ppb	0.066 ppb	0.653 ppb	84.935 %	0.186 ppb	-1.469 ppb
Recovery Percentage 1	10.732 %	5.627 %	4.835 %	5.850 %	86.904 %	38.289 %	-16.598 %
Concentration RSD	32.5 %	237.8 %	150.7 %	22.3 %	2.0 %	8.0 %	72.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.728 ppb	0.054 ppb	0.060 ppb	87.488 %	0.115 ppb	0.696 ppb	0.005 ppb
Concentration per Run 1	0.747 ppb	0.062 ppb	0.084 ppb	83.740 %	0.148 ppb	0.716 ppb	-0.006 ppb
Concentration per Run 2	0.593 ppb	0.051 ppb	0.051 ppb	88.508 %	0.218 ppb	0.842 ppb	-0.008 ppb
Concentration per Run 3	0.846 ppb	0.050 ppb	0.043 ppb	90.215 %	-0.020 ppb	0.530 ppb	0.028 ppb
Recovery Percentage 1	24.281 %	13.542 %	29.753 %		3.835 %	34.795 %	0.940 %
Concentration RSD	17.5 %	12.4 %	36.7 %	3.8 %	106.5 %	22.5 %	430.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.142 %	0.041 ppb	0.029 ppb	93.191 %
Concentration per Run 1	88.815 %	0.046 ppb	0.035 ppb	91.318 %
Concentration per Run 2	92.037 %	0.036 ppb	0.029 ppb	93.461 %
Concentration per Run 3	89.573 %	0.041 ppb	0.023 ppb	94.794 %
Recovery Percentage 1		8.185 %	5.769 %	93.191 %
Concentration RSD	1.9 %	11.2 %	19.7 %	1.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 12 Analysis started at: 3/15/2016 1:23:01 PM Rack: 0
Analysis label: ICV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.482 %	86.521 %	107.858 ppb	10,663.196 ppb	10,632.922 ppb	106.307 ppb	10,584.350 ppb
Concentration per Run 1	86.227 %	89.830 %	108.254 ppb	10,281.677 ppb	10,268.679 ppb	104.098 ppb	10,282.879 ppb
Concentration per Run 2	85.072 %	91.767 %	107.665 ppb	10,615.963 ppb	10,547.067 ppb	107.717 ppb	10,543.152 ppb
Concentration per Run 3	88.148 %	77.965 %	107.655 ppb	11,091.949 ppb	11,083.022 ppb	107.105 ppb	10,927.018 ppb
Recovery Percentage 1			107.858 %	106.632 %	106.329 %	106.307 %	105.843 %
Concentration RSD	1.8 %	8.6 %	0.3 %	3.8 %	3.9 %	1.8 %	3.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,224.283 ppb	82.118 %	88.020 %	104.955 ppb	107.037 ppb	103.728 ppb	10,462.336 ppb
Concentration per Run 1	10,070.284 ppb	85.656 %	88.673 %	101.229 ppb	105.285 ppb	100.811 ppb	10,546.020 ppb
Concentration per Run 2	10,537.720 ppb	78.581 %	86.235 %	107.357 ppb	107.085 ppb	104.908 ppb	10,385.263 ppb
Concentration per Run 3	10,064.847 ppb	82.119 %	89.153 %	106.279 ppb	108.742 ppb	105.465 ppb	10,455.724 ppb
Recovery Percentage 1	102.243 %			104.955 %	107.037 %	103.728 %	104.623 %
Concentration RSD	2.7 %	4.3 %	1.8 %	3.1 %	1.6 %	2.5 %	0.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	108.347 ppb	108.128 ppb	105.917 ppb	101.958 ppb	89.949 %	102.147 ppb	104.091 ppb
Concentration per Run 1	112.152 ppb	112.436 ppb	108.076 ppb	101.827 ppb	89.776 %	104.713 ppb	97.584 ppb
Concentration per Run 2	104.317 ppb	103.712 ppb	102.562 ppb	99.571 ppb	94.529 %	95.968 ppb	95.753 ppb
Concentration per Run 3	108.572 ppb	108.236 ppb	107.113 ppb	104.477 ppb	85.542 %	105.761 ppb	118.937 ppb
Recovery Percentage 1	108.347 %	108.128 %	105.917 %	101.958 %		102.147 %	104.091 %
Concentration RSD	3.6 %	4.0 %	2.8 %	2.4 %	5.0 %	5.3 %	12.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	102.724 ppb	107.514 ppb	103.855 ppb	91.789 %	106.145 ppb	104.012 ppb	100.233 ppb
Concentration per Run 1	103.804 ppb	107.768 ppb	103.139 ppb	94.087 %	108.628 ppb	105.449 ppb	98.992 ppb
Concentration per Run 2	100.246 ppb	104.964 ppb	103.904 ppb	90.609 %	106.147 ppb	102.860 ppb	104.035 ppb
Concentration per Run 3	104.120 ppb	109.809 ppb	104.521 ppb	90.670 %	103.661 ppb	103.727 ppb	97.673 ppb
Recovery Percentage 1	102.724 %	107.514 %	103.855 %		106.145 %	104.012 %	100.233 %
Concentration RSD	2.1 %	2.3 %	0.7 %	2.2 %	2.3 %	1.3 %	3.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.413 %	103.924 ppb	101.402 ppb	92.605 %
Concentration per Run 1	95.101 %	102.045 ppb	97.803 ppb	97.266 %
Concentration per Run 2	92.318 %	104.179 ppb	102.305 ppb	91.617 %
Concentration per Run 3	89.818 %	105.549 ppb	104.097 ppb	88.933 %
Recovery Percentage 1		103.924 %	101.402 %	
Concentration RSD	2.9 %	1.7 %	3.2 %	4.6 %

Analysis index: 13 Analysis started at: 3/15/2016 1:26:08 PM Rack: 0
Analysis label: ICB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.784 %	86.925 %	0.039 ppb	2.891 ppb	2.271 ppb	0.321 ppb	6.934 ppb
Concentration per Run 1	84.930 %	87.167 %	0.033 ppb	3.300 ppb	3.531 ppb	0.392 ppb	13.131 ppb
Concentration per Run 2	84.640 %	83.050 %	0.039 ppb	0.538 ppb	2.247 ppb	0.960 ppb	4.999 ppb
Concentration per Run 3	84.781 %	90.557 %	0.046 ppb	4.834 ppb	1.035 ppb	-0.390 ppb	2.671 ppb
Recovery Percentage 1			7.846 %	2.891 %	3.245 %	3.208 %	6.934 %
Concentration RSD	0.2 %	4.3 %	15.9 %	75.3 %	54.9 %	211.4 %	79.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	26.400 ppb	83.803 %	88.927 %	0.034 ppb	0.038 ppb	0.321 ppb	3.029 ppb
Concentration per Run 1	37.316 ppb	81.613 %	88.998 %	0.075 ppb	0.051 ppb	0.211 ppb	4.273 ppb
Concentration per Run 2	19.676 ppb	89.193 %	88.137 %	0.000 ppb	0.042 ppb	0.421 ppb	1.941 ppb
Concentration per Run 3	22.206 ppb	80.602 %	89.646 %	0.025 ppb	0.021 ppb	0.332 ppb	2.874 ppb
Recovery Percentage 1	26.400 %			0.670 %	3.821 %	32.132 %	6.059 %
Concentration RSD	36.1 %	5.6 %	0.9 %	114.0 %	40.7 %	32.8 %	38.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.048 ppb	0.041 ppb	0.107 ppb	0.133 ppb	85.317 %	0.137 ppb	-0.327 ppb
Concentration per Run 1	0.052 ppb	-0.003 ppb	0.140 ppb	-0.165 ppb	85.853 %	0.213 ppb	-1.070 ppb
Concentration per Run 2	0.049 ppb	0.058 ppb	0.039 ppb	0.239 ppb	85.910 %	0.099 ppb	0.040 ppb
Concentration per Run 3	0.044 ppb	0.068 ppb	0.143 ppb	0.326 ppb	84.189 %	0.101 ppb	0.048 ppb
Recovery Percentage 1	9.676 %	8.112 %	10.730 %	1.334 %	85.317 %	27.486 %	-6.546 %
Concentration RSD	8.4 %	94.8 %	54.9 %	196.3 %	1.1 %	47.6 %	196.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.621 ppb	0.036 ppb	0.029 ppb	87.782 %	0.147 ppb	0.351 ppb	0.004 ppb
Concentration per Run 1	0.638 ppb	0.031 ppb	0.022 ppb	87.285 %	0.086 ppb	0.380 ppb	-0.007 ppb
Concentration per Run 2	0.626 ppb	0.027 ppb	0.030 ppb	85.865 %	0.176 ppb	0.385 ppb	-0.043 ppb
Concentration per Run 3	0.600 ppb	0.050 ppb	0.036 ppb	90.197 %	0.179 ppb	0.289 ppb	0.063 ppb
Recovery Percentage 1	20.711 %	9.003 %	14.706 %		4.898 %	17.561 %	0.863 %
Concentration RSD	3.2 %	34.3 %	23.5 %	2.5 %	36.1 %	15.4 %	1,257.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.384 %	0.042 ppb	0.023 ppb	90.574 %
Concentration per Run 1	90.018 %	0.045 ppb	0.024 ppb	90.456 %
Concentration per Run 2	91.044 %	0.047 ppb	0.027 ppb	91.895 %
Concentration per Run 3	90.089 %	0.034 ppb	0.017 ppb	89.370 %
Recovery Percentage 1		8.393 %	4.500 %	90.574 %
Concentration RSD	0.6 %	17.3 %	22.7 %	1.4 %

Analysis index: 14 Analysis started at: 3/15/2016 1:29:16 PM Rack: 4
Analysis label: LLCCV User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.676 %	81.840 %	0.573 ppb	116.859 ppb	73.954 ppb	12.423 ppb	105.958 ppb
Concentration per Run 1	82.499 %	88.377 %	0.601 ppb	113.420 ppb	75.680 ppb	13.521 ppb	111.520 ppb
Concentration per Run 2	81.746 %	76.997 %	0.579 ppb	118.000 ppb	81.252 ppb	13.739 ppb	97.704 ppb
Concentration per Run 3	83.784 %	80.145 %	0.537 ppb	119.155 ppb	64.930 ppb	10.007 ppb	108.651 ppb
Recovery Percentage 1			114.525 %	116.859 %	105.649 %	124.226 %	105.958 %
Concentration RSD	1.2 %	7.2 %	5.7 %	2.6 %	11.2 %	16.9 %	6.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	108.968 ppb	81.950 %	82.982 %	5.333 ppb	1.005 ppb	-0.087 ppb	56.444 ppb
Concentration per Run 1	106.808 ppb	80.963 %	81.386 %	5.396 ppb	0.927 ppb	-0.110 ppb	58.984 ppb
Concentration per Run 2	133.626 ppb	81.830 %	84.088 %	5.608 ppb	1.012 ppb	-0.100 ppb	51.581 ppb
Concentration per Run 3	86.470 ppb	83.057 %	83.473 %	4.994 ppb	1.074 ppb	-0.050 ppb	58.766 ppb
Recovery Percentage 1	108.968 %			106.653 %	100.476 %	-17.369 %	112.888 %
Concentration RSD	21.7 %	1.3 %	1.7 %	5.9 %	7.3 %	37.1 %	7.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.638 ppb	0.673 ppb	2.682 ppb	11.605 ppb	81.894 %	0.742 ppb	3.783 ppb
Concentration per Run 1	0.596 ppb	0.795 ppb	2.728 ppb	11.191 ppb	83.960 %	0.802 ppb	4.882 ppb
Concentration per Run 2	0.643 ppb	0.601 ppb	2.583 ppb	11.796 ppb	80.003 %	0.720 ppb	3.260 ppb
Concentration per Run 3	0.675 ppb	0.623 ppb	2.734 ppb	11.827 ppb	81.717 %	0.705 ppb	3.207 ppb
Recovery Percentage 1	127.565 %	134.580 %	268.160 %	116.046 %		148.431 %	75.655 %
Concentration RSD	6.2 %	15.8 %	3.2 %	3.1 %	2.4 %	7.0 %	25.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.346 ppb	0.470 ppb	0.251 ppb	88.187 %	0.559 ppb	0.895 ppb	0.876 ppb
Concentration per Run 1	1.207 ppb	0.438 ppb	0.213 ppb	91.751 %	0.601 ppb	0.996 ppb	0.947 ppb
Concentration per Run 2	1.218 ppb	0.504 ppb	0.292 ppb	86.929 %	0.708 ppb	0.756 ppb	0.761 ppb
Concentration per Run 3	1.612 ppb	0.469 ppb	0.249 ppb	85.880 %	0.369 ppb	0.934 ppb	0.920 ppb
Recovery Percentage 1	134.567 %	117.622 %	125.552 %		111.878 %	179.053 %	175.170 %
Concentration RSD	17.2 %	7.1 %	15.7 %	3.6 %	31.0 %	13.9 %	11.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.521 %	0.539 ppb	1.102 ppb	90.761 %
Concentration per Run 1	89.715 %	0.533 ppb	1.053 ppb	93.540 %
Concentration per Run 2	88.613 %	0.569 ppb	1.116 ppb	89.611 %
Concentration per Run 3	87.236 %	0.515 ppb	1.136 ppb	89.130 %
Recovery Percentage 1		107.824 %	110.185 %	
Concentration RSD	1.4 %	5.1 %	3.9 %	2.7 %

Analysis index: 15 Analysis started at: 3/15/2016 1:32:23 PM Rack: 4
Analysis label: ICSA User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	78.893 %	73.849 %	0.022 ppb	48,150.742 ppb	21,058.493 ppb	19,730.114 ppb	20,703.434 ppb
Concentration per Run 1	78.112 %	74.818 %	0.022 ppb	50,133.372 ppb	21,613.407 ppb	20,331.234 ppb	22,887.187 ppb
Concentration per Run 2	80.324 %	76.513 %	0.025 ppb	45,404.046 ppb	19,844.007 ppb	18,652.417 ppb	18,206.031 ppb
Concentration per Run 3	78.244 %	70.217 %	0.018 ppb	48,914.808 ppb	21,718.066 ppb	20,206.692 ppb	21,017.083 ppb
Recovery Percentage 1				96.301 %	105.292 %	98.651 %	103.517 %
Concentration RSD	1.6 %	4.4 %	15.8 %	5.1 %	5.0 %	4.7 %	11.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	59,896.981 ppb	71.338 %	76.250 %	0.010 ppb	0.200 ppb	-0.063 ppb	50,752.075 ppb
Concentration per Run 1	65,247.326 ppb	67.898 %	75.136 %	0.029 ppb	0.242 ppb	-0.098 ppb	50,397.222 ppb
Concentration per Run 2	53,741.517 ppb	75.405 %	78.210 %	0.000 ppb	0.046 ppb	-0.187 ppb	50,042.878 ppb
Concentration per Run 3	60,702.099 ppb	70.713 %	75.404 %	0.000 ppb	0.312 ppb	0.096 ppb	51,816.126 ppb
Recovery Percentage 1	99.828 %						101.504 %
Concentration RSD	9.7 %	5.3 %	2.2 %	173.2 %	68.9 %	230.1 %	1.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.285 ppb	0.045 ppb	0.314 ppb	-0.216 ppb	78.780 %	0.285 ppb	-0.508 ppb
Concentration per Run 1	0.281 ppb	0.085 ppb	0.238 ppb	-0.455 ppb	81.552 %	0.286 ppb	-0.579 ppb
Concentration per Run 2	0.328 ppb	0.079 ppb	0.341 ppb	-0.207 ppb	79.086 %	0.326 ppb	0.121 ppb
Concentration per Run 3	0.247 ppb	-0.028 ppb	0.362 ppb	0.015 ppb	75.703 %	0.244 ppb	-1.065 ppb
Recovery Percentage 1							
Concentration RSD	14.2 %	139.7 %	21.2 %	108.8 %	3.7 %	14.4 %	117.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	399.967 ppb	0.099 ppb	0.189 ppb	78.761 %	0.007 ppb	0.505 ppb	0.054 ppb
Concentration per Run 1	404.714 ppb	0.107 ppb	0.138 ppb	79.390 %	0.031 ppb	0.423 ppb	0.080 ppb
Concentration per Run 2	387.710 ppb	0.117 ppb	0.220 ppb	79.264 %	-0.025 ppb	0.403 ppb	0.083 ppb
Concentration per Run 3	407.478 ppb	0.073 ppb	0.208 ppb	77.630 %	0.015 ppb	0.688 ppb	-0.002 ppb
Recovery Percentage 1	99.992 %						
Concentration RSD	2.7 %	23.0 %	23.5 %	1.2 %	410.9 %	31.6 %	89.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	75.392 %	0.010 ppb	0.094 ppb	81.461 %
Concentration per Run 1	76.490 %	0.014 ppb	0.096 ppb	82.816 %
Concentration per Run 2	73.266 %	0.008 ppb	0.075 ppb	80.471 %
Concentration per Run 3	76.419 %	0.008 ppb	0.111 ppb	81.095 %
Recovery Percentage 1				
Concentration RSD	2.4 %	36.0 %	19.1 %	1.5 %

Analysis index: 16 Analysis started at: 3/15/2016 1:35:29 PM Rack: 4
Analysis label: ICSAB User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.392 %	82.970 %	0.035 ppb	43,611.864 ppb	19,244.340 ppb	18,102.335 ppb	19,687.184 ppb
Concentration per Run 1	87.050 %	85.230 %	0.038 ppb	41,640.963 ppb	18,254.334 ppb	17,241.338 ppb	19,306.512 ppb
Concentration per Run 2	86.293 %	83.050 %	0.035 ppb	44,446.405 ppb	20,035.813 ppb	19,113.489 ppb	21,130.367 ppb
Concentration per Run 3	85.831 %	80.629 %	0.033 ppb	44,748.224 ppb	19,442.874 ppb	17,952.178 ppb	18,624.673 ppb
Recovery Percentage 1				87.224 %	96.222 %	90.512 %	98.436 %
Concentration RSD	0.7 %	2.8 %	6.7 %	3.9 %	4.7 %	5.2 %	6.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	57,921.275 ppb	77.547 %	80.268 %	40.209 ppb	39.287 ppb	38.650 ppb	49,606.195 ppb
Concentration per Run 1	56,520.848 ppb	80.747 %	80.156 %	39.877 ppb	37.025 ppb	34.788 ppb	50,284.802 ppb
Concentration per Run 2	60,002.143 ppb	73.384 %	81.314 %	40.025 ppb	39.806 ppb	41.811 ppb	48,870.501 ppb
Concentration per Run 3	57,240.833 ppb	78.509 %	79.335 %	40.725 ppb	41.031 ppb	39.352 ppb	49,663.280 ppb
Recovery Percentage 1	96.535 %			100.523 %	98.218 %	96.625 %	99.212 %
Concentration RSD	3.2 %	4.9 %	1.2 %	1.1 %	5.2 %	9.2 %	1.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	38.443 ppb	39.209 ppb	40.628 ppb	19.506 ppb	81.256 %	19.884 ppb	19.128 ppb
Concentration per Run 1	39.034 ppb	40.354 ppb	39.099 ppb	20.577 ppb	79.983 %	20.069 ppb	18.313 ppb
Concentration per Run 2	36.781 ppb	39.740 ppb	40.801 ppb	19.525 ppb	85.788 %	18.340 ppb	21.121 ppb
Concentration per Run 3	39.515 ppb	37.532 ppb	41.984 ppb	18.417 ppb	77.997 %	21.241 ppb	17.951 ppb
Recovery Percentage 1	96.109 %	98.022 %	101.571 %	97.532 %		99.418 %	95.642 %
Concentration RSD	3.8 %	3.8 %	3.6 %	5.5 %	5.0 %	7.3 %	9.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	402.746 ppb	10.045 ppb	20.492 ppb	80.634 %	-0.008 ppb	0.559 ppb	0.144 ppb
Concentration per Run 1	412.224 ppb	10.495 ppb	20.346 ppb	81.298 %	0.028 ppb	0.435 ppb	0.157 ppb
Concentration per Run 2	391.220 ppb	9.552 ppb	19.908 ppb	81.212 %	-0.046 ppb	0.659 ppb	0.238 ppb
Concentration per Run 3	404.796 ppb	10.087 ppb	21.220 ppb	79.393 %	-0.007 ppb	0.582 ppb	0.038 ppb
Recovery Percentage 1	100.687 %	100.447 %	102.458 %				
Concentration RSD	2.6 %	4.7 %	3.3 %	1.3 %	438.3 %	20.4 %	69.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.232 %	0.000 ppb	0.097 ppb	85.416 %
Concentration per Run 1	78.741 %	-0.001 ppb	0.090 ppb	85.663 %
Concentration per Run 2	78.540 %	0.003 ppb	0.101 ppb	85.781 %
Concentration per Run 3	77.416 %	-0.002 ppb	0.098 ppb	84.804 %
Recovery Percentage 1				
Concentration RSD	0.9 %	3,144.0 %	5.8 %	0.6 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 17 Analysis started at: 3/15/2016 1:38:36 PM Rack: 0
Analysis label: HIGH STD User name: ALPHALAB\a1metalsinstrument Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	88.264 %	83.777 %	502.914 ppb	45,194.380 ppb	48,264.534 ppb	470.911 ppb	48,627.592 ppb
Concentration per Run 1	88.130 %	87.409 %	503.790 ppb	44,439.902 ppb	47,463.351 ppb	460.407 ppb	49,152.766 ppb
Concentration per Run 2	88.017 %	76.271 %	499.065 ppb	46,110.838 ppb	49,385.245 ppb	485.061 ppb	47,125.344 ppb
Concentration per Run 3	88.643 %	87.651 %	505.887 ppb	45,032.399 ppb	47,945.007 ppb	467.266 ppb	49,604.667 ppb
Recovery Percentage 1			100.583 %	90.389 %	96.529 %	94.182 %	97.255 %
Concentration RSD	0.4 %	7.8 %	0.7 %	1.9 %	2.1 %	2.7 %	2.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	47,391.476 ppb	87.052 %	90.302 %	492.313 ppb	485.085 ppb	508.098 ppb	49,702.648 ppb
Concentration per Run 1	47,662.897 ppb	88.038 %	90.516 %	497.764 ppb	482.803 ppb	500.180 ppb	48,653.769 ppb
Concentration per Run 2	45,762.695 ppb	89.122 %	88.972 %	470.067 ppb	466.311 ppb	492.754 ppb	49,032.425 ppb
Concentration per Run 3	48,748.836 ppb	83.995 %	91.418 %	509.109 ppb	506.142 ppb	531.359 ppb	51,421.749 ppb
Recovery Percentage 1	94.783 %			98.463 %	97.017 %	101.620 %	99.405 %
Concentration RSD	3.2 %	3.1 %	1.4 %	4.1 %	4.1 %	4.0 %	3.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	499.753 ppb	501.941 ppb	511.993 ppb	510.981 ppb	83.799 %	521.011 ppb	522.051 ppb
Concentration per Run 1	507.187 ppb	507.145 ppb	507.044 ppb	505.245 ppb	84.384 %	520.143 ppb	523.622 ppb
Concentration per Run 2	480.532 ppb	489.414 ppb	506.843 ppb	502.076 ppb	85.990 %	514.358 ppb	490.619 ppb
Concentration per Run 3	511.540 ppb	509.263 ppb	522.092 ppb	525.624 ppb	81.021 %	528.532 ppb	551.913 ppb
Recovery Percentage 1	99.951 %	100.388 %	102.399 %	102.196 %		104.202 %	104.410 %
Concentration RSD	3.4 %	2.2 %	1.7 %	2.5 %	3.0 %	1.4 %	5.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	509.306 ppb	498.027 ppb	506.274 ppb	86.547 %	500.977 ppb	494.624 ppb	482.577 ppb
Concentration per Run 1	512.983 ppb	494.414 ppb	504.060 ppb	89.291 %	497.940 ppb	502.078 ppb	492.594 ppb
Concentration per Run 2	518.913 ppb	512.703 ppb	512.205 ppb	83.259 %	518.756 ppb	492.389 ppb	481.904 ppb
Concentration per Run 3	496.022 ppb	486.964 ppb	502.556 ppb	87.092 %	486.234 ppb	489.406 ppb	473.233 ppb
Recovery Percentage 1	101.861 %	99.605 %	101.255 %		100.195 %	98.925 %	96.515 %
Concentration RSD	2.3 %	2.7 %	1.0 %	3.5 %	3.3 %	1.3 %	2.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.799 %	377.593 ppb	418.685 ppb	88.732 %
Concentration per Run 1	90.663 %	377.511 ppb	419.244 ppb	89.485 %
Concentration per Run 2	88.430 %	387.902 ppb	425.674 ppb	88.937 %
Concentration per Run 3	84.302 %	367.365 ppb	411.137 ppb	87.773 %
Recovery Percentage 1		75.519 %	83.737 %	
Concentration RSD	3.7 %	2.7 %	1.7 %	1.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 18 Analysis started at: 3/15/2016 1:41:42 PM Rack: 0
Analysis label: Rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.999 %	84.342 %	0.077 ppb	3.431 ppb	2.926 ppb	-0.123 ppb	4.013 ppb
Concentration per Run 1	88.265 %	80.145 %	0.069 ppb	3.299 ppb	4.205 ppb	-0.383 ppb	5.871 ppb
Concentration per Run 2	88.737 %	90.799 %	0.074 ppb	1.132 ppb	3.407 ppb	0.058 ppb	1.964 ppb
Concentration per Run 3	80.996 %	82.082 %	0.089 ppb	5.863 ppb	1.166 ppb	-0.042 ppb	4.204 ppb
Concentration RSD	5.0 %	6.7 %	13.3 %	69.0 %	53.9 %	188.5 %	48.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-6.037 ppb	83.635 %	88.850 %	0.033 ppb	0.048 ppb	-0.829 ppb	5.076 ppb
Concentration per Run 1	-0.530 ppb	87.822 %	88.651 %	0.000 ppb	0.043 ppb	-0.902 ppb	6.743 ppb
Concentration per Run 2	-11.874 ppb	82.119 %	90.376 %	0.074 ppb	0.066 ppb	-0.795 ppb	2.759 ppb
Concentration per Run 3	-5.707 ppb	80.963 %	87.523 %	0.025 ppb	0.036 ppb	-0.790 ppb	5.726 ppb
Concentration RSD	94.1 %	4.4 %	1.6 %	114.0 %	32.5 %	7.6 %	40.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.067 ppb	-0.029 ppb	0.103 ppb	-0.843 ppb	88.029 %	0.542 ppb	-0.078 ppb
Concentration per Run 1	0.074 ppb	-0.009 ppb	0.131 ppb	-0.716 ppb	88.828 %	0.648 ppb	0.339 ppb
Concentration per Run 2	0.051 ppb	-0.005 ppb	0.088 ppb	-0.971 ppb	88.376 %	0.484 ppb	-0.651 ppb
Concentration per Run 3	0.078 ppb	-0.072 ppb	0.090 ppb	-0.841 ppb	86.885 %	0.493 ppb	0.077 ppb
Concentration RSD	21.4 %	130.9 %	23.7 %	15.1 %	1.2 %	17.0 %	653.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.640 ppb	0.081 ppb	0.052 ppb	90.928 %	-0.027 ppb	1.836 ppb	0.051 ppb
Concentration per Run 1	1.754 ppb	0.076 ppb	0.063 ppb	91.736 %	-0.006 ppb	1.626 ppb	0.027 ppb
Concentration per Run 2	1.618 ppb	0.066 ppb	0.036 ppb	89.528 %	-0.037 ppb	2.009 ppb	-0.007 ppb
Concentration per Run 3	1.547 ppb	0.101 ppb	0.057 ppb	91.519 %	-0.038 ppb	1.872 ppb	0.134 ppb
Concentration RSD	6.4 %	22.0 %	27.4 %	1.3 %	68.1 %	10.6 %	144.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.866 %	0.061 ppb	0.038 ppb	95.004 %
Concentration per Run 1	91.088 %	0.063 ppb	0.046 ppb	97.453 %
Concentration per Run 2	89.349 %	0.054 ppb	0.037 ppb	94.595 %
Concentration per Run 3	89.162 %	0.064 ppb	0.030 ppb	92.964 %
Concentration RSD	1.2 %	9.1 %	21.7 %	2.4 %

Analysis index: 19 Analysis started at: 3/15/2016 1:44:44 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.575 %	82.485 %	104.829 ppb	10,768.407 ppb	10,688.077 ppb	103.920 ppb	10,537.347 ppb
Concentration per Run 1	86.906 %	77.481 %	105.754 ppb	11,124.123 ppb	11,092.966 ppb	111.579 ppb	10,762.267 ppb
Concentration per Run 2	87.269 %	84.261 %	103.215 ppb	10,584.256 ppb	10,506.004 ppb	101.128 ppb	10,405.782 ppb
Concentration per Run 3	85.552 %	85.714 %	105.518 ppb	10,596.841 ppb	10,465.262 ppb	99.053 ppb	10,443.993 ppb
Recovery Percentage 1			104.829 %	107.684 %	106.881 %	103.920 %	105.373 %
Concentration RSD	1.0 %	5.3 %	1.3 %	2.9 %	3.3 %	6.5 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,261.040 ppb	84.766 %	88.132 %	103.773 ppb	103.617 ppb	102.299 ppb	10,676.782 ppb
Concentration per Run 1	10,278.500 ppb	84.573 %	86.355 %	101.501 ppb	104.885 ppb	105.557 ppb	10,909.635 ppb
Concentration per Run 2	10,492.879 ppb	87.100 %	91.883 %	106.090 ppb	102.409 ppb	99.846 ppb	10,457.363 ppb
Concentration per Run 3	10,011.739 ppb	82.624 %	86.157 %	103.729 ppb	103.557 ppb	101.496 ppb	10,663.347 ppb
Recovery Percentage 1	102.610 %			103.773 %	103.617 %	102.299 %	106.768 %
Concentration RSD	2.3 %	2.6 %	3.7 %	2.2 %	1.2 %	2.9 %	2.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	106.602 ppb	102.600 ppb	106.808 ppb	105.708 ppb	85.888 %	105.919 ppb	104.685 ppb
Concentration per Run 1	107.066 ppb	101.954 ppb	108.647 ppb	105.755 ppb	88.456 %	104.859 ppb	96.930 ppb
Concentration per Run 2	106.202 ppb	102.200 ppb	105.305 ppb	105.045 ppb	83.690 %	105.622 ppb	112.950 ppb
Concentration per Run 3	106.537 ppb	103.645 ppb	106.471 ppb	106.323 ppb	85.519 %	107.276 ppb	104.176 ppb
Recovery Percentage 1	106.602 %	102.600 %	106.808 %	105.708 %		105.919 %	104.685 %
Concentration RSD	0.4 %	0.9 %	1.6 %	0.6 %	2.8 %	1.2 %	7.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	102.976 ppb	108.192 ppb	104.836 ppb	89.041 %	108.332 ppb	103.232 ppb	102.549 ppb
Concentration per Run 1	105.191 ppb	110.779 ppb	107.063 ppb	88.879 %	109.671 ppb	104.357 ppb	104.746 ppb
Concentration per Run 2	102.784 ppb	106.738 ppb	104.639 ppb	90.204 %	104.666 ppb	100.464 ppb	100.762 ppb
Concentration per Run 3	100.953 ppb	107.059 ppb	102.806 ppb	88.040 %	110.659 ppb	104.876 ppb	102.140 ppb
Recovery Percentage 1	102.976 %	108.192 %	104.836 %		108.332 %	103.232 %	102.549 %
Concentration RSD	2.1 %	2.1 %	2.0 %	1.2 %	3.0 %	2.3 %	2.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.050 %	104.050 ppb	101.403 ppb	89.962 %
Concentration per Run 1	89.369 %	104.199 ppb	102.725 ppb	89.874 %
Concentration per Run 2	89.154 %	102.294 ppb	99.672 ppb	91.450 %
Concentration per Run 3	85.628 %	105.658 ppb	101.812 ppb	88.563 %
Recovery Percentage 1		104.050 %	101.403 %	
Concentration RSD	2.4 %	1.6 %	1.5 %	1.6 %

Analysis index: 20 Analysis started at: 3/15/2016 1:47:52 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.795 %	84.826 %	0.055 ppb	5.297 ppb	0.848 ppb	-0.287 ppb	12.482 ppb
Concentration per Run 1	86.057 %	91.525 %	0.077 ppb	1.258 ppb	1.493 ppb	-0.134 ppb	23.156 ppb
Concentration per Run 2	84.813 %	84.261 %	0.046 ppb	8.361 ppb	-0.138 ppb	-0.690 ppb	18.591 ppb
Concentration per Run 3	86.515 %	78.692 %	0.041 ppb	6.271 ppb	1.191 ppb	-0.038 ppb	-4.300 ppb
Recovery Percentage 1			10.917 %	5.297 %	1.212 %	-2.873 %	12.482 %
Concentration RSD	1.0 %	7.6 %	35.2 %	68.9 %	102.3 %	122.4 %	117.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	25.726 ppb	84.958 %	87.010 %	0.040 ppb	0.016 ppb	0.158 ppb	3.628 ppb
Concentration per Run 1	33.448 ppb	88.977 %	86.977 %	0.070 ppb	0.011 ppb	0.186 ppb	4.629 ppb
Concentration per Run 2	30.928 ppb	82.696 %	86.225 %	0.025 ppb	0.050 ppb	0.263 ppb	3.501 ppb
Concentration per Run 3	12.802 ppb	83.201 %	87.828 %	0.025 ppb	-0.014 ppb	0.024 ppb	2.753 ppb
Recovery Percentage 1	25.726 %			0.793 %	1.576 %	15.767 %	7.255 %
Concentration RSD	43.8 %	4.1 %	0.9 %	65.5 %	204.0 %	77.5 %	26.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.022 ppb	0.092 ppb	0.049 ppb	0.238 ppb	87.592 %	0.135 ppb	-0.541 ppb
Concentration per Run 1	0.041 ppb	0.119 ppb	-0.056 ppb	0.219 ppb	89.179 %	0.039 ppb	-0.339 ppb
Concentration per Run 2	0.000 ppb	0.063 ppb	0.065 ppb	0.160 ppb	86.369 %	0.269 ppb	-0.915 ppb
Concentration per Run 3	0.025 ppb	0.095 ppb	0.136 ppb	0.334 ppb	87.229 %	0.097 ppb	-0.369 ppb
Recovery Percentage 1	4.400 %	18.488 %	4.866 %	2.379 %	87.592 %	26.996 %	-10.816 %
Concentration RSD	93.2 %	30.2 %	199.6 %	37.1 %	1.6 %	88.4 %	59.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.861 ppb	0.044 ppb	0.040 ppb	84.702 %	0.098 ppb	0.526 ppb	0.007 ppb
Concentration per Run 1	0.837 ppb	0.053 ppb	0.053 ppb	84.694 %	0.021 ppb	0.350 ppb	0.032 ppb
Concentration per Run 2	0.858 ppb	0.052 ppb	0.045 ppb	86.390 %	0.175 ppb	0.700 ppb	0.031 ppb
Concentration per Run 3	0.889 ppb	0.028 ppb	0.023 ppb	83.022 %	0.096 ppb	0.529 ppb	-0.043 ppb
Recovery Percentage 1	28.705 %	11.052 %	20.171 %		3.251 %	26.323 %	1.315 %
Concentration RSD	3.0 %	31.7 %	38.2 %	2.0 %	79.0 %	33.3 %	657.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.377 %	0.051 ppb	0.031 ppb	90.180 %
Concentration per Run 1	85.916 %	0.060 ppb	0.035 ppb	91.152 %
Concentration per Run 2	85.826 %	0.038 ppb	0.034 ppb	89.912 %
Concentration per Run 3	87.390 %	0.057 ppb	0.026 ppb	89.476 %
Recovery Percentage 1		10.292 %	6.299 %	90.180 %
Concentration RSD	1.0 %	23.5 %	15.5 %	1.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 21 Analysis started at: 3/15/2016 1:53:59 PM Rack: 1
Analysis label: WG873268-3 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	83.597 %	79.822 %	0.098 ppb	453,176.188 ppb	36,987.589 ppb	37.734 ppb	34,765.376 ppb
Concentration per Run 1	83.512 %	86.440 %	0.112 ppb	428,873.443 ppb	35,910.465 ppb	36.337 ppb	34,365.615 ppb
Concentration per Run 2	83.662 %	75.060 %	0.108 ppb	479,724.179 ppb	37,530.330 ppb	37.650 ppb	35,728.495 ppb
Concentration per Run 3	83.616 %	77.966 %	0.074 ppb	450,930.943 ppb	37,521.972 ppb	39.216 ppb	34,202.016 ppb
Concentration RSD	0.1 %	7.4 %	21.4 %	5.6 %	2.5 %	3.8 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	154,300.371 ppb	78.172 %	84.550 %	4.890 ppb	1.227 ppb	872.335 ppb	97.915 ppb
Concentration per Run 1	152,691.325 ppb	81.541 %	85.063 %	4.950 ppb	1.142 ppb	860.577 ppb	102.194 ppb
Concentration per Run 2	159,580.767 ppb	74.105 %	83.542 %	4.877 ppb	1.366 ppb	893.403 ppb	96.937 ppb
Concentration per Run 3	150,629.021 ppb	78.870 %	85.046 %	4.842 ppb	1.171 ppb	863.026 ppb	94.615 ppb
Concentration RSD	3.0 %	4.8 %	1.0 %	1.1 %	9.9 %	2.1 %	4.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.902 ppb	5.107 ppb	2.994 ppb	25.043 ppb	80.288 %	4.110 ppb	-0.089 ppb
Concentration per Run 1	1.813 ppb	5.312 ppb	3.123 ppb	25.418 ppb	80.978 %	4.111 ppb	-0.161 ppb
Concentration per Run 2	2.079 ppb	5.357 ppb	2.784 ppb	24.228 ppb	82.577 %	3.945 ppb	-0.231 ppb
Concentration per Run 3	1.813 ppb	4.654 ppb	3.075 ppb	25.484 ppb	77.309 %	4.274 ppb	0.124 ppb
Concentration RSD	8.1 %	7.7 %	6.1 %	2.8 %	3.4 %	4.0 %	210.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	39.905 ppb	0.094 ppb	0.156 ppb	79.671 %	0.194 ppb	1.723 ppb	9.973 ppb
Concentration per Run 1	40.466 ppb	0.074 ppb	0.127 ppb	81.039 %	0.175 ppb	1.831 ppb	9.751 ppb
Concentration per Run 2	38.943 ppb	0.102 ppb	0.209 ppb	79.934 %	0.199 ppb	1.707 ppb	10.095 ppb
Concentration per Run 3	40.306 ppb	0.105 ppb	0.132 ppb	78.040 %	0.206 ppb	1.630 ppb	10.072 ppb
Concentration RSD	2.1 %	18.2 %	29.3 %	1.9 %	8.4 %	5.9 %	1.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.168 %	0.117 ppb	0.359 ppb	72.789 %
Concentration per Run 1	84.047 %	0.133 ppb	0.371 ppb	72.124 %
Concentration per Run 2	80.180 %	0.100 ppb	0.341 ppb	72.199 %
Concentration per Run 3	79.278 %	0.119 ppb	0.364 ppb	74.043 %
Concentration RSD	3.1 %	14.1 %	4.4 %	1.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 22
Analysis label: l1606583-04d20 6020tl
Analysis started at: 3/15/2016 1:57:03 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.289 %	83.131 %	0.032 ppb	2,902.447 ppb	514.262 ppb	201.967 ppb	662.278 ppb
Concentration per Run 1	86.519 %	80.145 %	0.036 ppb	3,074.442 ppb	538.177 ppb	213.891 ppb	691.095 ppb
Concentration per Run 2	87.116 %	87.893 %	0.018 ppb	2,772.803 ppb	509.351 ppb	193.860 ppb	676.413 ppb
Concentration per Run 3	88.233 %	81.355 %	0.040 ppb	2,860.097 ppb	495.257 ppb	198.149 ppb	619.325 ppb
Concentration RSD	1.0 %	5.0 %	36.6 %	5.3 %	4.3 %	5.2 %	5.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,427.616 ppb	80.891 %	86.383 %	0.679 ppb	0.704 ppb	21.213 ppb	364.497 ppb
Concentration per Run 1	3,474.321 ppb	81.396 %	86.010 %	0.698 ppb	0.878 ppb	21.614 ppb	382.431 ppb
Concentration per Run 2	3,355.004 ppb	80.241 %	84.311 %	0.735 ppb	0.700 ppb	21.676 ppb	363.663 ppb
Concentration per Run 3	3,453.524 ppb	81.035 %	88.827 %	0.605 ppb	0.535 ppb	20.350 ppb	347.397 ppb
Concentration RSD	1.9 %	0.7 %	2.6 %	9.9 %	24.3 %	3.5 %	4.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.219 ppb	1.561 ppb	3.289 ppb	3.532 ppb	86.942 %	0.445 ppb	-0.886 ppb
Concentration per Run 1	0.187 ppb	1.605 ppb	3.717 ppb	3.466 ppb	88.720 %	0.511 ppb	-0.616 ppb
Concentration per Run 2	0.243 ppb	1.573 ppb	2.901 ppb	3.369 ppb	86.369 %	0.269 ppb	-1.032 ppb
Concentration per Run 3	0.225 ppb	1.504 ppb	3.250 ppb	3.762 ppb	85.738 %	0.557 ppb	-1.010 ppb
Concentration RSD	13.1 %	3.3 %	12.4 %	5.8 %	1.8 %	34.8 %	26.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.638 ppb	0.002 ppb	0.027 ppb	87.751 %	0.062 ppb	0.310 ppb	5.666 ppb
Concentration per Run 1	0.545 ppb	-0.003 ppb	0.029 ppb	87.491 %	0.068 ppb	0.422 ppb	6.361 ppb
Concentration per Run 2	0.634 ppb	-0.002 ppb	0.015 ppb	87.861 %	0.118 ppb	0.192 ppb	5.548 ppb
Concentration per Run 3	0.737 ppb	0.010 ppb	0.037 ppb	87.902 %	-0.001 ppb	0.317 ppb	5.089 ppb
Concentration RSD	15.0 %	439.6 %	41.7 %	0.3 %	96.6 %	37.0 %	11.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.486 %	0.005 ppb	1.448 ppb	92.952 %
Concentration per Run 1	87.817 %	0.014 ppb	1.508 ppb	92.995 %
Concentration per Run 2	92.293 %	-0.001 ppb	1.423 ppb	95.103 %
Concentration per Run 3	88.347 %	0.001 ppb	1.413 ppb	90.759 %
Concentration RSD	2.7 %	181.5 %	3.6 %	2.3 %

Analysis index: 23
Analysis label: l1606583-05d200 6020tl
Analysis started at: 3/15/2016 2:00:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.687 %	83.938 %	0.016 ppb	710.333 ppb	152.860 ppb	29.667 ppb	90.589 ppb
Concentration per Run 1	81.861 %	87.167 %	0.007 ppb	704.133 ppb	157.828 ppb	31.435 ppb	92.640 ppb
Concentration per Run 2	86.957 %	80.629 %	0.022 ppb	734.583 ppb	150.779 ppb	29.078 ppb	86.741 ppb
Concentration per Run 3	88.243 %	84.019 %	0.018 ppb	692.285 ppb	149.973 ppb	28.488 ppb	92.385 ppb
Concentration RSD	3.9 %	3.9 %	48.3 %	3.1 %	2.8 %	5.3 %	3.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	882.354 ppb	83.514 %	86.360 %	0.058 ppb	0.090 ppb	5.117 ppb	100.074 ppb
Concentration per Run 1	867.746 ppb	84.285 %	86.723 %	0.024 ppb	0.092 ppb	5.281 ppb	89.801 ppb
Concentration per Run 2	866.143 ppb	79.808 %	83.505 %	0.127 ppb	0.054 ppb	5.054 ppb	106.471 ppb
Concentration per Run 3	913.172 ppb	86.450 %	88.853 %	0.024 ppb	0.123 ppb	5.015 ppb	103.950 ppb
Concentration RSD	3.0 %	4.1 %	3.1 %	101.8 %	39.0 %	2.8 %	9.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.031 ppb	0.062 ppb	0.669 ppb	0.173 ppb	86.962 %	0.098 ppb	-0.928 ppb
Concentration per Run 1	0.041 ppb	0.057 ppb	0.432 ppb	-0.001 ppb	91.016 %	0.038 ppb	-0.695 ppb
Concentration per Run 2	0.009 ppb	0.032 ppb	0.653 ppb	0.340 ppb	86.541 %	0.211 ppb	-1.056 ppb
Concentration per Run 3	0.043 ppb	0.096 ppb	0.924 ppb	0.180 ppb	83.329 %	0.043 ppb	-1.034 ppb
Concentration RSD	62.2 %	53.0 %	36.8 %	98.5 %	4.4 %	101.1 %	21.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.156 ppb	-0.007 ppb	0.005 ppb	86.506 %	-0.010 ppb	0.134 ppb	0.913 ppb
Concentration per Run 1	0.180 ppb	-0.003 ppb	0.000 ppb	87.062 %	-0.034 ppb	0.112 ppb	1.018 ppb
Concentration per Run 2	0.118 ppb	-0.011 ppb	0.008 ppb	85.698 %	0.019 ppb	0.093 ppb	1.010 ppb
Concentration per Run 3	0.171 ppb	-0.007 ppb	0.007 ppb	86.757 %	-0.016 ppb	0.197 ppb	0.710 ppb
Concentration RSD	21.3 %	62.2 %	86.6 %	0.8 %	260.2 %	41.6 %	19.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.588 %	0.000 ppb	1.269 ppb	90.896 %
Concentration per Run 1	88.263 %	0.000 ppb	1.264 ppb	93.426 %
Concentration per Run 2	90.997 %	0.001 ppb	1.247 ppb	91.087 %
Concentration per Run 3	83.504 %	-0.001 ppb	1.297 ppb	88.173 %
Concentration RSD	4.3 %	603.3 %	2.0 %	2.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 24
Analysis label: l1606583-05d20 6020tl
Analysis started at: 3/15/2016 2:03:08 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.870 %	86.198 %	0.049 ppb	10,863.441 ppb	2,527.540 ppb	530.630 ppb	1,377.622 ppb
Concentration per Run 1	87.005 %	86.682 %	0.045 ppb	11,216.340 ppb	2,599.200 ppb	564.245 ppb	1,477.964 ppb
Concentration per Run 2	87.080 %	90.315 %	0.046 ppb	10,501.672 ppb	2,441.795 ppb	525.008 ppb	1,290.225 ppb
Concentration per Run 3	86.525 %	81.598 %	0.055 ppb	10,872.310 ppb	2,541.625 ppb	502.635 ppb	1,364.675 ppb
Concentration RSD	0.3 %	5.1 %	12.0 %	3.3 %	3.2 %	5.9 %	6.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	14,761.517 ppb	83.611 %	86.070 %	1.405 ppb	1.836 ppb	98.604 ppb	1,794.824 ppb
Concentration per Run 1	15,754.066 ppb	82.119 %	85.873 %	1.686 ppb	1.937 ppb	108.587 ppb	1,960.590 ppb
Concentration per Run 2	14,726.364 ppb	83.491 %	87.537 %	1.343 ppb	1.819 ppb	95.773 ppb	1,797.774 ppb
Concentration per Run 3	13,804.122 ppb	85.223 %	84.800 %	1.187 ppb	1.752 ppb	91.453 ppb	1,626.108 ppb
Concentration RSD	6.6 %	1.9 %	1.6 %	18.2 %	5.1 %	9.0 %	9.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.490 ppb	2.118 ppb	7.260 ppb	11.717 ppb	83.136 %	1.066 ppb	-0.341 ppb
Concentration per Run 1	0.598 ppb	2.435 ppb	7.560 ppb	13.318 ppb	82.125 %	1.180 ppb	-1.464 ppb
Concentration per Run 2	0.534 ppb	2.354 ppb	7.909 ppb	11.480 ppb	81.552 %	0.917 ppb	-1.042 ppb
Concentration per Run 3	0.338 ppb	1.566 ppb	6.312 ppb	10.354 ppb	85.731 %	1.101 ppb	1.484 ppb
Concentration RSD	27.6 %	22.7 %	11.6 %	12.8 %	2.7 %	12.7 %	468.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.461 ppb	0.021 ppb	0.032 ppb	86.857 %	1.088 ppb	0.245 ppb	14.523 ppb
Concentration per Run 1	0.470 ppb	0.011 ppb	0.038 ppb	84.874 %	1.315 ppb	0.287 ppb	16.019 ppb
Concentration per Run 2	0.413 ppb	0.019 ppb	0.022 ppb	87.296 %	1.015 ppb	0.216 ppb	13.825 ppb
Concentration per Run 3	0.501 ppb	0.034 ppb	0.037 ppb	88.400 %	0.932 ppb	0.233 ppb	13.724 ppb
Concentration RSD	9.7 %	57.0 %	27.0 %	2.1 %	18.5 %	15.1 %	8.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.980 %	0.007 ppb	21.597 ppb	89.085 %
Concentration per Run 1	83.705 %	0.012 ppb	23.180 ppb	88.362 %
Concentration per Run 2	87.596 %	0.006 ppb	20.625 ppb	88.424 %
Concentration per Run 3	89.638 %	0.003 ppb	20.987 ppb	90.468 %
Concentration RSD	3.5 %	65.1 %	6.4 %	1.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 25
Analysis label: l1606583-05 6020tl
Analysis started at: 3/15/2016 2:06:11 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.655 %	92.897 %	0.507 ppb	157,515.028 ppb	39,211.931 ppb	7,595.168 ppb	23,549.456 ppb
Concentration per Run 1	104.842 %	96.126 %	0.471 ppb	150,319.540 ppb	38,078.682 ppb	7,173.725 ppb	22,121.633 ppb
Concentration per Run 2	103.417 %	91.767 %	0.547 ppb	157,420.271 ppb	39,182.510 ppb	7,712.011 ppb	23,727.977 ppb
Concentration per Run 3	105.705 %	90.799 %	0.504 ppb	164,805.273 ppb	40,374.599 ppb	7,899.769 ppb	24,798.758 ppb
Concentration RSD	1.1 %	3.1 %	7.6 %	4.6 %	2.9 %	5.0 %	5.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	236,601.498 ppb	85.127 %	93.586 %	22.580 ppb	31.647 ppb	1,505.756 ppb	26,444.002 ppb
Concentration per Run 1	220,934.061 ppb	87.966 %	95.975 %	21.960 ppb	32.301 ppb	1,531.958 ppb	26,346.244 ppb
Concentration per Run 2	234,713.999 ppb	85.584 %	92.605 %	23.198 ppb	31.078 ppb	1,491.767 ppb	26,379.726 ppb
Concentration per Run 3	254,156.434 ppb	81.830 %	92.178 %	22.582 ppb	31.561 ppb	1,493.544 ppb	26,606.036 ppb
Concentration RSD	7.1 %	3.6 %	2.2 %	2.7 %	1.9 %	1.5 %	0.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	7.401 ppb	28.280 ppb	107.742 ppb	183.420 ppb	86.191 %	15.275 ppb	4.751 ppb
Concentration per Run 1	7.464 ppb	28.373 ppb	108.537 ppb	184.224 ppb	84.621 %	15.117 ppb	6.446 ppb
Concentration per Run 2	7.463 ppb	27.087 ppb	106.745 ppb	184.314 ppb	87.610 %	15.089 ppb	3.217 ppb
Concentration per Run 3	7.277 ppb	29.380 ppb	107.945 ppb	181.722 ppb	86.341 %	15.619 ppb	4.589 ppb
Concentration RSD	1.5 %	4.1 %	0.8 %	0.8 %	1.7 %	2.0 %	34.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	5.220 ppb	0.306 ppb	0.304 ppb	83.992 %	17.613 ppb	1.080 ppb	239.672 ppb
Concentration per Run 1	5.368 ppb	0.303 ppb	0.377 ppb	83.863 %	18.412 ppb	0.913 ppb	237.557 ppb
Concentration per Run 2	4.965 ppb	0.317 ppb	0.244 ppb	84.082 %	17.533 ppb	1.239 ppb	236.151 ppb
Concentration per Run 3	5.327 ppb	0.297 ppb	0.291 ppb	84.031 %	16.895 ppb	1.089 ppb	245.309 ppb
Concentration RSD	4.3 %	3.4 %	22.0 %	0.1 %	4.3 %	15.1 %	2.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.249 %	0.131 ppb	298.531 ppb	79.051 %
Concentration per Run 1	85.133 %	0.130 ppb	294.684 ppb	81.835 %
Concentration per Run 2	82.179 %	0.123 ppb	297.562 ppb	79.179 %
Concentration per Run 3	82.435 %	0.141 ppb	303.348 ppb	76.140 %
Concentration RSD	2.0 %	6.9 %	1.5 %	3.6 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 26
Analysis label: XI1606583-06d200 6020tl
Analysis started at: 3/15/2016 2:09:15 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.734 %	95.238 %	0.010 ppb	2,598.390 ppb	344.234 ppb	2.394 ppb	159.252 ppb
Concentration per Run 1	102.739 %	101.695 %	0.010 ppb	2,439.883 ppb	337.989 ppb	3.509 ppb	149.476 ppb
Concentration per Run 2	101.129 %	93.704 %	0.014 ppb	2,659.319 ppb	357.320 ppb	2.843 ppb	178.839 ppb
Concentration per Run 3	101.335 %	90.315 %	0.005 ppb	2,695.967 ppb	337.392 ppb	0.830 ppb	149.440 ppb
Concentration RSD	0.9 %	6.1 %	46.1 %	5.3 %	3.3 %	58.3 %	10.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,019.154 ppb	94.922 %	100.480 %	0.007 ppb	0.004 ppb	7.324 ppb	36.450 ppb
Concentration per Run 1	1,011.275 ppb	100.674 %	100.470 %	0.000 ppb	-0.027 ppb	6.288 ppb	39.366 ppb
Concentration per Run 2	1,114.360 ppb	89.699 %	101.572 %	0.000 ppb	-0.035 ppb	7.143 ppb	31.595 ppb
Concentration per Run 3	931.826 ppb	94.392 %	99.397 %	0.022 ppb	0.076 ppb	8.543 ppb	38.389 ppb
Concentration RSD	9.0 %	5.8 %	1.1 %	173.2 %	1,377.7 %	15.5 %	11.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.015 ppb	-0.046 ppb	0.228 ppb	-0.409 ppb	98.508 %	0.033 ppb	-1.247 ppb
Concentration per Run 1	0.029 ppb	-0.078 ppb	0.188 ppb	-0.385 ppb	101.911 %	0.056 ppb	-1.439 ppb
Concentration per Run 2	0.015 ppb	-0.015 ppb	0.223 ppb	-0.468 ppb	99.158 %	0.034 ppb	-1.403 ppb
Concentration per Run 3	0.000 ppb	-0.045 ppb	0.272 ppb	-0.374 ppb	94.455 %	0.010 ppb	-0.899 ppb
Concentration RSD	97.7 %	67.9 %	18.5 %	12.5 %	3.8 %	69.2 %	24.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.104 ppb	0.005 ppb	0.007 ppb	98.164 %	-0.059 ppb	0.056 ppb	1.135 ppb
Concentration per Run 1	0.071 ppb	0.000 ppb	0.006 ppb	104.151 %	-0.092 ppb	0.040 ppb	0.900 ppb
Concentration per Run 2	0.133 ppb	0.015 ppb	0.007 ppb	97.296 %	-0.012 ppb	0.062 ppb	1.345 ppb
Concentration per Run 3	0.109 ppb	0.001 ppb	0.007 ppb	93.046 %	-0.072 ppb	0.066 ppb	1.159 ppb
Concentration RSD	30.3 %	164.2 %	5.5 %	5.7 %	70.4 %	24.5 %	19.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.821 %	-0.001 ppb	0.061 ppb	100.116 %
Concentration per Run 1	99.952 %	0.001 ppb	0.060 ppb	104.405 %
Concentration per Run 2	96.756 %	-0.001 ppb	0.060 ppb	99.990 %
Concentration per Run 3	93.753 %	-0.002 ppb	0.063 ppb	95.954 %
Concentration RSD	3.2 %	194.0 %	2.5 %	4.2 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 27
Analysis label: l1606583-06d20 6020tl
Analysis started at: 3/15/2016 2:12:19 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.860 %	97.740 %	0.011 ppb	27,554.434 ppb	4,131.826 ppb	18.184 ppb	1,806.579 ppb
Concentration per Run 1	107.148 %	97.579 %	0.009 ppb	26,657.202 ppb	4,133.986 ppb	17.661 ppb	1,786.988 ppb
Concentration per Run 2	95.537 %	100.484 %	0.014 ppb	28,911.855 ppb	3,998.563 ppb	17.897 ppb	1,857.038 ppb
Concentration per Run 3	105.895 %	95.157 %	0.009 ppb	27,094.247 ppb	4,262.928 ppb	18.994 ppb	1,775.711 ppb
Concentration RSD	6.2 %	2.7 %	28.5 %	4.3 %	3.2 %	3.9 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12,967.981 ppb	93.815 %	97.704 %	0.118 ppb	0.129 ppb	99.091 ppb	372.327 ppb
Concentration per Run 1	13,072.198 ppb	95.403 %	98.356 %	0.130 ppb	0.129 ppb	100.039 ppb	358.944 ppb
Concentration per Run 2	13,114.834 ppb	93.237 %	98.027 %	0.112 ppb	0.123 ppb	100.829 ppb	377.405 ppb
Concentration per Run 3	12,716.910 ppb	92.804 %	96.730 %	0.111 ppb	0.135 ppb	96.407 ppb	380.633 ppb
Concentration RSD	1.7 %	1.5 %	0.9 %	8.9 %	4.9 %	2.4 %	3.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.034 ppb	0.518 ppb	0.306 ppb	0.001 ppb	92.735 %	0.046 ppb	-0.762 ppb
Concentration per Run 1	0.030 ppb	0.461 ppb	0.396 ppb	-0.146 ppb	96.061 %	0.061 ppb	-1.077 ppb
Concentration per Run 2	0.032 ppb	0.553 ppb	0.333 ppb	0.222 ppb	89.007 %	0.067 ppb	-0.651 ppb
Concentration per Run 3	0.039 ppb	0.540 ppb	0.188 ppb	-0.073 ppb	93.136 %	0.011 ppb	-0.560 ppb
Concentration RSD	13.8 %	9.6 %	34.9 %	29,677.3 %	3.8 %	67.1 %	36.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.275 ppb	-0.001 ppb	0.021 ppb	90.685 %	-0.021 ppb	0.088 ppb	13.923 ppb
Concentration per Run 1	0.264 ppb	-0.011 ppb	0.028 ppb	91.552 %	-0.039 ppb	0.067 ppb	14.577 ppb
Concentration per Run 2	0.274 ppb	0.013 ppb	0.014 ppb	91.343 %	-0.021 ppb	0.127 ppb	14.539 ppb
Concentration per Run 3	0.287 ppb	-0.007 ppb	0.022 ppb	89.160 %	-0.002 ppb	0.069 ppb	12.654 ppb
Concentration RSD	4.3 %	874.3 %	32.7 %	1.5 %	87.2 %	39.1 %	7.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.540 %	0.004 ppb	0.420 ppb	89.941 %
Concentration per Run 1	94.101 %	0.002 ppb	0.429 ppb	92.236 %
Concentration per Run 2	87.308 %	0.010 ppb	0.429 ppb	90.234 %
Concentration per Run 3	87.209 %	0.000 ppb	0.402 ppb	87.353 %
Concentration RSD	4.4 %	143.1 %	3.8 %	2.7 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 28
Analysis label: l1606583-06 6020tl
Analysis started at: 3/15/2016 2:15:22 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 8

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.142 %	92.171 %	0.034 ppb	497,160.429 ppb	72,330.260 ppb	312.272 ppb	38,171.379 ppb
Concentration per Run 1	93.683 %	99.031 %	0.041 ppb	472,438.197 ppb	67,189.289 ppb	307.331 ppb	38,157.829 ppb
Concentration per Run 2	96.104 %	93.220 %	0.030 ppb	502,071.853 ppb	73,120.896 ppb	306.992 ppb	38,034.779 ppb
Concentration per Run 3	95.640 %	84.261 %	0.032 ppb	516,971.237 ppb	76,680.594 ppb	322.493 ppb	38,321.529 ppb
Concentration RSD	1.4 %	8.1 %	16.7 %	4.6 %	6.6 %	2.8 %	0.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	263,884.617 ppb	77.739 %	86.782 %	1.664 ppb	3.241 ppb	1,791.355 ppb	6,952.955 ppb
Concentration per Run 1	257,498.262 ppb	80.747 %	87.138 %	1.399 ppb	2.916 ppb	1,705.562 ppb	6,607.783 ppb
Concentration per Run 2	269,457.275 ppb	76.632 %	87.788 %	1.666 ppb	3.482 ppb	1,850.821 ppb	7,021.594 ppb
Concentration per Run 3	264,698.313 ppb	75.838 %	85.419 %	1.927 ppb	3.326 ppb	1,817.683 ppb	7,229.489 ppb
Concentration RSD	2.3 %	3.4 %	1.4 %	15.9 %	9.0 %	4.2 %	4.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.476 ppb	5.792 ppb	6.493 ppb	15.820 ppb	79.524 %	1.833 ppb	-0.770 ppb
Concentration per Run 1	0.556 ppb	5.785 ppb	6.632 ppb	15.174 ppb	83.157 %	1.641 ppb	-1.163 ppb
Concentration per Run 2	0.458 ppb	5.955 ppb	6.330 ppb	15.725 ppb	77.997 %	1.843 ppb	-0.422 ppb
Concentration per Run 3	0.415 ppb	5.636 ppb	6.518 ppb	16.561 ppb	77.417 %	2.016 ppb	-0.725 ppb
Concentration RSD	15.1 %	2.8 %	2.3 %	4.4 %	4.0 %	10.2 %	48.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.437 ppb	0.015 ppb	0.025 ppb	78.460 %	0.647 ppb	0.303 ppb	263.921 ppb
Concentration per Run 1	1.963 ppb	0.021 ppb	0.024 ppb	79.812 %	0.444 ppb	0.237 ppb	254.370 ppb
Concentration per Run 2	2.702 ppb	0.003 ppb	0.008 ppb	78.052 %	0.938 ppb	0.243 ppb	260.079 ppb
Concentration per Run 3	2.646 ppb	0.022 ppb	0.042 ppb	77.517 %	0.557 ppb	0.430 ppb	277.314 ppb
Concentration RSD	16.9 %	68.9 %	67.6 %	1.5 %	40.0 %	36.1 %	4.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.824 %	0.001 ppb	7.921 ppb	71.735 %
Concentration per Run 1	79.459 %	0.001 ppb	8.052 ppb	72.111 %
Concentration per Run 2	77.922 %	-0.004 ppb	7.948 ppb	71.521 %
Concentration per Run 3	79.091 %	0.005 ppb	7.764 ppb	71.572 %
Concentration RSD	1.0 %	433.1 %	1.8 %	0.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 29
Analysis label: l1606763-01 6020tl
Analysis started at: 3/15/2016 2:18:27 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.036 %	84.342 %	0.476 ppb	67,541.396 ppb	14,869.529 ppb	6,185.955 ppb	12,068.984 ppb
Concentration per Run 1	100.720 %	78.934 %	0.492 ppb	71,034.067 ppb	15,485.614 ppb	6,476.936 ppb	11,904.253 ppb
Concentration per Run 2	101.075 %	85.230 %	0.480 ppb	65,931.893 ppb	14,840.486 ppb	6,220.632 ppb	12,259.335 ppb
Concentration per Run 3	98.311 %	88.862 %	0.457 ppb	65,658.229 ppb	14,282.488 ppb	5,860.296 ppb	12,043.364 ppb
Concentration RSD	1.5 %	6.0 %	3.7 %	4.5 %	4.0 %	5.0 %	1.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	113,212.003 ppb	78.990 %	88.842 %	17.512 ppb	14.881 ppb	928.205 ppb	26,149.390 ppb
Concentration per Run 1	113,547.355 ppb	81.108 %	88.397 %	16.625 ppb	15.316 ppb	925.909 ppb	27,054.689 ppb
Concentration per Run 2	116,498.241 ppb	77.643 %	91.463 %	18.365 ppb	14.156 ppb	941.361 ppb	25,985.661 ppb
Concentration per Run 3	109,590.414 ppb	78.220 %	86.667 %	17.548 ppb	15.169 ppb	917.346 ppb	25,407.818 ppb
Concentration RSD	3.1 %	2.4 %	2.7 %	5.0 %	4.2 %	1.3 %	3.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	8.813 ppb	76.407 ppb	56.838 ppb	128.579 ppb	85.223 %	17.201 ppb	4.292 ppb
Concentration per Run 1	8.926 ppb	77.463 ppb	57.588 ppb	134.058 ppb	85.151 %	19.032 ppb	3.589 ppb
Concentration per Run 2	9.192 ppb	78.072 ppb	59.202 ppb	126.943 ppb	84.865 %	16.825 ppb	6.012 ppb
Concentration per Run 3	8.321 ppb	73.686 ppb	53.726 ppb	124.736 ppb	85.654 %	15.745 ppb	3.274 ppb
Concentration RSD	5.1 %	3.1 %	5.0 %	3.8 %	0.5 %	9.7 %	34.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.485 ppb	0.050 ppb	0.206 ppb	83.194 %	5.501 ppb	1.144 ppb	172.005 ppb
Concentration per Run 1	3.861 ppb	0.040 ppb	0.159 ppb	85.043 %	6.130 ppb	0.949 ppb	178.716 ppb
Concentration per Run 2	3.102 ppb	0.064 ppb	0.190 ppb	81.143 %	5.026 ppb	1.146 ppb	171.460 ppb
Concentration per Run 3	3.493 ppb	0.045 ppb	0.270 ppb	83.397 %	5.346 ppb	1.336 ppb	165.838 ppb
Concentration RSD	10.9 %	25.4 %	27.7 %	2.4 %	10.3 %	16.9 %	3.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.988 %	0.111 ppb	68.666 ppb	85.950 %
Concentration per Run 1	82.515 %	0.109 ppb	70.897 ppb	84.141 %
Concentration per Run 2	81.492 %	0.109 ppb	68.025 ppb	87.572 %
Concentration per Run 3	81.955 %	0.115 ppb	67.077 ppb	86.137 %
Concentration RSD	0.6 %	3.1 %	2.9 %	2.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 30
Analysis label: l1606763-01d20 6020tl
Analysis started at: 3/15/2016 2:21:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.592 %	94.673 %	0.028 ppb	3,529.662 ppb	713.831 ppb	298.976 ppb	563.858 ppb
Concentration per Run 1	103.231 %	89.588 %	0.026 ppb	3,598.476 ppb	735.606 ppb	310.966 ppb	581.549 ppb
Concentration per Run 2	102.921 %	97.821 %	0.033 ppb	3,492.106 ppb	708.450 ppb	304.904 ppb	575.047 ppb
Concentration per Run 3	104.625 %	96.610 %	0.025 ppb	3,498.403 ppb	697.435 ppb	281.059 ppb	534.979 ppb
Concentration RSD	0.9 %	4.7 %	15.9 %	1.7 %	2.8 %	5.3 %	4.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,252.882 ppb	85.295 %	92.719 %	0.801 ppb	0.767 ppb	47.673 ppb	1,364.332 ppb
Concentration per Run 1	4,977.072 ppb	90.639 %	91.151 %	0.624 ppb	0.767 ppb	45.956 ppb	1,376.301 ppb
Concentration per Run 2	5,329.800 ppb	82.624 %	92.954 %	1.012 ppb	0.759 ppb	47.434 ppb	1,316.878 ppb
Concentration per Run 3	5,451.774 ppb	82.624 %	94.052 %	0.766 ppb	0.775 ppb	49.630 ppb	1,399.818 ppb
Concentration RSD	4.7 %	5.4 %	1.6 %	24.6 %	1.1 %	3.9 %	3.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.433 ppb	4.388 ppb	2.932 ppb	5.680 ppb	86.847 %	0.854 ppb	-0.786 ppb
Concentration per Run 1	0.485 ppb	4.260 ppb	2.966 ppb	6.376 ppb	84.993 %	1.082 ppb	-0.834 ppb
Concentration per Run 2	0.365 ppb	4.481 ppb	2.648 ppb	4.860 ppb	87.917 %	0.850 ppb	-0.546 ppb
Concentration per Run 3	0.450 ppb	4.422 ppb	3.181 ppb	5.804 ppb	87.630 %	0.629 ppb	-0.978 ppb
Concentration RSD	14.3 %	2.6 %	9.2 %	13.5 %	1.9 %	26.6 %	28.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.318 ppb	-0.001 ppb	0.019 ppb	88.868 %	0.099 ppb	0.163 ppb	8.132 ppb
Concentration per Run 1	0.135 ppb	-0.002 ppb	0.007 ppb	87.285 %	0.085 ppb	0.111 ppb	8.240 ppb
Concentration per Run 2	0.445 ppb	0.010 ppb	0.037 ppb	88.386 %	0.083 ppb	0.192 ppb	8.156 ppb
Concentration per Run 3	0.374 ppb	-0.011 ppb	0.014 ppb	90.931 %	0.127 ppb	0.187 ppb	8.001 ppb
Concentration RSD	51.1 %	889.6 %	78.5 %	2.1 %	25.1 %	27.7 %	1.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.134 %	0.005 ppb	3.320 ppb	94.865 %
Concentration per Run 1	92.429 %	0.008 ppb	3.316 ppb	96.767 %
Concentration per Run 2	89.251 %	0.007 ppb	3.303 ppb	94.664 %
Concentration per Run 3	91.723 %	-0.001 ppb	3.342 ppb	93.164 %
Concentration RSD	1.8 %	109.8 %	0.6 %	1.9 %

Analysis index: 31 Analysis started at: 3/15/2016 2:24:36 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.386 %	90.153 %	99.367 ppb	10,296.945 ppb	10,053.017 ppb	95.573 ppb	10,349.660 ppb
Concentration per Run 1	98.228 %	90.072 %	100.071 ppb	10,076.537 ppb	9,749.424 ppb	87.445 ppb	10,034.016 ppb
Concentration per Run 2	99.542 %	86.925 %	99.428 ppb	10,531.145 ppb	10,304.434 ppb	101.504 ppb	10,505.566 ppb
Concentration per Run 3	97.388 %	93.462 %	98.603 ppb	10,283.153 ppb	10,105.193 ppb	97.770 ppb	10,509.398 ppb
Recovery Percentage 1			99.367 %	102.969 %	100.530 %	95.573 %	103.497 %
Concentration RSD	1.1 %	3.6 %	0.7 %	2.2 %	2.8 %	7.6 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,905.894 ppb	83.105 %	88.666 %	101.405 ppb	101.416 ppb	100.317 ppb	10,576.324 ppb
Concentration per Run 1	9,397.754 ppb	86.233 %	89.735 %	97.601 ppb	102.376 ppb	97.720 ppb	10,617.764 ppb
Concentration per Run 2	10,251.282 ppb	81.397 %	88.998 %	103.514 ppb	101.252 ppb	97.466 ppb	10,536.116 ppb
Concentration per Run 3	10,068.647 ppb	81.685 %	87.266 %	103.102 ppb	100.621 ppb	105.764 ppb	10,575.094 ppb
Recovery Percentage 1	99.059 %			101.405 %	101.416 %	100.317 %	105.763 %
Concentration RSD	4.5 %	3.3 %	1.4 %	3.3 %	0.9 %	4.7 %	0.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	104.735 ppb	106.009 ppb	107.343 ppb	99.228 ppb	86.968 %	100.953 ppb	96.967 ppb
Concentration per Run 1	104.005 ppb	109.299 ppb	106.964 ppb	98.926 ppb	86.048 %	100.024 ppb	96.477 ppb
Concentration per Run 2	101.850 ppb	104.400 ppb	103.546 ppb	96.307 ppb	89.999 %	100.518 ppb	96.166 ppb
Concentration per Run 3	108.351 ppb	104.328 ppb	111.519 ppb	102.450 ppb	84.858 %	102.315 ppb	98.257 ppb
Recovery Percentage 1	104.735 %	106.009 %	107.343 %	99.228 %		100.953 %	96.967 %
Concentration RSD	3.2 %	2.7 %	3.7 %	3.1 %	3.1 %	1.2 %	1.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	98.924 ppb	107.226 ppb	101.572 ppb	86.864 %	104.077 ppb	101.859 ppb	97.254 ppb
Concentration per Run 1	97.909 ppb	107.656 ppb	98.148 ppb	89.484 %	102.934 ppb	96.231 ppb	96.242 ppb
Concentration per Run 2	100.078 ppb	108.695 ppb	108.223 ppb	81.547 %	107.976 ppb	112.008 ppb	98.048 ppb
Concentration per Run 3	98.785 ppb	105.327 ppb	98.344 ppb	89.562 %	101.322 ppb	97.339 ppb	97.472 ppb
Recovery Percentage 1	98.924 %	107.226 %	101.572 %		104.077 %	101.859 %	97.254 %
Concentration RSD	1.1 %	1.6 %	5.7 %	5.3 %	3.3 %	8.6 %	0.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.424 %	104.443 ppb	101.564 ppb	88.046 %
Concentration per Run 1	87.478 %	104.351 ppb	99.816 ppb	87.767 %
Concentration per Run 2	85.670 %	102.952 ppb	102.574 ppb	87.418 %
Concentration per Run 3	89.124 %	106.026 ppb	102.302 ppb	88.952 %
Recovery Percentage 1		104.443 %	101.564 %	
Concentration RSD	2.0 %	1.5 %	1.5 %	0.9 %

Analysis index: 32 Analysis started at: 3/15/2016 2:27:43 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.699 %	85.230 %	0.036 ppb	13.767 ppb	2.304 ppb	0.743 ppb	9.537 ppb
Concentration per Run 1	96.559 %	87.167 %	0.044 ppb	16.378 ppb	4.749 ppb	-0.075 ppb	9.110 ppb
Concentration per Run 2	95.775 %	81.598 %	0.037 ppb	12.768 ppb	1.721 ppb	1.014 ppb	-4.669 ppb
Concentration per Run 3	97.764 %	86.925 %	0.026 ppb	12.154 ppb	0.440 ppb	1.290 ppb	24.169 ppb
Recovery Percentage 1			7.108 %	13.767 %	3.291 %	7.433 %	9.537 %
Concentration RSD	1.0 %	3.7 %	25.1 %	16.6 %	96.1 %	97.1 %	151.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	19.816 ppb	83.995 %	90.728 %	0.065 ppb	0.028 ppb	0.472 ppb	3.527 ppb
Concentration per Run 1	24.597 ppb	81.902 %	91.468 %	0.100 ppb	0.052 ppb	0.487 ppb	5.778 ppb
Concentration per Run 2	19.623 ppb	86.161 %	88.591 %	0.096 ppb	0.030 ppb	0.514 ppb	2.688 ppb
Concentration per Run 3	15.229 ppb	83.923 %	92.126 %	0.000 ppb	0.003 ppb	0.415 ppb	2.115 ppb
Recovery Percentage 1	19.816 %			1.308 %	2.825 %	47.208 %	7.054 %
Concentration RSD	23.7 %	2.5 %	2.1 %	86.7 %	87.0 %	10.8 %	55.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.035 ppb	0.134 ppb	0.018 ppb	0.295 ppb	83.865 %	0.081 ppb	-0.582 ppb
Concentration per Run 1	0.035 ppb	0.239 ppb	0.068 ppb	0.365 ppb	83.960 %	0.043 ppb	-0.435 ppb
Concentration per Run 2	0.025 ppb	0.026 ppb	-0.008 ppb	0.427 ppb	86.827 %	0.126 ppb	-1.376 ppb
Concentration per Run 3	0.044 ppb	0.137 ppb	-0.005 ppb	0.095 ppb	80.806 %	0.075 ppb	0.066 ppb
Recovery Percentage 1	6.916 %	26.828 %	1.828 %	2.955 %	83.865 %	16.244 %	-11.637 %
Concentration RSD	27.1 %	79.2 %	236.3 %	59.8 %	3.6 %	51.6 %	125.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.567 ppb	0.038 ppb	0.017 ppb	85.412 %	0.168 ppb	0.095 ppb	0.045 ppb
Concentration per Run 1	0.591 ppb	0.026 ppb	0.022 ppb	88.201 %	0.085 ppb	0.050 ppb	0.070 ppb
Concentration per Run 2	0.542 ppb	0.027 ppb	0.030 ppb	84.864 %	0.268 ppb	0.115 ppb	0.069 ppb
Concentration per Run 3	0.567 ppb	0.059 ppb	0.000 ppb	83.171 %	0.150 ppb	0.118 ppb	-0.005 ppb
Recovery Percentage 1	18.888 %	9.418 %	8.729 %		5.598 %	4.730 %	8.914 %
Concentration RSD	4.3 %	49.4 %	89.8 %	3.0 %	55.4 %	40.8 %	96.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.119 %	0.034 ppb	0.020 ppb	88.057 %
Concentration per Run 1	81.950 %	0.041 ppb	0.026 ppb	86.730 %
Concentration per Run 2	86.798 %	0.035 ppb	0.017 ppb	89.691 %
Concentration per Run 3	83.609 %	0.027 ppb	0.016 ppb	87.752 %
Recovery Percentage 1		6.784 %	3.918 %	88.057 %
Concentration RSD	2.9 %	20.9 %	28.0 %	1.7 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 33 Analysis started at: 3/15/2016 2:30:59 PM Rack: 1
Analysis label: WG872135-1 6020SL User name: ALPHALAB\a1metalsinstrument Vial: 30

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.642 %	83.696 %	0.037 ppb	302.789 ppb	49.232 ppb	9.445 ppb	36.488 ppb
Concentration per Run 1	97.647 %	83.050 %	0.040 ppb	472.922 ppb	81.627 ppb	14.552 ppb	60.692 ppb
Concentration per Run 2	97.339 %	86.440 %	0.030 ppb	249.536 ppb	44.207 ppb	8.778 ppb	29.594 ppb
Concentration per Run 3	97.942 %	81.598 %	0.040 ppb	185.909 ppb	21.861 ppb	5.006 ppb	19.177 ppb
Concentration RSD	0.3 %	3.0 %	16.9 %	49.8 %	61.3 %	50.9 %	59.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	201.634 ppb	80.073 %	88.210 %	0.179 ppb	0.365 ppb	1.247 ppb	36.708 ppb
Concentration per Run 1	335.704 ppb	76.704 %	90.073 %	0.213 ppb	0.317 ppb	2.004 ppb	57.380 ppb
Concentration per Run 2	162.300 ppb	84.357 %	88.599 %	0.222 ppb	0.444 ppb	1.598 ppb	29.028 ppb
Concentration per Run 3	106.898 ppb	79.159 %	85.956 %	0.103 ppb	0.334 ppb	0.138 ppb	23.717 ppb
Concentration RSD	59.2 %	4.9 %	2.4 %	37.0 %	19.0 %	78.7 %	49.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.108 ppb	0.931 ppb	0.213 ppb	-0.300 ppb	82.469 %	0.153 ppb	-0.858 ppb
Concentration per Run 1	0.203 ppb	0.622 ppb	0.205 ppb	-0.337 ppb	80.347 %	0.228 ppb	-0.668 ppb
Concentration per Run 2	0.096 ppb	1.304 ppb	0.194 ppb	-0.158 ppb	81.953 %	0.074 ppb	-1.143 ppb
Concentration per Run 3	0.026 ppb	0.867 ppb	0.242 ppb	-0.405 ppb	85.107 %	0.157 ppb	-0.762 ppb
Concentration RSD	82.0 %	37.1 %	11.8 %	42.4 %	2.9 %	50.4 %	29.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.441 ppb	0.110 ppb	0.097 ppb	84.757 %	0.186 ppb	0.131 ppb	0.596 ppb
Concentration per Run 1	0.523 ppb	0.197 ppb	0.098 ppb	86.174 %	0.228 ppb	0.051 ppb	0.854 ppb
Concentration per Run 2	0.510 ppb	0.076 ppb	0.124 ppb	83.491 %	0.131 ppb	0.225 ppb	0.488 ppb
Concentration per Run 3	0.291 ppb	0.058 ppb	0.069 ppb	84.606 %	0.199 ppb	0.116 ppb	0.446 ppb
Concentration RSD	29.5 %	68.9 %	28.6 %	1.6 %	26.8 %	67.4 %	37.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.622 %	0.101 ppb	0.232 ppb	89.303 %
Concentration per Run 1	85.369 %	0.169 ppb	0.357 ppb	87.602 %
Concentration per Run 2	85.697 %	0.084 ppb	0.184 ppb	88.584 %
Concentration per Run 3	85.800 %	0.050 ppb	0.154 ppb	91.724 %
Concentration RSD	0.3 %	60.9 %	47.3 %	2.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 34 Analysis started at: 3/15/2016 2:34:03 PM Rack: 1
Analysis label: WG873751-1 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 31

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.477 %	94.350 %	0.005 ppb	4.933 ppb	-0.005 ppb	-0.244 ppb	1.610 ppb
Concentration per Run 1	94.463 %	103.874 %	0.007 ppb	0.395 ppb	-0.858 ppb	0.058 ppb	4.929 ppb
Concentration per Run 2	94.687 %	88.620 %	0.003 ppb	6.583 ppb	0.426 ppb	-0.394 ppb	-6.014 ppb
Concentration per Run 3	94.280 %	90.557 %	0.005 ppb	7.821 ppb	0.418 ppb	-0.395 ppb	5.914 ppb
Concentration RSD	0.2 %	8.8 %	31.7 %	80.7 %	15,671.7 %	107.4 %	411.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-8.142 ppb	86.306 %	86.998 %	0.031 ppb	0.571 ppb	0.082 ppb	5.807 ppb
Concentration per Run 1	-6.782 ppb	93.598 %	89.453 %	0.044 ppb	0.440 ppb	-0.095 ppb	7.491 ppb
Concentration per Run 2	-5.296 ppb	83.418 %	83.998 %	0.049 ppb	0.661 ppb	-0.010 ppb	4.894 ppb
Concentration per Run 3	-12.349 ppb	81.902 %	87.544 %	0.000 ppb	0.613 ppb	0.351 ppb	5.036 ppb
Concentration RSD	45.7 %	7.4 %	3.2 %	87.0 %	20.3 %	289.0 %	25.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.008 ppb	1.385 ppb	0.022 ppb	-0.672 ppb	89.351 %	0.020 ppb	-0.560 ppb
Concentration per Run 1	0.015 ppb	0.765 ppb	0.009 ppb	-0.889 ppb	96.749 %	0.035 ppb	-0.985 ppb
Concentration per Run 2	0.008 ppb	1.570 ppb	0.088 ppb	-0.762 ppb	87.057 %	0.041 ppb	-0.781 ppb
Concentration per Run 3	0.000 ppb	1.820 ppb	-0.031 ppb	-0.363 ppb	84.247 %	-0.016 ppb	0.087 ppb
Concentration RSD	96.5 %	39.8 %	274.9 %	40.9 %	7.3 %	156.3 %	101.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.440 ppb	0.001 ppb	0.005 ppb	91.964 %	-0.030 ppb	0.082 ppb	-0.020 ppb
Concentration per Run 1	0.281 ppb	-0.003 ppb	0.000 ppb	99.593 %	0.000 ppb	0.042 ppb	-0.043 ppb
Concentration per Run 2	0.477 ppb	0.014 ppb	0.000 ppb	89.647 %	-0.020 ppb	0.028 ppb	0.028 ppb
Concentration per Run 3	0.561 ppb	-0.007 ppb	0.015 ppb	86.652 %	-0.069 ppb	0.175 ppb	-0.043 ppb
Concentration RSD	32.7 %	914.1 %	173.2 %	7.4 %	118.8 %	99.3 %	208.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.600 %	-0.005 ppb	0.043 ppb	98.050 %
Concentration per Run 1	104.506 %	-0.001 ppb	0.045 ppb	107.228 %
Concentration per Run 2	91.250 %	-0.009 ppb	0.041 ppb	96.168 %
Concentration per Run 3	88.045 %	-0.004 ppb	0.044 ppb	90.754 %
Concentration RSD	9.2 %	84.1 %	4.9 %	8.6 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 35
Analysis label: L1607312-06 6020TL
Analysis started at: 3/15/2016 2:37:07 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 32

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.858 %	80.710 %	0.011 ppb	325.090 ppb	10.525 ppb	2.352 ppb	22.417 ppb
Concentration per Run 1	88.909 %	77.723 %	0.016 ppb	327.944 ppb	10.703 ppb	2.707 ppb	18.000 ppb
Concentration per Run 2	86.944 %	77.239 %	0.010 ppb	334.477 ppb	8.784 ppb	2.744 ppb	25.017 ppb
Concentration per Run 3	87.722 %	87.167 %	0.008 ppb	312.850 ppb	12.087 ppb	1.606 ppb	24.235 ppb
Concentration RSD	1.1 %	6.9 %	38.1 %	3.4 %	15.8 %	27.5 %	17.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	52.402 ppb	75.597 %	77.941 %	0.082 ppb	1.317 ppb	0.081 ppb	11.961 ppb
Concentration per Run 1	34.979 ppb	76.994 %	78.699 %	0.080 ppb	1.102 ppb	-0.127 ppb	12.429 ppb
Concentration per Run 2	39.453 ppb	75.982 %	76.740 %	0.110 ppb	1.610 ppb	0.091 ppb	9.715 ppb
Concentration per Run 3	82.773 ppb	73.817 %	78.383 %	0.056 ppb	1.239 ppb	0.280 ppb	13.739 ppb
Concentration RSD	50.4 %	2.1 %	1.3 %	33.1 %	20.0 %	250.4 %	17.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.016 ppb	1.838 ppb	0.335 ppb	0.366 ppb	76.372 %	0.079 ppb	-1.149 ppb
Concentration per Run 1	0.009 ppb	1.798 ppb	0.207 ppb	0.422 ppb	79.086 %	0.077 ppb	-0.812 ppb
Concentration per Run 2	0.019 ppb	1.772 ppb	0.445 ppb	0.477 ppb	73.295 %	-0.016 ppb	-1.080 ppb
Concentration per Run 3	0.019 ppb	1.943 ppb	0.353 ppb	0.198 ppb	76.735 %	0.176 ppb	-1.556 ppb
Concentration RSD	36.3 %	5.0 %	35.8 %	40.3 %	3.8 %	121.2 %	32.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.566 ppb	0.013 ppb	0.011 ppb	76.114 %	2.464 ppb	0.113 ppb	1.686 ppb
Concentration per Run 1	0.520 ppb	-0.001 ppb	0.008 ppb	77.635 %	2.476 ppb	0.149 ppb	1.692 ppb
Concentration per Run 2	0.509 ppb	0.028 ppb	0.000 ppb	75.138 %	2.423 ppb	0.131 ppb	1.467 ppb
Concentration per Run 3	0.668 ppb	0.013 ppb	0.026 ppb	75.567 %	2.494 ppb	0.059 ppb	1.898 ppb
Concentration RSD	15.7 %	111.5 %	115.6 %	1.8 %	1.5 %	42.0 %	12.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.277 %	-0.003 ppb	0.043 ppb	85.160 %
Concentration per Run 1	85.016 %	-0.004 ppb	0.043 ppb	89.568 %
Concentration per Run 2	82.045 %	0.000 ppb	0.044 ppb	82.836 %
Concentration per Run 3	79.771 %	-0.005 ppb	0.043 ppb	83.075 %
Concentration RSD	3.2 %	104.3 %	1.1 %	4.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 36 Analysis started at: 3/15/2016 2:46:25 PM Rack: 1
Analysis label: WG873751-3 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 33

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.495 %	74.737 %	0.009 ppb	323.422 ppb	12.379 ppb	3.642 ppb	11.238 ppb
Concentration per Run 1	85.213 %	77.965 %	0.005 ppb	318.259 ppb	14.283 ppb	3.801 ppb	13.390 ppb
Concentration per Run 2	84.110 %	79.176 %	0.011 ppb	319.679 ppb	12.429 ppb	3.718 ppb	5.666 ppb
Concentration per Run 3	84.163 %	67.069 %	0.012 ppb	332.329 ppb	10.423 ppb	3.407 ppb	14.658 ppb
Concentration RSD	0.7 %	8.9 %	41.1 %	2.4 %	15.6 %	5.7 %	43.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	59.354 ppb	73.095 %	77.022 %	0.055 ppb	1.430 ppb	0.222 ppb	11.850 ppb
Concentration per Run 1	68.089 ppb	74.322 %	74.808 %	0.000 ppb	1.593 ppb	0.117 ppb	12.739 ppb
Concentration per Run 2	61.961 ppb	70.640 %	77.701 %	0.029 ppb	1.530 ppb	0.330 ppb	11.726 ppb
Concentration per Run 3	48.012 ppb	74.322 %	78.558 %	0.137 ppb	1.168 ppb	0.221 ppb	11.084 ppb
Concentration RSD	17.3 %	2.9 %	2.6 %	130.6 %	16.0 %	47.9 %	7.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.006 ppb	2.244 ppb	0.322 ppb	-0.021 ppb	77.768 %	0.026 ppb	-0.998 ppb
Concentration per Run 1	0.009 ppb	2.322 ppb	0.292 ppb	-0.037 ppb	78.570 %	0.078 ppb	-0.789 ppb
Concentration per Run 2	0.000 ppb	2.399 ppb	0.280 ppb	0.045 ppb	75.245 %	0.017 ppb	-1.121 ppb
Concentration per Run 3	0.009 ppb	2.010 ppb	0.395 ppb	-0.070 ppb	79.488 %	-0.016 ppb	-1.083 ppb
Concentration RSD	86.6 %	9.2 %	19.6 %	285.7 %	2.9 %	181.1 %	18.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.708 ppb	-0.006 ppb	0.011 ppb	78.330 %	2.299 ppb	0.110 ppb	1.708 ppb
Concentration per Run 1	0.746 ppb	-0.011 ppb	0.008 ppb	77.391 %	2.253 ppb	0.103 ppb	1.343 ppb
Concentration per Run 2	0.757 ppb	-0.011 ppb	0.000 ppb	78.399 %	2.318 ppb	0.102 ppb	1.719 ppb
Concentration per Run 3	0.623 ppb	0.003 ppb	0.024 ppb	79.200 %	2.327 ppb	0.125 ppb	2.063 ppb
Concentration RSD	10.5 %	127.5 %	113.8 %	1.2 %	1.8 %	11.7 %	21.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.069 %	-0.005 ppb	0.040 ppb	85.657 %
Concentration per Run 1	84.594 %	-0.008 ppb	0.038 ppb	85.377 %
Concentration per Run 2	85.400 %	-0.001 ppb	0.038 ppb	86.770 %
Concentration per Run 3	79.212 %	-0.004 ppb	0.044 ppb	84.825 %
Concentration RSD	4.0 %	78.7 %	8.3 %	1.2 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 37
Analysis label: WG873751-2D5 6020TL
Analysis started at: 3/15/2016 2:49:30 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 34

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	79.825 %	76.513 %	9.797 ppb	1,949.867 ppb	2,070.302 ppb	364.042 ppb	1,926.209 ppb
Concentration per Run 1	79.449 %	74.576 %	9.795 ppb	1,920.606 ppb	1,969.598 ppb	371.470 ppb	2,017.745 ppb
Concentration per Run 2	80.564 %	71.670 %	9.821 ppb	2,074.057 ppb	2,268.245 ppb	379.644 ppb	1,889.550 ppb
Concentration per Run 3	79.463 %	83.292 %	9.776 ppb	1,854.938 ppb	1,973.064 ppb	341.013 ppb	1,871.332 ppb
Concentration RSD	0.8 %	7.9 %	0.2 %	5.8 %	8.3 %	5.6 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,788.155 ppb	73.720 %	74.641 %	94.390 ppb	37.813 ppb	93.466 ppb	188.657 ppb
Concentration per Run 1	1,822.070 ppb	73.384 %	73.321 %	96.303 ppb	37.872 ppb	97.463 ppb	204.487 ppb
Concentration per Run 2	1,691.898 ppb	73.817 %	75.836 %	96.377 ppb	37.650 ppb	92.016 ppb	171.528 ppb
Concentration per Run 3	1,850.496 ppb	73.961 %	74.768 %	90.490 ppb	37.916 ppb	90.918 ppb	189.956 ppb
Concentration RSD	4.7 %	0.4 %	1.7 %	3.6 %	0.4 %	3.8 %	8.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	98.938 ppb	102.951 ppb	52.022 ppb	96.192 ppb	72.500 %	24.900 ppb	24.758 ppb
Concentration per Run 1	101.211 ppb	101.309 ppb	51.714 ppb	97.327 ppb	69.656 %	25.470 ppb	25.842 ppb
Concentration per Run 2	98.507 ppb	102.101 ppb	51.774 ppb	94.439 ppb	75.008 %	24.045 ppb	23.568 ppb
Concentration per Run 3	97.096 ppb	105.442 ppb	52.578 ppb	96.811 ppb	72.836 %	25.187 ppb	24.865 ppb
Concentration RSD	2.1 %	2.1 %	0.9 %	1.6 %	3.7 %	3.0 %	4.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	199.261 ppb	10.685 ppb	10.890 ppb	73.989 %	207.021 ppb	96.844 ppb	373.560 ppb
Concentration per Run 1	204.493 ppb	10.768 ppb	10.551 ppb	75.867 %	203.904 ppb	92.028 ppb	369.450 ppb
Concentration per Run 2	192.727 ppb	10.514 ppb	11.209 ppb	73.259 %	208.311 ppb	99.868 ppb	375.650 ppb
Concentration per Run 3	200.562 ppb	10.774 ppb	10.910 ppb	72.840 %	208.848 ppb	98.636 ppb	375.582 ppb
Concentration RSD	3.0 %	1.4 %	3.0 %	2.2 %	1.3 %	4.4 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	79.453 %	24.098 ppb	103.853 ppb	81.783 %
Concentration per Run 1	81.848 %	24.114 ppb	105.862 ppb	81.286 %
Concentration per Run 2	78.600 %	24.357 ppb	103.673 ppb	80.888 %
Concentration per Run 3	77.911 %	23.824 ppb	102.022 ppb	83.174 %
Concentration RSD	2.6 %	1.1 %	1.9 %	1.5 %

Analysis index: 38 | Analysis started at: 3/15/2016 2:52:34 PM | Rack: 1
Analysis label: xWG873751-4D20 6020TL | User name: ALPHALAB\a1metalsinstrument | Vial: 35

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	80.638 %	75.302 %	2.424 ppb	520.998 ppb	538.366 ppb	100.342 ppb	537.790 ppb
Concentration per Run 1	79.455 %	74.334 %	2.453 ppb	531.147 ppb	536.713 ppb	101.900 ppb	543.651 ppb
Concentration per Run 2	81.207 %	71.428 %	2.403 ppb	525.495 ppb	584.897 ppb	104.531 ppb	525.768 ppb
Concentration per Run 3	81.254 %	80.145 %	2.415 ppb	506.353 ppb	493.488 ppb	94.596 ppb	543.951 ppb
Concentration RSD	1.3 %	5.9 %	1.1 %	2.5 %	8.5 %	5.1 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	498.689 ppb	68.715 %	77.601 %	26.755 ppb	10.249 ppb	24.288 ppb	45.354 ppb
Concentration per Run 1	498.735 ppb	68.763 %	76.768 %	28.014 ppb	10.145 ppb	25.110 ppb	39.860 ppb
Concentration per Run 2	541.382 ppb	69.557 %	78.524 %	26.374 ppb	10.103 ppb	23.441 ppb	52.649 ppb
Concentration per Run 3	455.949 ppb	67.825 %	77.510 %	25.877 ppb	10.498 ppb	24.314 ppb	43.552 ppb
Concentration RSD	8.6 %	1.3 %	1.1 %	4.2 %	2.1 %	3.4 %	14.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	25.693 ppb	25.953 ppb	13.322 ppb	24.322 ppb	75.053 %	5.801 ppb	4.724 ppb
Concentration per Run 1	25.629 ppb	26.181 ppb	13.002 ppb	25.484 ppb	75.646 %	5.404 ppb	5.368 ppb
Concentration per Run 2	25.500 ppb	26.061 ppb	12.987 ppb	23.196 ppb	77.022 %	5.789 ppb	4.612 ppb
Concentration per Run 3	25.950 ppb	25.617 ppb	13.978 ppb	24.288 ppb	72.492 %	6.211 ppb	4.191 ppb
Concentration RSD	0.9 %	1.1 %	4.3 %	4.7 %	3.1 %	7.0 %	12.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	49.186 ppb	2.593 ppb	2.708 ppb	77.934 %	50.464 ppb	24.784 ppb	93.038 ppb
Concentration per Run 1	49.854 ppb	2.517 ppb	2.717 ppb	78.638 %	49.238 ppb	24.386 ppb	90.953 ppb
Concentration per Run 2	47.991 ppb	2.613 ppb	2.604 ppb	77.843 %	53.049 ppb	25.076 ppb	92.024 ppb
Concentration per Run 3	49.714 ppb	2.649 ppb	2.803 ppb	77.320 %	49.107 ppb	24.892 ppb	96.138 ppb
Concentration RSD	2.1 %	2.6 %	3.7 %	0.9 %	4.4 %	1.4 %	2.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	79.593 %	5.892 ppb	25.642 ppb	83.247 %
Concentration per Run 1	80.635 %	5.929 ppb	25.619 ppb	83.110 %
Concentration per Run 2	79.298 %	5.877 ppb	26.070 ppb	82.428 %
Concentration per Run 3	78.846 %	5.871 ppb	25.236 ppb	84.201 %
Concentration RSD	1.2 %	0.5 %	1.6 %	1.1 %

Analysis index: 39
Analysis label: WG873751-5D20 6020TL
Analysis started at: 3/15/2016 2:55:40 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 36

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.565 %	76.351 %	49.957 ppb	4,999.968 ppb	4,993.115 ppb	45.439 ppb	4,862.039 ppb
Concentration per Run 1	81.234 %	76.028 %	50.091 ppb	4,979.403 ppb	5,024.386 ppb	46.307 ppb	4,832.492 ppb
Concentration per Run 2	82.865 %	76.513 %	50.063 ppb	4,913.459 ppb	4,955.084 ppb	43.096 ppb	4,700.812 ppb
Concentration per Run 3	83.595 %	76.513 %	49.717 ppb	5,107.041 ppb	4,999.875 ppb	46.914 ppb	5,052.813 ppb
Concentration RSD	1.5 %	0.4 %	0.4 %	2.0 %	0.7 %	4.5 %	3.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	4,749.398 ppb	77.642 %	79.991 %	48.749 ppb	48.876 ppb	47.860 ppb	5,004.709 ppb
Concentration per Run 1	4,727.682 ppb	78.653 %	79.776 %	50.239 ppb	48.092 ppb	47.727 ppb	4,999.266 ppb
Concentration per Run 2	4,559.205 ppb	79.375 %	78.875 %	47.436 ppb	49.424 ppb	48.746 ppb	4,941.889 ppb
Concentration per Run 3	4,961.307 ppb	74.899 %	81.321 %	48.571 ppb	49.112 ppb	47.109 ppb	5,072.972 ppb
Concentration RSD	4.3 %	3.1 %	1.5 %	2.9 %	1.4 %	1.7 %	1.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	50.547 ppb	50.053 ppb	52.198 ppb	49.123 ppb	77.152 %	50.984 ppb	46.989 ppb
Concentration per Run 1	51.203 ppb	50.706 ppb	51.007 ppb	50.030 ppb	78.155 %	50.429 ppb	50.493 ppb
Concentration per Run 2	50.190 ppb	47.436 ppb	51.952 ppb	47.548 ppb	77.784 %	49.547 ppb	45.936 ppb
Concentration per Run 3	50.248 ppb	52.015 ppb	53.634 ppb	49.790 ppb	75.518 %	52.977 ppb	44.539 ppb
Concentration RSD	1.1 %	4.7 %	2.5 %	2.8 %	1.9 %	3.5 %	6.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	52.708 ppb	35.343 ppb	51.036 ppb	78.118 %	50.098 ppb	51.775 ppb	49.016 ppb
Concentration per Run 1	51.813 ppb	35.293 ppb	51.295 ppb	77.521 %	50.902 ppb	53.743 ppb	48.078 ppb
Concentration per Run 2	53.997 ppb	34.553 ppb	50.013 ppb	80.265 %	48.342 ppb	48.575 ppb	48.254 ppb
Concentration per Run 3	52.314 ppb	36.182 ppb	51.800 ppb	76.567 %	51.051 ppb	53.006 ppb	50.716 ppb
Concentration RSD	2.2 %	2.3 %	1.8 %	2.5 %	3.0 %	5.4 %	3.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.019 %	50.248 ppb	48.892 ppb	85.608 %
Concentration per Run 1	83.747 %	50.412 ppb	49.425 ppb	86.953 %
Concentration per Run 2	78.818 %	49.721 ppb	48.371 ppb	85.584 %
Concentration per Run 3	80.492 %	50.611 ppb	48.879 ppb	84.288 %
Concentration RSD	3.1 %	0.9 %	1.1 %	1.6 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 40
Analysis label: WG873751-4D20 6020TL
Analysis started at: 3/15/2016 2:58:45 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 35

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.552 %	85.633 %	2.456 ppb	483.250 ppb	495.582 ppb	92.223 ppb	481.525 ppb
Concentration per Run 1	84.061 %	86.682 %	2.389 ppb	491.381 ppb	511.712 ppb	90.528 ppb	512.066 ppb
Concentration per Run 2	84.810 %	88.377 %	2.562 ppb	475.501 ppb	484.752 ppb	87.731 ppb	469.685 ppb
Concentration per Run 3	84.786 %	81.840 %	2.416 ppb	482.867 ppb	490.282 ppb	98.411 ppb	462.822 ppb
Concentration RSD	0.5 %	4.0 %	3.8 %	1.6 %	2.9 %	6.0 %	5.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	466.336 ppb	80.145 %	82.759 %	24.089 ppb	9.419 ppb	24.048 ppb	50.020 ppb
Concentration per Run 1	426.409 ppb	81.252 %	80.900 %	23.772 ppb	9.315 ppb	23.642 ppb	50.092 ppb
Concentration per Run 2	497.061 ppb	81.974 %	84.863 %	24.168 ppb	9.436 ppb	23.880 ppb	53.880 ppb
Concentration per Run 3	475.537 ppb	77.210 %	82.516 %	24.328 ppb	9.506 ppb	24.621 ppb	46.088 ppb
Concentration RSD	7.8 %	3.2 %	2.4 %	1.2 %	1.0 %	2.1 %	7.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	25.054 ppb	24.673 ppb	13.434 ppb	24.572 ppb	81.397 %	5.614 ppb	6.875 ppb
Concentration per Run 1	24.786 ppb	24.739 ppb	13.636 ppb	24.451 ppb	83.674 %	5.181 ppb	6.487 ppb
Concentration per Run 2	24.514 ppb	22.796 ppb	13.130 ppb	23.966 ppb	82.291 %	5.746 ppb	7.407 ppb
Concentration per Run 3	25.864 ppb	26.484 ppb	13.536 ppb	25.299 ppb	78.226 %	5.914 ppb	6.732 ppb
Concentration RSD	2.8 %	7.5 %	2.0 %	2.7 %	3.5 %	6.8 %	6.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	47.983 ppb	2.641 ppb	2.656 ppb	83.167 %	51.468 ppb	24.428 ppb	94.902 ppb
Concentration per Run 1	47.458 ppb	2.625 ppb	2.540 ppb	84.651 %	51.844 ppb	23.648 ppb	95.278 ppb
Concentration per Run 2	48.820 ppb	2.752 ppb	2.791 ppb	82.784 %	51.360 ppb	24.056 ppb	93.844 ppb
Concentration per Run 3	47.672 ppb	2.545 ppb	2.637 ppb	82.064 %	51.199 ppb	25.581 ppb	95.584 ppb
Concentration RSD	1.5 %	3.9 %	4.8 %	1.6 %	0.7 %	4.2 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.452 %	5.836 ppb	25.295 ppb	89.892 %
Concentration per Run 1	85.871 %	6.025 ppb	25.701 ppb	89.157 %
Concentration per Run 2	86.578 %	5.797 ppb	25.456 ppb	89.164 %
Concentration per Run 3	86.907 %	5.687 ppb	24.728 ppb	91.355 %
Concentration RSD	0.6 %	3.0 %	2.0 %	1.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 41
Analysis label: WG873751-6D5 6020TL
Analysis started at: 3/15/2016 3:01:50 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 37

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	80.901 %	78.692 %	0.007 ppb	66.215 ppb	2.404 ppb	1.030 ppb	6.600 ppb
Concentration per Run 1	80.363 %	81.113 %	0.008 ppb	68.118 ppb	1.942 ppb	1.181 ppb	11.757 ppb
Concentration per Run 2	81.538 %	73.365 %	0.006 ppb	67.544 ppb	0.689 ppb	1.069 ppb	2.657 ppb
Concentration per Run 3	80.802 %	81.598 %	0.008 ppb	62.983 ppb	4.582 ppb	0.839 ppb	5.385 ppb
Concentration RSD	0.7 %	5.9 %	17.0 %	4.2 %	82.6 %	16.9 %	70.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12.250 ppb	75.597 %	79.400 %	0.018 ppb	0.277 ppb	-0.575 ppb	4.160 ppb
Concentration per Run 1	7.730 ppb	74.683 %	80.497 %	0.000 ppb	0.254 ppb	-0.552 ppb	1.521 ppb
Concentration per Run 2	14.221 ppb	77.426 %	79.273 %	0.026 ppb	0.161 ppb	-0.560 ppb	5.357 ppb
Concentration per Run 3	14.800 ppb	74.683 %	78.430 %	0.028 ppb	0.417 ppb	-0.613 ppb	5.601 ppb
Concentration RSD	32.0 %	2.1 %	1.3 %	86.6 %	46.7 %	5.8 %	55.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.012 ppb	0.226 ppb	0.189 ppb	-0.212 ppb	79.641 %	0.024 ppb	-0.671 ppb
Concentration per Run 1	0.018 ppb	0.259 ppb	0.255 ppb	-0.187 ppb	81.896 %	0.074 ppb	-0.994 ppb
Concentration per Run 2	0.009 ppb	0.148 ppb	0.178 ppb	-0.337 ppb	80.175 %	0.015 ppb	-0.976 ppb
Concentration per Run 3	0.010 ppb	0.271 ppb	0.134 ppb	-0.112 ppb	76.850 %	-0.016 ppb	-0.044 ppb
Concentration RSD	42.5 %	30.0 %	32.4 %	54.2 %	3.2 %	187.8 %	80.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.476 ppb	0.015 ppb	0.005 ppb	79.337 %	0.559 ppb	0.367 ppb	0.253 ppb
Concentration per Run 1	0.466 ppb	0.003 ppb	0.000 ppb	80.274 %	0.682 ppb	0.391 ppb	0.191 ppb
Concentration per Run 2	0.436 ppb	0.034 ppb	0.008 ppb	79.925 %	0.518 ppb	0.327 ppb	0.076 ppb
Concentration per Run 3	0.526 ppb	0.008 ppb	0.008 ppb	77.813 %	0.478 ppb	0.383 ppb	0.491 ppb
Concentration RSD	9.7 %	113.5 %	86.6 %	1.7 %	19.3 %	9.5 %	84.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.020 %	0.000 ppb	0.017 ppb	84.477 %
Concentration per Run 1	83.963 %	0.009 ppb	0.022 ppb	86.291 %
Concentration per Run 2	80.913 %	-0.006 ppb	0.016 ppb	83.513 %
Concentration per Run 3	78.184 %	-0.003 ppb	0.013 ppb	83.626 %
Concentration RSD	3.6 %	7,711.5 %	27.4 %	1.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 42
Analysis label: WG872135-2D5 6020SL
Analysis started at: 3/15/2016 3:04:53 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 38

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	79.793 %	78.450 %	9.739 ppb	2,034.317 ppb	1,978.152 ppb	370.320 ppb	2,041.739 ppb
Concentration per Run 1	80.257 %	76.997 %	9.721 ppb	2,035.118 ppb	1,967.532 ppb	371.907 ppb	1,970.066 ppb
Concentration per Run 2	79.917 %	80.629 %	9.659 ppb	2,015.209 ppb	2,034.182 ppb	352.954 ppb	2,056.812 ppb
Concentration per Run 3	79.205 %	77.723 %	9.836 ppb	2,052.624 ppb	1,932.743 ppb	386.099 ppb	2,098.340 ppb
Concentration RSD	0.7 %	2.4 %	0.9 %	0.9 %	2.6 %	4.5 %	3.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,994.249 ppb	74.803 %	77.370 %	97.810 ppb	38.848 ppb	94.797 ppb	189.205 ppb
Concentration per Run 1	1,989.963 ppb	74.394 %	78.463 %	96.890 ppb	39.343 ppb	92.585 ppb	214.779 ppb
Concentration per Run 2	1,905.159 ppb	76.199 %	76.647 %	97.256 ppb	39.316 ppb	96.036 ppb	180.515 ppb
Concentration per Run 3	2,087.624 ppb	73.817 %	77.001 %	99.286 ppb	37.884 ppb	95.772 ppb	172.321 ppb
Concentration RSD	4.6 %	1.7 %	1.2 %	1.3 %	2.1 %	2.0 %	11.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	96.466 ppb	97.127 ppb	50.247 ppb	95.488 ppb	78.893 %	24.025 ppb	25.526 ppb
Concentration per Run 1	95.665 ppb	99.041 ppb	49.269 ppb	95.432 ppb	81.036 %	24.542 ppb	25.385 ppb
Concentration per Run 2	96.951 ppb	98.480 ppb	50.316 ppb	93.797 ppb	78.915 %	24.299 ppb	26.663 ppb
Concentration per Run 3	96.781 ppb	93.860 ppb	51.155 ppb	97.235 ppb	76.728 %	23.234 ppb	24.529 ppb
Concentration RSD	0.7 %	2.9 %	1.9 %	1.8 %	2.7 %	2.9 %	4.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	194.574 ppb	10.175 ppb	10.511 ppb	76.641 %	201.553 ppb	92.808 ppb	372.961 ppb
Concentration per Run 1	200.226 ppb	10.135 ppb	10.640 ppb	77.564 %	204.496 ppb	90.739 ppb	377.442 ppb
Concentration per Run 2	192.448 ppb	10.493 ppb	10.831 ppb	75.411 %	201.145 ppb	93.948 ppb	373.680 ppb
Concentration per Run 3	191.049 ppb	9.897 ppb	10.062 ppb	76.949 %	199.018 ppb	93.736 ppb	367.762 ppb
Concentration RSD	2.5 %	2.9 %	3.8 %	1.4 %	1.4 %	1.9 %	1.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.817 %	23.940 ppb	101.449 ppb	83.177 %
Concentration per Run 1	77.768 %	23.543 ppb	104.631 ppb	81.747 %
Concentration per Run 2	79.321 %	24.570 ppb	101.271 ppb	84.246 %
Concentration per Run 3	79.362 %	23.709 ppb	98.447 ppb	83.538 %
Concentration RSD	1.2 %	2.3 %	3.1 %	1.5 %

Analysis index: 43 Analysis started at: 3/15/2016 3:07:56 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	78.983 %	79.257 %	108.548 ppb	10,254.823 ppb	10,041.258 ppb	106.234 ppb	10,099.754 ppb
Concentration per Run 1	80.392 %	81.840 %	108.070 ppb	9,793.693 ppb	9,590.815 ppb	98.783 ppb	9,445.571 ppb
Concentration per Run 2	77.853 %	79.176 %	108.499 ppb	10,336.314 ppb	10,018.865 ppb	104.694 ppb	10,213.764 ppb
Concentration per Run 3	78.703 %	76.755 %	109.074 ppb	10,634.462 ppb	10,514.095 ppb	115.225 ppb	10,639.928 ppb
Recovery Percentage 1			108.548 %	102.548 %	100.413 %	106.234 %	100.998 %
Concentration RSD	1.6 %	3.2 %	0.5 %	4.2 %	4.6 %	7.8 %	6.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,877.027 ppb	76.849 %	79.238 %	101.263 ppb	104.687 ppb	102.725 ppb	10,537.714 ppb
Concentration per Run 1	9,700.050 ppb	79.086 %	79.927 %	98.923 ppb	99.597 ppb	98.907 ppb	10,054.006 ppb
Concentration per Run 2	9,724.247 ppb	78.292 %	79.436 %	100.927 ppb	105.981 ppb	104.240 ppb	10,920.991 ppb
Concentration per Run 3	10,206.784 ppb	73.167 %	78.349 %	103.939 ppb	108.483 ppb	105.029 ppb	10,638.144 ppb
Recovery Percentage 1	98.770 %			101.263 %	104.687 %	102.725 %	105.377 %
Concentration RSD	2.9 %	4.2 %	1.0 %	2.5 %	4.4 %	3.2 %	4.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	104.963 ppb	106.602 ppb	109.584 ppb	105.708 ppb	78.508 %	105.507 ppb	97.638 ppb
Concentration per Run 1	98.981 ppb	102.097 ppb	105.184 ppb	101.195 ppb	82.560 %	97.673 ppb	99.561 ppb
Concentration per Run 2	108.489 ppb	113.113 ppb	114.044 ppb	107.387 ppb	73.268 %	111.813 ppb	102.260 ppb
Concentration per Run 3	107.420 ppb	104.597 ppb	109.523 ppb	108.543 ppb	79.697 %	107.034 ppb	91.092 ppb
Recovery Percentage 1	104.963 %	106.602 %	109.584 %	105.708 %		105.507 %	97.638 %
Concentration RSD	5.0 %	5.4 %	4.0 %	3.7 %	6.1 %	6.8 %	6.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	106.553 ppb	109.835 ppb	106.043 ppb	77.448 %	110.265 ppb	109.976 ppb	103.576 ppb
Concentration per Run 1	103.129 ppb	107.518 ppb	105.362 ppb	77.794 %	106.285 ppb	107.102 ppb	106.874 ppb
Concentration per Run 2	109.726 ppb	116.473 ppb	110.551 ppb	75.215 %	116.885 ppb	114.566 ppb	100.945 ppb
Concentration per Run 3	106.802 ppb	105.515 ppb	102.217 ppb	79.336 %	107.625 ppb	108.259 ppb	102.909 ppb
Recovery Percentage 1	106.553 %	109.835 %	106.043 %		110.265 %	109.976 %	103.576 %
Concentration RSD	3.1 %	5.3 %	4.0 %	2.7 %	5.2 %	3.7 %	2.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	80.922 %	105.507 ppb	102.864 ppb	82.268 %
Concentration per Run 1	81.331 %	106.006 ppb	101.002 ppb	83.957 %
Concentration per Run 2	80.266 %	104.881 ppb	103.213 ppb	81.983 %
Concentration per Run 3	81.170 %	105.634 ppb	104.376 ppb	80.864 %
Recovery Percentage 1		105.507 %	102.864 %	
Concentration RSD	0.7 %	0.5 %	1.7 %	1.9 %

Analysis index: 44 Analysis started at: 3/15/2016 3:11:03 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.036 %	79.822 %	0.029 ppb	8.373 ppb	2.741 ppb	0.469 ppb	7.245 ppb
Concentration per Run 1	82.336 %	80.871 %	0.042 ppb	6.749 ppb	3.707 ppb	0.751 ppb	5.457 ppb
Concentration per Run 2	82.441 %	81.113 %	0.015 ppb	8.567 ppb	1.892 ppb	0.317 ppb	12.288 ppb
Concentration per Run 3	81.330 %	77.481 %	0.032 ppb	9.802 ppb	2.625 ppb	0.338 ppb	3.989 ppb
Recovery Percentage 1			5.882 %	8.373 %	3.916 %	4.686 %	7.245 %
Concentration RSD	0.7 %	2.5 %	47.2 %	18.3 %	33.3 %	52.2 %	61.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	13.926 ppb	79.351 %	83.139 %	0.043 ppb	0.013 ppb	0.490 ppb	2.716 ppb
Concentration per Run 1	12.244 ppb	82.624 %	83.877 %	0.025 ppb	-0.012 ppb	0.051 ppb	2.853 ppb
Concentration per Run 2	15.081 ppb	77.282 %	83.037 %	0.027 ppb	0.077 ppb	1.031 ppb	4.581 ppb
Concentration per Run 3	14.454 ppb	78.148 %	82.502 %	0.079 ppb	-0.025 ppb	0.387 ppb	0.715 ppb
Recovery Percentage 1	13.926 %			0.870 %	1.304 %	48.981 %	5.432 %
Concentration RSD	10.7 %	3.6 %	0.8 %	70.6 %	426.8 %	101.7 %	71.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.042 ppb	0.060 ppb	0.072 ppb	0.402 ppb	81.017 %	0.054 ppb	-0.139 ppb
Concentration per Run 1	0.044 ppb	0.067 ppb	0.094 ppb	0.296 ppb	82.469 %	0.103 ppb	1.084 ppb
Concentration per Run 2	0.046 ppb	0.111 ppb	0.022 ppb	0.286 ppb	80.520 %	0.045 ppb	-0.947 ppb
Concentration per Run 3	0.037 ppb	0.003 ppb	0.100 ppb	0.624 ppb	80.061 %	0.015 ppb	-0.553 ppb
Recovery Percentage 1	8.407 %	12.093 %	7.221 %	4.023 %	81.017 %	10.882 %	-2.778 %
Concentration RSD	11.6 %	90.5 %	60.2 %	47.8 %	1.6 %	82.6 %	775.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.681 ppb	0.027 ppb	0.026 ppb	82.976 %	0.230 ppb	0.256 ppb	0.046 ppb
Concentration per Run 1	0.592 ppb	0.015 ppb	0.038 ppb	84.480 %	0.200 ppb	0.288 ppb	0.033 ppb
Concentration per Run 2	0.655 ppb	0.020 ppb	0.015 ppb	83.748 %	0.185 ppb	0.247 ppb	-0.005 ppb
Concentration per Run 3	0.796 ppb	0.048 ppb	0.024 ppb	80.699 %	0.306 ppb	0.233 ppb	0.111 ppb
Recovery Percentage 1	22.691 %	6.855 %	12.953 %		7.674 %	12.799 %	9.295 %
Concentration RSD	15.3 %	64.1 %	44.5 %	2.4 %	28.8 %	11.2 %	127.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.072 %	0.038 ppb	0.024 ppb	88.651 %
Concentration per Run 1	83.586 %	0.037 ppb	0.022 ppb	88.846 %
Concentration per Run 2	83.443 %	0.040 ppb	0.027 ppb	90.244 %
Concentration per Run 3	85.187 %	0.036 ppb	0.022 ppb	86.863 %
Recovery Percentage 1		7.534 %	4.710 %	88.651 %
Concentration RSD	1.2 %	4.5 %	12.8 %	1.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 45
Analysis label: L1606144-05D5 6020SL
Analysis started at: 3/15/2016 3:17:12 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 39

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.836 %	79.015 %	0.008 ppb	126,866.452 ppb	8,683.787 ppb	0.780 ppb	2,462.261 ppb
Concentration per Run 1	81.929 %	80.871 %	0.011 ppb	129,282.427 ppb	8,882.080 ppb	0.796 ppb	2,450.030 ppb
Concentration per Run 2	83.018 %	76.028 %	0.005 ppb	127,771.607 ppb	8,778.467 ppb	0.477 ppb	2,525.529 ppb
Concentration per Run 3	83.561 %	80.145 %	0.009 ppb	123,545.322 ppb	8,390.813 ppb	1.066 ppb	2,411.224 ppb
Concentration RSD	1.0 %	3.3 %	34.7 %	2.3 %	3.0 %	37.9 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	73,602.826 ppb	81.493 %	86.134 %	0.273 ppb	0.129 ppb	234.715 ppb	1,717.275 ppb
Concentration per Run 1	75,274.967 ppb	78.798 %	85.582 %	0.571 ppb	0.189 ppb	240.097 ppb	1,753.183 ppb
Concentration per Run 2	74,864.078 ppb	82.191 %	86.220 %	0.149 ppb	0.129 ppb	223.378 ppb	1,650.102 ppb
Concentration per Run 3	70,669.434 ppb	83.490 %	86.601 %	0.100 ppb	0.068 ppb	240.670 ppb	1,748.542 ppb
Concentration RSD	3.5 %	3.0 %	0.6 %	94.8 %	47.1 %	4.2 %	3.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.219 ppb	0.962 ppb	0.300 ppb	6.840 ppb	83.138 %	3.232 ppb	-0.408 ppb
Concentration per Run 1	0.269 ppb	1.168 ppb	0.350 ppb	6.690 ppb	82.641 %	3.375 ppb	-0.294 ppb
Concentration per Run 2	0.238 ppb	0.767 ppb	0.400 ppb	6.395 ppb	87.917 %	3.037 ppb	-1.052 ppb
Concentration per Run 3	0.151 ppb	0.952 ppb	0.150 ppb	7.434 ppb	78.857 %	3.285 ppb	0.121 ppb
Concentration RSD	27.8 %	20.9 %	44.1 %	7.8 %	5.5 %	5.4 %	145.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.733 ppb	0.011 ppb	0.008 ppb	81.169 %	0.071 ppb	0.218 ppb	110.358 ppb
Concentration per Run 1	0.780 ppb	0.007 ppb	0.008 ppb	81.356 %	0.119 ppb	0.299 ppb	108.836 ppb
Concentration per Run 2	0.620 ppb	0.016 ppb	0.008 ppb	81.010 %	0.065 ppb	0.188 ppb	115.285 ppb
Concentration per Run 3	0.799 ppb	0.012 ppb	0.008 ppb	81.141 %	0.028 ppb	0.167 ppb	106.954 ppb
Concentration RSD	13.4 %	37.9 %	0.5 %	0.2 %	65.2 %	32.5 %	4.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.714 %	0.002 ppb	0.021 ppb	80.303 %
Concentration per Run 1	82.637 %	0.002 ppb	0.031 ppb	80.769 %
Concentration per Run 2	82.901 %	0.005 ppb	0.016 ppb	81.716 %
Concentration per Run 3	79.605 %	-0.002 ppb	0.016 ppb	78.424 %
Concentration RSD	2.2 %	224.3 %	41.5 %	2.1 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 46
Analysis label: WG872135-3D5 6020SL
Analysis started at: 3/15/2016 3:20:14 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 40

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.901 %	80.306 %	0.007 ppb	127,672.740 ppb	8,902.522 ppb	1.638 ppb	2,621.988 ppb
Concentration per Run 1	82.051 %	82.324 %	0.009 ppb	127,065.578 ppb	8,852.290 ppb	1.098 ppb	2,608.077 ppb
Concentration per Run 2	81.729 %	75.302 %	0.007 ppb	133,197.130 ppb	9,286.915 ppb	1.758 ppb	2,863.508 ppb
Concentration per Run 3	81.922 %	83.292 %	0.005 ppb	122,755.512 ppb	8,568.361 ppb	2.058 ppb	2,394.379 ppb
Concentration RSD	0.2 %	5.4 %	24.9 %	4.1 %	4.1 %	30.0 %	9.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	79,287.459 ppb	78.028 %	83.360 %	0.228 ppb	0.220 ppb	235.932 ppb	1,739.468 ppb
Concentration per Run 1	77,869.024 ppb	79.303 %	83.484 %	0.208 ppb	0.239 ppb	239.161 ppb	1,760.485 ppb
Concentration per Run 2	82,745.000 ppb	75.838 %	83.028 %	0.295 ppb	0.198 ppb	237.783 ppb	1,726.231 ppb
Concentration per Run 3	77,248.353 ppb	78.942 %	83.567 %	0.182 ppb	0.224 ppb	230.852 ppb	1,731.688 ppb
Concentration RSD	3.8 %	2.4 %	0.3 %	25.9 %	9.4 %	1.9 %	1.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.242 ppb	1.006 ppb	0.252 ppb	6.992 ppb	81.397 %	3.629 ppb	-0.320 ppb
Concentration per Run 1	0.234 ppb	0.856 ppb	0.355 ppb	6.835 ppb	81.036 %	3.561 ppb	0.381 ppb
Concentration per Run 2	0.220 ppb	1.267 ppb	0.227 ppb	7.229 ppb	82.125 %	3.606 ppb	0.222 ppb
Concentration per Run 3	0.271 ppb	0.894 ppb	0.175 ppb	6.912 ppb	81.029 %	3.721 ppb	-1.561 ppb
Concentration RSD	10.9 %	22.6 %	36.5 %	3.0 %	0.8 %	2.3 %	337.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.899 ppb	0.006 ppb	0.016 ppb	79.311 %	0.031 ppb	0.224 ppb	113.889 ppb
Concentration per Run 1	0.927 ppb	0.011 ppb	0.008 ppb	82.050 %	0.008 ppb	0.209 ppb	109.776 ppb
Concentration per Run 2	0.823 ppb	0.007 ppb	0.016 ppb	80.436 %	0.048 ppb	0.259 ppb	119.652 ppb
Concentration per Run 3	0.948 ppb	-0.001 ppb	0.025 ppb	75.447 %	0.039 ppb	0.203 ppb	112.239 ppb
Concentration RSD	7.5 %	112.5 %	53.5 %	4.3 %	66.6 %	13.8 %	4.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.637 %	-0.005 ppb	0.246 ppb	77.700 %
Concentration per Run 1	80.421 %	-0.004 ppb	0.256 ppb	78.630 %
Concentration per Run 2	77.870 %	-0.009 ppb	0.244 ppb	78.426 %
Concentration per Run 3	77.620 %	-0.003 ppb	0.237 ppb	76.043 %
Concentration RSD	2.0 %	57.7 %	3.9 %	1.9 %

Analysis index: 47
Analysis label: WG872135-4D20 6020SL
Analysis started at: 3/15/2016 3:23:17 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 41

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.373 %	81.113 %	2.502 ppb	31,858.173 ppb	2,775.497 ppb	94.062 ppb	1,123.116 ppb
Concentration per Run 1	85.004 %	78.450 %	2.502 ppb	31,698.714 ppb	2,699.012 ppb	101.591 ppb	1,089.506 ppb
Concentration per Run 2	86.791 %	84.503 %	2.516 ppb	31,672.234 ppb	2,811.211 ppb	94.950 ppb	1,093.571 ppb
Concentration per Run 3	84.325 %	80.387 %	2.490 ppb	32,203.570 ppb	2,816.267 ppb	85.644 ppb	1,186.270 ppb
Concentration RSD	1.5 %	3.8 %	0.5 %	0.9 %	2.4 %	8.5 %	4.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	19,140.839 ppb	81.589 %	85.168 %	24.897 ppb	9.836 ppb	82.091 ppb	483.587 ppb
Concentration per Run 1	19,159.206 ppb	81.685 %	85.536 %	23.932 ppb	10.026 ppb	80.859 ppb	484.110 ppb
Concentration per Run 2	19,381.555 ppb	80.241 %	86.697 %	26.000 ppb	10.253 ppb	83.328 ppb	472.966 ppb
Concentration per Run 3	18,881.755 ppb	82.840 %	83.272 %	24.759 ppb	9.230 ppb	82.085 ppb	493.685 ppb
Concentration RSD	1.3 %	1.6 %	2.0 %	4.2 %	5.5 %	1.5 %	2.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	24.552 ppb	24.227 ppb	13.114 ppb	25.040 ppb	86.116 %	6.634 ppb	4.688 ppb
Concentration per Run 1	24.188 ppb	24.252 ppb	13.359 ppb	24.158 ppb	83.960 %	6.411 ppb	3.689 ppb
Concentration per Run 2	24.948 ppb	24.338 ppb	13.194 ppb	25.773 ppb	87.917 %	6.397 ppb	4.829 ppb
Concentration per Run 3	24.518 ppb	24.090 ppb	12.788 ppb	25.190 ppb	86.470 %	7.093 ppb	5.547 ppb
Concentration RSD	1.6 %	0.5 %	2.2 %	3.3 %	2.3 %	6.0 %	20.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	50.182 ppb	2.414 ppb	2.733 ppb	85.178 %	50.528 ppb	24.854 ppb	116.238 ppb
Concentration per Run 1	49.380 ppb	2.211 ppb	2.643 ppb	90.428 %	46.914 ppb	23.154 ppb	111.602 ppb
Concentration per Run 2	50.073 ppb	2.476 ppb	2.746 ppb	81.060 %	53.341 ppb	25.763 ppb	118.844 ppb
Concentration per Run 3	51.093 ppb	2.555 ppb	2.809 ppb	84.048 %	51.330 ppb	25.647 ppb	118.268 ppb
Concentration RSD	1.7 %	7.5 %	3.1 %	5.6 %	6.5 %	5.9 %	3.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.342 %	5.899 ppb	25.508 ppb	87.419 %
Concentration per Run 1	88.336 %	5.999 ppb	24.866 ppb	88.689 %
Concentration per Run 2	86.925 %	6.020 ppb	26.185 ppb	85.081 %
Concentration per Run 3	86.765 %	5.678 ppb	25.473 ppb	88.487 %
Concentration RSD	1.0 %	3.3 %	2.6 %	2.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 48
Analysis label: WG872135-5D20 6020SL
Analysis started at: 3/15/2016 3:26:21 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 42

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.233 %	81.194 %	47.690 ppb	36,174.190 ppb	7,397.002 ppb	52.782 ppb	5,863.539 ppb
Concentration per Run 1	85.349 %	89.346 %	47.351 ppb	33,039.779 ppb	6,549.792 ppb	48.635 ppb	5,295.085 ppb
Concentration per Run 2	85.924 %	75.786 %	47.627 ppb	37,985.074 ppb	7,753.654 ppb	56.071 ppb	6,093.592 ppb
Concentration per Run 3	87.424 %	78.450 %	48.092 ppb	37,497.717 ppb	7,887.561 ppb	53.640 ppb	6,201.939 ppb
Concentration RSD	1.2 %	8.8 %	0.8 %	7.5 %	10.0 %	7.2 %	8.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	25,724.315 ppb	77.378 %	89.628 %	51.625 ppb	52.106 ppb	113.184 ppb	5,739.590 ppb
Concentration per Run 1	23,895.753 ppb	83.418 %	89.227 %	47.907 ppb	50.906 ppb	104.966 ppb	5,415.137 ppb
Concentration per Run 2	25,141.141 ppb	75.044 %	88.761 %	53.163 ppb	50.013 ppb	114.717 ppb	5,648.694 ppb
Concentration per Run 3	28,136.050 ppb	73.673 %	90.897 %	53.804 ppb	55.398 ppb	119.868 ppb	6,154.940 ppb
Concentration RSD	8.5 %	6.8 %	1.3 %	6.3 %	5.5 %	6.7 %	6.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	53.446 ppb	55.047 ppb	52.920 ppb	52.043 ppb	81.262 %	53.318 ppb	44.124 ppb
Concentration per Run 1	52.182 ppb	53.347 ppb	50.822 ppb	49.780 ppb	84.436 %	50.462 ppb	46.732 ppb
Concentration per Run 2	50.931 ppb	51.779 ppb	53.452 ppb	50.284 ppb	83.725 %	49.251 ppb	42.720 ppb
Concentration per Run 3	57.224 ppb	60.015 ppb	54.487 ppb	56.066 ppb	75.625 %	60.240 ppb	42.920 ppb
Concentration RSD	6.2 %	7.9 %	3.6 %	6.7 %	6.0 %	11.3 %	5.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	50.842 ppb	36.680 ppb	51.545 ppb	81.652 %	50.690 ppb	50.856 ppb	78.762 ppb
Concentration per Run 1	49.222 ppb	36.852 ppb	49.070 ppb	83.699 %	49.086 ppb	48.261 ppb	75.240 ppb
Concentration per Run 2	48.532 ppb	35.880 ppb	49.936 ppb	82.725 %	49.599 ppb	49.415 ppb	77.813 ppb
Concentration per Run 3	54.770 ppb	37.308 ppb	55.629 ppb	78.531 %	53.385 ppb	54.891 ppb	83.234 ppb
Concentration RSD	6.7 %	2.0 %	6.9 %	3.4 %	4.6 %	7.0 %	5.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.824 %	52.392 ppb	50.179 ppb	81.784 %
Concentration per Run 1	85.940 %	50.429 ppb	47.990 ppb	86.335 %
Concentration per Run 2	81.224 %	52.474 ppb	49.517 ppb	80.945 %
Concentration per Run 3	81.307 %	54.274 ppb	53.031 ppb	78.071 %
Concentration RSD	3.3 %	3.7 %	5.2 %	5.1 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 49
Analysis label: WG872135-6D25 6020SL
Analysis started at: 3/15/2016 3:29:24 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 43

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.609 %	81.275 %	0.013 ppb	27,067.421 ppb	1,713.141 ppb	0.107 ppb	512.622 ppb
Concentration per Run 1	81.755 %	83.050 %	0.009 ppb	26,617.643 ppb	1,671.378 ppb	-0.217 ppb	471.390 ppb
Concentration per Run 2	82.402 %	79.903 %	0.011 ppb	28,803.980 ppb	1,833.617 ppb	0.148 ppb	544.623 ppb
Concentration per Run 3	80.671 %	80.871 %	0.019 ppb	25,780.640 ppb	1,634.429 ppb	0.389 ppb	521.852 ppb
Concentration RSD	1.1 %	2.0 %	39.8 %	5.8 %	6.2 %	285.8 %	7.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	14,449.216 ppb	83.057 %	84.652 %	0.024 ppb	0.045 ppb	46.218 ppb	326.116 ppb
Concentration per Run 1	14,527.704 ppb	82.985 %	84.512 %	0.025 ppb	0.035 ppb	47.447 ppb	294.895 ppb
Concentration per Run 2	15,140.203 ppb	78.870 %	86.650 %	0.000 ppb	0.039 ppb	47.728 ppb	330.736 ppb
Concentration per Run 3	13,679.740 ppb	87.317 %	82.795 %	0.048 ppb	0.061 ppb	43.479 ppb	352.717 ppb
Concentration RSD	5.1 %	5.1 %	2.3 %	98.8 %	31.6 %	5.1 %	8.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.043 ppb	0.214 ppb	0.175 ppb	1.336 ppb	83.710 %	0.561 ppb	-0.945 ppb
Concentration per Run 1	0.035 ppb	0.203 ppb	0.191 ppb	1.192 ppb	83.846 %	0.599 ppb	-0.982 ppb
Concentration per Run 2	0.035 ppb	0.207 ppb	0.192 ppb	1.389 ppb	85.165 %	0.561 ppb	-1.111 ppb
Concentration per Run 3	0.060 ppb	0.232 ppb	0.141 ppb	1.428 ppb	82.119 %	0.523 ppb	-0.743 ppb
Concentration RSD	33.0 %	7.4 %	16.6 %	9.5 %	1.8 %	6.8 %	19.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.430 ppb	0.030 ppb	0.013 ppb	84.953 %	0.039 ppb	0.095 ppb	21.298 ppb
Concentration per Run 1	0.322 ppb	0.031 ppb	0.007 ppb	87.635 %	0.051 ppb	0.070 ppb	22.603 ppb
Concentration per Run 2	0.615 ppb	0.044 ppb	0.030 ppb	85.092 %	-0.014 ppb	0.052 ppb	21.338 ppb
Concentration per Run 3	0.354 ppb	0.016 ppb	0.000 ppb	82.133 %	0.081 ppb	0.164 ppb	19.952 ppb
Concentration RSD	37.3 %	47.5 %	125.8 %	3.2 %	123.9 %	62.7 %	6.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.921 %	0.007 ppb	0.008 ppb	85.826 %
Concentration per Run 1	88.052 %	0.016 ppb	0.004 ppb	88.171 %
Concentration per Run 2	80.572 %	0.006 ppb	0.006 ppb	83.875 %
Concentration per Run 3	83.138 %	-0.001 ppb	0.012 ppb	85.431 %
Concentration RSD	4.5 %	124.3 %	56.6 %	2.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 50
Analysis label: L1606144-01D5 6020SL
Analysis started at: 3/15/2016 3:32:28 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 44

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.367 %	84.100 %	0.012 ppb	57,272.688 ppb	7,247.387 ppb	0.010 ppb	2,607.707 ppb
Concentration per Run 1	82.140 %	82.324 %	0.004 ppb	56,660.353 ppb	7,033.709 ppb	-0.079 ppb	2,483.149 ppb
Concentration per Run 2	82.749 %	90.314 %	0.018 ppb	53,924.549 ppb	6,896.396 ppb	0.082 ppb	2,533.118 ppb
Concentration per Run 3	82.212 %	79.660 %	0.013 ppb	61,233.161 ppb	7,812.056 ppb	0.027 ppb	2,806.853 ppb
Concentration RSD	0.4 %	6.6 %	63.9 %	6.4 %	6.8 %	811.2 %	6.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	34,107.140 ppb	79.520 %	83.410 %	0.138 ppb	0.141 ppb	474.672 ppb	2,259.730 ppb
Concentration per Run 1	30,531.257 ppb	86.811 %	84.804 %	0.095 ppb	0.136 ppb	457.148 ppb	2,197.383 ppb
Concentration per Run 2	35,037.809 ppb	78.870 %	83.052 %	0.129 ppb	0.138 ppb	464.122 ppb	2,206.845 ppb
Concentration per Run 3	36,752.353 ppb	72.879 %	82.375 %	0.191 ppb	0.150 ppb	502.745 ppb	2,374.961 ppb
Concentration RSD	9.4 %	8.8 %	1.5 %	35.2 %	5.7 %	5.2 %	4.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.576 ppb	4.962 ppb	0.490 ppb	1.881 ppb	86.407 %	0.847 ppb	-0.801 ppb
Concentration per Run 1	0.547 ppb	4.619 ppb	0.536 ppb	1.926 ppb	87.401 %	0.856 ppb	-0.287 ppb
Concentration per Run 2	0.573 ppb	4.871 ppb	0.490 ppb	2.201 ppb	85.165 %	0.764 ppb	-1.440 ppb
Concentration per Run 3	0.609 ppb	5.396 ppb	0.445 ppb	1.515 ppb	86.655 %	0.922 ppb	-0.676 ppb
Concentration RSD	5.3 %	8.0 %	9.2 %	18.3 %	1.3 %	9.3 %	73.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.611 ppb	0.019 ppb	0.010 ppb	82.057 %	0.027 ppb	0.105 ppb	89.311 ppb
Concentration per Run 1	0.606 ppb	0.036 ppb	0.015 ppb	85.314 %	-0.015 ppb	0.115 ppb	90.410 ppb
Concentration per Run 2	0.790 ppb	0.007 ppb	0.000 ppb	80.531 %	0.066 ppb	0.100 ppb	87.603 ppb
Concentration per Run 3	0.436 ppb	0.016 ppb	0.016 ppb	80.326 %	0.029 ppb	0.100 ppb	89.920 ppb
Concentration RSD	29.0 %	75.2 %	86.7 %	3.4 %	151.6 %	8.2 %	1.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.028 %	0.000 ppb	0.118 ppb	81.884 %
Concentration per Run 1	85.430 %	-0.001 ppb	0.114 ppb	81.917 %
Concentration per Run 2	81.164 %	0.002 ppb	0.125 ppb	84.061 %
Concentration per Run 3	82.491 %	-0.001 ppb	0.116 ppb	79.674 %
Concentration RSD	2.6 %	881.2 %	4.6 %	2.7 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 51
Analysis label: L1606144-02D5 6020SL
Analysis started at: 3/15/2016 3:35:32 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 45

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	83.994 %	81.113 %	0.022 ppb	133,486.408 ppb	6,780.462 ppb	3.102 ppb	5,561.429 ppb
Concentration per Run 1	84.920 %	81.840 %	0.021 ppb	132,826.927 ppb	6,888.248 ppb	2.564 ppb	5,412.701 ppb
Concentration per Run 2	82.534 %	83.777 %	0.022 ppb	129,274.132 ppb	6,511.920 ppb	2.187 ppb	5,564.857 ppb
Concentration per Run 3	84.527 %	77.723 %	0.025 ppb	138,358.164 ppb	6,941.219 ppb	4.554 ppb	5,706.730 ppb
Concentration RSD	1.5 %	3.8 %	8.6 %	3.4 %	3.5 %	41.0 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	43,753.593 ppb	80.266 %	85.547 %	0.307 ppb	0.170 ppb	372.845 ppb	76.123 ppb
Concentration per Run 1	44,213.261 ppb	79.231 %	88.123 %	0.260 ppb	0.240 ppb	395.714 ppb	75.895 ppb
Concentration per Run 2	44,029.949 ppb	80.025 %	81.590 %	0.332 ppb	0.185 ppb	366.753 ppb	70.558 ppb
Concentration per Run 3	43,017.568 ppb	81.541 %	86.927 %	0.330 ppb	0.086 ppb	356.068 ppb	81.916 ppb
Concentration RSD	1.5 %	1.5 %	4.1 %	13.4 %	45.7 %	5.5 %	7.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.184 ppb	1.221 ppb	0.341 ppb	1.103 ppb	82.011 %	0.552 ppb	-0.983 ppb
Concentration per Run 1	0.162 ppb	1.358 ppb	0.330 ppb	1.379 ppb	80.864 %	0.592 ppb	-0.883 ppb
Concentration per Run 2	0.203 ppb	1.218 ppb	0.294 ppb	1.043 ppb	83.903 %	0.688 ppb	-0.815 ppb
Concentration per Run 3	0.186 ppb	1.088 ppb	0.401 ppb	0.888 ppb	81.265 %	0.377 ppb	-1.250 ppb
Concentration RSD	11.0 %	11.0 %	16.0 %	22.7 %	2.0 %	28.8 %	23.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.946 ppb	0.000 ppb	0.005 ppb	79.933 %	-0.008 ppb	0.251 ppb	94.833 ppb
Concentration per Run 1	1.925 ppb	0.007 ppb	0.016 ppb	80.742 %	-0.102 ppb	0.302 ppb	94.738 ppb
Concentration per Run 2	1.880 ppb	0.003 ppb	0.000 ppb	78.622 %	0.013 ppb	0.171 ppb	95.854 ppb
Concentration per Run 3	2.032 ppb	-0.011 ppb	0.000 ppb	80.436 %	0.066 ppb	0.280 ppb	93.907 ppb
Concentration RSD	4.0 %	3,740.6 %	173.2 %	1.4 %	1,134.9 %	28.0 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.045 %	-0.003 ppb	0.026 ppb	76.838 %
Concentration per Run 1	79.969 %	-0.002 ppb	0.029 ppb	75.738 %
Concentration per Run 2	82.701 %	-0.007 ppb	0.022 ppb	78.609 %
Concentration per Run 3	80.466 %	-0.001 ppb	0.027 ppb	76.167 %
Concentration RSD	1.8 %	107.1 %	13.8 %	2.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 52
Analysis label: L1606144-03D5 6020SL
Analysis started at: 3/15/2016 3:38:37 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 46

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.107 %	85.472 %	0.015 ppb	55,808.084 ppb	8,124.991 ppb	3.551 ppb	908.073 ppb
Concentration per Run 1	86.939 %	83.535 %	0.005 ppb	56,977.960 ppb	8,349.286 ppb	4.630 ppb	958.655 ppb
Concentration per Run 2	85.773 %	86.682 %	0.022 ppb	54,308.501 ppb	8,095.390 ppb	3.498 ppb	829.999 ppb
Concentration per Run 3	85.608 %	86.198 %	0.019 ppb	56,137.790 ppb	7,930.297 ppb	2.525 ppb	935.566 ppb
Concentration RSD	0.8 %	2.0 %	61.7 %	2.4 %	2.6 %	29.7 %	7.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	30,380.943 ppb	86.185 %	88.377 %	0.016 ppb	0.254 ppb	993.903 ppb	216.897 ppb
Concentration per Run 1	30,095.982 ppb	87.461 %	86.778 %	0.000 ppb	0.286 ppb	980.379 ppb	231.052 ppb
Concentration per Run 2	30,299.223 ppb	87.100 %	88.497 %	0.048 ppb	0.214 ppb	1,014.583 ppb	209.057 ppb
Concentration per Run 3	30,747.625 ppb	83.995 %	89.854 %	0.000 ppb	0.264 ppb	986.746 ppb	210.581 ppb
Concentration RSD	1.1 %	2.2 %	1.7 %	173.2 %	14.5 %	1.8 %	5.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.356 ppb	1.358 ppb	0.427 ppb	4.061 ppb	86.923 %	0.146 ppb	-0.304 ppb
Concentration per Run 1	0.339 ppb	1.561 ppb	0.535 ppb	4.059 ppb	87.402 %	0.153 ppb	-1.305 ppb
Concentration per Run 2	0.354 ppb	1.397 ppb	0.284 ppb	4.085 ppb	84.190 %	0.218 ppb	-0.010 ppb
Concentration per Run 3	0.376 ppb	1.114 ppb	0.463 ppb	4.039 ppb	89.179 %	0.067 ppb	0.404 ppb
Concentration RSD	5.2 %	16.7 %	30.2 %	0.6 %	2.9 %	51.8 %	293.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.503 ppb	-0.001 ppb	0.008 ppb	86.503 %	0.023 ppb	0.100 ppb	47.591 ppb
Concentration per Run 1	0.471 ppb	0.001 ppb	0.000 ppb	91.625 %	0.060 ppb	0.067 ppb	44.450 ppb
Concentration per Run 2	0.443 ppb	-0.007 ppb	0.000 ppb	86.220 %	0.036 ppb	0.135 ppb	51.044 ppb
Concentration per Run 3	0.596 ppb	0.002 ppb	0.023 ppb	81.666 %	-0.029 ppb	0.099 ppb	47.278 ppb
Concentration RSD	16.2 %	470.8 %	173.2 %	5.8 %	202.4 %	33.8 %	7.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.888 %	-0.007 ppb	0.076 ppb	86.583 %
Concentration per Run 1	89.573 %	-0.007 ppb	0.064 ppb	88.440 %
Concentration per Run 2	86.174 %	-0.007 ppb	0.073 ppb	86.532 %
Concentration per Run 3	81.917 %	-0.007 ppb	0.092 ppb	84.776 %
Concentration RSD	4.5 %	6.3 %	19.1 %	2.1 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 53
Analysis label: L1606144-04D5 6020SL
Analysis started at: 3/15/2016 3:41:42 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 47

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	80.859 %	79.822 %	0.005 ppb	36,450.008 ppb	3,209.944 ppb	0.679 ppb	1,396.005 ppb
Concentration per Run 1	82.394 %	79.176 %	-0.002 ppb	37,807.129 ppb	3,292.126 ppb	0.152 ppb	1,419.450 ppb
Concentration per Run 2	79.363 %	84.745 %	0.002 ppb	33,946.090 ppb	3,098.837 ppb	1.167 ppb	1,312.389 ppb
Concentration per Run 3	80.821 %	75.544 %	0.015 ppb	37,596.805 ppb	3,238.870 ppb	0.717 ppb	1,456.177 ppb
Concentration RSD	1.9 %	5.8 %	172.3 %	6.0 %	3.1 %	74.9 %	5.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	19,521.377 ppb	79.544 %	80.435 %	0.250 ppb	0.196 ppb	311.663 ppb	1,312.892 ppb
Concentration per Run 1	19,273.363 ppb	78.942 %	83.145 %	0.336 ppb	0.155 ppb	303.405 ppb	1,318.570 ppb
Concentration per Run 2	19,063.468 ppb	83.635 %	78.160 %	0.197 ppb	0.144 ppb	299.885 ppb	1,196.443 ppb
Concentration per Run 3	20,227.301 ppb	76.054 %	79.999 %	0.217 ppb	0.288 ppb	331.697 ppb	1,423.663 ppb
Concentration RSD	3.2 %	4.8 %	3.1 %	30.0 %	41.1 %	5.6 %	8.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.289 ppb	0.581 ppb	0.181 ppb	-0.195 ppb	82.049 %	1.939 ppb	-0.639 ppb
Concentration per Run 1	0.311 ppb	0.490 ppb	0.195 ppb	-0.310 ppb	84.075 %	1.679 ppb	-1.532 ppb
Concentration per Run 2	0.292 ppb	0.539 ppb	0.189 ppb	-0.266 ppb	84.649 %	1.902 ppb	-0.191 ppb
Concentration per Run 3	0.264 ppb	0.713 ppb	0.159 ppb	-0.008 ppb	77.423 %	2.236 ppb	-0.196 ppb
Concentration RSD	8.2 %	20.2 %	10.7 %	83.8 %	4.9 %	14.5 %	120.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.420 ppb	0.008 ppb	0.011 ppb	82.050 %	-0.059 ppb	0.144 ppb	20.312 ppb
Concentration per Run 1	0.413 ppb	0.002 ppb	0.008 ppb	84.960 %	-0.067 ppb	0.052 ppb	20.963 ppb
Concentration per Run 2	0.404 ppb	0.011 ppb	0.008 ppb	81.117 %	-0.046 ppb	0.211 ppb	20.400 ppb
Concentration per Run 3	0.443 ppb	0.012 ppb	0.016 ppb	80.071 %	-0.064 ppb	0.168 ppb	19.572 ppb
Concentration RSD	4.9 %	65.8 %	46.0 %	3.1 %	19.1 %	57.3 %	3.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.920 %	-0.006 ppb	0.249 ppb	83.383 %
Concentration per Run 1	83.362 %	-0.003 ppb	0.262 ppb	83.415 %
Concentration per Run 2	80.532 %	-0.006 ppb	0.235 ppb	83.791 %
Concentration per Run 3	81.865 %	-0.009 ppb	0.249 ppb	82.943 %
Concentration RSD	1.7 %	52.6 %	5.6 %	0.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 54
Analysis label: zL1606144-06D5 6020SL
Analysis started at: 3/15/2016 3:44:47 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 48

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.007 %	79.822 %	0.001 ppb	61,492.189 ppb	6,328.758 ppb	0.544 ppb	2,092.748 ppb
Concentration per Run 1	81.411 %	75.544 %	-0.004 ppb	60,412.873 ppb	6,133.295 ppb	0.563 ppb	1,941.301 ppb
Concentration per Run 2	80.559 %	88.862 %	0.002 ppb	57,375.272 ppb	5,819.363 ppb	0.371 ppb	2,202.788 ppb
Concentration per Run 3	81.052 %	75.060 %	0.006 ppb	66,688.421 ppb	7,033.617 ppb	0.700 ppb	2,134.156 ppb
Concentration RSD	0.5 %	9.8 %	352.9 %	7.7 %	10.0 %	30.4 %	6.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	28,709.155 ppb	83.490 %	83.595 %	0.042 ppb	0.059 ppb	626.011 ppb	33.798 ppb
Concentration per Run 1	26,106.350 ppb	89.988 %	83.185 %	0.046 ppb	0.099 ppb	572.779 ppb	35.890 ppb
Concentration per Run 2	30,294.536 ppb	82.551 %	83.137 %	0.000 ppb	0.087 ppb	649.437 ppb	34.791 ppb
Concentration per Run 3	29,726.579 ppb	77.932 %	84.461 %	0.079 ppb	-0.008 ppb	655.815 ppb	30.714 ppb
Concentration RSD	7.9 %	7.3 %	0.9 %	95.2 %	99.3 %	7.4 %	8.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.430 ppb	0.849 ppb	0.717 ppb	-0.262 ppb	81.724 %	0.174 ppb	-0.821 ppb
Concentration per Run 1	0.381 ppb	0.632 ppb	0.618 ppb	-0.256 ppb	88.262 %	0.179 ppb	-1.118 ppb
Concentration per Run 2	0.444 ppb	1.153 ppb	0.707 ppb	-0.301 ppb	76.621 %	0.144 ppb	-1.445 ppb
Concentration per Run 3	0.466 ppb	0.761 ppb	0.826 ppb	-0.228 ppb	80.290 %	0.198 ppb	0.099 ppb
Concentration RSD	10.3 %	32.0 %	14.6 %	14.0 %	7.3 %	15.8 %	99.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.379 ppb	-0.005 ppb	0.053 ppb	81.271 %	-0.034 ppb	0.078 ppb	84.928 ppb
Concentration per Run 1	0.434 ppb	-0.007 ppb	0.052 ppb	85.842 %	-0.033 ppb	0.030 ppb	85.949 ppb
Concentration per Run 2	0.372 ppb	0.003 ppb	0.049 ppb	79.459 %	-0.045 ppb	0.170 ppb	86.656 ppb
Concentration per Run 3	0.330 ppb	-0.011 ppb	0.057 ppb	78.511 %	-0.025 ppb	0.034 ppb	82.179 ppb
Concentration RSD	13.9 %	147.4 %	8.1 %	4.9 %	29.1 %	102.3 %	2.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.293 %	0.000 ppb	0.017 ppb	82.908 %
Concentration per Run 1	85.914 %	0.003 ppb	0.021 ppb	86.291 %
Concentration per Run 2	79.775 %	0.002 ppb	0.014 ppb	80.703 %
Concentration per Run 3	81.189 %	-0.006 ppb	0.016 ppb	81.731 %
Concentration RSD	3.9 %	1,506.5 %	20.8 %	3.6 %

Analysis index: 55 Analysis started at: 3/15/2016 3:47:52 PM Rack: 0
Analysis label: xCCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	80.007 %	81.033 %	108.333 ppb	10,718.876 ppb	10,744.955 ppb	104.243 ppb	10,499.909 ppb
Concentration per Run 1	80.162 %	92.736 %	107.054 ppb	9,727.322 ppb	9,691.669 ppb	91.400 ppb	9,561.155 ppb
Concentration per Run 2	79.923 %	74.818 %	109.529 ppb	11,341.677 ppb	11,064.145 ppb	108.576 ppb	11,184.573 ppb
Concentration per Run 3	79.936 %	75.544 %	108.416 ppb	11,087.631 ppb	11,479.052 ppb	112.754 ppb	10,753.998 ppb
Recovery Percentage 1			108.333 %	107.189 %	107.450 %	104.243 %	104.999 %
Concentration RSD	0.2 %	12.5 %	1.1 %	8.1 %	8.7 %	10.9 %	8.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,345.230 ppb	77.089 %	79.403 %	104.810 ppb	104.918 ppb	103.399 ppb	10,629.810 ppb
Concentration per Run 1	9,515.557 ppb	80.097 %	77.470 %	95.463 ppb	99.688 ppb	95.996 ppb	10,244.861 ppb
Concentration per Run 2	10,764.220 ppb	73.095 %	81.899 %	109.341 ppb	105.956 ppb	110.987 ppb	10,814.213 ppb
Concentration per Run 3	10,755.913 ppb	78.075 %	78.840 %	109.626 ppb	109.111 ppb	103.214 ppb	10,830.357 ppb
Recovery Percentage 1	103.452 %			104.810 %	104.918 %	103.399 %	106.298 %
Concentration RSD	6.9 %	4.7 %	2.9 %	7.7 %	4.6 %	7.3 %	3.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	109.883 ppb	110.659 ppb	108.724 ppb	105.154 ppb	80.644 %	105.459 ppb	107.242 ppb
Concentration per Run 1	106.370 ppb	105.443 ppb	102.818 ppb	99.324 ppb	83.218 %	101.243 ppb	98.885 ppb
Concentration per Run 2	109.297 ppb	107.467 ppb	108.990 ppb	103.286 ppb	80.142 %	100.624 ppb	110.303 ppb
Concentration per Run 3	113.982 ppb	119.066 ppb	114.365 ppb	112.852 ppb	78.573 %	114.512 ppb	112.537 ppb
Recovery Percentage 1	109.883 %	110.659 %	108.724 %	105.154 %		105.459 %	107.242 %
Concentration RSD	3.5 %	6.6 %	5.3 %	6.6 %	2.9 %	7.4 %	6.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	107.248 ppb	113.138 ppb	107.512 ppb	81.082 %	106.710 ppb	106.776 ppb	103.824 ppb
Concentration per Run 1	99.544 ppb	107.749 ppb	99.739 ppb	85.556 %	97.218 ppb	97.665 ppb	98.707 ppb
Concentration per Run 2	108.918 ppb	111.341 ppb	106.676 ppb	80.398 %	105.901 ppb	106.087 ppb	105.671 ppb
Concentration per Run 3	113.282 ppb	120.324 ppb	116.122 ppb	77.290 %	117.009 ppb	116.575 ppb	107.093 ppb
Recovery Percentage 1	107.248 %	113.138 %	107.512 %		106.710 %	106.776 %	103.824 %
Concentration RSD	6.5 %	5.7 %	7.6 %	5.1 %	9.3 %	8.9 %	4.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.376 %	105.704 ppb	103.296 ppb	84.295 %
Concentration per Run 1	85.034 %	98.991 ppb	97.190 ppb	88.371 %
Concentration per Run 2	84.125 %	107.730 ppb	101.789 ppb	83.279 %
Concentration per Run 3	77.970 %	110.391 ppb	110.910 ppb	81.235 %
Recovery Percentage 1		105.704 %	103.296 %	
Concentration RSD	4.7 %	5.6 %	6.8 %	4.4 %

Analysis index: 56 Analysis started at: 3/15/2016 3:51:00 PM Rack: 0
Analysis label: xCCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	80.730 %	76.190 %	0.039 ppb	8.760 ppb	2.122 ppb	-0.350 ppb	8.164 ppb
Concentration per Run 1	81.928 %	74.333 %	0.044 ppb	9.565 ppb	-0.077 ppb	-0.516 ppb	-2.109 ppb
Concentration per Run 2	80.383 %	78.692 %	0.049 ppb	9.063 ppb	2.606 ppb	-0.668 ppb	20.587 ppb
Concentration per Run 3	79.880 %	75.544 %	0.025 ppb	7.652 ppb	3.837 ppb	0.134 ppb	6.014 ppb
Recovery Percentage 1			7.866 %	8.760 %	3.031 %	-3.501 %	8.164 %
Concentration RSD	1.3 %	3.0 %	32.6 %	11.3 %	94.3 %	121.7 %	140.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	18.035 ppb	82.576 %	82.144 %	0.008 ppb	0.004 ppb	0.113 ppb	2.891 ppb
Concentration per Run 1	24.079 ppb	85.728 %	82.839 %	0.000 ppb	0.001 ppb	0.059 ppb	2.782 ppb
Concentration per Run 2	17.541 ppb	77.570 %	81.759 %	0.000 ppb	0.026 ppb	0.186 ppb	3.828 ppb
Concentration per Run 3	12.483 ppb	84.428 %	81.834 %	0.025 ppb	-0.014 ppb	0.095 ppb	2.061 ppb
Recovery Percentage 1	18.035 %			0.163 %	0.435 %	11.322 %	5.781 %
Concentration RSD	32.2 %	5.3 %	0.7 %	173.2 %	467.5 %	58.0 %	30.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.036 ppb	0.115 ppb	0.020 ppb	0.149 ppb	81.686 %	0.094 ppb	-0.471 ppb
Concentration per Run 1	0.034 ppb	0.065 ppb	-0.006 ppb	0.502 ppb	81.953 %	0.134 ppb	0.298 ppb
Concentration per Run 2	0.055 ppb	0.113 ppb	0.023 ppb	0.144 ppb	79.316 %	0.077 ppb	-0.347 ppb
Concentration per Run 3	0.017 ppb	0.166 ppb	0.043 ppb	-0.198 ppb	83.788 %	0.072 ppb	-1.362 ppb
Recovery Percentage 1	7.125 %	22.914 %	1.981 %	1.494 %	81.686 %	18.880 %	-9.413 %
Concentration RSD	53.5 %	44.2 %	123.5 %	234.1 %	2.8 %	36.5 %	177.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.447 ppb	0.039 ppb	0.028 ppb	82.896 %	0.048 ppb	0.060 ppb	0.021 ppb
Concentration per Run 1	0.551 ppb	0.025 ppb	0.024 ppb	81.493 %	0.045 ppb	0.121 ppb	-0.005 ppb
Concentration per Run 2	0.325 ppb	0.069 ppb	0.024 ppb	81.598 %	0.008 ppb	-0.012 ppb	0.035 ppb
Concentration per Run 3	0.463 ppb	0.023 ppb	0.038 ppb	85.597 %	0.090 ppb	0.072 ppb	0.032 ppb
Recovery Percentage 1	14.888 %	9.770 %	14.210 %		1.597 %	3.017 %	4.159 %
Concentration RSD	25.5 %	67.2 %	28.4 %	2.8 %	85.5 %	111.3 %	105.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.672 %	0.032 ppb	0.019 ppb	88.176 %
Concentration per Run 1	83.855 %	0.037 ppb	0.013 ppb	87.381 %
Concentration per Run 2	81.823 %	0.022 ppb	0.017 ppb	88.132 %
Concentration per Run 3	85.337 %	0.037 ppb	0.026 ppb	89.014 %
Recovery Percentage 1		6.427 %	3.788 %	88.176 %
Concentration RSD	2.1 %	26.5 %	34.9 %	0.9 %

Analysis index: 57 Analysis started at: 3/15/2016 3:57:52 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	77.007 %	78.127 %	108.290 ppb	10,163.688 ppb	10,225.748 ppb	102.862 ppb	10,048.220 ppb
Concentration per Run 1	77.669 %	76.997 %	107.935 ppb	10,657.615 ppb	10,614.681 ppb	101.718 ppb	10,933.118 ppb
Concentration per Run 2	76.796 %	84.261 %	108.504 ppb	9,606.590 ppb	9,788.112 ppb	99.100 ppb	9,623.064 ppb
Concentration per Run 3	76.558 %	73.123 %	108.432 ppb	10,226.858 ppb	10,274.452 ppb	107.768 ppb	9,588.477 ppb
Recovery Percentage 1			108.290 %	101.637 %	102.257 %	102.862 %	100.482 %
Concentration RSD	0.8 %	7.2 %	0.3 %	5.2 %	4.1 %	4.3 %	7.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,935.012 ppb	75.332 %	79.588 %	105.141 ppb	103.574 ppb	102.507 ppb	10,666.886 ppb
Concentration per Run 1	10,607.072 ppb	72.373 %	80.941 %	106.883 ppb	106.681 ppb	104.500 ppb	11,067.681 ppb
Concentration per Run 2	9,576.263 ppb	76.054 %	79.603 %	107.122 ppb	101.635 ppb	103.609 ppb	10,397.847 ppb
Concentration per Run 3	9,621.702 ppb	77.570 %	78.219 %	101.417 ppb	102.406 ppb	99.414 ppb	10,535.131 ppb
Recovery Percentage 1	99.350 %			105.141 %	103.574 %	102.507 %	106.669 %
Concentration RSD	5.9 %	3.5 %	1.7 %	3.1 %	2.6 %	2.6 %	3.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	106.803 ppb	109.039 ppb	109.307 ppb	108.081 ppb	75.272 %	106.478 ppb	105.970 ppb
Concentration per Run 1	109.966 ppb	116.348 ppb	117.390 ppb	113.122 ppb	75.349 %	108.953 ppb	97.717 ppb
Concentration per Run 2	104.813 ppb	106.172 ppb	105.745 ppb	105.995 ppb	76.630 %	105.717 ppb	106.232 ppb
Concentration per Run 3	105.632 ppb	104.597 ppb	104.787 ppb	105.126 ppb	73.838 %	104.762 ppb	113.960 ppb
Recovery Percentage 1	106.803 %	109.039 %	109.307 %	108.081 %		106.478 %	105.970 %
Concentration RSD	2.6 %	5.9 %	6.4 %	4.1 %	1.9 %	2.1 %	7.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	104.527 ppb	109.979 ppb	107.603 ppb	77.308 %	107.721 ppb	104.971 ppb	101.081 ppb
Concentration per Run 1	105.134 ppb	112.273 ppb	110.329 ppb	77.371 %	111.043 ppb	108.722 ppb	104.884 ppb
Concentration per Run 2	103.133 ppb	105.933 ppb	102.764 ppb	79.708 %	106.903 ppb	105.240 ppb	101.653 ppb
Concentration per Run 3	105.314 ppb	111.732 ppb	109.717 ppb	74.845 %	105.216 ppb	100.952 ppb	96.706 ppb
Recovery Percentage 1	104.527 %	109.979 %	107.603 %		107.721 %	104.971 %	101.081 %
Concentration RSD	1.2 %	3.2 %	3.9 %	3.1 %	2.8 %	3.7 %	4.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	79.042 %	104.198 ppb	102.880 ppb	81.046 %
Concentration per Run 1	80.361 %	107.964 ppb	106.893 ppb	80.281 %
Concentration per Run 2	78.354 %	105.710 ppb	103.777 ppb	80.729 %
Concentration per Run 3	78.412 %	98.919 ppb	97.969 ppb	82.128 %
Recovery Percentage 1		104.198 %	102.880 %	
Concentration RSD	1.4 %	4.5 %	4.4 %	1.2 %

Analysis index: 58 Analysis started at: 3/15/2016 4:00:59 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	76.475 %	73.284 %	0.027 ppb	9.752 ppb	3.507 ppb	0.917 ppb	12.886 ppb
Concentration per Run 1	77.095 %	75.060 %	0.030 ppb	7.220 ppb	4.758 ppb	0.193 ppb	19.070 ppb
Concentration per Run 2	75.599 %	75.302 %	0.019 ppb	10.151 ppb	2.003 ppb	1.538 ppb	7.113 ppb
Concentration per Run 3	76.730 %	69.491 %	0.032 ppb	11.884 ppb	3.760 ppb	1.020 ppb	12.475 ppb
Recovery Percentage 1			5.398 %	9.752 %	5.010 %	9.171 %	12.886 %
Concentration RSD	1.0 %	4.5 %	26.6 %	24.2 %	39.8 %	73.9 %	46.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12.062 ppb	76.006 %	78.755 %	0.018 ppb	0.034 ppb	0.150 ppb	1.799 ppb
Concentration per Run 1	23.970 ppb	77.426 %	78.395 %	0.000 ppb	-0.042 ppb	0.227 ppb	0.734 ppb
Concentration per Run 2	6.755 ppb	78.437 %	78.718 %	0.053 ppb	0.145 ppb	-0.449 ppb	4.647 ppb
Concentration per Run 3	5.460 ppb	72.156 %	79.151 %	0.000 ppb	-0.001 ppb	0.672 ppb	0.015 ppb
Recovery Percentage 1	12.062 %			0.353 %	3.409 %	15.002 %	3.598 %
Concentration RSD	85.7 %	4.4 %	0.5 %	173.2 %	287.6 %	376.4 %	138.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.023 ppb	0.020 ppb	0.044 ppb	0.207 ppb	75.988 %	0.080 ppb	-0.284 ppb
Concentration per Run 1	0.009 ppb	0.041 ppb	0.050 ppb	0.176 ppb	78.685 %	0.109 ppb	-0.058 ppb
Concentration per Run 2	0.019 ppb	-0.032 ppb	0.025 ppb	0.130 ppb	76.563 %	0.112 ppb	0.355 ppb
Concentration per Run 3	0.040 ppb	0.052 ppb	0.058 ppb	0.316 ppb	72.715 %	0.018 ppb	-1.151 ppb
Recovery Percentage 1	4.519 %	4.050 %	4.412 %	2.073 %	75.988 %	15.948 %	-5.688 %
Concentration RSD	69.5 %	225.1 %	39.6 %	46.8 %	4.0 %	67.2 %	273.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.553 ppb	0.038 ppb	0.043 ppb	80.233 %	0.129 ppb	0.108 ppb	0.037 ppb
Concentration per Run 1	0.475 ppb	0.043 ppb	0.032 ppb	80.425 %	0.048 ppb	0.101 ppb	0.078 ppb
Concentration per Run 2	0.554 ppb	0.034 ppb	0.040 ppb	80.700 %	0.271 ppb	0.145 ppb	-0.003 ppb
Concentration per Run 3	0.629 ppb	0.035 ppb	0.057 ppb	79.573 %	0.068 ppb	0.079 ppb	0.037 ppb
Recovery Percentage 1	18.429 %	9.442 %	21.588 %		4.300 %	5.409 %	7.417 %
Concentration RSD	14.0 %	13.0 %	29.7 %	0.7 %	95.5 %	31.2 %	109.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	79.568 %	0.033 ppb	0.015 ppb	83.252 %
Concentration per Run 1	78.666 %	0.038 ppb	0.011 ppb	83.442 %
Concentration per Run 2	79.824 %	0.029 ppb	0.021 ppb	83.204 %
Concentration per Run 3	80.215 %	0.033 ppb	0.013 ppb	83.110 %
Recovery Percentage 1		6.688 %	2.942 %	83.252 %
Concentration RSD	1.0 %	14.6 %	35.6 %	0.2 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 59
Analysis label: l1606577-01d20 6020tl
Analysis started at: 3/15/2016 4:09:32 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 12

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	75.631 %	73.930 %	0.012 ppb	7,338.864 ppb	6,965.928 ppb	202.603 ppb	35,942.554 ppb
Concentration per Run 1	75.527 %	79.176 %	0.029 ppb	7,467.144 ppb	7,020.737 ppb	206.656 ppb	37,390.643 ppb
Concentration per Run 2	76.607 %	70.702 %	-0.001 ppb	7,429.339 ppb	7,045.214 ppb	199.046 ppb	36,275.311 ppb
Concentration per Run 3	74.759 %	71.912 %	0.007 ppb	7,120.111 ppb	6,831.833 ppb	202.108 ppb	34,161.710 ppb
Concentration RSD	1.2 %	6.2 %	134.2 %	2.6 %	1.7 %	1.9 %	4.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,598.365 ppb	71.820 %	75.881 %	39.449 ppb	11.621 ppb	16.954 ppb	134.028 ppb
Concentration per Run 1	3,834.887 ppb	69.846 %	75.611 %	40.640 ppb	11.662 ppb	16.241 ppb	137.134 ppb
Concentration per Run 2	3,477.223 ppb	71.940 %	76.653 %	39.030 ppb	11.775 ppb	16.084 ppb	137.031 ppb
Concentration per Run 3	3,482.985 ppb	73.673 %	75.378 %	38.676 ppb	11.425 ppb	18.537 ppb	127.918 ppb
Concentration RSD	5.7 %	2.7 %	0.9 %	2.7 %	1.5 %	8.1 %	3.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.724 ppb	22.651 ppb	2.972 ppb	2.853 ppb	78.130 %	18.782 ppb	0.427 ppb
Concentration per Run 1	1.750 ppb	22.958 ppb	2.746 ppb	3.234 ppb	80.749 %	18.469 ppb	0.350 ppb
Concentration per Run 2	1.692 ppb	22.962 ppb	2.958 ppb	2.944 ppb	76.850 %	19.525 ppb	1.174 ppb
Concentration per Run 3	1.730 ppb	22.031 ppb	3.211 ppb	2.380 ppb	76.792 %	18.351 ppb	-0.242 ppb
Concentration RSD	1.7 %	2.4 %	7.8 %	15.2 %	2.9 %	3.4 %	166.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.331 ppb	0.003 ppb	0.018 ppb	77.092 %	-0.022 ppb	0.136 ppb	19.242 ppb
Concentration per Run 1	0.365 ppb	0.003 ppb	0.000 ppb	78.432 %	-0.063 ppb	0.195 ppb	19.654 ppb
Concentration per Run 2	0.294 ppb	0.007 ppb	0.008 ppb	81.429 %	-0.010 ppb	0.099 ppb	17.684 ppb
Concentration per Run 3	0.334 ppb	-0.001 ppb	0.045 ppb	71.416 %	0.005 ppb	0.114 ppb	20.387 ppb
Concentration RSD	10.9 %	127.2 %	135.9 %	6.7 %	160.1 %	37.9 %	7.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.133 %	0.006 ppb	0.139 ppb	80.157 %
Concentration per Run 1	79.892 %	0.006 ppb	0.158 ppb	83.056 %
Concentration per Run 2	78.925 %	0.010 ppb	0.137 ppb	80.726 %
Concentration per Run 3	75.580 %	0.002 ppb	0.122 ppb	76.689 %
Concentration RSD	2.9 %	70.0 %	13.0 %	4.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 60
Analysis label: l1606577-01d5 6020tl
Analysis started at: 3/15/2016 4:12:37 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 11

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.225 %	77.239 %	0.070 ppb	28,180.563 ppb	26,427.343 ppb	813.334 ppb	133,195.805 ppb
Concentration per Run 1	79.411 %	78.208 %	0.080 ppb	27,659.252 ppb	26,055.718 ppb	779.217 ppb	128,305.311 ppb
Concentration per Run 2	82.237 %	76.513 %	0.066 ppb	28,538.692 ppb	26,606.378 ppb	824.538 ppb	134,272.565 ppb
Concentration per Run 3	82.027 %	76.997 %	0.063 ppb	28,343.745 ppb	26,619.935 ppb	836.247 ppb	137,009.539 ppb
Concentration RSD	1.9 %	1.1 %	13.6 %	1.6 %	1.2 %	3.7 %	3.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	13,913.193 ppb	75.982 %	80.399 %	160.199 ppb	45.145 ppb	69.131 ppb	540.040 ppb
Concentration per Run 1	13,708.480 ppb	78.292 %	76.909 %	156.872 ppb	44.555 ppb	71.605 ppb	526.213 ppb
Concentration per Run 2	13,746.013 ppb	74.466 %	82.202 %	161.599 ppb	43.693 ppb	66.817 ppb	528.770 ppb
Concentration per Run 3	14,285.086 ppb	75.188 %	82.086 %	162.126 ppb	47.188 ppb	68.972 ppb	565.137 ppb
Concentration RSD	2.3 %	2.7 %	3.8 %	1.8 %	4.0 %	3.5 %	4.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	7.080 ppb	86.791 ppb	11.975 ppb	14.071 ppb	72.339 %	82.273 ppb	0.760 ppb
Concentration per Run 1	6.731 ppb	85.529 ppb	12.480 ppb	14.039 ppb	71.976 %	81.792 ppb	0.336 ppb
Concentration per Run 2	7.012 ppb	86.971 ppb	12.115 ppb	13.817 ppb	73.467 %	79.077 ppb	0.739 ppb
Concentration per Run 3	7.497 ppb	87.873 ppb	11.330 ppb	14.355 ppb	71.575 %	85.950 ppb	1.206 ppb
Concentration RSD	5.5 %	1.4 %	4.9 %	1.9 %	1.4 %	4.2 %	57.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.253 ppb	0.004 ppb	0.032 ppb	73.058 %	0.057 ppb	0.299 ppb	82.261 ppb
Concentration per Run 1	1.272 ppb	0.004 ppb	0.045 ppb	72.024 %	0.046 ppb	0.413 ppb	83.950 ppb
Concentration per Run 2	1.242 ppb	0.004 ppb	0.018 ppb	71.673 %	0.025 ppb	0.162 ppb	83.863 ppb
Concentration per Run 3	1.245 ppb	0.004 ppb	0.034 ppb	75.477 %	0.098 ppb	0.323 ppb	78.970 ppb
Concentration RSD	1.3 %	7.6 %	41.8 %	2.9 %	66.5 %	42.4 %	3.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	76.642 %	0.007 ppb	0.533 ppb	75.174 %
Concentration per Run 1	74.362 %	0.003 ppb	0.552 ppb	72.852 %
Concentration per Run 2	78.926 %	0.014 ppb	0.514 ppb	75.996 %
Concentration per Run 3	76.637 %	0.004 ppb	0.533 ppb	76.674 %
Concentration RSD	3.0 %	89.5 %	3.6 %	2.7 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 61
Analysis label: l1606577-02d5 6020tl
Analysis started at: 3/15/2016 4:15:42 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 13

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.640 %	82.082 %	0.035 ppb	11,301.203 ppb	18,734.538 ppb	242.739 ppb	49,990.446 ppb
Concentration per Run 1	94.744 %	82.324 %	0.038 ppb	11,500.752 ppb	19,053.110 ppb	252.000 ppb	48,285.646 ppb
Concentration per Run 2	94.018 %	87.893 %	0.026 ppb	10,459.948 ppb	17,367.324 ppb	235.474 ppb	50,041.372 ppb
Concentration per Run 3	95.157 %	76.028 %	0.040 ppb	11,942.909 ppb	19,783.181 ppb	240.743 ppb	51,644.320 ppb
Concentration RSD	0.6 %	7.2 %	22.1 %	6.7 %	6.6 %	3.5 %	3.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	29,829.774 ppb	88.544 %	92.411 %	29.808 ppb	68.308 ppb	112.180 ppb	1,680.493 ppb
Concentration per Run 1	29,028.220 ppb	90.421 %	91.327 %	29.102 ppb	67.095 ppb	113.697 ppb	1,630.485 ppb
Concentration per Run 2	29,936.158 ppb	89.627 %	93.308 %	30.500 ppb	68.109 ppb	112.829 ppb	1,750.771 ppb
Concentration per Run 3	30,524.944 ppb	85.584 %	92.599 %	29.823 ppb	69.719 ppb	110.015 ppb	1,660.223 ppb
Concentration RSD	2.5 %	2.9 %	1.1 %	2.3 %	1.9 %	1.7 %	3.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	5.616 ppb	105.460 ppb	54.163 ppb	303.008 ppb	85.432 %	26.262 ppb	0.133 ppb
Concentration per Run 1	5.286 ppb	108.547 ppb	53.701 ppb	305.849 ppb	85.738 %	28.762 ppb	0.137 ppb
Concentration per Run 2	5.812 ppb	105.636 ppb	56.486 ppb	302.294 ppb	82.412 %	26.707 ppb	0.561 ppb
Concentration per Run 3	5.751 ppb	102.197 ppb	52.301 ppb	300.881 ppb	88.147 %	23.317 ppb	-0.301 ppb
Concentration RSD	5.1 %	3.0 %	3.9 %	0.8 %	3.4 %	10.5 %	324.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.601 ppb	0.012 ppb	0.058 ppb	85.003 %	0.044 ppb	1.317 ppb	38.195 ppb
Concentration per Run 1	3.633 ppb	0.031 ppb	0.075 ppb	85.537 %	0.090 ppb	1.339 ppb	39.226 ppb
Concentration per Run 2	3.757 ppb	0.015 ppb	0.061 ppb	85.451 %	0.090 ppb	1.295 ppb	38.003 ppb
Concentration per Run 3	3.413 ppb	-0.011 ppb	0.038 ppb	84.020 %	-0.049 ppb	1.318 ppb	37.357 ppb
Concentration RSD	4.8 %	179.6 %	32.2 %	1.0 %	183.8 %	1.7 %	2.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.862 %	0.002 ppb	4.978 ppb	84.617 %
Concentration per Run 1	86.406 %	-0.002 ppb	5.013 ppb	85.621 %
Concentration per Run 2	88.136 %	0.006 ppb	4.990 ppb	85.227 %
Concentration per Run 3	86.043 %	0.003 ppb	4.932 ppb	83.003 %
Concentration RSD	1.3 %	189.8 %	0.8 %	1.7 %

Alpha ICPMSQ Full

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Analysis index: 62
Analysis label: l1606577-02d20 6020tl
Analysis started at: 3/15/2016 4:18:45 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 14

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.590 %	85.714 %	0.013 ppb	2,617.935 ppb	4,444.997 ppb	57.765 ppb	12,268.198 ppb
Concentration per Run 1	82.484 %	88.377 %	0.018 ppb	2,558.549 ppb	4,388.435 ppb	60.326 ppb	11,968.552 ppb
Concentration per Run 2	89.881 %	84.987 %	0.011 ppb	2,685.491 ppb	4,564.861 ppb	56.427 ppb	12,199.022 ppb
Concentration per Run 3	90.404 %	83.777 %	0.011 ppb	2,609.765 ppb	4,381.696 ppb	56.541 ppb	12,637.021 ppb
Concentration RSD	5.1 %	2.8 %	32.1 %	2.4 %	2.3 %	3.8 %	2.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,462.982 ppb	82.431 %	87.213 %	7.659 ppb	17.556 ppb	27.824 ppb	431.751 ppb
Concentration per Run 1	7,503.902 ppb	85.728 %	86.819 %	7.834 ppb	17.628 ppb	29.078 ppb	408.083 ppb
Concentration per Run 2	7,524.750 ppb	81.469 %	87.782 %	7.499 ppb	17.911 ppb	27.506 ppb	460.716 ppb
Concentration per Run 3	7,360.294 ppb	80.097 %	87.036 %	7.645 ppb	17.130 ppb	26.889 ppb	426.453 ppb
Concentration RSD	1.2 %	3.6 %	0.6 %	2.2 %	2.3 %	4.1 %	6.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.276 ppb	26.896 ppb	13.786 ppb	71.890 ppb	87.781 %	6.391 ppb	-0.503 ppb
Concentration per Run 1	1.326 ppb	26.275 ppb	12.839 ppb	72.265 ppb	90.956 %	6.562 ppb	0.032 ppb
Concentration per Run 2	1.276 ppb	25.800 ppb	14.132 ppb	70.685 ppb	87.394 %	6.372 ppb	-0.887 ppb
Concentration per Run 3	1.226 ppb	28.612 ppb	14.387 ppb	72.720 ppb	84.993 %	6.238 ppb	-0.653 ppb
Concentration RSD	3.9 %	5.6 %	6.0 %	1.5 %	3.4 %	2.6 %	95.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.903 ppb	0.004 ppb	0.026 ppb	82.579 %	-0.029 ppb	0.398 ppb	8.898 ppb
Concentration per Run 1	0.851 ppb	0.006 ppb	0.015 ppb	83.437 %	-0.031 ppb	0.376 ppb	9.311 ppb
Concentration per Run 2	1.119 ppb	-0.002 ppb	0.008 ppb	84.235 %	-0.049 ppb	0.267 ppb	8.769 ppb
Concentration per Run 3	0.740 ppb	0.007 ppb	0.056 ppb	80.064 %	-0.008 ppb	0.550 ppb	8.612 ppb
Concentration RSD	21.5 %	139.2 %	98.8 %	2.7 %	69.9 %	35.9 %	4.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.775 %	0.004 ppb	1.183 ppb	84.487 %
Concentration per Run 1	87.360 %	0.002 ppb	1.172 ppb	85.928 %
Concentration per Run 2	83.949 %	0.000 ppb	1.178 ppb	84.634 %
Concentration per Run 3	83.015 %	0.010 ppb	1.199 ppb	82.899 %
Concentration RSD	2.7 %	130.5 %	1.2 %	1.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 63
Analysis label: L1606144-06 6020SL
Analysis started at: 3/15/2016 4:21:47 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 52

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	80.441 %	80.468 %	0.010 ppb	303,612.548 ppb	30,681.189 ppb	3.028 ppb	11,258.600 ppb
Concentration per Run 1	80.748 %	79.903 %	0.019 ppb	298,356.845 ppb	29,691.663 ppb	1.763 ppb	10,605.741 ppb
Concentration per Run 2	80.768 %	84.987 %	0.002 ppb	293,380.072 ppb	30,353.711 ppb	2.346 ppb	11,454.921 ppb
Concentration per Run 3	79.807 %	76.513 %	0.008 ppb	319,100.726 ppb	31,998.192 ppb	4.975 ppb	11,715.139 ppb
Concentration RSD	0.7 %	5.3 %	89.5 %	4.5 %	3.9 %	56.5 %	5.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	152,109.203 ppb	74.779 %	80.055 %	0.207 ppb	0.382 ppb	3,229.116 ppb	163.074 ppb
Concentration per Run 1	141,095.835 ppb	80.386 %	79.103 %	0.052 ppb	0.277 ppb	3,159.269 ppb	166.884 ppb
Concentration per Run 2	157,883.731 ppb	71.795 %	81.252 %	0.370 ppb	0.434 ppb	3,310.871 ppb	157.472 ppb
Concentration per Run 3	157,348.043 ppb	72.156 %	79.809 %	0.199 ppb	0.434 ppb	3,217.210 ppb	164.866 ppb
Concentration RSD	6.3 %	6.5 %	1.4 %	76.7 %	23.7 %	2.4 %	3.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.288 ppb	3.933 ppb	2.860 ppb	1.523 ppb	74.783 %	0.860 ppb	0.016 ppb
Concentration per Run 1	2.356 ppb	3.955 ppb	3.006 ppb	1.466 ppb	73.295 %	0.754 ppb	-0.006 ppb
Concentration per Run 2	2.482 ppb	3.791 ppb	2.895 ppb	1.547 ppb	76.212 %	0.888 ppb	1.112 ppb
Concentration per Run 3	2.026 ppb	4.052 ppb	2.677 ppb	1.557 ppb	74.843 %	0.937 ppb	-1.058 ppb
Concentration RSD	10.3 %	3.4 %	5.9 %	3.3 %	2.0 %	11.0 %	6,813.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.802 ppb	0.004 ppb	0.228 ppb	74.642 %	0.128 ppb	0.117 ppb	437.077 ppb
Concentration per Run 1	1.929 ppb	0.003 ppb	0.193 ppb	77.363 %	0.113 ppb	0.128 ppb	429.647 ppb
Concentration per Run 2	1.872 ppb	0.009 ppb	0.238 ppb	72.993 %	0.126 ppb	0.161 ppb	433.952 ppb
Concentration per Run 3	1.607 ppb	-0.001 ppb	0.254 ppb	73.570 %	0.145 ppb	0.062 ppb	447.633 ppb
Concentration RSD	9.5 %	130.6 %	13.9 %	3.2 %	12.7 %	43.2 %	2.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	75.955 %	0.012 ppb	0.117 ppb	70.773 %
Concentration per Run 1	77.693 %	0.019 ppb	0.107 ppb	72.321 %
Concentration per Run 2	75.748 %	0.007 ppb	0.128 ppb	71.074 %
Concentration per Run 3	74.423 %	0.010 ppb	0.117 ppb	68.925 %
Concentration RSD	2.2 %	52.9 %	8.7 %	2.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 64
Analysis label: l1606591-01 6020tl
Analysis started at: 3/15/2016 4:24:51 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 15

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.763 %	99.274 %	0.008 ppb	82,642.420 ppb	23,117.739 ppb	2.305 ppb	9,074.110 ppb
Concentration per Run 1	103.086 %	103.632 %	0.008 ppb	80,341.665 ppb	22,194.999 ppb	1.316 ppb	8,935.347 ppb
Concentration per Run 2	107.775 %	95.884 %	0.007 ppb	84,132.745 ppb	23,128.957 ppb	2.825 ppb	8,907.417 ppb
Concentration per Run 3	106.430 %	98.305 %	0.009 ppb	83,452.850 ppb	24,029.261 ppb	2.775 ppb	9,379.567 ppb
Concentration RSD	2.3 %	4.0 %	10.1 %	2.4 %	4.0 %	37.2 %	2.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	22,179.598 ppb	86.595 %	91.221 %	0.095 ppb	1.006 ppb	72.448 ppb	28.477 ppb
Concentration per Run 1	22,351.798 ppb	88.760 %	89.149 %	0.094 ppb	0.838 ppb	73.005 ppb	29.661 ppb
Concentration per Run 2	20,993.915 ppb	88.616 %	92.267 %	0.141 ppb	1.085 ppb	71.008 ppb	26.416 ppb
Concentration per Run 3	23,193.080 ppb	82.408 %	92.246 %	0.050 ppb	1.095 ppb	73.331 ppb	29.356 ppb
Concentration RSD	5.0 %	4.2 %	2.0 %	48.0 %	14.4 %	1.7 %	6.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.116 ppb	3.470 ppb	0.802 ppb	9.171 ppb	84.321 %	0.208 ppb	-1.015 ppb
Concentration per Run 1	0.083 ppb	3.724 ppb	0.776 ppb	8.660 ppb	85.967 %	0.156 ppb	-0.986 ppb
Concentration per Run 2	0.125 ppb	2.737 ppb	0.859 ppb	10.330 ppb	84.469 %	0.246 ppb	-0.834 ppb
Concentration per Run 3	0.140 ppb	3.949 ppb	0.770 ppb	8.523 ppb	82.527 %	0.222 ppb	-1.225 ppb
Concentration RSD	25.7 %	18.6 %	6.2 %	11.0 %	2.0 %	22.5 %	19.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.673 ppb	-0.004 ppb	0.015 ppb	86.367 %	0.002 ppb	0.099 ppb	62.435 ppb
Concentration per Run 1	3.740 ppb	-0.002 ppb	0.015 ppb	85.871 %	0.002 ppb	0.072 ppb	61.600 ppb
Concentration per Run 2	3.550 ppb	-0.002 ppb	0.007 ppb	88.236 %	-0.035 ppb	0.111 ppb	62.876 ppb
Concentration per Run 3	3.730 ppb	-0.006 ppb	0.023 ppb	84.993 %	0.038 ppb	0.115 ppb	62.831 ppb
Concentration RSD	2.9 %	62.2 %	51.4 %	1.9 %	2,299.4 %	24.1 %	1.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.908 %	-0.002 ppb	0.043 ppb	84.250 %
Concentration per Run 1	88.785 %	-0.004 ppb	0.039 ppb	85.911 %
Concentration per Run 2	88.493 %	-0.002 ppb	0.042 ppb	82.815 %
Concentration per Run 3	86.448 %	-0.001 ppb	0.048 ppb	84.023 %
Concentration RSD	1.4 %	76.9 %	11.2 %	1.9 %

Analysis index: 65 Analysis started at: 3/15/2016 4:27:53 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.247 %	95.642 %	102.305 ppb	9,959.820 ppb	9,777.172 ppb	93.977 ppb	9,974.904 ppb
Concentration per Run 1	96.750 %	94.915 %	102.807 ppb	10,218.760 ppb	9,828.642 ppb	97.085 ppb	10,880.125 ppb
Concentration per Run 2	97.072 %	92.494 %	102.908 ppb	10,114.654 ppb	9,923.695 ppb	90.484 ppb	9,548.604 ppb
Concentration per Run 3	97.918 %	99.516 %	101.201 ppb	9,546.048 ppb	9,579.180 ppb	94.360 ppb	9,495.983 ppb
Recovery Percentage 1			102.305 %	99.598 %	97.772 %	93.977 %	99.749 %
Concentration RSD	0.6 %	3.7 %	0.9 %	3.6 %	1.8 %	3.5 %	7.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,728.978 ppb	91.384 %	90.581 %	99.809 ppb	98.475 ppb	100.591 ppb	10,540.505 ppb
Concentration per Run 1	10,172.821 ppb	88.977 %	89.238 %	104.646 ppb	102.379 ppb	102.831 ppb	10,924.782 ppb
Concentration per Run 2	9,737.388 ppb	92.226 %	90.819 %	95.858 ppb	95.526 ppb	99.361 ppb	10,449.403 ppb
Concentration per Run 3	9,276.726 ppb	92.948 %	91.685 %	98.923 ppb	97.520 ppb	99.582 ppb	10,247.330 ppb
Recovery Percentage 1	97.290 %			99.809 %	98.475 %	100.591 %	105.405 %
Concentration RSD	4.6 %	2.3 %	1.4 %	4.5 %	3.6 %	1.9 %	3.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	105.633 ppb	104.610 ppb	105.782 ppb	103.378 ppb	90.228 %	104.533 ppb	100.090 ppb
Concentration per Run 1	107.637 ppb	103.231 ppb	106.835 ppb	107.418 ppb	88.872 %	105.159 ppb	101.749 ppb
Concentration per Run 2	104.489 ppb	107.276 ppb	108.466 ppb	102.186 ppb	89.678 %	107.404 ppb	107.630 ppb
Concentration per Run 3	104.772 ppb	103.324 ppb	102.043 ppb	100.531 ppb	92.133 %	101.036 ppb	90.891 ppb
Recovery Percentage 1	105.633 %	104.610 %	105.782 %	103.378 %		104.533 %	100.090 %
Concentration RSD	1.6 %	2.2 %	3.2 %	3.5 %	1.9 %	3.1 %	8.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	101.551 ppb	104.542 ppb	100.815 ppb	93.115 %	102.106 ppb	101.244 ppb	98.457 ppb
Concentration per Run 1	99.145 ppb	105.966 ppb	100.716 ppb	92.570 %	101.228 ppb	98.200 ppb	95.988 ppb
Concentration per Run 2	102.261 ppb	102.945 ppb	101.502 ppb	94.797 %	101.429 ppb	101.255 ppb	98.268 ppb
Concentration per Run 3	103.249 ppb	104.714 ppb	100.228 ppb	91.979 %	103.661 ppb	104.277 ppb	101.114 ppb
Recovery Percentage 1	101.551 %	104.542 %	100.815 %		102.106 %	101.244 %	98.457 %
Concentration RSD	2.1 %	1.5 %	0.6 %	1.6 %	1.3 %	3.0 %	2.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.491 %	104.148 ppb	100.831 ppb	94.570 %
Concentration per Run 1	95.774 %	102.039 ppb	97.841 ppb	97.528 %
Concentration per Run 2	91.204 %	105.688 ppb	101.918 ppb	93.392 %
Concentration per Run 3	93.494 %	104.717 ppb	102.733 ppb	92.789 %
Recovery Percentage 1		104.148 %	100.831 %	
Concentration RSD	2.4 %	1.8 %	2.6 %	2.7 %

Analysis index: 66 Analysis started at: 3/15/2016 4:31:00 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	91.086 %	91.929 %	0.033 ppb	7.466 ppb	1.566 ppb	0.375 ppb	7.322 ppb
Concentration per Run 1	91.709 %	92.736 %	0.030 ppb	5.417 ppb	0.932 ppb	1.188 ppb	15.525 ppb
Concentration per Run 2	91.058 %	91.283 %	0.032 ppb	8.330 ppb	0.924 ppb	-0.132 ppb	-3.530 ppb
Concentration per Run 3	90.492 %	91.767 %	0.036 ppb	8.651 ppb	2.843 ppb	0.070 ppb	9.970 ppb
Recovery Percentage 1			6.542 %	7.466 %	2.237 %	3.750 %	7.322 %
Concentration RSD	0.7 %	0.8 %	8.5 %	23.9 %	70.6 %	189.5 %	133.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	22.592 ppb	84.862 %	88.585 %	0.024 ppb	0.046 ppb	0.154 ppb	7.287 ppb
Concentration per Run 1	16.387 ppb	86.378 %	87.199 %	0.024 ppb	0.105 ppb	0.211 ppb	16.521 ppb
Concentration per Run 2	21.964 ppb	88.761 %	90.020 %	0.023 ppb	0.027 ppb	0.128 ppb	3.963 ppb
Concentration per Run 3	29.425 ppb	79.447 %	88.537 %	0.025 ppb	0.005 ppb	0.124 ppb	1.377 ppb
Recovery Percentage 1	22.592 %			0.484 %	4.553 %	15.416 %	14.574 %
Concentration RSD	29.0 %	5.7 %	1.6 %	4.8 %	115.6 %	32.2 %	111.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.036 ppb	0.071 ppb	0.078 ppb	0.297 ppb	88.433 %	-0.007 ppb	-0.764 ppb
Concentration per Run 1	0.008 ppb	-0.008 ppb	0.131 ppb	0.314 ppb	89.064 %	-0.016 ppb	-1.078 ppb
Concentration per Run 2	0.073 ppb	0.087 ppb	0.061 ppb	0.205 ppb	88.778 %	0.012 ppb	-0.974 ppb
Concentration per Run 3	0.026 ppb	0.134 ppb	0.041 ppb	0.371 ppb	87.458 %	-0.016 ppb	-0.240 ppb
Recovery Percentage 1	7.166 %	14.196 %	7.780 %	2.967 %	88.433 %	-1.325 %	-15.280 %
Concentration RSD	93.8 %	101.8 %	60.9 %	28.4 %	1.0 %	241.3 %	59.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.656 ppb	0.078 ppb	0.027 ppb	87.211 %	0.274 ppb	0.043 ppb	0.004 ppb
Concentration per Run 1	0.724 ppb	0.084 ppb	0.022 ppb	87.668 %	0.238 ppb	0.029 ppb	-0.043 ppb
Concentration per Run 2	0.655 ppb	0.050 ppb	0.022 ppb	88.782 %	0.318 ppb	0.049 ppb	0.028 ppb
Concentration per Run 3	0.590 ppb	0.099 ppb	0.038 ppb	85.182 %	0.265 ppb	0.051 ppb	0.028 ppb
Recovery Percentage 1	21.873 %	19.419 %	13.599 %		9.120 %	2.137 %	0.816 %
Concentration RSD	10.2 %	32.1 %	33.6 %	2.1 %	15.0 %	28.3 %	1,006.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.533 %	0.022 ppb	0.015 ppb	95.813 %
Concentration per Run 1	93.693 %	0.021 ppb	0.014 ppb	98.986 %
Concentration per Run 2	92.114 %	0.025 ppb	0.016 ppb	92.520 %
Concentration per Run 3	94.791 %	0.020 ppb	0.016 ppb	95.933 %
Recovery Percentage 1		4.412 %	2.984 %	95.813 %
Concentration RSD	1.4 %	12.5 %	7.1 %	3.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 67
Analysis label: l1606591-01d20 6020tl
Analysis started at: 3/15/2016 4:41:03 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 16

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.511 %	86.117 %	0.008 ppb	5,010.204 ppb	1,325.339 ppb	-0.054 ppb	466.360 ppb
Concentration per Run 1	86.651 %	92.494 %	-0.001 ppb	4,613.084 ppb	1,217.466 ppb	-0.118 ppb	413.635 ppb
Concentration per Run 2	86.024 %	86.925 %	0.010 ppb	5,022.927 ppb	1,328.661 ppb	0.109 ppb	477.699 ppb
Concentration per Run 3	86.858 %	78.934 %	0.013 ppb	5,394.602 ppb	1,429.889 ppb	-0.155 ppb	507.746 ppb
Concentration RSD	0.5 %	7.9 %	95.8 %	7.8 %	8.0 %	262.4 %	10.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-386.748 ppb	79.399 %	82.810 %	0.009 ppb	0.055 ppb	5.994 ppb	1.183 ppb
Concentration per Run 1	-861.885 ppb	85.006 %	84.308 %	0.000 ppb	0.063 ppb	5.760 ppb	0.605 ppb
Concentration per Run 2	-166.414 ppb	78.004 %	81.737 %	0.026 ppb	0.041 ppb	6.647 ppb	1.457 ppb
Concentration per Run 3	-131.946 ppb	75.188 %	82.384 %	0.000 ppb	0.061 ppb	5.576 ppb	1.488 ppb
Concentration RSD	106.5 %	6.4 %	1.6 %	173.2 %	22.0 %	9.5 %	42.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.006 ppb	0.234 ppb	0.010 ppb	-0.357 ppb	83.807 %	0.023 ppb	-0.672 ppb
Concentration per Run 1	0.000 ppb	0.163 ppb	0.066 ppb	-0.546 ppb	84.992 %	0.013 ppb	-0.389 ppb
Concentration per Run 2	0.018 ppb	0.214 ppb	-0.056 ppb	-0.381 ppb	82.526 %	0.044 ppb	-0.655 ppb
Concentration per Run 3	0.000 ppb	0.325 ppb	0.021 ppb	-0.143 ppb	83.903 %	0.013 ppb	-0.972 ppb
Concentration RSD	173.2 %	35.2 %	603.1 %	56.8 %	1.5 %	75.2 %	43.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.329 ppb	0.009 ppb	0.002 ppb	84.518 %	-0.025 ppb	0.045 ppb	2.822 ppb
Concentration per Run 1	0.283 ppb	0.014 ppb	0.007 ppb	89.292 %	-0.036 ppb	0.049 ppb	2.408 ppb
Concentration per Run 2	0.229 ppb	0.007 ppb	0.000 ppb	82.524 %	-0.030 ppb	0.053 ppb	3.165 ppb
Concentration per Run 3	0.474 ppb	0.007 ppb	0.000 ppb	81.737 %	-0.010 ppb	0.032 ppb	2.894 ppb
Concentration RSD	39.1 %	44.0 %	173.2 %	4.9 %	53.5 %	24.9 %	13.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.277 %	0.000 ppb	-0.010 ppb	91.665 %
Concentration per Run 1	91.265 %	-0.005 ppb	-0.011 ppb	96.885 %
Concentration per Run 2	85.460 %	0.003 ppb	-0.010 ppb	89.957 %
Concentration per Run 3	82.107 %	0.001 ppb	-0.009 ppb	88.155 %
Concentration RSD	5.4 %	923.5 %	10.4 %	5.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 68
Analysis label: l1606591-03 6020tl
Analysis started at: 3/15/2016 4:44:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 17

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.382 %	89.346 %	0.007 ppb	45,257.456 ppb	89,341.090 ppb	19.629 ppb	6,073.251 ppb
Concentration per Run 1	94.573 %	85.714 %	0.010 ppb	45,863.673 ppb	87,736.169 ppb	18.132 ppb	5,861.408 ppb
Concentration per Run 2	97.369 %	98.547 %	0.001 ppb	44,210.697 ppb	87,101.359 ppb	20.121 ppb	6,096.271 ppb
Concentration per Run 3	97.205 %	83.777 %	0.011 ppb	45,697.999 ppb	93,185.742 ppb	20.635 ppb	6,262.073 ppb
Concentration RSD	1.6 %	9.0 %	70.3 %	2.0 %	3.7 %	6.7 %	3.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	57,385.832 ppb	83.105 %	91.302 %	0.550 ppb	1.740 ppb	7.314 ppb	191.656 ppb
Concentration per Run 1	53,635.217 ppb	87.244 %	88.354 %	0.376 ppb	1.786 ppb	6.539 ppb	172.624 ppb
Concentration per Run 2	59,265.338 ppb	79.447 %	91.064 %	0.596 ppb	1.682 ppb	8.353 ppb	180.614 ppb
Concentration per Run 3	59,256.941 ppb	82.624 %	94.489 %	0.676 ppb	1.752 ppb	7.052 ppb	221.729 ppb
Concentration RSD	5.7 %	4.7 %	3.4 %	28.3 %	3.0 %	12.8 %	13.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.083 ppb	3.416 ppb	10.791 ppb	13.490 ppb	84.355 %	0.440 ppb	5.068 ppb
Concentration per Run 1	0.098 ppb	3.561 ppb	9.826 ppb	13.267 ppb	90.376 %	0.474 ppb	3.016 ppb
Concentration per Run 2	0.117 ppb	3.285 ppb	11.050 ppb	14.285 ppb	80.678 %	0.441 ppb	5.090 ppb
Concentration per Run 3	0.035 ppb	3.402 ppb	11.496 ppb	12.918 ppb	82.010 %	0.404 ppb	7.098 ppb
Concentration RSD	51.5 %	4.1 %	8.0 %	5.3 %	6.2 %	8.0 %	40.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.846 ppb	0.010 ppb	0.058 ppb	82.475 %	0.019 ppb	0.039 ppb	57.049 ppb
Concentration per Run 1	3.653 ppb	0.010 ppb	0.045 ppb	84.852 %	0.021 ppb	0.072 ppb	57.715 ppb
Concentration per Run 2	3.981 ppb	0.007 ppb	0.039 ppb	82.881 %	0.024 ppb	-0.012 ppb	56.227 ppb
Concentration per Run 3	3.903 ppb	0.012 ppb	0.089 ppb	79.691 %	0.011 ppb	0.056 ppb	57.205 ppb
Concentration RSD	4.5 %	26.7 %	47.0 %	3.2 %	35.6 %	115.6 %	1.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.965 %	-0.002 ppb	1.152 ppb	83.209 %
Concentration per Run 1	90.540 %	-0.003 ppb	1.119 ppb	88.121 %
Concentration per Run 2	87.902 %	-0.001 ppb	1.129 ppb	82.302 %
Concentration per Run 3	82.451 %	-0.002 ppb	1.209 ppb	79.204 %
Concentration RSD	4.7 %	57.5 %	4.3 %	5.4 %

Analysis index: 69
Analysis label: xl1606591-03d20 6020tl
Analysis started at: 3/15/2016 4:47:09 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 18

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.419 %	90.314 %	0.006 ppb	2,420.600 ppb	5,286.322 ppb	0.778 ppb	304.637 ppb
Concentration per Run 1	100.500 %	88.377 %	0.004 ppb	2,432.503 ppb	5,288.985 ppb	0.714 ppb	319.127 ppb
Concentration per Run 2	92.422 %	89.588 %	0.008 ppb	2,515.285 ppb	5,425.001 ppb	0.944 ppb	321.298 ppb
Concentration per Run 3	99.334 %	92.978 %	0.004 ppb	2,314.013 ppb	5,144.979 ppb	0.677 ppb	273.485 ppb
Concentration RSD	4.5 %	2.6 %	45.0 %	4.2 %	2.6 %	18.6 %	8.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,569.163 ppb	90.638 %	98.165 %	0.000 ppb	0.091 ppb	-0.579 ppb	7.554 ppb
Concentration per Run 1	2,632.735 ppb	93.598 %	97.226 %	0.000 ppb	0.065 ppb	-0.638 ppb	10.458 ppb
Concentration per Run 2	2,427.931 ppb	84.934 %	102.080 %	0.000 ppb	0.132 ppb	-0.657 ppb	7.226 ppb
Concentration per Run 3	2,646.824 ppb	93.381 %	95.190 %	0.000 ppb	0.077 ppb	-0.442 ppb	4.978 ppb
Concentration RSD	4.8 %	5.5 %	3.6 %		39.5 %	20.6 %	36.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.008 ppb	0.164 ppb	0.615 ppb	-0.174 ppb	94.013 %	0.027 ppb	-0.126 ppb
Concentration per Run 1	0.008 ppb	0.271 ppb	0.449 ppb	-0.031 ppb	88.433 %	0.012 ppb	-0.316 ppb
Concentration per Run 2	0.008 ppb	0.174 ppb	0.865 ppb	-0.188 ppb	98.355 %	0.059 ppb	0.141 ppb
Concentration per Run 3	0.008 ppb	0.046 ppb	0.533 ppb	-0.302 ppb	95.251 %	0.010 ppb	-0.203 ppb
Concentration RSD	1.9 %	69.1 %	35.7 %	78.5 %	5.4 %	103.1 %	188.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.157 ppb	-0.007 ppb	0.007 ppb	91.463 %	-0.098 ppb	0.021 ppb	2.785 ppb
Concentration per Run 1	0.128 ppb	-0.011 ppb	0.007 ppb	92.986 %	-0.104 ppb	0.007 ppb	2.890 ppb
Concentration per Run 2	0.152 ppb	-0.003 ppb	0.000 ppb	92.900 %	-0.120 ppb	0.046 ppb	2.637 ppb
Concentration per Run 3	0.190 ppb	-0.007 ppb	0.014 ppb	88.503 %	-0.070 ppb	0.008 ppb	2.827 ppb
Concentration RSD	19.9 %	56.2 %	101.3 %	2.8 %	26.5 %	107.6 %	4.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.544 %	-0.009 ppb	0.045 ppb	93.755 %
Concentration per Run 1	92.921 %	-0.006 ppb	0.050 ppb	97.636 %
Concentration per Run 2	91.384 %	-0.009 ppb	0.031 ppb	93.530 %
Concentration per Run 3	90.328 %	-0.011 ppb	0.052 ppb	90.099 %
Concentration RSD	1.4 %	25.0 %	26.5 %	4.0 %

Alpha ICPMSQ Full

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Analysis index: 70
Analysis label: l1606591-04 6020tl
Analysis started at: 3/15/2016 4:50:13 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 19

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.950 %	94.592 %	0.005 ppb	4,653.543 ppb	39,220.506 ppb	5.613 ppb	1,050.362 ppb
Concentration per Run 1	97.672 %	98.547 %	0.014 ppb	4,679.058 ppb	39,878.664 ppb	5.889 ppb	1,052.258 ppb
Concentration per Run 2	99.411 %	97.579 %	0.003 ppb	4,615.993 ppb	38,584.990 ppb	6.104 ppb	1,092.138 ppb
Concentration per Run 3	99.766 %	87.651 %	0.000 ppb	4,665.579 ppb	39,197.863 ppb	4.847 ppb	1,006.691 ppb
Concentration RSD	1.1 %	6.4 %	140.4 %	0.7 %	1.6 %	12.0 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	90,185.356 ppb	91.985 %	93.514 %	0.551 ppb	0.779 ppb	-0.306 ppb	18.420 ppb
Concentration per Run 1	89,402.468 ppb	91.215 %	90.475 %	0.523 ppb	0.912 ppb	-0.112 ppb	20.623 ppb
Concentration per Run 2	88,939.511 ppb	90.133 %	95.793 %	0.530 ppb	0.734 ppb	-0.409 ppb	16.846 ppb
Concentration per Run 3	92,214.089 ppb	94.609 %	94.275 %	0.600 ppb	0.692 ppb	-0.396 ppb	17.791 ppb
Concentration RSD	2.0 %	2.5 %	2.9 %	7.8 %	15.0 %	54.9 %	10.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.043 ppb	2.603 ppb	5.737 ppb	3.394 ppb	88.128 %	0.253 ppb	-0.799 ppb
Concentration per Run 1	0.040 ppb	2.550 ppb	5.761 ppb	3.308 ppb	89.637 %	0.340 ppb	-1.578 ppb
Concentration per Run 2	0.049 ppb	2.396 ppb	5.897 ppb	2.978 ppb	88.146 %	0.151 ppb	-1.071 ppb
Concentration per Run 3	0.040 ppb	2.864 ppb	5.551 ppb	3.895 ppb	86.599 %	0.268 ppb	0.253 ppb
Concentration RSD	11.8 %	9.2 %	3.0 %	13.7 %	1.7 %	37.6 %	118.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.329 ppb	-0.007 ppb	0.010 ppb	86.385 %	0.027 ppb	0.119 ppb	55.438 ppb
Concentration per Run 1	1.278 ppb	-0.007 ppb	0.029 ppb	90.075 %	0.113 ppb	0.168 ppb	53.334 ppb
Concentration per Run 2	1.316 ppb	-0.007 ppb	0.000 ppb	86.418 %	0.071 ppb	0.071 ppb	55.436 ppb
Concentration per Run 3	1.392 ppb	-0.006 ppb	0.000 ppb	82.661 %	-0.102 ppb	0.118 ppb	57.543 ppb
Concentration RSD	4.4 %	2.4 %	173.2 %	4.3 %	422.6 %	40.6 %	3.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.320 %	-0.004 ppb	0.124 ppb	85.880 %
Concentration per Run 1	91.888 %	-0.006 ppb	0.129 ppb	88.330 %
Concentration per Run 2	87.724 %	-0.004 ppb	0.134 ppb	85.213 %
Concentration per Run 3	88.348 %	-0.002 ppb	0.109 ppb	84.097 %
Concentration RSD	2.5 %	46.8 %	10.6 %	2.6 %

Analysis index: 71
Analysis label: xl1606591-04d20 6020tl
Analysis started at: 3/15/2016 4:53:17 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 20

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.490 %	100.000 %	0.006 ppb	230.030 ppb	1,904.691 ppb	-0.151 ppb	50.713 ppb
Concentration per Run 1	101.415 %	104.116 %	0.001 ppb	226.830 ppb	1,874.465 ppb	-0.218 ppb	39.271 ppb
Concentration per Run 2	103.782 %	97.094 %	0.005 ppb	236.106 ppb	1,936.023 ppb	0.366 ppb	64.568 ppb
Concentration per Run 3	102.273 %	98.789 %	0.013 ppb	227.153 ppb	1,903.585 ppb	-0.600 ppb	48.299 ppb
Concentration RSD	1.2 %	3.7 %	97.2 %	2.3 %	1.6 %	322.8 %	25.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	4,408.869 ppb	95.187 %	101.739 %	0.022 ppb	0.089 ppb	-0.884 ppb	1.977 ppb
Concentration per Run 1	4,400.425 ppb	95.908 %	100.481 %	0.000 ppb	0.143 ppb	-0.945 ppb	1.734 ppb
Concentration per Run 2	4,578.399 ppb	93.815 %	102.906 %	0.022 ppb	0.065 ppb	-0.818 ppb	2.504 ppb
Concentration per Run 3	4,247.784 ppb	95.837 %	101.832 %	0.043 ppb	0.059 ppb	-0.889 ppb	1.695 ppb
Concentration RSD	3.8 %	1.2 %	1.2 %	98.7 %	52.9 %	7.2 %	23.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.008 ppb	0.138 ppb	0.392 ppb	-0.630 ppb	92.792 %	-0.016 ppb	-1.120 ppb
Concentration per Run 1	0.008 ppb	0.136 ppb	0.404 ppb	-0.580 ppb	93.595 %	-0.016 ppb	-1.118 ppb
Concentration per Run 2	0.016 ppb	0.178 ppb	0.359 ppb	-0.581 ppb	87.516 %	-0.016 ppb	-0.791 ppb
Concentration per Run 3	0.000 ppb	0.101 ppb	0.413 ppb	-0.728 ppb	97.265 %	-0.016 ppb	-1.451 ppb
Concentration RSD	101.5 %	27.8 %	7.3 %	13.5 %	5.3 %	0.0 %	29.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.128 ppb	-0.006 ppb	0.005 ppb	95.366 %	-0.026 ppb	0.020 ppb	2.580 ppb
Concentration per Run 1	0.137 ppb	-0.007 ppb	0.000 ppb	97.246 %	-0.027 ppb	0.007 ppb	2.631 ppb
Concentration per Run 2	0.112 ppb	-0.007 ppb	0.000 ppb	94.163 %	-0.009 ppb	0.045 ppb	2.518 ppb
Concentration per Run 3	0.136 ppb	-0.003 ppb	0.014 ppb	94.688 %	-0.041 ppb	0.007 ppb	2.590 ppb
Concentration RSD	11.1 %	38.4 %	173.2 %	1.7 %	62.6 %	113.0 %	2.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.607 %	-0.005 ppb	-0.003 ppb	97.447 %
Concentration per Run 1	92.271 %	-0.006 ppb	-0.001 ppb	97.754 %
Concentration per Run 2	96.205 %	-0.005 ppb	-0.001 ppb	96.775 %
Concentration per Run 3	95.343 %	-0.006 ppb	-0.008 ppb	97.814 %
Concentration RSD	2.2 %	11.1 %	123.9 %	0.6 %

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Analysis index: 72
Analysis label: xl1606591-05d20 6020tl
Analysis started at: 3/15/2016 4:56:21 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 22

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.978 %	104.036 %	0.009 ppb	623.111 ppb	1,709.801 ppb	-0.040 ppb	144.389 ppb
Concentration per Run 1	95.752 %	105.085 %	0.011 ppb	594.102 ppb	1,615.587 ppb	0.140 ppb	144.439 ppb
Concentration per Run 2	94.810 %	102.421 %	0.000 ppb	653.478 ppb	1,775.482 ppb	-0.071 ppb	150.251 ppb
Concentration per Run 3	103.371 %	104.601 %	0.015 ppb	621.754 ppb	1,738.335 ppb	-0.190 ppb	138.476 ppb
Concentration RSD	4.8 %	1.4 %	90.3 %	4.8 %	4.9 %	415.5 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,841.264 ppb	94.681 %	102.974 %	0.007 ppb	0.018 ppb	-0.245 ppb	0.201 ppb
Concentration per Run 1	3,752.729 ppb	100.748 %	103.811 %	0.000 ppb	-0.002 ppb	-0.386 ppb	0.952 ppb
Concentration per Run 2	3,884.766 ppb	94.175 %	103.904 %	0.022 ppb	0.061 ppb	-0.306 ppb	-0.823 ppb
Concentration per Run 3	3,886.298 ppb	89.121 %	101.209 %	0.000 ppb	-0.006 ppb	-0.044 ppb	0.476 ppb
Concentration RSD	2.0 %	6.2 %	1.5 %	173.2 %	210.9 %	72.9 %	455.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.003 ppb	0.091 ppb	0.016 ppb	-0.860 ppb	100.841 %	0.050 ppb	-0.721 ppb
Concentration per Run 1	0.000 ppb	0.033 ppb	-0.056 ppb	-0.886 ppb	105.239 %	0.008 ppb	-0.330 ppb
Concentration per Run 2	0.000 ppb	0.103 ppb	0.051 ppb	-0.948 ppb	97.725 %	0.060 ppb	-1.456 ppb
Concentration per Run 3	0.008 ppb	0.136 ppb	0.051 ppb	-0.745 ppb	99.559 %	0.083 ppb	-0.377 ppb
Concentration RSD	173.2 %	58.2 %	395.9 %	12.1 %	3.9 %	77.2 %	88.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.128 ppb	-0.003 ppb	0.007 ppb	98.694 %	-0.029 ppb	0.006 ppb	2.666 ppb
Concentration per Run 1	0.056 ppb	-0.007 ppb	0.006 ppb	101.418 %	-0.031 ppb	0.024 ppb	2.701 ppb
Concentration per Run 2	0.209 ppb	0.000 ppb	0.013 ppb	96.626 %	-0.074 ppb	0.007 ppb	2.726 ppb
Concentration per Run 3	0.118 ppb	-0.003 ppb	0.000 ppb	98.038 %	0.018 ppb	-0.012 ppb	2.571 ppb
Concentration RSD	60.3 %	112.9 %	101.7 %	2.5 %	156.7 %	294.0 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.801 %	-0.004 ppb	-0.010 ppb	99.956 %
Concentration per Run 1	99.600 %	-0.006 ppb	-0.012 ppb	104.099 %
Concentration per Run 2	97.968 %	-0.002 ppb	-0.010 ppb	99.763 %
Concentration per Run 3	95.835 %	-0.004 ppb	-0.009 ppb	96.004 %
Concentration RSD	1.9 %	51.7 %	14.5 %	4.1 %

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Analysis index: 73
Analysis label: l1606591-05 6020tl
Analysis started at: 3/15/2016 4:59:26 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 21

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.566 %	96.287 %	0.006 ppb	13,438.741 ppb	36,168.068 ppb	6.548 ppb	3,172.175 ppb
Concentration per Run 1	99.870 %	96.126 %	0.004 ppb	13,194.235 ppb	34,986.149 ppb	7.977 ppb	3,118.680 ppb
Concentration per Run 2	99.001 %	97.579 %	0.000 ppb	13,659.644 ppb	36,960.010 ppb	5.742 ppb	3,170.341 ppb
Concentration per Run 3	96.826 %	95.157 %	0.016 ppb	13,462.346 ppb	36,558.046 ppb	5.925 ppb	3,227.504 ppb
Concentration RSD	1.6 %	1.3 %	127.5 %	1.7 %	2.9 %	19.0 %	1.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	92,164.570 ppb	90.421 %	94.610 %	0.161 ppb	1.272 ppb	15.921 ppb	8.865 ppb
Concentration per Run 1	90,195.775 ppb	92.876 %	94.626 %	0.179 ppb	1.167 ppb	16.124 ppb	12.370 ppb
Concentration per Run 2	96,846.219 ppb	88.688 %	94.782 %	0.188 ppb	1.310 ppb	15.648 ppb	8.939 ppb
Concentration per Run 3	89,451.717 ppb	89.699 %	94.423 %	0.115 ppb	1.340 ppb	15.991 ppb	5.286 ppb
Concentration RSD	4.4 %	2.4 %	0.2 %	24.6 %	7.2 %	1.5 %	40.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.092 ppb	2.422 ppb	0.725 ppb	0.891 ppb	88.163 %	0.536 ppb	-0.276 ppb
Concentration per Run 1	0.086 ppb	2.572 ppb	0.712 ppb	0.807 ppb	90.785 %	0.471 ppb	-0.797 ppb
Concentration per Run 2	0.133 ppb	2.369 ppb	0.593 ppb	1.108 ppb	84.699 %	0.767 ppb	-0.003 ppb
Concentration per Run 3	0.057 ppb	2.326 ppb	0.870 ppb	0.757 ppb	89.007 %	0.371 ppb	-0.027 ppb
Concentration RSD	41.9 %	5.4 %	19.2 %	21.3 %	3.5 %	38.3 %	163.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.545 ppb	-0.003 ppb	0.012 ppb	88.620 %	0.060 ppb	0.102 ppb	65.302 ppb
Concentration per Run 1	2.455 ppb	-0.007 ppb	0.021 ppb	90.446 %	0.062 ppb	0.188 ppb	64.677 ppb
Concentration per Run 2	2.578 ppb	-0.003 ppb	0.007 ppb	88.913 %	0.083 ppb	0.070 ppb	63.681 ppb
Concentration per Run 3	2.602 ppb	0.002 ppb	0.007 ppb	86.503 %	0.035 ppb	0.050 ppb	67.548 ppb
Concentration RSD	3.1 %	167.2 %	67.3 %	2.2 %	39.9 %	72.8 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.821 %	-0.003 ppb	0.030 ppb	85.639 %
Concentration per Run 1	91.191 %	-0.005 ppb	0.037 ppb	86.005 %
Concentration per Run 2	87.196 %	-0.003 ppb	0.034 ppb	86.418 %
Concentration per Run 3	94.077 %	-0.001 ppb	0.020 ppb	84.496 %
Concentration RSD	3.8 %	67.1 %	30.3 %	1.2 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 74
Analysis label: l1606591-06 6020tl
Analysis started at: 3/15/2016 5:02:30 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 23

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.857 %	90.234 %	0.008 ppb	17,302.455 ppb	87,195.077 ppb	7.534 ppb	1,747.413 ppb
Concentration per Run 1	98.533 %	100.000 %	0.010 ppb	16,636.243 ppb	75,126.281 ppb	7.318 ppb	1,708.769 ppb
Concentration per Run 2	100.194 %	86.198 %	0.007 ppb	17,662.341 ppb	91,503.534 ppb	8.124 ppb	1,804.382 ppb
Concentration per Run 3	97.846 %	84.503 %	0.006 ppb	17,608.781 ppb	94,955.417 ppb	7.160 ppb	1,729.089 ppb
Concentration RSD	1.2 %	9.4 %	29.7 %	3.3 %	12.1 %	6.9 %	2.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	45,560.768 ppb	87.220 %	94.175 %	0.173 ppb	0.782 ppb	6.968 ppb	105.277 ppb
Concentration per Run 1	46,369.307 ppb	88.906 %	94.776 %	0.255 ppb	0.812 ppb	7.104 ppb	98.277 ppb
Concentration per Run 2	48,014.559 ppb	87.966 %	95.408 %	0.047 ppb	0.846 ppb	7.120 ppb	119.910 ppb
Concentration per Run 3	42,298.438 ppb	84.790 %	92.340 %	0.216 ppb	0.688 ppb	6.680 ppb	97.645 ppb
Concentration RSD	6.5 %	2.5 %	1.7 %	63.9 %	10.6 %	3.6 %	12.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.027 ppb	2.706 ppb	2.384 ppb	2.696 ppb	89.046 %	0.315 ppb	0.063 ppb
Concentration per Run 1	0.016 ppb	2.511 ppb	2.427 ppb	2.925 ppb	90.154 %	0.229 ppb	-0.128 ppb
Concentration per Run 2	0.033 ppb	2.992 ppb	2.192 ppb	2.604 ppb	85.567 %	0.300 ppb	-0.162 ppb
Concentration per Run 3	0.033 ppb	2.616 ppb	2.531 ppb	2.558 ppb	91.416 %	0.415 ppb	0.480 ppb
Concentration RSD	35.6 %	9.3 %	7.3 %	7.4 %	3.5 %	29.7 %	570.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.538 ppb	-0.004 ppb	0.008 ppb	87.145 %	-0.018 ppb	0.092 ppb	60.992 ppb
Concentration per Run 1	3.354 ppb	0.001 ppb	0.000 ppb	90.160 %	0.013 ppb	0.068 ppb	59.884 ppb
Concentration per Run 2	3.426 ppb	-0.011 ppb	0.015 ppb	85.851 %	-0.051 ppb	0.114 ppb	59.907 ppb
Concentration per Run 3	3.834 ppb	-0.002 ppb	0.007 ppb	85.424 %	-0.015 ppb	0.094 ppb	63.184 ppb
Concentration RSD	7.3 %	155.5 %	100.1 %	3.0 %	181.4 %	24.9 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.751 %	-0.008 ppb	0.060 ppb	84.531 %
Concentration per Run 1	88.852 %	-0.007 ppb	0.056 ppb	85.246 %
Concentration per Run 2	87.414 %	-0.011 ppb	0.054 ppb	85.198 %
Concentration per Run 3	86.988 %	-0.007 ppb	0.071 ppb	83.149 %
Concentration RSD	1.1 %	22.4 %	15.1 %	1.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 75
Analysis label: xl1606591-06d20 6020tl
Analysis started at: 3/15/2016 5:05:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 24

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.892 %	96.610 %	0.006 ppb	770.494 ppb	4,306.147 ppb	0.568 ppb	73.853 ppb
Concentration per Run 1	96.514 %	110.654 %	0.003 ppb	631.462 ppb	3,431.791 ppb	0.555 ppb	59.410 ppb
Concentration per Run 2	94.942 %	88.135 %	0.002 ppb	810.766 ppb	4,475.673 ppb	-0.270 ppb	84.541 ppb
Concentration per Run 3	93.218 %	91.041 %	0.015 ppb	869.254 ppb	5,010.976 ppb	1.419 ppb	77.607 ppb
Concentration RSD	1.7 %	12.7 %	113.0 %	16.1 %	18.7 %	148.6 %	17.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,077.709 ppb	92.997 %	102.328 %	0.021 ppb	0.012 ppb	-0.429 ppb	2.681 ppb
Concentration per Run 1	1,678.643 ppb	107.245 %	104.185 %	0.039 ppb	0.007 ppb	-0.540 ppb	1.479 ppb
Concentration per Run 2	2,025.546 ppb	89.772 %	103.580 %	0.023 ppb	-0.005 ppb	-0.424 ppb	4.465 ppb
Concentration per Run 3	2,528.937 ppb	81.975 %	99.218 %	0.000 ppb	0.035 ppb	-0.322 ppb	2.098 ppb
Concentration RSD	20.6 %	13.9 %	2.6 %	95.1 %	168.7 %	25.5 %	58.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.005 ppb	0.133 ppb	0.089 ppb	-0.788 ppb	94.131 %	0.027 ppb	-0.631 ppb
Concentration per Run 1	0.007 ppb	-0.051 ppb	0.122 ppb	-0.937 ppb	102.944 %	0.056 ppb	-0.534 ppb
Concentration per Run 2	0.000 ppb	0.420 ppb	0.077 ppb	-0.783 ppb	94.742 %	-0.016 ppb	-0.485 ppb
Concentration per Run 3	0.009 ppb	0.031 ppb	0.067 ppb	-0.643 ppb	84.708 %	0.042 ppb	-0.873 ppb
Concentration RSD	88.3 %	188.7 %	33.0 %	18.7 %	9.7 %	139.0 %	33.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.213 ppb	-0.010 ppb	0.014 ppb	92.412 %	-0.094 ppb	0.009 ppb	2.995 ppb
Concentration per Run 1	0.154 ppb	-0.007 ppb	0.012 ppb	104.908 %	-0.092 ppb	-0.012 ppb	2.533 ppb
Concentration per Run 2	0.174 ppb	-0.011 ppb	0.029 ppb	89.207 %	-0.087 ppb	0.008 ppb	3.203 ppb
Concentration per Run 3	0.312 ppb	-0.011 ppb	0.000 ppb	83.121 %	-0.102 ppb	0.031 ppb	3.250 ppb
Concentration RSD	40.3 %	20.8 %	105.4 %	12.2 %	8.5 %	237.7 %	13.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.938 %	-0.004 ppb	-0.003 ppb	94.243 %
Concentration per Run 1	101.789 %	-0.005 ppb	-0.001 ppb	106.755 %
Concentration per Run 2	90.665 %	-0.010 ppb	-0.002 ppb	92.862 %
Concentration per Run 3	86.361 %	0.004 ppb	-0.005 ppb	83.111 %
Concentration RSD	8.6 %	175.5 %	80.2 %	12.6 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 76
Analysis label: xl1606591-07d20 6020tl
Analysis started at: 3/15/2016 5:08:41 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 26

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.524 %	105.811 %	0.007 ppb	2,093.442 ppb	4,133.407 ppb	0.223 ppb	161.141 ppb
Concentration per Run 1	97.045 %	100.242 %	0.005 ppb	2,128.375 ppb	4,174.102 ppb	0.534 ppb	168.428 ppb
Concentration per Run 2	105.879 %	101.211 %	0.006 ppb	2,172.245 ppb	4,341.581 ppb	-0.071 ppb	154.475 ppb
Concentration per Run 3	104.649 %	115.981 %	0.009 ppb	1,979.707 ppb	3,884.539 ppb	0.207 ppb	160.519 ppb
Concentration RSD	4.7 %	8.3 %	34.7 %	4.8 %	5.6 %	135.8 %	4.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,290.665 ppb	99.808 %	102.588 %	0.000 ppb	-0.009 ppb	2.589 ppb	70.504 ppb
Concentration per Run 1	2,245.645 ppb	103.202 %	91.764 %	0.000 ppb	-0.003 ppb	2.595 ppb	74.501 ppb
Concentration per Run 2	2,411.759 ppb	95.330 %	104.032 %	0.000 ppb	-0.010 ppb	3.039 ppb	65.531 ppb
Concentration per Run 3	2,214.592 ppb	100.891 %	111.969 %	0.000 ppb	-0.014 ppb	2.134 ppb	71.481 ppb
Concentration RSD	4.6 %	4.1 %	9.9 %		60.4 %	17.5 %	6.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.017 ppb	0.045 ppb	0.019 ppb	-0.641 ppb	102.275 %	0.603 ppb	-0.941 ppb
Concentration per Run 1	0.021 ppb	0.086 ppb	-0.016 ppb	-0.649 ppb	105.009 %	0.546 ppb	-1.448 ppb
Concentration per Run 2	0.022 ppb	0.041 ppb	0.028 ppb	-0.554 ppb	99.273 %	0.751 ppb	-0.408 ppb
Concentration per Run 3	0.007 ppb	0.007 ppb	0.045 ppb	-0.721 ppb	102.542 %	0.512 ppb	-0.966 ppb
Concentration RSD	50.0 %	89.6 %	165.4 %	13.1 %	2.8 %	21.5 %	55.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.193 ppb	-0.007 ppb	0.000 ppb	99.264 %	-0.090 ppb	0.006 ppb	4.096 ppb
Concentration per Run 1	0.113 ppb	-0.004 ppb	0.000 ppb	101.363 %	-0.091 ppb	0.006 ppb	4.488 ppb
Concentration per Run 2	0.190 ppb	-0.007 ppb	0.000 ppb	99.717 %	-0.075 ppb	-0.012 ppb	4.026 ppb
Concentration per Run 3	0.277 ppb	-0.011 ppb	0.000 ppb	96.713 %	-0.105 ppb	0.025 ppb	3.773 ppb
Concentration RSD	42.6 %	49.3 %		2.4 %	16.4 %	294.7 %	8.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.275 %	-0.007 ppb	0.022 ppb	101.272 %
Concentration per Run 1	103.945 %	-0.007 ppb	0.019 ppb	107.467 %
Concentration per Run 2	98.961 %	-0.006 ppb	0.018 ppb	99.193 %
Concentration per Run 3	94.919 %	-0.007 ppb	0.028 ppb	97.158 %
Concentration RSD	4.6 %	13.6 %	25.4 %	5.4 %

Analysis index: 77 Analysis started at: 3/15/2016 5:11:44 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	88.845 %	92.171 %	102.352 ppb	9,267.655 ppb	9,133.735 ppb	90.811 ppb	9,202.068 ppb
Concentration per Run 1	89.007 %	94.189 %	102.397 ppb	9,212.304 ppb	9,003.706 ppb	84.532 ppb	8,795.383 ppb
Concentration per Run 2	88.882 %	91.525 %	101.808 ppb	9,663.426 ppb	9,646.705 ppb	95.328 ppb	9,670.376 ppb
Concentration per Run 3	88.645 %	90.799 %	102.851 ppb	8,927.233 ppb	8,750.794 ppb	92.571 ppb	9,140.444 ppb
Recovery Percentage 1			102.352 %	92.677 %	91.337 %	90.811 %	92.021 %
Concentration RSD	0.2 %	1.9 %	0.5 %	4.0 %	5.1 %	6.2 %	4.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,730.565 ppb	91.191 %	88.868 %	92.072 ppb	90.587 ppb	91.435 ppb	9,356.383 ppb
Concentration per Run 1	10,505.333 ppb	96.197 %	89.623 %	96.746 ppb	92.119 ppb	91.923 ppb	9,235.622 ppb
Concentration per Run 2	9,162.543 ppb	84.934 %	88.683 %	94.328 ppb	95.551 ppb	94.230 ppb	9,935.016 ppb
Concentration per Run 3	9,523.819 ppb	92.443 %	88.299 %	85.143 ppb	84.092 ppb	88.151 ppb	8,898.512 ppb
Recovery Percentage 1	97.306 %			92.072 %	90.587 %	91.435 %	93.564 %
Concentration RSD	7.1 %	6.3 %	0.8 %	6.6 %	6.5 %	3.4 %	5.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	96.255 ppb	95.738 ppb	98.230 ppb	94.130 ppb	88.564 %	96.588 ppb	100.372 ppb
Concentration per Run 1	95.934 ppb	97.580 ppb	102.886 ppb	99.463 ppb	85.721 %	100.681 ppb	104.322 ppb
Concentration per Run 2	100.471 ppb	96.539 ppb	101.965 ppb	94.259 ppb	89.132 %	95.764 ppb	99.033 ppb
Concentration per Run 3	92.359 ppb	93.096 ppb	89.840 ppb	88.668 ppb	90.838 %	93.320 ppb	97.761 ppb
Recovery Percentage 1	96.255 %	95.738 %	98.230 %	94.130 %		96.588 %	100.372 %
Concentration RSD	4.2 %	2.5 %	7.4 %	5.7 %	2.9 %	3.9 %	3.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	94.446 ppb	100.531 ppb	93.211 ppb	92.245 %	92.449 ppb	94.777 ppb	91.215 ppb
Concentration per Run 1	102.827 ppb	107.514 ppb	99.684 ppb	88.558 %	97.724 ppb	102.293 ppb	99.020 ppb
Concentration per Run 2	90.768 ppb	99.684 ppb	93.404 ppb	90.610 %	94.033 ppb	94.788 ppb	86.710 ppb
Concentration per Run 3	89.743 ppb	94.395 ppb	86.545 ppb	97.568 %	85.589 ppb	87.249 ppb	87.915 ppb
Recovery Percentage 1	94.446 %	100.531 %	93.211 %		92.449 %	94.777 %	91.215 %
Concentration RSD	7.7 %	6.6 %	7.1 %	5.1 %	6.7 %	7.9 %	7.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.601 %	94.260 ppb	90.644 ppb	94.643 %
Concentration per Run 1	93.894 %	97.874 ppb	95.179 ppb	93.269 %
Concentration per Run 2	91.567 %	91.383 ppb	89.680 ppb	94.918 %
Concentration per Run 3	92.343 %	93.523 ppb	87.071 ppb	95.742 %
Recovery Percentage 1		94.260 %	90.644 %	
Concentration RSD	1.3 %	3.5 %	4.6 %	1.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 78 Analysis started at: 3/15/2016 5:14:51 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.348 %	89.749 %	0.041 ppb	6.095 ppb	1.245 ppb	0.884 ppb	3.477 ppb
Concentration per Run 1	88.998 %	87.893 %	0.036 ppb	6.795 ppb	1.009 ppb	1.402 ppb	-0.325 ppb
Concentration per Run 2	86.368 %	93.220 %	0.043 ppb	5.834 ppb	1.016 ppb	0.217 ppb	1.219 ppb
Concentration per Run 3	86.679 %	88.135 %	0.045 ppb	5.655 ppb	1.712 ppb	1.033 ppb	9.537 ppb
Recovery Percentage 1			8.276 %	6.095 %	1.779 %	8.841 %	3.477 %
Concentration RSD	1.6 %	3.4 %	10.6 %	10.1 %	32.4 %	68.6 %	152.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	15.879 ppb	81.301 %	88.630 %	0.059 ppb	0.020 ppb	0.447 ppb	4.236 ppb
Concentration per Run 1	29.385 ppb	85.801 %	89.837 %	0.048 ppb	-0.032 ppb	0.438 ppb	4.041 ppb
Concentration per Run 2	12.376 ppb	79.015 %	89.792 %	0.051 ppb	0.055 ppb	0.911 ppb	3.602 ppb
Concentration per Run 3	5.875 ppb	79.086 %	86.261 %	0.077 ppb	0.038 ppb	-0.007 ppb	5.066 ppb
Recovery Percentage 1	15.879 %			1.172 %	2.032 %	44.697 %	8.473 %
Concentration RSD	76.5 %	4.8 %	2.3 %	27.0 %	224.7 %	102.7 %	17.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.023 ppb	0.053 ppb	0.048 ppb	0.135 ppb	87.898 %	0.059 ppb	-0.958 ppb
Concentration per Run 1	0.016 ppb	-0.008 ppb	0.061 ppb	0.109 ppb	89.523 %	0.039 ppb	-1.525 ppb
Concentration per Run 2	0.017 ppb	0.032 ppb	0.018 ppb	0.171 ppb	86.942 %	0.097 ppb	-0.332 ppb
Concentration per Run 3	0.035 ppb	0.134 ppb	0.066 ppb	0.125 ppb	87.229 %	0.041 ppb	-1.018 ppb
Recovery Percentage 1	4.582 %	10.547 %	4.825 %	1.349 %	87.898 %	11.797 %	-19.165 %
Concentration RSD	45.0 %	139.4 %	55.3 %	23.6 %	1.6 %	56.3 %	62.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.600 ppb	0.052 ppb	0.028 ppb	84.698 %	0.150 ppb	0.073 ppb	0.018 ppb
Concentration per Run 1	0.709 ppb	0.022 ppb	0.044 ppb	86.878 %	0.173 ppb	0.071 ppb	0.066 ppb
Concentration per Run 2	0.633 ppb	0.062 ppb	0.023 ppb	83.129 %	0.150 ppb	0.031 ppb	-0.005 ppb
Concentration per Run 3	0.458 ppb	0.070 ppb	0.015 ppb	84.088 %	0.129 ppb	0.116 ppb	-0.006 ppb
Recovery Percentage 1	20.003 %	12.927 %	13.812 %		5.016 %	3.633 %	3.594 %
Concentration RSD	21.4 %	49.8 %	54.5 %	2.3 %	14.7 %	58.3 %	230.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	88.456 %	0.015 ppb	0.019 ppb	91.397 %
Concentration per Run 1	89.572 %	0.012 ppb	0.018 ppb	92.834 %
Concentration per Run 2	86.363 %	0.017 ppb	0.015 ppb	91.167 %
Concentration per Run 3	89.431 %	0.017 ppb	0.024 ppb	90.190 %
Recovery Percentage 1		3.053 %	3.797 %	91.397 %
Concentration RSD	2.1 %	21.2 %	23.6 %	1.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 79
Analysis label: 200.8 MDL 7
Analysis started at: 3/15/2016 5:18:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 49

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.104 %	86.117 %	0.512 ppb	54.218 ppb	61.671 ppb	3.348 ppb	43.557 ppb
Concentration per Run 1	87.336 %	89.104 %	0.474 ppb	55.017 ppb	73.320 ppb	3.931 ppb	63.041 ppb
Concentration per Run 2	87.095 %	85.230 %	0.527 ppb	52.754 ppb	53.586 ppb	4.123 ppb	25.105 ppb
Concentration per Run 3	86.882 %	84.019 %	0.534 ppb	54.882 ppb	58.106 ppb	1.990 ppb	42.525 ppb
Concentration RSD	0.3 %	3.1 %	6.5 %	2.3 %	16.8 %	35.3 %	43.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	59.974 ppb	78.485 %	84.245 %	0.586 ppb	0.928 ppb	-0.010 ppb	55.125 ppb
Concentration per Run 1	58.588 ppb	70.857 %	82.224 %	0.589 ppb	1.156 ppb	0.597 ppb	69.756 ppb
Concentration per Run 2	67.874 ppb	82.840 %	86.073 %	0.491 ppb	0.722 ppb	-0.309 ppb	54.496 ppb
Concentration per Run 3	53.459 ppb	81.758 %	84.438 %	0.680 ppb	0.905 ppb	-0.316 ppb	41.122 ppb
Concentration RSD	12.2 %	8.4 %	2.3 %	16.1 %	23.5 %	5,489.7 %	26.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.544 ppb	1.254 ppb	0.572 ppb	-0.079 ppb	85.853 %	0.661 ppb	-0.102 ppb
Concentration per Run 1	0.597 ppb	1.397 ppb	0.561 ppb	-0.089 ppb	84.591 %	0.712 ppb	0.021 ppb
Concentration per Run 2	0.571 ppb	1.087 ppb	0.440 ppb	0.103 ppb	89.465 %	0.699 ppb	1.062 ppb
Concentration per Run 3	0.463 ppb	1.277 ppb	0.716 ppb	-0.250 ppb	83.502 %	0.572 ppb	-1.389 ppb
Concentration RSD	13.0 %	12.5 %	24.1 %	224.0 %	3.7 %	11.7 %	1,204.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.880 ppb	0.538 ppb	0.560 ppb	83.498 %	0.509 ppb	0.593 ppb	0.482 ppb
Concentration per Run 1	1.011 ppb	0.641 ppb	0.717 ppb	76.639 %	0.623 ppb	0.717 ppb	0.494 ppb
Concentration per Run 2	0.770 ppb	0.488 ppb	0.556 ppb	88.062 %	0.375 ppb	0.400 ppb	0.436 ppb
Concentration per Run 3	0.858 ppb	0.485 ppb	0.407 ppb	85.792 %	0.527 ppb	0.662 ppb	0.516 ppb
Concentration RSD	13.9 %	16.6 %	27.6 %	7.2 %	24.6 %	28.6 %	8.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.621 %	0.530 ppb	0.551 ppb	86.927 %
Concentration per Run 1	78.533 %	0.602 ppb	0.596 ppb	80.703 %
Concentration per Run 2	85.990 %	0.482 ppb	0.534 ppb	90.890 %
Concentration per Run 3	86.340 %	0.505 ppb	0.522 ppb	89.189 %
Concentration RSD	5.3 %	12.0 %	7.2 %	6.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 80 Analysis started at: 3/15/2016 5:21:08 PM Rack: 1
Analysis label: 200.8 MDL 8 User name: ALPHALAB\a1metalsinstrument Vial: 50

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	89.933 %	87.247 %	0.519 ppb	52.335 ppb	50.964 ppb	0.814 ppb	41.660 ppb
Concentration per Run 1	89.869 %	85.230 %	0.549 ppb	52.278 ppb	48.825 ppb	0.689 ppb	35.361 ppb
Concentration per Run 2	90.792 %	90.315 %	0.482 ppb	52.213 ppb	51.161 ppb	0.760 ppb	35.137 ppb
Concentration per Run 3	89.137 %	86.198 %	0.526 ppb	52.513 ppb	52.905 ppb	0.992 ppb	54.482 ppb
Concentration RSD	0.9 %	3.1 %	6.6 %	0.3 %	4.0 %	19.4 %	26.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	44.619 ppb	85.295 %	85.776 %	0.452 ppb	0.778 ppb	-0.152 ppb	49.911 ppb
Concentration per Run 1	54.805 ppb	84.428 %	86.311 %	0.366 ppb	0.954 ppb	-0.077 ppb	51.409 ppb
Concentration per Run 2	51.587 ppb	87.461 %	85.709 %	0.356 ppb	0.821 ppb	-0.099 ppb	45.494 ppb
Concentration per Run 3	27.464 ppb	83.995 %	85.309 %	0.632 ppb	0.560 ppb	-0.281 ppb	52.831 ppb
Concentration RSD	33.5 %	2.2 %	0.6 %	34.6 %	25.8 %	73.8 %	7.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.536 ppb	0.825 ppb	0.561 ppb	-0.382 ppb	86.426 %	0.495 ppb	-0.473 ppb
Concentration per Run 1	0.562 ppb	0.668 ppb	0.648 ppb	-0.317 ppb	85.394 %	0.617 ppb	-0.928 ppb
Concentration per Run 2	0.510 ppb	1.154 ppb	0.714 ppb	-0.345 ppb	85.107 %	0.359 ppb	0.159 ppb
Concentration per Run 3	0.536 ppb	0.654 ppb	0.323 ppb	-0.485 ppb	88.777 %	0.510 ppb	-0.651 ppb
Concentration RSD	4.8 %	34.4 %	37.3 %	23.6 %	2.4 %	26.2 %	119.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.743 ppb	0.537 ppb	0.535 ppb	89.503 %	0.621 ppb	0.471 ppb	0.634 ppb
Concentration per Run 1	0.693 ppb	0.538 ppb	0.522 ppb	86.527 %	0.555 ppb	0.362 ppb	0.608 ppb
Concentration per Run 2	0.795 ppb	0.574 ppb	0.541 ppb	93.801 %	0.696 ppb	0.470 ppb	0.502 ppb
Concentration per Run 3	0.739 ppb	0.501 ppb	0.541 ppb	88.183 %	0.612 ppb	0.582 ppb	0.791 ppb
Concentration RSD	6.9 %	6.8 %	2.0 %	4.3 %	11.5 %	23.4 %	23.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.266 %	0.473 ppb	0.498 ppb	94.761 %
Concentration per Run 1	90.763 %	0.504 ppb	0.536 ppb	92.436 %
Concentration per Run 2	94.291 %	0.460 ppb	0.447 ppb	98.553 %
Concentration per Run 3	88.742 %	0.454 ppb	0.510 ppb	93.295 %
Concentration RSD	3.1 %	5.7 %	9.2 %	3.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 81 Analysis started at: 3/15/2016 5:24:11 PM Rack: 1
Analysis label: 200.8 MDL 9 User name: ALPHALAB\a1metalsinstrument Vial: 51

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.882 %	82.889 %	0.521 ppb	55.130 ppb	46.144 ppb	1.379 ppb	50.966 ppb
Concentration per Run 1	84.718 %	89.588 %	0.565 ppb	45.159 ppb	32.646 ppb	0.535 ppb	53.212 ppb
Concentration per Run 2	83.975 %	77.723 %	0.516 ppb	61.671 ppb	55.531 ppb	0.531 ppb	61.104 ppb
Concentration per Run 3	85.951 %	81.355 %	0.483 ppb	58.558 ppb	50.256 ppb	3.071 ppb	38.581 ppb
Concentration RSD	1.2 %	7.3 %	7.9 %	15.9 %	26.0 %	106.2 %	22.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	78.021 ppb	76.391 %	81.213 %	0.519 ppb	0.990 ppb	-0.185 ppb	54.151 ppb
Concentration per Run 1	63.580 ppb	80.747 %	81.737 %	0.432 ppb	1.108 ppb	-0.447 ppb	53.932 ppb
Concentration per Run 2	92.475 ppb	75.477 %	80.524 %	0.408 ppb	0.830 ppb	0.182 ppb	58.759 ppb
Concentration per Run 3	78.008 ppb	72.950 %	81.377 %	0.718 ppb	1.033 ppb	-0.290 ppb	49.761 ppb
Concentration RSD	18.5 %	5.2 %	0.8 %	33.2 %	14.6 %	177.1 %	8.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.587 ppb	0.942 ppb	1.242 ppb	0.754 ppb	81.265 %	0.518 ppb	0.326 ppb
Concentration per Run 1	0.588 ppb	1.074 ppb	1.463 ppb	0.588 ppb	83.846 %	0.424 ppb	-0.201 ppb
Concentration per Run 2	0.651 ppb	0.976 ppb	1.070 ppb	1.031 ppb	77.710 %	0.489 ppb	-0.105 ppb
Concentration per Run 3	0.522 ppb	0.776 ppb	1.193 ppb	0.643 ppb	82.240 %	0.642 ppb	1.283 ppb
Concentration RSD	11.0 %	16.1 %	16.2 %	32.0 %	3.9 %	21.6 %	255.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.795 ppb	0.554 ppb	0.530 ppb	82.411 %	0.566 ppb	0.599 ppb	0.489 ppb
Concentration per Run 1	0.725 ppb	0.520 ppb	0.572 ppb	84.644 %	0.464 ppb	0.540 ppb	0.550 ppb
Concentration per Run 2	0.875 ppb	0.602 ppb	0.484 ppb	81.620 %	0.559 ppb	0.737 ppb	0.458 ppb
Concentration per Run 3	0.784 ppb	0.541 ppb	0.533 ppb	80.970 %	0.675 ppb	0.520 ppb	0.459 ppb
Concentration RSD	9.6 %	7.7 %	8.3 %	2.4 %	18.7 %	20.0 %	10.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.150 %	0.504 ppb	0.512 ppb	89.142 %
Concentration per Run 1	88.506 %	0.457 ppb	0.499 ppb	93.069 %
Concentration per Run 2	84.770 %	0.533 ppb	0.525 ppb	88.239 %
Concentration per Run 3	85.175 %	0.522 ppb	0.513 ppb	86.117 %
Concentration RSD	2.4 %	8.2 %	2.6 %	4.0 %

Alpha ICPMSQ Full

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Analysis index: 82
Analysis label: l1606591-07 6020tl
Analysis started at: 3/15/2016 5:27:14 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 25

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.995 %	86.440 %	0.050 ppb	41,811.187 ppb	88,640.822 ppb	23.490 ppb	3,286.701 ppb
Concentration per Run 1	91.339 %	85.230 %	0.040 ppb	41,884.945 ppb	88,884.504 ppb	28.056 ppb	3,262.112 ppb
Concentration per Run 2	91.816 %	84.745 %	0.043 ppb	41,619.439 ppb	86,787.161 ppb	21.516 ppb	3,288.408 ppb
Concentration per Run 3	89.829 %	89.346 %	0.065 ppb	41,929.176 ppb	90,250.801 ppb	20.899 ppb	3,309.584 ppb
Concentration RSD	1.1 %	2.9 %	27.2 %	0.4 %	2.0 %	16.9 %	0.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	46,372.937 ppb	81.781 %	88.323 %	0.186 ppb	0.845 ppb	78.925 ppb	1,642.530 ppb
Concentration per Run 1	45,193.583 ppb	82.768 %	90.774 %	0.126 ppb	0.953 ppb	83.001 ppb	1,716.411 ppb
Concentration per Run 2	47,862.644 ppb	83.273 %	89.418 %	0.149 ppb	0.784 ppb	78.161 ppb	1,617.383 ppb
Concentration per Run 3	46,062.584 ppb	79.303 %	84.777 %	0.284 ppb	0.798 ppb	75.614 ppb	1,593.796 ppb
Concentration RSD	2.9 %	2.6 %	3.6 %	45.8 %	11.1 %	4.8 %	4.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.347 ppb	2.631 ppb	0.507 ppb	4.270 ppb	81.858 %	13.032 ppb	-0.980 ppb
Concentration per Run 1	0.389 ppb	2.803 ppb	0.504 ppb	4.038 ppb	80.405 %	13.095 ppb	0.045 ppb
Concentration per Run 2	0.367 ppb	2.453 ppb	0.570 ppb	4.384 ppb	82.068 %	12.914 ppb	-1.529 ppb
Concentration per Run 3	0.285 ppb	2.637 ppb	0.448 ppb	4.386 ppb	83.100 %	13.087 ppb	-1.458 ppb
Concentration RSD	15.8 %	6.7 %	12.0 %	4.7 %	1.7 %	0.8 %	90.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.023 ppb	-0.002 ppb	0.008 ppb	82.030 %	0.037 ppb	0.134 ppb	85.757 ppb
Concentration per Run 1	4.196 ppb	-0.002 ppb	0.000 ppb	80.348 %	-0.028 ppb	0.166 ppb	87.569 ppb
Concentration per Run 2	3.584 ppb	-0.006 ppb	0.008 ppb	83.393 %	0.077 ppb	0.139 ppb	87.005 ppb
Concentration per Run 3	4.289 ppb	0.002 ppb	0.016 ppb	82.351 %	0.062 ppb	0.097 ppb	82.697 ppb
Concentration RSD	9.5 %	228.5 %	100.3 %	1.9 %	152.5 %	25.6 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.061 %	0.006 ppb	0.762 ppb	82.040 %
Concentration per Run 1	88.600 %	-0.001 ppb	0.805 ppb	81.917 %
Concentration per Run 2	85.466 %	0.010 ppb	0.726 ppb	82.345 %
Concentration per Run 3	84.115 %	0.009 ppb	0.755 ppb	81.859 %
Concentration RSD	2.7 %	94.6 %	5.2 %	0.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 83
Analysis label: xl1606591-08d20 6020tl
Analysis started at: 3/15/2016 5:30:17 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 28

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.533 %	88.620 %	0.008 ppb	895.355 ppb	2,460.303 ppb	0.108 ppb	77.794 ppb
Concentration per Run 1	86.289 %	92.009 %	0.001 ppb	852.550 ppb	2,305.131 ppb	0.255 ppb	80.095 ppb
Concentration per Run 2	86.460 %	86.440 %	0.008 ppb	903.218 ppb	2,511.023 ppb	0.175 ppb	71.621 ppb
Concentration per Run 3	80.848 %	87.409 %	0.015 ppb	930.296 ppb	2,564.755 ppb	-0.105 ppb	81.665 ppb
Concentration RSD	3.8 %	3.4 %	85.6 %	4.4 %	5.6 %	174.7 %	6.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	4,195.255 ppb	90.662 %	81.737 %	0.008 ppb	0.062 ppb	6.244 ppb	-0.175 ppb
Concentration per Run 1	3,924.073 ppb	94.465 %	86.061 %	0.000 ppb	0.088 ppb	5.442 ppb	0.445 ppb
Concentration per Run 2	4,108.612 ppb	90.493 %	83.300 %	0.000 ppb	0.069 ppb	6.987 ppb	-0.147 ppb
Concentration per Run 3	4,553.079 ppb	87.028 %	75.850 %	0.024 ppb	0.030 ppb	6.303 ppb	-0.823 ppb
Concentration RSD	7.7 %	4.1 %	6.5 %	173.2 %	47.7 %	12.4 %	362.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.003 ppb	0.096 ppb	-0.033 ppb	-0.879 ppb	90.402 %	0.029 ppb	-0.305 ppb
Concentration per Run 1	0.008 ppb	0.073 ppb	-0.013 ppb	-0.892 ppb	97.495 %	0.035 ppb	-1.141 ppb
Concentration per Run 2	0.000 ppb	0.054 ppb	-0.056 ppb	-0.841 ppb	88.892 %	0.039 ppb	-0.789 ppb
Concentration per Run 3	0.000 ppb	0.160 ppb	-0.032 ppb	-0.904 ppb	84.820 %	0.013 ppb	1.013 ppb
Concentration RSD	173.2 %	59.6 %	64.1 %	3.8 %	7.2 %	48.3 %	378.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.103 ppb	-0.007 ppb	0.009 ppb	96.172 %	-0.058 ppb	0.019 ppb	3.911 ppb
Concentration per Run 1	0.148 ppb	-0.003 ppb	0.013 ppb	99.548 %	-0.075 ppb	0.043 ppb	4.282 ppb
Concentration per Run 2	0.032 ppb	-0.011 ppb	0.007 ppb	95.473 %	-0.042 ppb	0.026 ppb	3.967 ppb
Concentration per Run 3	0.130 ppb	-0.007 ppb	0.007 ppb	93.496 %	-0.056 ppb	-0.012 ppb	3.485 ppb
Concentration RSD	60.7 %	52.0 %	39.5 %	3.2 %	29.2 %	148.6 %	10.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.098 %	0.001 ppb	-0.010 ppb	100.187 %
Concentration per Run 1	96.246 %	-0.001 ppb	-0.013 ppb	103.102 %
Concentration per Run 2	91.712 %	0.000 ppb	-0.010 ppb	101.572 %
Concentration per Run 3	88.337 %	0.003 ppb	-0.006 ppb	95.888 %
Concentration RSD	4.3 %	326.7 %	33.4 %	3.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 84
Analysis label: l1606591-08 6020tl
Analysis started at: 3/15/2016 5:33:20 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 27

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	92.937 %	90.314 %	0.010 ppb	18,350.372 ppb	49,954.412 ppb	5.296 ppb	1,467.098 ppb
Concentration per Run 1	94.724 %	96.368 %	0.008 ppb	17,058.246 ppb	46,032.955 ppb	4.229 ppb	1,445.339 ppb
Concentration per Run 2	89.015 %	88.377 %	0.004 ppb	18,684.391 ppb	50,257.973 ppb	4.798 ppb	1,483.193 ppb
Concentration per Run 3	95.073 %	86.198 %	0.017 ppb	19,308.480 ppb	53,572.309 ppb	6.860 ppb	1,472.762 ppb
Concentration RSD	3.7 %	5.9 %	69.3 %	6.3 %	7.6 %	26.1 %	1.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	91,830.359 ppb	94.224 %	95.732 %	0.190 ppb	1.121 ppb	145.379 ppb	10.474 ppb
Concentration per Run 1	87,321.348 ppb	97.930 %	94.687 %	0.235 ppb	0.936 ppb	136.301 ppb	8.088 ppb
Concentration per Run 2	91,700.008 ppb	95.403 %	94.404 %	0.174 ppb	1.165 ppb	154.360 ppb	12.720 ppb
Concentration per Run 3	96,469.721 ppb	89.338 %	98.105 %	0.161 ppb	1.262 ppb	145.475 ppb	10.614 ppb
Concentration RSD	5.0 %	4.7 %	2.2 %	20.8 %	14.9 %	6.2 %	22.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.063 ppb	2.660 ppb	0.190 ppb	0.107 ppb	91.812 %	0.404 ppb	-0.928 ppb
Concentration per Run 1	0.038 ppb	2.520 ppb	0.099 ppb	0.246 ppb	91.695 %	0.466 ppb	-1.162 ppb
Concentration per Run 2	0.046 ppb	2.911 ppb	0.254 ppb	0.002 ppb	92.276 %	0.251 ppb	-1.398 ppb
Concentration per Run 3	0.104 ppb	2.549 ppb	0.217 ppb	0.073 ppb	91.466 %	0.495 ppb	-0.223 ppb
Concentration RSD	57.3 %	8.2 %	42.8 %	117.5 %	0.5 %	33.0 %	67.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.251 ppb	0.005 ppb	0.026 ppb	91.477 %	-0.004 ppb	0.029 ppb	77.777 ppb
Concentration per Run 1	1.379 ppb	0.004 ppb	0.034 ppb	95.817 %	-0.073 ppb	-0.012 ppb	76.830 ppb
Concentration per Run 2	1.088 ppb	0.010 ppb	0.022 ppb	86.952 %	0.017 ppb	0.070 ppb	78.580 ppb
Concentration per Run 3	1.286 ppb	0.001 ppb	0.021 ppb	91.661 %	0.044 ppb	0.028 ppb	77.921 ppb
Concentration RSD	11.9 %	85.9 %	27.5 %	4.8 %	1,464.6 %	144.0 %	1.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.801 %	-0.001 ppb	0.018 ppb	88.744 %
Concentration per Run 1	96.229 %	0.001 ppb	0.026 ppb	91.296 %
Concentration per Run 2	93.219 %	-0.002 ppb	0.018 ppb	89.111 %
Concentration per Run 3	88.956 %	-0.003 ppb	0.011 ppb	85.824 %
Concentration RSD	3.9 %	160.0 %	41.6 %	3.1 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 85
Analysis label: l1606616-01 6020tl
Analysis started at: 3/15/2016 5:36:28 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 29

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	91.670 %	89.669 %	0.009 ppb	7,520.908 ppb	19,092.321 ppb	18.767 ppb	5,584.947 ppb
Concentration per Run 1	93.398 %	98.789 %	0.007 ppb	7,229.519 ppb	17,878.952 ppb	18.539 ppb	5,615.615 ppb
Concentration per Run 2	94.390 %	86.925 %	0.016 ppb	7,579.837 ppb	19,780.647 ppb	20.508 ppb	5,630.403 ppb
Concentration per Run 3	87.221 %	83.293 %	0.003 ppb	7,753.368 ppb	19,617.363 ppb	17.253 ppb	5,508.822 ppb
Concentration RSD	4.2 %	9.0 %	80.9 %	3.5 %	5.5 %	8.7 %	1.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	85,138.615 ppb	85.247 %	91.739 %	0.274 ppb	0.980 ppb	290.561 ppb	221.326 ppb
Concentration per Run 1	85,084.568 ppb	85.078 %	90.755 %	0.339 ppb	0.975 ppb	291.288 ppb	208.531 ppb
Concentration per Run 2	86,621.077 ppb	84.212 %	91.553 %	0.267 ppb	0.884 ppb	291.747 ppb	229.778 ppb
Concentration per Run 3	83,710.199 ppb	86.450 %	92.909 %	0.217 ppb	1.080 ppb	288.648 ppb	225.670 ppb
Concentration RSD	1.7 %	1.3 %	1.2 %	22.4 %	10.0 %	0.6 %	5.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.253 ppb	2.913 ppb	0.855 ppb	18.335 ppb	86.362 %	0.629 ppb	-0.394 ppb
Concentration per Run 1	0.345 ppb	2.719 ppb	0.829 ppb	18.434 ppb	86.878 %	0.691 ppb	0.126 ppb
Concentration per Run 2	0.192 ppb	3.131 ppb	0.937 ppb	17.821 ppb	88.720 %	0.595 ppb	-1.515 ppb
Concentration per Run 3	0.221 ppb	2.890 ppb	0.800 ppb	18.751 ppb	83.488 %	0.602 ppb	0.206 ppb
Concentration RSD	32.0 %	7.1 %	8.4 %	2.6 %	3.1 %	8.5 %	246.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.941 ppb	-0.007 ppb	0.015 ppb	84.802 %	0.388 ppb	0.187 ppb	23.648 ppb
Concentration per Run 1	2.808 ppb	-0.003 ppb	0.007 ppb	89.124 %	0.318 ppb	0.171 ppb	22.198 ppb
Concentration per Run 2	3.135 ppb	-0.006 ppb	0.008 ppb	81.199 %	0.432 ppb	0.186 ppb	25.606 ppb
Concentration per Run 3	2.880 ppb	-0.011 ppb	0.031 ppb	84.083 %	0.415 ppb	0.203 ppb	23.140 ppb
Concentration RSD	5.8 %	62.0 %	87.5 %	4.7 %	15.8 %	8.6 %	7.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.292 %	-0.008 ppb	0.118 ppb	87.131 %
Concentration per Run 1	88.893 %	-0.011 ppb	0.134 ppb	86.628 %
Concentration per Run 2	87.936 %	-0.003 ppb	0.116 ppb	87.409 %
Concentration per Run 3	85.046 %	-0.011 ppb	0.104 ppb	87.358 %
Concentration RSD	2.3 %	50.4 %	13.0 %	0.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 86
Analysis label: L1607060-05 6020TL
Analysis started at: 3/15/2016 5:39:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 53

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	83.739 %	83.535 %	0.310 ppb	18,612.536 ppb	13,583.880 ppb	2,844.360 ppb	3,346.684 ppb
Concentration per Run 1	83.011 %	83.050 %	0.314 ppb	18,675.377 ppb	13,613.648 ppb	2,793.390 ppb	3,256.315 ppb
Concentration per Run 2	83.999 %	79.418 %	0.288 ppb	19,196.959 ppb	14,158.806 ppb	2,992.536 ppb	3,636.853 ppb
Concentration per Run 3	84.208 %	88.135 %	0.327 ppb	17,965.271 ppb	12,979.187 ppb	2,747.156 ppb	3,146.885 ppb
Concentration RSD	0.8 %	5.2 %	6.3 %	3.3 %	4.3 %	4.6 %	7.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	35,895.998 ppb	79.640 %	81.499 %	15.612 ppb	13.458 ppb	1,036.406 ppb	5,689.527 ppb
Concentration per Run 1	34,187.990 ppb	84.140 %	80.807 %	15.268 ppb	14.344 ppb	1,039.010 ppb	5,755.891 ppb
Concentration per Run 2	38,540.567 ppb	75.332 %	81.050 %	16.422 ppb	13.476 ppb	1,070.299 ppb	5,981.508 ppb
Concentration per Run 3	34,959.438 ppb	79.447 %	82.641 %	15.146 ppb	12.554 ppb	999.910 ppb	5,331.183 ppb
Concentration RSD	6.5 %	5.5 %	1.2 %	4.5 %	6.7 %	3.4 %	5.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	10.942 ppb	10.404 ppb	30.687 ppb	23.155 ppb	79.353 %	2.052 ppb	5.727 ppb
Concentration per Run 1	11.009 ppb	9.663 ppb	31.365 ppb	24.054 ppb	75.339 %	2.232 ppb	5.966 ppb
Concentration per Run 2	11.531 ppb	11.242 ppb	31.079 ppb	23.249 ppb	78.708 %	1.922 ppb	7.500 ppb
Concentration per Run 3	10.285 ppb	10.306 ppb	29.619 ppb	22.162 ppb	84.011 %	2.003 ppb	3.714 ppb
Concentration RSD	5.7 %	7.6 %	3.1 %	4.1 %	5.5 %	7.8 %	33.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.733 ppb	0.015 ppb	0.182 ppb	78.964 %	0.431 ppb	0.049 ppb	179.831 ppb
Concentration per Run 1	0.733 ppb	0.017 ppb	0.212 ppb	79.361 %	0.523 ppb	0.056 ppb	184.174 ppb
Concentration per Run 2	0.662 ppb	0.004 ppb	0.162 ppb	75.127 %	0.398 ppb	0.036 ppb	178.852 ppb
Concentration per Run 3	0.804 ppb	0.024 ppb	0.172 ppb	82.404 %	0.373 ppb	0.054 ppb	176.466 ppb
Concentration RSD	9.7 %	70.4 %	14.6 %	4.6 %	18.6 %	23.1 %	2.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	79.336 %	0.009 ppb	9.937 ppb	81.452 %
Concentration per Run 1	80.333 %	0.015 ppb	10.142 ppb	79.781 %
Concentration per Run 2	78.739 %	0.005 ppb	9.703 ppb	84.055 %
Concentration per Run 3	78.936 %	0.007 ppb	9.965 ppb	80.520 %
Concentration RSD	1.1 %	61.6 %	2.2 %	2.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 87
Analysis label: L1607060-05D20 6020TL
Analysis started at: 3/15/2016 5:42:34 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 54

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.900 %	81.355 %	0.013 ppb	973.831 ppb	702.042 ppb	152.119 ppb	184.054 ppb
Concentration per Run 1	83.210 %	85.230 %	0.013 ppb	946.762 ppb	692.709 ppb	149.120 ppb	198.163 ppb
Concentration per Run 2	85.914 %	79.660 %	0.010 ppb	990.519 ppb	705.469 ppb	153.693 ppb	161.644 ppb
Concentration per Run 3	85.574 %	79.176 %	0.015 ppb	984.212 ppb	707.948 ppb	153.544 ppb	192.355 ppb
Concentration RSD	1.7 %	4.1 %	21.0 %	2.4 %	1.2 %	1.7 %	10.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,853.490 ppb	79.520 %	80.907 %	0.782 ppb	0.792 ppb	52.293 ppb	284.001 ppb
Concentration per Run 1	1,814.612 ppb	78.725 %	79.056 %	0.730 ppb	0.857 ppb	54.665 ppb	283.251 ppb
Concentration per Run 2	1,891.614 ppb	80.891 %	80.956 %	0.779 ppb	0.725 ppb	49.233 ppb	275.642 ppb
Concentration per Run 3	1,854.243 ppb	78.942 %	82.710 %	0.837 ppb	0.794 ppb	52.981 ppb	293.110 ppb
Concentration RSD	2.1 %	1.5 %	2.3 %	6.9 %	8.3 %	5.3 %	3.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.584 ppb	0.493 ppb	1.526 ppb	0.481 ppb	82.833 %	0.092 ppb	-0.072 ppb
Concentration per Run 1	0.469 ppb	0.429 ppb	1.683 ppb	0.572 ppb	81.609 %	0.074 ppb	-0.240 ppb
Concentration per Run 2	0.498 ppb	0.470 ppb	1.151 ppb	0.216 ppb	87.573 %	0.125 ppb	0.305 ppb
Concentration per Run 3	0.785 ppb	0.580 ppb	1.742 ppb	0.654 ppb	79.315 %	0.077 ppb	-0.282 ppb
Concentration RSD	29.9 %	15.9 %	21.3 %	48.4 %	5.1 %	30.7 %	452.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.042 ppb	-0.006 ppb	0.013 ppb	81.024 %	-0.034 ppb	0.018 ppb	9.124 ppb
Concentration per Run 1	0.000 ppb	-0.006 ppb	0.024 ppb	81.568 %	-0.047 ppb	-0.012 ppb	8.850 ppb
Concentration per Run 2	0.052 ppb	-0.006 ppb	0.008 ppb	80.726 %	0.010 ppb	0.010 ppb	9.300 ppb
Concentration per Run 3	0.073 ppb	-0.006 ppb	0.008 ppb	80.777 %	-0.065 ppb	0.055 ppb	9.224 ppb
Concentration RSD	90.1 %	0.7 %	68.9 %	0.6 %	113.8 %	192.8 %	2.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.640 %	-0.005 ppb	0.501 ppb	88.075 %
Concentration per Run 1	85.815 %	-0.002 ppb	0.527 ppb	87.426 %
Concentration per Run 2	83.402 %	-0.008 ppb	0.483 ppb	88.551 %
Concentration per Run 3	84.703 %	-0.005 ppb	0.493 ppb	88.248 %
Concentration RSD	1.4 %	54.3 %	4.6 %	0.7 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 88
Analysis label: xL1607060-06D20 6020TL
Analysis started at: 3/15/2016 5:45:38 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 56

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	88.553 %	83.212 %	0.015 ppb	1,351.374 ppb	710.110 ppb	9.724 ppb	118.093 ppb
Concentration per Run 1	88.004 %	77.965 %	0.015 ppb	1,373.174 ppb	744.194 ppb	10.106 ppb	131.625 ppb
Concentration per Run 2	89.036 %	90.557 %	0.019 ppb	1,314.516 ppb	679.359 ppb	8.517 ppb	121.656 ppb
Concentration per Run 3	88.619 %	81.113 %	0.009 ppb	1,366.433 ppb	706.777 ppb	10.549 ppb	100.997 ppb
Concentration RSD	0.6 %	7.9 %	34.5 %	2.4 %	4.6 %	11.0 %	13.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,666.910 ppb	82.503 %	86.391 %	0.041 ppb	0.140 ppb	4.835 ppb	19.452 ppb
Concentration per Run 1	1,724.695 ppb	81.396 %	84.975 %	0.025 ppb	0.192 ppb	5.240 ppb	14.144 ppb
Concentration per Run 2	1,603.615 ppb	82.624 %	88.547 %	0.050 ppb	0.019 ppb	4.181 ppb	21.062 ppb
Concentration per Run 3	1,672.420 ppb	83.490 %	85.651 %	0.049 ppb	0.208 ppb	5.084 ppb	23.152 ppb
Concentration RSD	3.6 %	1.3 %	2.2 %	34.7 %	75.0 %	11.8 %	24.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.060 ppb	0.166 ppb	0.294 ppb	-0.770 ppb	86.044 %	0.042 ppb	-0.547 ppb
Concentration per Run 1	0.076 ppb	0.127 ppb	0.227 ppb	-0.794 ppb	90.498 %	0.011 ppb	-0.955 ppb
Concentration per Run 2	0.069 ppb	0.237 ppb	0.364 ppb	-0.768 ppb	84.018 %	0.072 ppb	-0.178 ppb
Concentration per Run 3	0.035 ppb	0.134 ppb	0.290 ppb	-0.747 ppb	83.617 %	0.043 ppb	-0.506 ppb
Concentration RSD	37.0 %	37.3 %	23.4 %	3.1 %	4.5 %	72.1 %	71.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.057 ppb	-0.004 ppb	0.005 ppb	88.568 %	-0.019 ppb	0.008 ppb	1.225 ppb
Concentration per Run 1	0.000 ppb	-0.003 ppb	0.000 ppb	91.608 %	-0.022 ppb	0.008 ppb	1.418 ppb
Concentration per Run 2	0.102 ppb	-0.002 ppb	0.000 ppb	86.687 %	-0.017 ppb	-0.012 ppb	1.198 ppb
Concentration per Run 3	0.068 ppb	-0.007 ppb	0.015 ppb	87.409 %	-0.017 ppb	0.029 ppb	1.060 ppb
Concentration RSD	91.7 %	58.8 %	173.2 %	3.0 %	16.0 %	249.2 %	14.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.605 %	-0.006 ppb	0.013 ppb	92.579 %
Concentration per Run 1	92.723 %	-0.006 ppb	0.017 ppb	95.162 %
Concentration per Run 2	89.023 %	-0.009 ppb	0.012 ppb	89.128 %
Concentration per Run 3	87.068 %	-0.003 ppb	0.011 ppb	93.447 %
Concentration RSD	3.2 %	46.3 %	23.8 %	3.4 %

Analysis index: 89 Analysis started at: 3/15/2016 5:48:43 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.162 %	85.714 %	101.825 ppb	9,627.795 ppb	9,691.761 ppb	97.696 ppb	9,850.087 ppb
Concentration per Run 1	85.672 %	92.494 %	102.290 ppb	9,186.162 ppb	9,036.972 ppb	89.916 ppb	9,900.618 ppb
Concentration per Run 2	84.468 %	84.261 %	100.842 ppb	9,971.578 ppb	10,097.280 ppb	104.224 ppb	9,835.872 ppb
Concentration per Run 3	82.345 %	80.387 %	102.343 ppb	9,725.645 ppb	9,941.031 ppb	98.946 ppb	9,813.772 ppb
Recovery Percentage 1			101.825 %	96.278 %	96.918 %	97.696 %	98.501 %
Concentration RSD	2.0 %	7.2 %	0.8 %	4.2 %	5.9 %	7.4 %	0.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,329.812 ppb	85.223 %	84.110 %	94.072 ppb	95.854 ppb	95.440 ppb	9,595.795 ppb
Concentration per Run 1	9,508.440 ppb	87.172 %	85.506 %	90.656 ppb	93.300 ppb	91.463 ppb	9,390.862 ppb
Concentration per Run 2	9,601.625 ppb	83.562 %	85.474 %	95.191 ppb	98.975 ppb	100.768 ppb	9,904.177 ppb
Concentration per Run 3	8,879.370 ppb	84.934 %	81.351 %	96.368 ppb	95.286 ppb	94.090 ppb	9,492.345 ppb
Recovery Percentage 1	93.298 %			94.072 %	95.854 %	95.440 %	95.958 %
Concentration RSD	4.2 %	2.1 %	2.8 %	3.2 %	3.0 %	5.0 %	2.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	97.006 ppb	99.349 ppb	98.968 ppb	99.167 ppb	87.537 %	97.633 ppb	93.666 ppb
Concentration per Run 1	95.938 ppb	100.298 ppb	94.166 ppb	96.341 ppb	93.153 %	92.846 ppb	92.093 ppb
Concentration per Run 2	96.806 ppb	102.104 ppb	104.000 ppb	100.543 ppb	85.468 %	102.787 ppb	84.446 ppb
Concentration per Run 3	98.276 ppb	95.646 ppb	98.738 ppb	100.616 ppb	83.991 %	97.265 ppb	104.460 ppb
Recovery Percentage 1	97.006 %	99.349 %	98.968 %	99.167 %		97.633 %	93.666 %
Concentration RSD	1.2 %	3.4 %	5.0 %	2.5 %	5.6 %	5.1 %	10.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	97.657 ppb	103.780 ppb	99.540 ppb	87.396 %	102.390 ppb	98.335 ppb	95.045 ppb
Concentration per Run 1	92.387 ppb	102.214 ppb	98.258 ppb	89.136 %	102.889 ppb	100.213 ppb	99.310 ppb
Concentration per Run 2	102.324 ppb	106.886 ppb	102.598 ppb	84.452 %	105.292 ppb	98.749 ppb	96.094 ppb
Concentration per Run 3	98.259 ppb	102.241 ppb	97.764 ppb	88.600 %	98.989 ppb	96.043 ppb	89.732 ppb
Recovery Percentage 1	97.657 %	103.780 %	99.540 %		102.390 %	98.335 %	95.045 %
Concentration RSD	5.1 %	2.6 %	2.7 %	2.9 %	3.1 %	2.2 %	5.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.571 %	101.517 ppb	97.972 ppb	90.227 %
Concentration per Run 1	89.997 %	104.408 ppb	99.788 ppb	91.289 %
Concentration per Run 2	85.559 %	99.015 ppb	97.262 ppb	90.703 %
Concentration per Run 3	87.157 %	101.128 ppb	96.866 ppb	88.689 %
Recovery Percentage 1		101.517 %	97.972 %	
Concentration RSD	2.6 %	2.7 %	1.6 %	1.5 %

Analysis index: 90 Analysis started at: 3/15/2016 5:51:50 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.813 %	84.422 %	0.022 ppb	1.481 ppb	-0.309 ppb	0.372 ppb	5.685 ppb
Concentration per Run 1	83.064 %	84.019 %	0.018 ppb	-0.270 ppb	-0.125 ppb	0.105 ppb	6.900 ppb
Concentration per Run 2	82.011 %	91.041 %	0.024 ppb	-0.857 ppb	-0.786 ppb	0.807 ppb	-5.859 ppb
Concentration per Run 3	80.364 %	78.208 %	0.025 ppb	5.570 ppb	-0.016 ppb	0.204 ppb	16.012 ppb
Recovery Percentage 1			4.428 %	1.481 %	-0.441 %	3.718 %	5.685 %
Concentration RSD	1.7 %	7.6 %	16.2 %	239.9 %	134.8 %	102.3 %	193.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	0.944 ppb	79.062 %	83.542 %	0.017 ppb	0.065 ppb	-0.666 ppb	2.165 ppb
Concentration per Run 1	-5.720 ppb	81.108 %	83.014 %	0.000 ppb	0.117 ppb	-0.923 ppb	1.375 ppb
Concentration per Run 2	-0.017 ppb	82.551 %	83.599 %	0.050 ppb	0.069 ppb	-0.447 ppb	3.631 ppb
Concentration per Run 3	8.568 ppb	73.528 %	84.013 %	0.000 ppb	0.011 ppb	-0.628 ppb	1.489 ppb
Recovery Percentage 1	0.944 %			0.335 %	6.548 %	-66.601 %	4.330 %
Concentration RSD	762.0 %	6.1 %	0.6 %	173.2 %	80.8 %	36.0 %	58.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.029 ppb	0.081 ppb	0.019 ppb	-0.676 ppb	84.018 %	0.042 ppb	-0.692 ppb
Concentration per Run 1	0.035 ppb	0.032 ppb	0.067 ppb	-0.560 ppb	85.279 %	0.099 ppb	-1.280 ppb
Concentration per Run 2	0.035 ppb	0.140 ppb	0.021 ppb	-0.599 ppb	80.634 %	-0.016 ppb	-0.289 ppb
Concentration per Run 3	0.018 ppb	0.073 ppb	-0.031 ppb	-0.870 ppb	86.139 %	0.041 ppb	-0.508 ppb
Recovery Percentage 1	5.887 %	16.256 %	1.902 %	-6.763 %	84.018 %	8.322 %	-13.847 %
Concentration RSD	33.2 %	67.0 %	257.1 %	25.0 %	3.5 %	138.5 %	75.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.502 ppb	0.038 ppb	0.021 ppb	84.316 %	0.177 ppb	0.031 ppb	0.019 ppb
Concentration per Run 1	0.461 ppb	0.032 ppb	0.008 ppb	85.052 %	0.144 ppb	0.052 ppb	0.069 ppb
Concentration per Run 2	0.664 ppb	0.058 ppb	0.023 ppb	85.559 %	0.160 ppb	0.030 ppb	-0.006 ppb
Concentration per Run 3	0.380 ppb	0.024 ppb	0.031 ppb	82.338 %	0.226 ppb	0.010 ppb	-0.005 ppb
Recovery Percentage 1	16.723 %	9.445 %	10.253 %		5.891 %	1.527 %	3.874 %
Concentration RSD	29.2 %	46.5 %	58.3 %	2.1 %	24.4 %	68.4 %	221.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.727 %	0.020 ppb	0.007 ppb	88.001 %
Concentration per Run 1	86.287 %	0.026 ppb	0.005 ppb	88.713 %
Concentration per Run 2	86.525 %	0.018 ppb	0.007 ppb	88.649 %
Concentration per Run 3	84.369 %	0.015 ppb	0.009 ppb	86.642 %
Recovery Percentage 1		3.955 %	1.408 %	88.001 %
Concentration RSD	1.4 %	27.9 %	27.1 %	1.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 91 Analysis started at: 3/15/2016 5:57:13 PM Rack: 1
Analysis label: L1607060-06 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 55

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.249 %	81.517 %	0.028 ppb	27,031.638 ppb	14,227.150 ppb	228.917 ppb	2,326.457 ppb
Concentration per Run 1	83.754 %	79.176 %	0.021 ppb	28,993.652 ppb	15,658.230 ppb	249.685 ppb	2,526.996 ppb
Concentration per Run 2	84.631 %	81.598 %	0.032 ppb	26,772.326 ppb	13,982.448 ppb	218.753 ppb	2,322.541 ppb
Concentration per Run 3	84.363 %	83.777 %	0.032 ppb	25,328.936 ppb	13,040.771 ppb	218.313 ppb	2,129.832 ppb
Concentration RSD	0.5 %	2.8 %	21.3 %	6.8 %	9.3 %	7.9 %	8.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	36,293.885 ppb	73.937 %	83.052 %	1.175 ppb	2.006 ppb	109.664 ppb	420.312 ppb
Concentration per Run 1	39,830.063 ppb	68.619 %	82.812 %	1.350 ppb	2.133 ppb	123.859 ppb	462.381 ppb
Concentration per Run 2	35,348.570 ppb	75.838 %	82.189 %	1.058 ppb	2.111 ppb	104.785 ppb	408.553 ppb
Concentration per Run 3	33,703.023 ppb	77.354 %	84.155 %	1.115 ppb	1.775 ppb	100.348 ppb	390.003 ppb
Concentration RSD	8.7 %	6.3 %	1.2 %	13.2 %	10.0 %	11.4 %	8.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.182 ppb	3.661 ppb	1.765 ppb	1.237 ppb	78.130 %	0.235 ppb	-0.392 ppb
Concentration per Run 1	1.319 ppb	4.273 ppb	1.825 ppb	1.550 ppb	77.309 %	0.207 ppb	-0.353 ppb
Concentration per Run 2	1.103 ppb	3.211 ppb	2.036 ppb	0.755 ppb	77.480 %	0.238 ppb	0.372 ppb
Concentration per Run 3	1.124 ppb	3.498 ppb	1.435 ppb	1.404 ppb	79.602 %	0.262 ppb	-1.197 ppb
Concentration RSD	10.1 %	15.0 %	17.3 %	34.2 %	1.6 %	11.7 %	200.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.928 ppb	0.011 ppb	0.030 ppb	79.451 %	0.092 ppb	0.055 ppb	22.446 ppb
Concentration per Run 1	0.931 ppb	0.013 ppb	0.042 ppb	75.747 %	0.038 ppb	0.035 ppb	23.138 ppb
Concentration per Run 2	0.865 ppb	0.012 ppb	0.032 ppb	80.351 %	0.103 ppb	0.077 ppb	21.155 ppb
Concentration per Run 3	0.988 ppb	0.007 ppb	0.016 ppb	82.254 %	0.135 ppb	0.054 ppb	23.046 ppb
Concentration RSD	6.6 %	30.5 %	44.8 %	4.2 %	54.0 %	37.8 %	5.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	83.694 %	0.001 ppb	0.270 ppb	81.047 %
Concentration per Run 1	80.103 %	-0.003 ppb	0.292 ppb	77.569 %
Concentration per Run 2	86.750 %	0.005 ppb	0.250 ppb	83.277 %
Concentration per Run 3	84.228 %	0.003 ppb	0.269 ppb	82.295 %
Concentration RSD	4.0 %	293.9 %	7.6 %	3.8 %

Alpha ICPMSQ Full

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Analysis index: 92 | Analysis started at: 3/15/2016 6:02:27 PM | Rack: 1
Analysis label: L1607142-01 6020TL | User name: ALPHALAB\a1metalsinstrument | Vial: 57

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.234 %	76.755 %	0.057 ppb	76,728.916 ppb	5,351.586 ppb	203.349 ppb	4,444.255 ppb
Concentration per Run 1	80.996 %	76.513 %	0.047 ppb	77,967.047 ppb	5,475.277 ppb	206.446 ppb	4,526.582 ppb
Concentration per Run 2	81.535 %	79.176 %	0.063 ppb	75,270.270 ppb	5,271.232 ppb	191.392 ppb	4,491.614 ppb
Concentration per Run 3	81.170 %	74.576 %	0.060 ppb	76,949.430 ppb	5,308.250 ppb	212.209 ppb	4,314.571 ppb
Concentration RSD	0.3 %	3.0 %	15.2 %	1.8 %	2.0 %	5.3 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	28,043.658 ppb	73.889 %	78.399 %	3.673 ppb	2.308 ppb	136.288 ppb	481.945 ppb
Concentration per Run 1	29,007.783 ppb	75.188 %	77.865 %	3.533 ppb	2.382 ppb	138.007 ppb	461.644 ppb
Concentration per Run 2	28,115.969 ppb	73.095 %	79.898 %	4.116 ppb	2.162 ppb	136.909 ppb	501.247 ppb
Concentration per Run 3	27,007.222 ppb	73.384 %	77.435 %	3.370 ppb	2.380 ppb	133.949 ppb	482.944 ppb
Concentration RSD	3.6 %	1.5 %	1.7 %	10.7 %	5.5 %	1.5 %	4.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.595 ppb	8.120 ppb	5.865 ppb	34.327 ppb	75.060 %	9.703 ppb	51.911 ppb
Concentration per Run 1	0.679 ppb	8.307 ppb	5.651 ppb	36.349 ppb	73.669 %	11.115 ppb	52.932 ppb
Concentration per Run 2	0.550 ppb	8.280 ppb	5.846 ppb	34.428 ppb	74.114 %	9.686 ppb	57.610 ppb
Concentration per Run 3	0.556 ppb	7.773 ppb	6.097 ppb	32.205 ppb	77.396 %	8.307 ppb	45.192 ppb
Concentration RSD	12.3 %	3.7 %	3.8 %	6.0 %	2.7 %	14.5 %	12.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	7.879 ppb	0.021 ppb	3.891 ppb	76.632 %	0.263 ppb	1,009.515 ppb	12.671 ppb
Concentration per Run 1	8.161 ppb	0.013 ppb	3.903 ppb	76.272 %	0.252 ppb	1,025.324 ppb	13.652 ppb
Concentration per Run 2	7.989 ppb	0.027 ppb	4.241 ppb	77.939 %	0.283 ppb	1,000.971 ppb	12.386 ppb
Concentration per Run 3	7.486 ppb	0.023 ppb	3.529 ppb	75.686 %	0.255 ppb	1,002.250 ppb	11.976 ppb
Concentration RSD	4.5 %	33.5 %	9.2 %	1.5 %	6.5 %	1.4 %	6.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.621 %	-0.001 ppb	10.117 ppb	81.067 %
Concentration per Run 1	82.555 %	0.001 ppb	10.142 ppb	82.519 %
Concentration per Run 2	81.578 %	-0.006 ppb	9.822 ppb	82.483 %
Concentration per Run 3	80.730 %	0.002 ppb	10.386 ppb	78.198 %
Concentration RSD	1.1 %	437.9 %	2.8 %	3.1 %

Alpha ICPMSQ Full

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Analysis index: 93
Analysis label: L1607142-01D20 6020TL
Analysis started at: 3/15/2016 6:05:32 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 58

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.973 %	78.450 %	0.003 ppb	4,327.983 ppb	272.079 ppb	10.380 ppb	222.167 ppb
Concentration per Run 1	82.473 %	87.167 %	0.000 ppb	3,972.980 ppb	237.814 ppb	9.487 ppb	222.230 ppb
Concentration per Run 2	81.577 %	75.060 %	0.000 ppb	4,624.069 ppb	292.695 ppb	13.374 ppb	247.247 ppb
Concentration per Run 3	81.870 %	73.123 %	0.009 ppb	4,386.900 ppb	285.727 ppb	8.278 ppb	197.024 ppb
Concentration RSD	0.6 %	9.7 %	175.8 %	7.6 %	11.0 %	25.7 %	11.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,407.939 ppb	75.982 %	83.381 %	0.150 ppb	0.128 ppb	6.516 ppb	23.633 ppb
Concentration per Run 1	1,443.693 ppb	77.642 %	84.240 %	0.209 ppb	0.191 ppb	6.678 ppb	19.554 ppb
Concentration per Run 2	1,402.708 ppb	72.084 %	83.278 %	0.137 ppb	0.117 ppb	6.737 ppb	23.997 ppb
Concentration per Run 3	1,377.416 ppb	78.220 %	82.625 %	0.105 ppb	0.075 ppb	6.133 ppb	27.349 ppb
Concentration RSD	2.4 %	4.5 %	1.0 %	35.5 %	46.2 %	5.1 %	16.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.036 ppb	0.262 ppb	0.433 ppb	1.230 ppb	84.398 %	0.596 ppb	2.132 ppb
Concentration per Run 1	0.027 ppb	0.247 ppb	0.446 ppb	1.246 ppb	84.361 %	0.654 ppb	1.404 ppb
Concentration per Run 2	0.036 ppb	0.396 ppb	0.320 ppb	1.342 ppb	87.000 %	0.550 ppb	1.272 ppb
Concentration per Run 3	0.045 ppb	0.144 ppb	0.532 ppb	1.100 ppb	81.831 %	0.584 ppb	3.721 ppb
Concentration RSD	25.4 %	48.3 %	24.7 %	9.9 %	3.1 %	8.9 %	64.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.481 ppb	-0.001 ppb	0.192 ppb	82.787 %	-0.018 ppb	49.919 ppb	0.468 ppb
Concentration per Run 1	0.502 ppb	-0.002 ppb	0.177 ppb	83.638 %	-0.013 ppb	51.518 ppb	0.616 ppb
Concentration per Run 2	0.469 ppb	-0.006 ppb	0.183 ppb	80.519 %	-0.009 ppb	48.779 ppb	0.416 ppb
Concentration per Run 3	0.473 ppb	0.007 ppb	0.215 ppb	84.203 %	-0.031 ppb	49.459 ppb	0.371 ppb
Concentration RSD	3.7 %	1,007.1 %	10.7 %	2.4 %	67.9 %	2.9 %	27.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.931 %	-0.005 ppb	0.486 ppb	87.673 %
Concentration per Run 1	81.675 %	-0.005 ppb	0.478 ppb	88.405 %
Concentration per Run 2	87.012 %	-0.006 ppb	0.497 ppb	88.694 %
Concentration per Run 3	86.106 %	-0.004 ppb	0.484 ppb	85.922 %
Concentration RSD	3.4 %	14.8 %	2.0 %	1.7 %

Alpha ICPMSQ Full

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Analysis index: 94 Analysis started at: 3/15/2016 6:08:37 PM Rack: 1
Analysis label: L1607142-02 6020TL User name: ALPHALAB\a1metalsinstrument Vial: 59

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	81.711 %	80.548 %	0.016 ppb	57,321.333 ppb	15,419.247 ppb	153.272 ppb	7,409.426 ppb
Concentration per Run 1	81.836 %	85.714 %	0.020 ppb	57,481.110 ppb	15,807.239 ppb	162.277 ppb	7,819.094 ppb
Concentration per Run 2	82.103 %	78.208 %	0.004 ppb	59,009.167 ppb	15,107.050 ppb	153.703 ppb	7,463.847 ppb
Concentration per Run 3	81.194 %	77.723 %	0.023 ppb	55,473.722 ppb	15,343.453 ppb	143.835 ppb	6,945.337 ppb
Concentration RSD	0.6 %	5.6 %	66.5 %	3.1 %	2.3 %	6.0 %	5.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	45,167.903 ppb	73.600 %	78.394 %	3.289 ppb	2.353 ppb	440.598 ppb	682.011 ppb
Concentration per Run 1	48,003.581 ppb	69.341 %	78.713 %	3.522 ppb	2.620 ppb	464.333 ppb	673.429 ppb
Concentration per Run 2	45,106.240 ppb	71.795 %	79.393 %	3.204 ppb	2.134 ppb	443.917 ppb	711.522 ppb
Concentration per Run 3	42,393.889 ppb	79.664 %	77.076 %	3.139 ppb	2.305 ppb	413.543 ppb	661.081 ppb
Concentration RSD	6.2 %	7.3 %	1.5 %	6.2 %	10.5 %	5.8 %	3.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	35.444 ppb	22.839 ppb	4.177 ppb	46.417 ppb	78.857 %	25.977 ppb	-0.918 ppb
Concentration per Run 1	36.480 ppb	23.198 ppb	4.188 ppb	46.279 ppb	83.043 %	24.739 ppb	-1.373 ppb
Concentration per Run 2	36.616 ppb	23.216 ppb	4.240 ppb	45.623 ppb	77.080 %	26.086 ppb	-1.110 ppb
Concentration per Run 3	33.237 ppb	22.104 ppb	4.102 ppb	47.348 ppb	76.448 %	27.107 ppb	-0.270 ppb
Concentration RSD	5.4 %	2.8 %	1.7 %	1.9 %	4.6 %	4.6 %	62.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	7.801 ppb	0.014 ppb	0.253 ppb	78.731 %	0.236 ppb	102.291 ppb	62.074 ppb
Concentration per Run 1	7.725 ppb	0.007 ppb	0.311 ppb	80.752 %	0.139 ppb	103.175 ppb	63.526 ppb
Concentration per Run 2	7.940 ppb	0.022 ppb	0.248 ppb	78.170 %	0.282 ppb	102.301 ppb	61.202 ppb
Concentration per Run 3	7.736 ppb	0.013 ppb	0.201 ppb	77.270 %	0.288 ppb	101.397 ppb	61.495 ppb
Concentration RSD	1.6 %	53.5 %	21.8 %	2.3 %	35.5 %	0.9 %	2.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	80.543 %	-0.002 ppb	10.749 ppb	80.181 %
Concentration per Run 1	83.154 %	0.001 ppb	10.973 ppb	80.135 %
Concentration per Run 2	80.523 %	-0.006 ppb	10.734 ppb	80.347 %
Concentration per Run 3	77.952 %	0.000 ppb	10.539 ppb	80.062 %
Concentration RSD	3.2 %	217.5 %	2.0 %	0.2 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 95
Analysis label: L1607142-02D20 6020TL
Analysis started at: 3/15/2016 6:11:42 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 60

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.356 %	78.934 %	0.009 ppb	3,188.992 ppb	767.721 ppb	8.334 ppb	383.162 ppb
Concentration per Run 1	86.077 %	86.440 %	0.015 ppb	2,817.662 ppb	650.483 ppb	6.556 ppb	335.897 ppb
Concentration per Run 2	86.944 %	73.607 %	0.006 ppb	3,464.713 ppb	858.188 ppb	10.524 ppb	461.846 ppb
Concentration per Run 3	83.047 %	76.755 %	0.005 ppb	3,284.600 ppb	794.493 ppb	7.922 ppb	351.745 ppb
Concentration RSD	2.4 %	8.5 %	61.3 %	10.5 %	13.9 %	24.2 %	17.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,138.735 ppb	79.183 %	86.102 %	0.174 ppb	0.110 ppb	21.595 ppb	32.193 ppb
Concentration per Run 1	1,779.739 ppb	86.089 %	86.933 %	0.167 ppb	0.029 ppb	17.563 ppb	29.001 ppb
Concentration per Run 2	2,417.796 ppb	73.456 %	87.652 %	0.223 ppb	0.139 ppb	24.069 ppb	35.789 ppb
Concentration per Run 3	2,218.670 ppb	78.004 %	83.722 %	0.132 ppb	0.161 ppb	23.153 ppb	31.790 ppb
Concentration RSD	15.3 %	8.1 %	2.4 %	26.4 %	64.4 %	16.3 %	10.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.007 ppb	1.077 ppb	0.445 ppb	1.547 ppb	81.378 %	1.233 ppb	-0.709 ppb
Concentration per Run 1	1.663 ppb	1.130 ppb	0.364 ppb	0.832 ppb	89.523 %	1.193 ppb	-0.743 ppb
Concentration per Run 2	2.299 ppb	1.001 ppb	0.656 ppb	2.450 ppb	76.220 %	1.208 ppb	-0.753 ppb
Concentration per Run 3	2.060 ppb	1.100 ppb	0.313 ppb	1.360 ppb	78.391 %	1.298 ppb	-0.631 ppb
Concentration RSD	16.0 %	6.3 %	41.6 %	53.3 %	8.8 %	4.6 %	9.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.466 ppb	-0.005 ppb	0.013 ppb	83.435 %	-0.078 ppb	4.848 ppb	3.068 ppb
Concentration per Run 1	0.446 ppb	0.002 ppb	0.007 ppb	86.487 %	-0.068 ppb	4.505 ppb	3.346 ppb
Concentration per Run 2	0.539 ppb	-0.011 ppb	0.008 ppb	80.058 %	-0.064 ppb	5.589 ppb	2.838 ppb
Concentration per Run 3	0.412 ppb	-0.006 ppb	0.023 ppb	83.759 %	-0.103 ppb	4.449 ppb	3.019 ppb
Concentration RSD	14.1 %	122.7 %	69.2 %	3.9 %	26.8 %	13.3 %	8.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.945 %	-0.002 ppb	0.498 ppb	89.897 %
Concentration per Run 1	89.537 %	0.001 ppb	0.445 ppb	97.593 %
Concentration per Run 2	80.273 %	-0.004 ppb	0.566 ppb	85.142 %
Concentration per Run 3	88.024 %	-0.002 ppb	0.484 ppb	86.955 %
Concentration RSD	5.8 %	144.1 %	12.3 %	7.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 96
Analysis label: L1607142-03 6020TL
Analysis started at: 3/15/2016 6:14:47 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.573 %	84.987 %	0.222 ppb	35,231.639 ppb	8,062.989 ppb	2,128.796 ppb	6,738.645 ppb
Concentration per Run 1	82.797 %	84.745 %	0.215 ppb	33,288.614 ppb	7,617.908 ppb	2,014.933 ppb	6,277.683 ppb
Concentration per Run 2	82.036 %	87.893 %	0.240 ppb	36,118.658 ppb	8,286.078 ppb	2,211.861 ppb	7,178.099 ppb
Concentration per Run 3	82.885 %	82.324 %	0.210 ppb	36,287.645 ppb	8,284.980 ppb	2,159.593 ppb	6,760.155 ppb
Concentration RSD	0.6 %	3.3 %	7.3 %	4.8 %	4.8 %	4.8 %	6.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	74,923.828 ppb	72.469 %	78.472 %	12.152 ppb	4.701 ppb	461.763 ppb	10,349.015 ppb
Concentration per Run 1	68,859.244 ppb	79.448 %	77.399 %	11.370 ppb	4.668 ppb	409.573 ppb	9,289.848 ppb
Concentration per Run 2	80,581.118 ppb	66.598 %	79.093 %	12.569 ppb	4.775 ppb	492.983 ppb	10,825.467 ppb
Concentration per Run 3	75,331.123 ppb	71.362 %	78.924 %	12.516 ppb	4.659 ppb	482.734 ppb	10,931.729 ppb
Concentration RSD	7.8 %	9.0 %	1.2 %	5.6 %	1.4 %	9.9 %	8.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.293 ppb	9.333 ppb	4.721 ppb	103.323 ppb	77.599 %	36.526 ppb	1.835 ppb
Concentration per Run 1	2.092 ppb	8.371 ppb	4.079 ppb	93.139 ppb	82.965 %	35.733 ppb	0.858 ppb
Concentration per Run 2	2.379 ppb	9.295 ppb	5.084 ppb	102.918 ppb	77.754 %	36.098 ppb	3.403 ppb
Concentration per Run 3	2.408 ppb	10.334 ppb	5.000 ppb	113.913 ppb	72.077 %	37.748 ppb	1.244 ppb
Concentration RSD	7.6 %	10.5 %	11.8 %	10.1 %	7.0 %	2.9 %	74.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.800 ppb	0.001 ppb	0.215 ppb	79.151 %	0.801 ppb	1.042 ppb	58.563 ppb
Concentration per Run 1	1.656 ppb	0.003 ppb	0.224 ppb	80.356 %	0.699 ppb	0.836 ppb	58.130 ppb
Concentration per Run 2	1.524 ppb	0.003 ppb	0.197 ppb	78.708 %	0.907 ppb	1.222 ppb	58.430 ppb
Concentration per Run 3	2.220 ppb	-0.001 ppb	0.224 ppb	78.388 %	0.798 ppb	1.068 ppb	59.128 ppb
Concentration RSD	20.5 %	170.4 %	7.3 %	1.3 %	13.0 %	18.6 %	0.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.651 %	0.032 ppb	61.911 ppb	82.525 %
Concentration per Run 1	85.283 %	0.029 ppb	60.002 ppb	84.716 %
Concentration per Run 2	82.015 %	0.040 ppb	62.572 ppb	82.502 %
Concentration per Run 3	80.656 %	0.028 ppb	63.159 ppb	80.356 %
Concentration RSD	2.9 %	20.8 %	2.7 %	2.6 %

Alpha ICPMSQ Full

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Analysis index: 97
Analysis label: L1607142-03D20 6020TL
Analysis started at: 3/15/2016 6:17:51 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.645 %	82.163 %	0.013 ppb	2,030.782 ppb	427.932 ppb	112.711 ppb	329.177 ppb
Concentration per Run 1	81.845 %	84.261 %	0.019 ppb	2,035.025 ppb	430.042 ppb	112.773 ppb	305.678 ppb
Concentration per Run 2	85.357 %	83.293 %	0.015 ppb	1,977.065 ppb	414.584 ppb	112.592 ppb	341.825 ppb
Concentration per Run 3	86.734 %	78.934 %	0.005 ppb	2,080.256 ppb	439.170 ppb	112.768 ppb	340.027 ppb
Concentration RSD	3.0 %	3.5 %	57.3 %	2.5 %	2.9 %	0.1 %	6.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,712.585 ppb	74.514 %	85.722 %	0.508 ppb	0.336 ppb	22.814 ppb	527.496 ppb
Concentration per Run 1	3,589.031 ppb	75.261 %	79.841 %	0.456 ppb	0.266 ppb	22.235 ppb	516.509 ppb
Concentration per Run 2	3,666.580 ppb	75.260 %	85.215 %	0.567 ppb	0.355 ppb	22.659 ppb	509.915 ppb
Concentration per Run 3	3,882.145 ppb	73.023 %	92.112 %	0.502 ppb	0.388 ppb	23.548 ppb	556.062 ppb
Concentration RSD	4.1 %	1.7 %	7.2 %	11.0 %	18.7 %	2.9 %	4.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.105 ppb	0.501 ppb	0.301 ppb	4.414 ppb	81.375 %	1.788 ppb	-0.542 ppb
Concentration per Run 1	0.127 ppb	0.073 ppb	0.324 ppb	4.689 ppb	84.247 %	1.879 ppb	-0.969 ppb
Concentration per Run 2	0.074 ppb	0.404 ppb	0.204 ppb	3.832 ppb	81.538 %	2.122 ppb	0.273 ppb
Concentration per Run 3	0.115 ppb	1.026 ppb	0.375 ppb	4.722 ppb	78.341 %	1.362 ppb	-0.930 ppb
Concentration RSD	26.5 %	96.6 %	29.2 %	11.4 %	3.6 %	21.7 %	130.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.105 ppb	-0.004 ppb	0.023 ppb	85.000 %	-0.021 ppb	0.094 ppb	2.684 ppb
Concentration per Run 1	0.102 ppb	0.006 ppb	0.022 ppb	86.764 %	0.018 ppb	0.113 ppb	2.325 ppb
Concentration per Run 2	0.105 ppb	-0.011 ppb	0.015 ppb	84.687 %	0.004 ppb	0.094 ppb	3.220 ppb
Concentration per Run 3	0.108 ppb	-0.006 ppb	0.031 ppb	83.550 %	-0.084 ppb	0.075 ppb	2.508 ppb
Concentration RSD	2.7 %	234.4 %	34.5 %	1.9 %	263.2 %	20.1 %	17.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.029 %	-0.006 ppb	3.092 ppb	90.895 %
Concentration per Run 1	89.353 %	-0.002 ppb	2.993 ppb	93.672 %
Concentration per Run 2	86.340 %	-0.007 ppb	3.097 ppb	89.851 %
Concentration per Run 3	82.395 %	-0.008 ppb	3.185 ppb	89.164 %
Concentration RSD	4.1 %	52.5 %	3.1 %	2.7 %

Alpha ICPMSQ Full

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Analysis index: 98
Analysis label: xL1607142-04 6020TL
Analysis started at: 3/15/2016 6:20:55 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	71.603 %	69.087 %	0.083 ppb	386,215.156 ppb	39,914.075 ppb	487.393 ppb	17,891.769 ppb
Concentration per Run 1	71.875 %	70.701 %	0.085 ppb	396,566.023 ppb	40,356.751 ppb	494.861 ppb	18,291.884 ppb
Concentration per Run 2	71.277 %	67.554 %	0.063 ppb	380,951.347 ppb	40,093.304 ppb	480.890 ppb	17,552.471 ppb
Concentration per Run 3	71.658 %	69.007 %	0.101 ppb	381,128.099 ppb	39,292.171 ppb	486.430 ppb	17,830.951 ppb
Concentration RSD	0.4 %	2.3 %	22.8 %	2.3 %	1.4 %	1.4 %	2.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	41,175.087 ppb	68.307 %	73.321 %	2.820 ppb	4.809 ppb	304.100 ppb	32,518.112 ppb
Concentration per Run 1	40,883.898 ppb	68.764 %	73.198 %	2.774 ppb	4.389 ppb	287.488 ppb	32,598.897 ppb
Concentration per Run 2	41,795.602 ppb	67.825 %	73.825 %	3.489 ppb	5.228 ppb	313.077 ppb	31,952.828 ppb
Concentration per Run 3	40,845.762 ppb	68.330 %	72.939 %	2.196 ppb	4.811 ppb	311.735 ppb	33,002.611 ppb
Concentration RSD	1.3 %	0.7 %	0.6 %	23.0 %	8.7 %	4.7 %	1.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	14.039 ppb	10.179 ppb	42.221 ppb	66.713 ppb	72.411 %	24.391 ppb	0.941 ppb
Concentration per Run 1	13.694 ppb	9.828 ppb	41.220 ppb	67.566 ppb	74.900 %	24.106 ppb	0.601 ppb
Concentration per Run 2	14.215 ppb	10.543 ppb	43.372 ppb	65.683 ppb	72.148 %	24.442 ppb	0.448 ppb
Concentration per Run 3	14.209 ppb	10.166 ppb	42.070 ppb	66.889 ppb	70.185 %	24.624 ppb	1.774 ppb
Concentration RSD	2.1 %	3.5 %	2.6 %	1.4 %	3.3 %	1.1 %	77.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.280 ppb	0.054 ppb	0.648 ppb	72.314 %	4.656 ppb	29.841 ppb	241.658 ppb
Concentration per Run 1	2.541 ppb	0.058 ppb	0.654 ppb	73.902 %	4.106 ppb	28.572 ppb	234.407 ppb
Concentration per Run 2	2.140 ppb	0.075 ppb	0.601 ppb	71.844 %	5.056 ppb	30.268 ppb	247.430 ppb
Concentration per Run 3	2.159 ppb	0.030 ppb	0.689 ppb	71.195 %	4.806 ppb	30.682 ppb	243.138 ppb
Concentration RSD	9.9 %	41.7 %	6.8 %	2.0 %	10.6 %	3.7 %	2.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.801 %	0.005 ppb	45.695 ppb	72.863 %
Concentration per Run 1	79.769 %	0.006 ppb	45.219 ppb	73.806 %
Concentration per Run 2	78.351 %	0.004 ppb	46.275 ppb	72.200 %
Concentration per Run 3	78.283 %	0.005 ppb	45.590 ppb	72.581 %
Concentration RSD	1.1 %	20.8 %	1.2 %	1.2 %

Alpha ICPMSQ Full

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Analysis index: 99
Analysis label: xL1607142-05 6020TL
Analysis started at: 3/15/2016 6:23:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	71.337 %	65.697 %	0.048 ppb	309,700.535 ppb	11,891.013 ppb	701.842 ppb	81,497.935 ppb
Concentration per Run 1	70.382 %	63.922 %	0.053 ppb	301,848.682 ppb	11,324.714 ppb	674.225 ppb	79,889.080 ppb
Concentration per Run 2	72.276 %	66.101 %	0.045 ppb	309,287.407 ppb	11,894.445 ppb	719.545 ppb	78,904.588 ppb
Concentration per Run 3	71.354 %	67.069 %	0.046 ppb	317,965.515 ppb	12,453.879 ppb	711.755 ppb	85,700.136 ppb
Concentration RSD	1.3 %	2.5 %	9.2 %	2.6 %	4.7 %	3.5 %	4.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	26,718.639 ppb	71.049 %	73.012 %	10.540 ppb	14.615 ppb	87.237 ppb	2,376.720 ppb
Concentration per Run 1	25,802.613 ppb	74.466 %	71.375 %	9.700 ppb	13.844 ppb	86.143 ppb	2,301.738 ppb
Concentration per Run 2	26,498.319 ppb	69.846 %	74.311 %	10.675 ppb	15.055 ppb	86.166 ppb	2,340.080 ppb
Concentration per Run 3	27,854.984 ppb	68.836 %	73.350 %	11.244 ppb	14.947 ppb	89.402 ppb	2,488.342 ppb
Concentration RSD	3.9 %	4.2 %	2.1 %	7.4 %	4.6 %	2.1 %	4.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.056 ppb	5.422 ppb	13.541 ppb	10.208 ppb	70.166 %	22.881 ppb	5.539 ppb
Concentration per Run 1	0.907 ppb	5.443 ppb	13.628 ppb	9.831 ppb	71.919 %	21.805 ppb	6.001 ppb
Concentration per Run 2	1.169 ppb	5.898 ppb	12.680 ppb	10.686 ppb	71.038 %	22.798 ppb	6.639 ppb
Concentration per Run 3	1.091 ppb	4.926 ppb	14.315 ppb	10.106 ppb	67.542 %	24.041 ppb	3.976 ppb
Concentration RSD	12.7 %	9.0 %	6.1 %	4.3 %	3.3 %	4.9 %	25.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	42.195 ppb	0.016 ppb	0.049 ppb	74.101 %	1.303 ppb	12.694 ppb	139.504 ppb
Concentration per Run 1	38.952 ppb	0.013 ppb	0.058 ppb	78.301 %	1.447 ppb	12.757 ppb	128.781 ppb
Concentration per Run 2	42.759 ppb	0.014 ppb	0.035 ppb	73.180 %	1.043 ppb	12.649 ppb	143.189 ppb
Concentration per Run 3	44.875 ppb	0.020 ppb	0.055 ppb	70.822 %	1.420 ppb	12.677 ppb	146.543 ppb
Concentration RSD	7.1 %	25.3 %	24.9 %	5.2 %	17.3 %	0.4 %	6.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	79.481 %	0.004 ppb	4.433 ppb	71.974 %
Concentration per Run 1	82.818 %	0.006 ppb	4.198 ppb	74.520 %
Concentration per Run 2	79.322 %	0.001 ppb	4.586 ppb	71.514 %
Concentration per Run 3	76.304 %	0.004 ppb	4.516 ppb	69.887 %
Concentration RSD	4.1 %	55.6 %	4.7 %	3.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 100
Analysis label: L1607142-04D20 6020TL
Analysis started at: 3/15/2016 6:27:02 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	82.521 %	74.011 %	0.010 ppb	22,352.471 ppb	2,068.149 ppb	27.185 ppb	952.636 ppb
Concentration per Run 1	82.672 %	73.849 %	0.007 ppb	22,900.506 ppb	2,088.679 ppb	29.722 ppb	1,003.822 ppb
Concentration per Run 2	82.042 %	73.607 %	0.013 ppb	22,975.810 ppb	2,126.994 ppb	24.027 ppb	929.481 ppb
Concentration per Run 3	82.849 %	74.576 %	0.011 ppb	21,181.096 ppb	1,988.776 ppb	27.806 ppb	924.605 ppb
Concentration RSD	0.5 %	0.7 %	27.7 %	4.5 %	3.5 %	10.7 %	4.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,097.903 ppb	75.333 %	84.056 %	0.145 ppb	0.286 ppb	16.060 ppb	1,711.658 ppb
Concentration per Run 1	2,059.357 ppb	75.405 %	82.087 %	0.054 ppb	0.322 ppb	16.897 ppb	1,777.107 ppb
Concentration per Run 2	2,197.284 ppb	73.311 %	83.947 %	0.303 ppb	0.293 ppb	17.081 ppb	1,751.888 ppb
Concentration per Run 3	2,037.066 ppb	77.282 %	86.135 %	0.079 ppb	0.244 ppb	14.201 ppb	1,605.980 ppb
Concentration RSD	4.1 %	2.6 %	2.4 %	94.2 %	13.7 %	10.0 %	5.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.680 ppb	0.612 ppb	2.365 ppb	2.624 ppb	81.590 %	1.140 ppb	-0.767 ppb
Concentration per Run 1	0.604 ppb	0.554 ppb	2.460 ppb	2.850 ppb	80.290 %	1.208 ppb	-1.280 ppb
Concentration per Run 2	0.811 ppb	0.923 ppb	2.573 ppb	2.390 ppb	82.011 %	1.302 ppb	-0.441 ppb
Concentration per Run 3	0.625 ppb	0.359 ppb	2.063 ppb	2.633 ppb	82.469 %	0.908 ppb	-0.580 ppb
Concentration RSD	16.8 %	46.8 %	11.3 %	8.8 %	1.4 %	18.1 %	58.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.285 ppb	-0.002 ppb	0.042 ppb	81.413 %	0.302 ppb	1.626 ppb	12.759 ppb
Concentration per Run 1	0.270 ppb	0.003 ppb	0.071 ppb	81.372 %	0.266 ppb	1.690 ppb	13.356 ppb
Concentration per Run 2	0.372 ppb	0.002 ppb	0.039 ppb	82.221 %	0.407 ppb	1.513 ppb	12.957 ppb
Concentration per Run 3	0.214 ppb	-0.011 ppb	0.016 ppb	80.646 %	0.232 ppb	1.674 ppb	11.966 ppb
Concentration RSD	28.1 %	402.9 %	66.0 %	1.0 %	30.8 %	6.0 %	5.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.664 %	-0.009 ppb	2.321 ppb	88.923 %
Concentration per Run 1	84.802 %	-0.010 ppb	2.377 ppb	89.660 %
Concentration per Run 2	88.070 %	-0.009 ppb	2.406 ppb	86.275 %
Concentration per Run 3	87.122 %	-0.008 ppb	2.180 ppb	90.833 %
Concentration RSD	1.9 %	11.2 %	5.3 %	2.7 %

Analysis index: 101 Analysis started at: 3/15/2016 6:30:06 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	77.309 %	78.127 %	102.885 ppb	9,876.785 ppb	9,961.566 ppb	97.797 ppb	9,958.445 ppb
Concentration per Run 1	77.797 %	79.660 %	103.699 ppb	10,069.162 ppb	9,971.008 ppb	100.415 ppb	10,015.351 ppb
Concentration per Run 2	76.312 %	74.818 %	103.364 ppb	10,033.182 ppb	10,106.035 ppb	99.318 ppb	9,761.412 ppb
Concentration per Run 3	77.818 %	79.903 %	101.593 ppb	9,528.012 ppb	9,807.656 ppb	93.660 ppb	10,098.572 ppb
Recovery Percentage 1			102.885 %	98.768 %	99.616 %	97.797 %	99.584 %
Concentration RSD	1.1 %	3.7 %	1.1 %	3.1 %	1.5 %	3.7 %	1.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,644.662 ppb	75.116 %	79.011 %	98.314 ppb	99.852 ppb	98.827 ppb	10,261.466 ppb
Concentration per Run 1	9,756.493 ppb	74.972 %	78.284 %	97.211 ppb	101.249 ppb	101.433 ppb	10,466.910 ppb
Concentration per Run 2	9,566.075 ppb	75.621 %	79.224 %	99.277 ppb	100.431 ppb	98.365 ppb	10,330.267 ppb
Concentration per Run 3	9,611.418 ppb	74.755 %	79.527 %	98.454 ppb	97.876 ppb	96.684 ppb	9,987.220 ppb
Recovery Percentage 1	96.447 %			98.314 %	99.852 %	98.827 %	102.615 %
Concentration RSD	1.0 %	0.6 %	0.8 %	1.1 %	1.8 %	2.4 %	2.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	102.980 ppb	102.970 ppb	104.961 ppb	98.692 ppb	80.436 %	99.076 ppb	103.747 ppb
Concentration per Run 1	104.109 ppb	102.248 ppb	108.042 ppb	99.023 ppb	81.734 %	97.455 ppb	102.674 ppb
Concentration per Run 2	104.029 ppb	104.086 ppb	103.606 ppb	99.126 ppb	78.823 %	105.977 ppb	101.366 ppb
Concentration per Run 3	100.801 ppb	102.575 ppb	103.235 ppb	97.927 ppb	80.752 %	93.795 ppb	107.202 ppb
Recovery Percentage 1	102.980 %	102.970 %	104.961 %	98.692 %		99.076 %	103.747 %
Concentration RSD	1.8 %	1.0 %	2.5 %	0.7 %	1.8 %	6.3 %	3.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	99.482 ppb	106.175 ppb	100.901 ppb	80.928 %	100.868 ppb	100.697 ppb	97.967 ppb
Concentration per Run 1	102.697 ppb	107.839 ppb	102.118 ppb	81.157 %	103.109 ppb	98.512 ppb	98.028 ppb
Concentration per Run 2	98.254 ppb	109.255 ppb	101.863 ppb	81.283 %	97.648 ppb	101.193 ppb	98.554 ppb
Concentration per Run 3	97.494 ppb	101.431 ppb	98.721 ppb	80.342 %	101.849 ppb	102.387 ppb	97.317 ppb
Recovery Percentage 1	99.482 %	106.175 %	100.901 %		100.868 %	100.697 %	97.967 %
Concentration RSD	2.8 %	3.9 %	1.9 %	0.6 %	2.8 %	2.0 %	0.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.820 %	100.040 ppb	97.332 ppb	89.023 %
Concentration per Run 1	86.027 %	101.258 ppb	98.232 ppb	91.079 %
Concentration per Run 2	87.227 %	100.333 ppb	97.679 ppb	87.863 %
Concentration per Run 3	87.205 %	98.528 ppb	96.086 ppb	88.128 %
Recovery Percentage 1		100.040 %	97.332 %	
Concentration RSD	0.8 %	1.4 %	1.1 %	2.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 102 Analysis started at: 3/15/2016 6:33:13 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	73.149 %	74.334 %	0.020 ppb	5.573 ppb	1.882 ppb	0.641 ppb	8.760 ppb
Concentration per Run 1	72.051 %	70.701 %	0.018 ppb	8.123 ppb	2.184 ppb	0.779 ppb	6.101 ppb
Concentration per Run 2	73.695 %	72.396 %	0.022 ppb	5.236 ppb	0.734 ppb	0.410 ppb	7.119 ppb
Concentration per Run 3	73.700 %	79.903 %	0.020 ppb	3.360 ppb	2.729 ppb	0.733 ppb	13.061 ppb
Recovery Percentage 1			3.966 %	5.573 %	2.689 %	6.406 %	8.760 %
Concentration RSD	1.3 %	6.6 %	8.7 %	43.0 %	54.8 %	31.4 %	42.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-1.653 ppb	73.841 %	75.045 %	0.063 ppb	0.018 ppb	-0.624 ppb	2.576 ppb
Concentration per Run 1	1.761 ppb	75.333 %	73.440 %	0.081 ppb	0.045 ppb	-0.660 ppb	3.867 ppb
Concentration per Run 2	1.531 ppb	75.116 %	75.970 %	0.080 ppb	-0.025 ppb	-0.529 ppb	1.460 ppb
Concentration per Run 3	-8.253 ppb	71.074 %	75.724 %	0.028 ppb	0.033 ppb	-0.682 ppb	2.400 ppb
Recovery Percentage 1	-1.653 %			1.262 %	1.805 %	-62.364 %	5.152 %
Concentration RSD	345.7 %	3.2 %	1.9 %	47.9 %	207.2 %	13.3 %	47.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.019 ppb	0.003 ppb	-0.005 ppb	-0.605 ppb	82.852 %	0.033 ppb	-0.616 ppb
Concentration per Run 1	0.028 ppb	0.077 ppb	-0.004 ppb	-0.494 ppb	80.921 %	0.014 ppb	-0.971 ppb
Concentration per Run 2	0.009 ppb	0.000 ppb	0.019 ppb	-0.744 ppb	86.311 %	0.041 ppb	-0.688 ppb
Concentration per Run 3	0.019 ppb	-0.068 ppb	-0.029 ppb	-0.576 ppb	81.322 %	0.045 ppb	-0.188 ppb
Recovery Percentage 1	3.716 %	0.588 %	-0.462 %	-6.049 %	82.852 %	6.679 %	-12.315 %
Concentration RSD	50.6 %	2,470.8 %	523.8 %	21.1 %	3.6 %	49.3 %	64.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.471 ppb	0.024 ppb	0.015 ppb	83.255 %	0.113 ppb	0.024 ppb	-0.031 ppb
Concentration per Run 1	0.441 ppb	0.002 ppb	0.046 ppb	83.960 %	0.165 ppb	0.052 ppb	-0.043 ppb
Concentration per Run 2	0.561 ppb	0.032 ppb	0.000 ppb	84.672 %	0.110 ppb	0.009 ppb	-0.005 ppb
Concentration per Run 3	0.412 ppb	0.038 ppb	0.000 ppb	81.132 %	0.064 ppb	0.010 ppb	-0.043 ppb
Recovery Percentage 1	15.706 %	6.019 %	7.709 %		3.774 %	1.194 %	-6.128 %
Concentration RSD	16.8 %	79.6 %	173.2 %	2.2 %	44.5 %	102.6 %	71.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.133 %	0.028 ppb	0.005 ppb	89.400 %
Concentration per Run 1	87.883 %	0.043 ppb	0.011 ppb	91.127 %
Concentration per Run 2	83.847 %	0.021 ppb	-0.002 ppb	87.508 %
Concentration per Run 3	83.669 %	0.021 ppb	0.006 ppb	89.564 %
Recovery Percentage 1		5.661 %	0.943 %	89.400 %
Concentration RSD	2.8 %	44.4 %	141.2 %	2.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 103
Analysis label: L1607142-05D20 6020TL
Analysis started at: 3/15/2016 6:36:21 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	72.794 %	73.446 %	0.010 ppb	17,121.666 ppb	595.571 ppb	35.491 ppb	4,076.779 ppb
Concentration per Run 1	72.312 %	72.639 %	0.016 ppb	17,554.619 ppb	571.556 ppb	32.650 ppb	4,453.890 ppb
Concentration per Run 2	72.636 %	74.333 %	0.001 ppb	16,898.290 ppb	617.989 ppb	34.926 ppb	3,758.073 ppb
Concentration per Run 3	73.434 %	73.365 %	0.012 ppb	16,912.088 ppb	597.167 ppb	38.897 ppb	4,018.373 ppb
Concentration RSD	0.8 %	1.2 %	78.0 %	2.2 %	3.9 %	8.9 %	8.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,382.792 ppb	71.170 %	73.218 %	0.535 ppb	0.823 ppb	4.055 ppb	119.104 ppb
Concentration per Run 1	1,518.616 ppb	67.970 %	70.048 %	0.793 ppb	0.954 ppb	4.229 ppb	133.534 ppb
Concentration per Run 2	1,245.147 ppb	73.095 %	74.015 %	0.418 ppb	0.708 ppb	4.170 ppb	104.921 ppb
Concentration per Run 3	1,384.613 ppb	72.445 %	75.590 %	0.394 ppb	0.805 ppb	3.767 ppb	118.858 ppb
Concentration RSD	9.9 %	3.9 %	3.9 %	41.9 %	15.1 %	6.2 %	12.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.045 ppb	0.480 ppb	0.758 ppb	-0.184 ppb	78.398 %	1.124 ppb	-0.449 ppb
Concentration per Run 1	0.029 ppb	0.590 ppb	1.059 ppb	-0.346 ppb	79.487 %	0.973 ppb	-0.205 ppb
Concentration per Run 2	0.067 ppb	0.347 ppb	0.483 ppb	-0.189 ppb	78.169 %	1.367 ppb	-0.605 ppb
Concentration per Run 3	0.039 ppb	0.503 ppb	0.732 ppb	-0.016 ppb	77.538 %	1.030 ppb	-0.538 ppb
Concentration RSD	43.4 %	25.6 %	38.1 %	89.8 %	1.3 %	19.0 %	47.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.217 ppb	0.011 ppb	0.005 ppb	78.114 %	0.040 ppb	0.749 ppb	7.442 ppb
Concentration per Run 1	2.138 ppb	0.016 ppb	0.016 ppb	79.623 %	-0.008 ppb	0.665 ppb	7.107 ppb
Concentration per Run 2	2.437 ppb	0.012 ppb	0.000 ppb	78.156 %	0.033 ppb	0.844 ppb	6.803 ppb
Concentration per Run 3	2.076 ppb	0.003 ppb	0.000 ppb	76.562 %	0.095 ppb	0.738 ppb	8.416 ppb
Concentration RSD	8.7 %	62.4 %	173.2 %	2.0 %	128.4 %	12.0 %	11.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.080 %	0.005 ppb	0.215 ppb	83.995 %
Concentration per Run 1	83.686 %	0.002 ppb	0.234 ppb	85.074 %
Concentration per Run 2	78.359 %	0.005 ppb	0.203 ppb	82.026 %
Concentration per Run 3	81.196 %	0.007 ppb	0.208 ppb	84.885 %
Concentration RSD	3.3 %	48.0 %	7.7 %	2.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 104
Analysis label: L1607142-06 6020TL
Analysis started at: 3/15/2016 6:39:25 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	71.152 %	74.253 %	0.009 ppb	609,261.761 ppb	90,359.551 ppb	6.039 ppb	21,733.592 ppb
Concentration per Run 1	71.385 %	73.365 %	0.018 ppb	593,209.625 ppb	88,617.016 ppb	7.362 ppb	21,024.461 ppb
Concentration per Run 2	70.840 %	75.544 %	0.002 ppb	607,411.110 ppb	89,242.783 ppb	6.268 ppb	21,404.652 ppb
Concentration per Run 3	71.230 %	73.849 %	0.008 ppb	627,164.548 ppb	93,218.853 ppb	4.486 ppb	22,771.662 ppb
Concentration RSD	0.4 %	1.5 %	91.0 %	2.8 %	2.8 %	24.0 %	4.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	122,929.851 ppb	70.376 %	78.148 %	1.395 ppb	1.047 ppb	472.773 ppb	21,137.085 ppb
Concentration per Run 1	120,529.657 ppb	70.279 %	78.689 %	1.313 ppb	1.008 ppb	450.544 ppb	20,393.321 ppb
Concentration per Run 2	119,555.800 ppb	71.795 %	79.139 %	1.572 ppb	1.076 ppb	468.836 ppb	20,920.359 ppb
Concentration per Run 3	128,704.096 ppb	69.052 %	76.617 %	1.299 ppb	1.057 ppb	498.939 ppb	22,097.575 ppb
Concentration RSD	4.1 %	2.0 %	1.7 %	11.0 %	3.4 %	5.2 %	4.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.195 ppb	1.415 ppb	0.588 ppb	0.812 ppb	73.637 %	2.643 ppb	-0.159 ppb
Concentration per Run 1	0.242 ppb	0.972 ppb	0.603 ppb	1.091 ppb	72.836 %	2.549 ppb	-0.182 ppb
Concentration per Run 2	0.119 ppb	1.379 ppb	0.589 ppb	0.606 ppb	74.385 %	2.627 ppb	-0.178 ppb
Concentration per Run 3	0.223 ppb	1.894 ppb	0.573 ppb	0.738 ppb	73.689 %	2.752 ppb	-0.117 ppb
Concentration RSD	34.2 %	32.7 %	2.6 %	30.9 %	1.1 %	3.9 %	22.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.036 ppb	0.007 ppb	0.032 ppb	72.986 %	0.091 ppb	0.176 ppb	336.243 ppb
Concentration per Run 1	0.746 ppb	0.014 ppb	0.018 ppb	71.393 %	0.089 ppb	0.188 ppb	338.606 ppb
Concentration per Run 2	1.113 ppb	-0.001 ppb	0.043 ppb	74.506 %	0.120 ppb	0.180 ppb	325.245 ppb
Concentration per Run 3	1.248 ppb	0.009 ppb	0.035 ppb	73.059 %	0.064 ppb	0.160 ppb	344.880 ppb
Concentration RSD	25.1 %	105.3 %	40.1 %	2.1 %	31.3 %	8.5 %	3.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	78.211 %	-0.003 ppb	0.195 ppb	69.477 %
Concentration per Run 1	77.014 %	-0.002 ppb	0.190 ppb	67.691 %
Concentration per Run 2	79.205 %	-0.005 ppb	0.202 ppb	71.547 %
Concentration per Run 3	78.415 %	-0.002 ppb	0.195 ppb	69.194 %
Concentration RSD	1.4 %	63.7 %	3.1 %	2.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 105
Analysis label: L1607142-06D20 6020TL
Analysis started at: 3/15/2016 6:42:30 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 8

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	74.721 %	81.113 %	0.005 ppb	31,202.584 ppb	4,151.722 ppb	0.406 ppb	953.706 ppb
Concentration per Run 1	74.174 %	97.821 %	0.001 ppb	24,552.149 ppb	3,216.924 ppb	0.229 ppb	776.627 ppb
Concentration per Run 2	74.341 %	80.871 %	0.005 ppb	31,511.139 ppb	4,118.383 ppb	-0.200 ppb	978.388 ppb
Concentration per Run 3	75.648 %	64.648 %	0.009 ppb	37,544.463 ppb	5,119.859 ppb	1.190 ppb	1,106.103 ppb
Concentration RSD	1.1 %	20.4 %	77.8 %	20.8 %	22.9 %	175.2 %	17.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,129.682 ppb	83.971 %	80.628 %	0.043 ppb	0.078 ppb	21.295 ppb	968.073 ppb
Concentration per Run 1	4,147.234 ppb	93.165 %	80.250 %	0.022 ppb	0.034 ppb	18.215 ppb	777.678 ppb
Concentration per Run 2	5,262.383 ppb	81.613 %	81.626 %	0.000 ppb	0.071 ppb	22.181 ppb	1,053.029 ppb
Concentration per Run 3	5,979.429 ppb	77.137 %	80.009 %	0.107 ppb	0.130 ppb	23.489 ppb	1,073.511 ppb
Concentration RSD	18.0 %	9.8 %	1.1 %	131.4 %	61.6 %	12.9 %	17.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.006 ppb	0.013 ppb	0.214 ppb	-0.600 ppb	84.037 %	0.073 ppb	-0.731 ppb
Concentration per Run 1	0.008 ppb	0.105 ppb	0.226 ppb	-0.720 ppb	96.290 %	0.061 ppb	-0.190 ppb
Concentration per Run 2	0.000 ppb	0.002 ppb	0.179 ppb	-0.604 ppb	78.226 %	0.047 ppb	-1.162 ppb
Concentration per Run 3	0.009 ppb	-0.069 ppb	0.237 ppb	-0.475 ppb	77.595 %	0.111 ppb	-0.841 ppb
Concentration RSD	87.9 %	689.5 %	14.6 %	20.4 %	12.6 %	46.2 %	67.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.087 ppb	0.000 ppb	0.005 ppb	90.644 %	-0.074 ppb	0.034 ppb	14.301 ppb
Concentration per Run 1	0.029 ppb	-0.004 ppb	0.000 ppb	101.212 %	-0.120 ppb	0.041 ppb	12.647 ppb
Concentration per Run 2	0.087 ppb	-0.002 ppb	0.007 ppb	88.186 %	-0.018 ppb	0.029 ppb	14.579 ppb
Concentration per Run 3	0.145 ppb	0.007 ppb	0.008 ppb	82.535 %	-0.084 ppb	0.031 ppb	15.679 ppb
Concentration RSD	66.3 %	1,641.0 %	86.7 %	10.6 %	69.5 %	19.5 %	10.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.107 %	-0.007 ppb	0.004 ppb	95.157 %
Concentration per Run 1	104.589 %	-0.007 ppb	0.004 ppb	103.306 %
Concentration per Run 2	91.301 %	-0.009 ppb	0.003 ppb	93.569 %
Concentration per Run 3	86.431 %	-0.004 ppb	0.004 ppb	88.597 %
Concentration RSD	10.0 %	42.1 %	20.4 %	7.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 106
Analysis label: L1607142-07 6020TL
Analysis started at: 3/15/2016 6:45:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	85.777 %	82.243 %	0.012 ppb	797,315.247 ppb	89,770.494 ppb	340.570 ppb	148,733.109 ppb
Concentration per Run 1	86.279 %	75.544 %	0.015 ppb	891,110.539 ppb	102,225.637 ppb	384.313 ppb	159,501.452 ppb
Concentration per Run 2	85.263 %	86.198 %	0.012 ppb	727,995.964 ppb	79,003.331 ppb	315.789 ppb	133,277.050 ppb
Concentration per Run 3	85.788 %	84.987 %	0.010 ppb	772,839.238 ppb	88,082.513 ppb	321.609 ppb	153,420.825 ppb
Concentration RSD	0.6 %	7.1 %	21.0 %	10.6 %	13.0 %	11.2 %	9.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	242,535.313 ppb	77.908 %	86.515 %	2.689 ppb	35.885 ppb	842.722 ppb	1,239.325 ppb
Concentration per Run 1	270,410.250 ppb	74.828 %	86.162 %	2.995 ppb	41.298 ppb	954.428 ppb	1,414.440 ppb
Concentration per Run 2	209,501.996 ppb	83.274 %	87.323 %	2.334 ppb	29.875 ppb	708.226 ppb	1,074.728 ppb
Concentration per Run 3	247,693.692 ppb	75.621 %	86.060 %	2.738 ppb	36.482 ppb	865.512 ppb	1,228.807 ppb
Concentration RSD	12.7 %	6.0 %	0.8 %	12.4 %	16.0 %	14.8 %	13.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.331 ppb	8.321 ppb	14.279 ppb	38.014 ppb	82.142 %	133.214 ppb	4.111 ppb
Concentration per Run 1	2.718 ppb	8.641 ppb	17.269 ppb	44.654 ppb	76.735 %	154.749 ppb	3.228 ppb
Concentration per Run 2	2.059 ppb	7.826 ppb	12.218 ppb	32.032 ppb	87.394 %	114.121 ppb	5.528 ppb
Concentration per Run 3	2.217 ppb	8.497 ppb	13.350 ppb	37.357 ppb	82.298 %	130.773 ppb	3.578 ppb
Concentration RSD	14.8 %	5.2 %	18.6 %	16.7 %	6.5 %	15.3 %	30.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	242.919 ppb	0.048 ppb	0.382 ppb	80.440 %	8.529 ppb	247.159 ppb	122.129 ppb
Concentration per Run 1	275.026 ppb	0.056 ppb	0.404 ppb	74.912 %	11.528 ppb	290.278 ppb	136.716 ppb
Concentration per Run 2	214.257 ppb	0.040 ppb	0.408 ppb	85.152 %	7.000 ppb	216.388 ppb	107.866 ppb
Concentration per Run 3	239.472 ppb	0.047 ppb	0.333 ppb	81.256 %	7.059 ppb	234.811 ppb	121.805 ppb
Concentration RSD	12.6 %	17.4 %	11.0 %	6.4 %	30.5 %	15.6 %	11.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	80.384 %	0.015 ppb	14.814 ppb	70.487 %
Concentration per Run 1	73.753 %	0.018 ppb	16.638 ppb	65.643 %
Concentration per Run 2	86.810 %	0.017 ppb	12.882 ppb	75.574 %
Concentration per Run 3	80.587 %	0.011 ppb	14.921 ppb	70.242 %
Concentration RSD	8.1 %	26.3 %	12.7 %	7.1 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 107
Analysis label: L1607142-07D20 6020TL
Analysis started at: 3/15/2016 6:48:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.485 %	92.494 %	0.002 ppb	40,594.475 ppb	4,521.970 ppb	17.973 ppb	8,234.242 ppb
Concentration per Run 1	104.733 %	97.579 %	0.003 ppb	39,356.946 ppb	4,440.981 ppb	18.839 ppb	8,346.117 ppb
Concentration per Run 2	105.103 %	86.440 %	0.003 ppb	41,667.448 ppb	4,519.902 ppb	15.070 ppb	7,886.633 ppb
Concentration per Run 3	106.618 %	93.462 %	-0.001 ppb	40,759.030 ppb	4,605.027 ppb	20.011 ppb	8,469.975 ppb
Concentration RSD	0.9 %	6.1 %	138.6 %	2.9 %	1.8 %	14.4 %	3.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	11,727.818 ppb	95.475 %	100.618 %	0.174 ppb	1.950 ppb	40.362 ppb	71.793 ppb
Concentration per Run 1	11,885.206 ppb	94.537 %	97.980 %	0.109 ppb	2.132 ppb	37.875 ppb	65.297 ppb
Concentration per Run 2	11,317.066 ppb	99.157 %	102.307 %	0.211 ppb	1.772 ppb	40.037 ppb	69.902 ppb
Concentration per Run 3	11,981.181 ppb	92.732 %	101.567 %	0.203 ppb	1.945 ppb	43.172 ppb	80.180 ppb
Concentration RSD	3.1 %	3.5 %	2.3 %	32.4 %	9.2 %	6.6 %	10.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.088 ppb	0.539 ppb	1.075 ppb	0.942 ppb	92.063 %	6.853 ppb	-0.591 ppb
Concentration per Run 1	0.107 ppb	0.620 ppb	1.101 ppb	1.113 ppb	94.570 %	6.922 ppb	-0.399 ppb
Concentration per Run 2	0.045 ppb	0.724 ppb	1.025 ppb	0.794 ppb	93.881 %	6.242 ppb	0.162 ppb
Concentration per Run 3	0.112 ppb	0.275 ppb	1.100 ppb	0.919 ppb	87.738 %	7.395 ppb	-1.535 ppb
Concentration RSD	42.5 %	43.6 %	4.1 %	17.0 %	4.1 %	8.5 %	146.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	12.979 ppb	0.009 ppb	0.041 ppb	93.235 %	0.486 ppb	12.440 ppb	6.425 ppb
Concentration per Run 1	13.186 ppb	0.008 ppb	0.055 ppb	94.237 %	0.598 ppb	12.390 ppb	6.602 ppb
Concentration per Run 2	12.650 ppb	0.001 ppb	0.056 ppb	92.611 %	0.576 ppb	13.140 ppb	6.680 ppb
Concentration per Run 3	13.100 ppb	0.017 ppb	0.014 ppb	92.858 %	0.284 ppb	11.789 ppb	5.993 ppb
Concentration RSD	2.2 %	91.2 %	57.4 %	0.9 %	36.0 %	5.4 %	5.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.190 %	-0.005 ppb	0.713 ppb	93.638 %
Concentration per Run 1	92.100 %	-0.008 ppb	0.744 ppb	93.858 %
Concentration per Run 2	95.389 %	-0.006 ppb	0.717 ppb	94.046 %
Concentration per Run 3	92.080 %	-0.001 ppb	0.678 ppb	93.011 %
Concentration RSD	2.0 %	68.9 %	4.6 %	0.6 %

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Analysis index: 108
Analysis label: xL1607142-08 6020TL
Analysis started at: 3/15/2016 6:51:45 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 11

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)
Concentration average	76.588 %	81.759 %	0.002 ppb	3,923,579.522 ppb	447,299.017 ppb	41.386 ppb
Concentration per Run 1	77.191 %	84.503 %	0.008 ppb	3,890,692.840 ppb	440,976.377 ppb	40.859 ppb
Concentration per Run 2	75.965 %	79.903 %	0.005 ppb	3,983,306.890 ppb	449,590.494 ppb	40.085 ppb
Concentration per Run 3	76.608 %	80.871 %	-0.007 ppb	3,896,738.836 ppb	451,330.179 ppb	43.215 ppb
Concentration RSD	0.8 %	3.0 %	420.7 %	1.3 %	1.2 %	3.9 %

Category	39K (KED AGD)	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)
Concentration average	158,244.678 ppb	176,395.862 ppb	61.714 %	87.392 %	1.099 ppb	1.566 ppb
Concentration per Run 1	149,413.896 ppb	171,413.064 ppb	62.339 %	89.583 %	0.822 ppb	1.334 ppb
Concentration per Run 2	159,561.888 ppb	177,123.650 ppb	62.340 %	85.209 %	1.263 ppb	1.852 ppb
Concentration per Run 3	165,758.250 ppb	180,650.873 ppb	60.463 %	87.386 %	1.212 ppb	1.511 ppb
Concentration RSD	5.2 %	2.6 %	1.8 %	2.5 %	21.9 %	16.8 %

Category	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	64.959 ppb	463.534 ppb	0.165 ppb	5.851 ppb	12.195 ppb	20.882 ppb
Concentration per Run 1	62.647 ppb	474.410 ppb	0.167 ppb	6.278 ppb	11.785 ppb	21.144 ppb
Concentration per Run 2	65.977 ppb	442.835 ppb	0.197 ppb	5.235 ppb	13.006 ppb	20.179 ppb
Concentration per Run 3	66.253 ppb	473.358 ppb	0.130 ppb	6.039 ppb	11.795 ppb	21.323 ppb
Concentration RSD	3.1 %	3.9 %	20.4 %	9.3 %	5.8 %	2.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)
Concentration average	75.758 %	1.873 ppb	-0.177 ppb	3.486 ppb	0.020 ppb	0.165 ppb
Concentration per Run 1	76.850 %	1.651 ppb	-0.010 ppb	3.527 ppb	0.015 ppb	0.224 ppb
Concentration per Run 2	77.359 %	1.896 ppb	1.073 ppb	3.457 ppb	0.036 ppb	0.141 ppb
Concentration per Run 3	73.065 %	2.072 ppb	-1.594 ppb	3.474 ppb	0.010 ppb	0.131 ppb
Concentration RSD	3.1 %	11.3 %	757.3 %	1.1 %	67.7 %	30.7 %

Category	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	205Tl (KED AGD)
Concentration average	68.161 %	1.033 ppb	1.598 ppb	107.483 ppb	68.433 %	-0.004 ppb
Concentration per Run 1	68.427 %	1.218 ppb	1.281 ppb	107.439 ppb	69.347 %	-0.007 ppb
Concentration per Run 2	67.548 %	1.014 ppb	1.729 ppb	106.644 ppb	67.275 %	-0.003 ppb
Concentration per Run 3	68.509 %	0.866 ppb	1.783 ppb	108.368 ppb	68.676 %	-0.002 ppb
Concentration RSD	0.8 %	17.1 %	17.3 %	0.8 %	1.5 %	69.8 %

Category	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.919 ppb	53.512 %
Concentration per Run 1	0.942 ppb	54.648 %
Concentration per Run 2	0.874 ppb	52.285 %
Concentration per Run 3	0.942 ppb	53.602 %
Concentration RSD	4.3 %	2.2 %

Alpha ICPMSQ Full

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Analysis index: 109
Analysis label: L1607142-08D20 6020TL
Analysis started at: 3/15/2016 6:54:50 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 12

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.435 %	89.830 %	0.003 ppb	163,450.892 ppb	22,773.961 ppb	1.661 ppb	6,422.340 ppb
Concentration per Run 1	89.946 %	90.072 %	0.002 ppb	156,633.784 ppb	21,162.931 ppb	1.170 ppb	6,361.462 ppb
Concentration per Run 2	91.487 %	91.767 %	0.002 ppb	166,133.450 ppb	23,596.872 ppb	1.549 ppb	6,615.656 ppb
Concentration per Run 3	89.871 %	87.651 %	0.004 ppb	167,585.441 ppb	23,562.080 ppb	2.262 ppb	6,289.902 ppb
Concentration RSD	1.0 %	2.3 %	37.8 %	3.6 %	6.1 %	33.4 %	2.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,861.775 ppb	96.246 %	96.559 %	0.086 ppb	0.105 ppb	2.844 ppb	21.694 ppb
Concentration per Run 1	7,144.515 ppb	101.108 %	95.967 %	0.103 ppb	0.119 ppb	2.605 ppb	20.523 ppb
Concentration per Run 2	8,388.511 ppb	92.154 %	98.352 %	0.111 ppb	0.078 ppb	3.336 ppb	22.526 ppb
Concentration per Run 3	8,052.299 ppb	95.475 %	95.357 %	0.044 ppb	0.118 ppb	2.592 ppb	22.033 ppb
Concentration RSD	8.2 %	4.7 %	1.6 %	42.7 %	22.2 %	15.0 %	4.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.005 ppb	0.326 ppb	0.679 ppb	0.442 ppb	94.073 %	0.081 ppb	-1.181 ppb
Concentration per Run 1	0.007 ppb	0.298 ppb	0.615 ppb	0.387 ppb	97.265 %	0.060 ppb	-0.816 ppb
Concentration per Run 2	0.000 ppb	0.320 ppb	0.730 ppb	0.282 ppb	95.602 %	0.061 ppb	-1.091 ppb
Concentration per Run 3	0.008 ppb	0.359 ppb	0.691 ppb	0.657 ppb	89.351 %	0.122 ppb	-1.636 ppb
Concentration RSD	86.8 %	9.4 %	8.6 %	43.7 %	4.4 %	43.4 %	35.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.312 ppb	0.002 ppb	0.016 ppb	92.384 %	-0.001 ppb	0.131 ppb	5.583 ppb
Concentration per Run 1	0.330 ppb	0.015 ppb	0.020 ppb	96.521 %	-0.058 ppb	0.118 ppb	5.689 ppb
Concentration per Run 2	0.253 ppb	-0.003 ppb	0.000 ppb	88.513 %	-0.019 ppb	0.129 ppb	5.251 ppb
Concentration per Run 3	0.352 ppb	-0.007 ppb	0.028 ppb	92.119 %	0.075 ppb	0.145 ppb	5.810 ppb
Concentration RSD	16.7 %	601.7 %	90.2 %	4.3 %	7,838.1 %	10.0 %	5.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.801 %	-0.006 ppb	0.038 ppb	89.607 %
Concentration per Run 1	100.470 %	-0.005 ppb	0.039 ppb	95.206 %
Concentration per Run 2	95.703 %	-0.003 ppb	0.039 ppb	86.734 %
Concentration per Run 3	94.230 %	-0.009 ppb	0.037 ppb	86.880 %
Concentration RSD	3.4 %	45.0 %	3.8 %	5.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 110
Analysis label: L1606944-01 6020TL
Analysis started at: 3/15/2016 6:57:55 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 13

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	92.120 %	89.669 %	0.203 ppb	40,839.805 ppb	26,226.248 ppb	4,449.011 ppb	4,575.542 ppb
Concentration per Run 1	91.370 %	96.126 %	0.201 ppb	37,971.743 ppb	23,960.722 ppb	3,937.076 ppb	4,346.881 ppb
Concentration per Run 2	92.851 %	90.072 %	0.217 ppb	39,352.667 ppb	24,913.315 ppb	4,097.189 ppb	4,267.091 ppb
Concentration per Run 3	92.138 %	82.808 %	0.190 ppb	45,195.004 ppb	29,804.708 ppb	5,312.768 ppb	5,112.655 ppb
Concentration RSD	0.8 %	7.4 %	6.5 %	9.4 %	12.0 %	16.9 %	10.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	49,471.540 ppb	81.156 %	92.487 %	33.609 ppb	8.692 ppb	2,064.701 ppb	6,522.257 ppb
Concentration per Run 1	46,095.720 ppb	83.418 %	90.259 %	31.243 ppb	8.505 ppb	1,870.833 ppb	5,960.701 ppb
Concentration per Run 2	44,152.615 ppb	87.750 %	93.608 %	29.415 ppb	7.652 ppb	1,929.411 ppb	6,027.953 ppb
Concentration per Run 3	58,166.285 ppb	72.301 %	93.596 %	40.170 ppb	9.920 ppb	2,393.860 ppb	7,578.116 ppb
Concentration RSD	15.3 %	9.8 %	2.1 %	17.1 %	13.2 %	13.9 %	14.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	7.840 ppb	53.285 ppb	95.223 ppb	44.125 ppb	87.177 %	3.636 ppb	7.084 ppb
Concentration per Run 1	7.206 ppb	48.622 ppb	87.212 ppb	40.255 ppb	89.050 %	3.739 ppb	6.232 ppb
Concentration per Run 2	7.673 ppb	50.068 ppb	90.678 ppb	43.786 ppb	89.344 %	3.428 ppb	6.866 ppb
Concentration per Run 3	8.640 ppb	61.166 ppb	107.777 ppb	48.333 ppb	83.137 %	3.740 ppb	8.154 ppb
Concentration RSD	9.3 %	12.9 %	11.6 %	9.2 %	4.0 %	4.9 %	13.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.062 ppb	0.204 ppb	0.518 ppb	83.621 %	1.841 ppb	0.365 ppb	154.432 ppb
Concentration per Run 1	1.075 ppb	0.234 ppb	0.482 ppb	86.801 %	1.454 ppb	0.300 ppb	134.635 ppb
Concentration per Run 2	0.996 ppb	0.217 ppb	0.540 ppb	82.991 %	1.667 ppb	0.226 ppb	156.169 ppb
Concentration per Run 3	1.116 ppb	0.162 ppb	0.532 ppb	81.071 %	2.402 ppb	0.569 ppb	172.493 ppb
Concentration RSD	5.7 %	18.3 %	6.1 %	3.5 %	27.0 %	49.4 %	12.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.707 %	-0.006 ppb	0.752 ppb	86.503 %
Concentration per Run 1	87.855 %	-0.009 ppb	0.661 ppb	92.053 %
Concentration per Run 2	86.086 %	-0.001 ppb	0.759 ppb	87.850 %
Concentration per Run 3	80.180 %	-0.008 ppb	0.837 ppb	79.606 %
Concentration RSD	4.7 %	66.9 %	11.8 %	7.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 111
Analysis label: L1606944-02 6020TL
Analysis started at: 3/15/2016 7:00:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 14

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.532 %	97.094 %	0.010 ppb	18,916.888 ppb	35,184.657 ppb	123.213 ppb	2,141.293 ppb
Concentration per Run 1	97.887 %	106.054 %	0.012 ppb	17,475.233 ppb	30,932.791 ppb	116.360 ppb	1,995.155 ppb
Concentration per Run 2	98.798 %	94.673 %	0.007 ppb	19,803.845 ppb	37,814.419 ppb	129.564 ppb	2,292.712 ppb
Concentration per Run 3	98.912 %	90.557 %	0.012 ppb	19,471.588 ppb	36,806.762 ppb	123.716 ppb	2,136.011 ppb
Concentration RSD	0.6 %	8.3 %	26.0 %	6.7 %	10.6 %	5.4 %	7.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	98,513.118 ppb	93.598 %	98.935 %	1.218 ppb	1.189 ppb	167.655 ppb	420.431 ppb
Concentration per Run 1	90,224.616 ppb	99.735 %	99.888 %	1.415 ppb	0.838 ppb	156.613 ppb	371.308 ppb
Concentration per Run 2	107,000.255 ppb	87.244 %	99.027 %	1.173 ppb	1.406 ppb	180.171 ppb	446.699 ppb
Concentration per Run 3	98,314.482 ppb	93.814 %	97.891 %	1.066 ppb	1.324 ppb	166.182 ppb	443.284 ppb
Concentration RSD	8.5 %	6.7 %	1.0 %	14.7 %	25.8 %	7.1 %	10.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.239 ppb	3.094 ppb	28.573 ppb	23.560 ppb	98.621 %	0.501 ppb	-0.385 ppb
Concentration per Run 1	0.191 ppb	2.604 ppb	25.923 ppb	20.577 ppb	104.722 %	0.407 ppb	-0.752 ppb
Concentration per Run 2	0.324 ppb	3.538 ppb	30.201 ppb	26.259 ppb	91.466 %	0.494 ppb	-0.235 ppb
Concentration per Run 3	0.202 ppb	3.141 ppb	29.594 ppb	23.845 ppb	99.675 %	0.602 ppb	-0.168 ppb
Concentration RSD	30.9 %	15.1 %	8.1 %	12.1 %	6.8 %	19.4 %	83.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.378 ppb	0.151 ppb	0.260 ppb	94.296 %	43.903 ppb	0.683 ppb	21.865 ppb
Concentration per Run 1	2.853 ppb	0.182 ppb	0.313 ppb	98.224 %	39.505 ppb	0.764 ppb	20.224 ppb
Concentration per Run 2	3.741 ppb	0.138 ppb	0.279 ppb	92.688 %	45.945 ppb	0.807 ppb	22.147 ppb
Concentration per Run 3	3.538 ppb	0.132 ppb	0.188 ppb	91.978 %	46.258 ppb	0.479 ppb	23.224 ppb
Concentration RSD	13.8 %	18.0 %	24.9 %	3.6 %	8.7 %	26.1 %	7.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.899 %	-0.008 ppb	1.023 ppb	93.365 %
Concentration per Run 1	96.187 %	-0.006 ppb	0.988 ppb	98.134 %
Concentration per Run 2	92.973 %	-0.011 ppb	1.029 ppb	90.772 %
Concentration per Run 3	92.537 %	-0.009 ppb	1.052 ppb	91.190 %
Concentration RSD	2.1 %	31.4 %	3.2 %	4.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 112
Analysis label: L1606944-03 6020TL
Analysis started at: 3/15/2016 7:04:04 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 15

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.006 %	92.978 %	0.008 ppb	29,511.031 ppb	5,548.981 ppb	175.514 ppb	510.081 ppb
Concentration per Run 1	96.776 %	100.242 %	0.016 ppb	30,567.841 ppb	5,561.257 ppb	179.236 ppb	509.824 ppb
Concentration per Run 2	97.094 %	90.072 %	0.003 ppb	27,659.290 ppb	5,638.906 ppb	174.668 ppb	542.724 ppb
Concentration per Run 3	97.148 %	88.620 %	0.005 ppb	30,305.961 ppb	5,446.780 ppb	172.638 ppb	477.695 ppb
Concentration RSD	0.2 %	6.8 %	89.6 %	5.5 %	1.7 %	1.9 %	6.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	52,744.858 ppb	90.638 %	95.073 %	8.400 ppb	1.412 ppb	30.462 ppb	547.192 ppb
Concentration per Run 1	54,780.584 ppb	89.266 %	94.119 %	9.170 ppb	1.528 ppb	32.179 ppb	587.038 ppb
Concentration per Run 2	53,955.765 ppb	88.616 %	97.633 %	7.996 ppb	1.495 ppb	31.333 ppb	532.450 ppb
Concentration per Run 3	49,498.225 ppb	94.032 %	93.468 %	8.035 ppb	1.214 ppb	27.873 ppb	522.087 ppb
Concentration RSD	5.4 %	3.3 %	2.4 %	7.9 %	12.3 %	7.5 %	6.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.365 ppb	2.258 ppb	4.909 ppb	9.287 ppb	95.638 %	1.193 ppb	-0.003 ppb
Concentration per Run 1	0.393 ppb	2.533 ppb	4.871 ppb	10.036 ppb	94.685 %	1.178 ppb	0.134 ppb
Concentration per Run 2	0.381 ppb	2.438 ppb	5.343 ppb	9.506 ppb	97.603 %	1.169 ppb	0.060 ppb
Concentration per Run 3	0.322 ppb	1.803 ppb	4.512 ppb	8.318 ppb	94.627 %	1.231 ppb	-0.202 ppb
Concentration RSD	10.5 %	17.6 %	8.5 %	9.5 %	1.8 %	2.8 %	6,705.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.049 ppb	0.006 ppb	0.021 ppb	92.810 %	7.559 ppb	0.117 ppb	3.899 ppb
Concentration per Run 1	0.992 ppb	0.016 ppb	0.028 ppb	92.894 %	7.819 ppb	0.105 ppb	3.624 ppb
Concentration per Run 2	1.227 ppb	0.001 ppb	0.007 ppb	92.055 %	7.579 ppb	0.086 ppb	4.045 ppb
Concentration per Run 3	0.928 ppb	0.001 ppb	0.028 ppb	93.480 %	7.278 ppb	0.161 ppb	4.027 ppb
Concentration RSD	15.0 %	148.7 %	57.5 %	0.8 %	3.6 %	33.1 %	6.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.245 %	-0.001 ppb	0.329 ppb	94.117 %
Concentration per Run 1	90.797 %	-0.005 ppb	0.330 ppb	95.983 %
Concentration per Run 2	93.106 %	0.003 ppb	0.369 ppb	89.939 %
Concentration per Run 3	98.831 %	-0.002 ppb	0.287 ppb	96.428 %
Concentration RSD	4.4 %	334.3 %	12.4 %	3.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 113 Analysis started at: 3/15/2016 7:07:08 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.380 %	90.718 %	97.928 ppb	9,877.908 ppb	9,935.914 ppb	97.543 ppb	9,801.034 ppb
Concentration per Run 1	97.592 %	86.440 %	98.914 ppb	10,709.022 ppb	10,909.770 ppb	104.382 ppb	10,071.508 ppb
Concentration per Run 2	98.522 %	89.830 %	97.278 ppb	9,550.472 ppb	9,687.118 ppb	92.995 ppb	9,564.785 ppb
Concentration per Run 3	99.027 %	95.884 %	97.592 ppb	9,374.229 ppb	9,210.852 ppb	95.251 ppb	9,766.810 ppb
Recovery Percentage 1			97.928 %	98.779 %	99.359 %	97.543 %	98.010 %
Concentration RSD	0.7 %	5.3 %	0.9 %	7.3 %	8.8 %	6.2 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,566.658 ppb	89.675 %	92.645 %	97.325 ppb	93.918 ppb	96.376 ppb	9,917.648 ppb
Concentration per Run 1	10,737.364 ppb	85.367 %	92.368 %	109.105 ppb	103.141 ppb	104.135 ppb	10,559.145 ppb
Concentration per Run 2	8,980.135 ppb	93.020 %	93.389 %	88.006 ppb	88.648 ppb	92.977 ppb	9,532.948 ppb
Concentration per Run 3	8,982.475 ppb	90.637 %	92.177 %	94.864 ppb	89.966 ppb	92.017 ppb	9,660.851 ppb
Recovery Percentage 1	95.667 %			97.325 %	93.918 %	96.376 %	99.176 %
Concentration RSD	10.6 %	4.4 %	0.7 %	11.1 %	8.5 %	7.0 %	5.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	99.381 ppb	99.348 ppb	101.051 ppb	97.175 ppb	95.403 %	95.333 ppb	91.732 ppb
Concentration per Run 1	105.103 ppb	105.721 ppb	106.073 ppb	99.823 ppb	95.528 %	95.363 ppb	91.648 ppb
Concentration per Run 2	96.518 ppb	97.307 ppb	98.642 ppb	94.834 ppb	95.440 %	95.220 ppb	86.853 ppb
Concentration per Run 3	96.523 ppb	95.015 ppb	98.440 ppb	96.868 ppb	95.241 %	95.417 ppb	96.695 ppb
Recovery Percentage 1	99.381 %	99.348 %	101.051 %	97.175 %		95.333 %	91.732 %
Concentration RSD	5.0 %	5.7 %	4.3 %	2.6 %	0.2 %	0.1 %	5.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	97.962 ppb	103.328 ppb	99.924 ppb	89.536 %	101.747 ppb	101.437 ppb	95.395 ppb
Concentration per Run 1	101.600 ppb	104.110 ppb	102.829 ppb	88.963 %	103.217 ppb	105.644 ppb	102.750 ppb
Concentration per Run 2	94.978 ppb	104.594 ppb	100.517 ppb	87.779 %	102.493 ppb	98.400 ppb	91.888 ppb
Concentration per Run 3	97.308 ppb	101.280 ppb	96.425 ppb	91.867 %	99.531 ppb	100.266 ppb	91.549 ppb
Recovery Percentage 1	97.962 %	103.328 %	99.924 %		101.747 %	101.437 %	95.395 %
Concentration RSD	3.4 %	1.7 %	3.2 %	2.3 %	1.9 %	3.7 %	6.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.585 %	99.736 ppb	95.649 ppb	93.396 %
Concentration per Run 1	92.122 %	102.711 ppb	101.025 ppb	92.616 %
Concentration per Run 2	94.420 %	98.026 ppb	92.914 ppb	93.826 %
Concentration per Run 3	91.214 %	98.471 ppb	93.008 ppb	93.747 %
Recovery Percentage 1		99.736 %	95.649 %	
Concentration RSD	1.8 %	2.6 %	4.9 %	0.7 %

Analysis index: 114 Analysis started at: 3/15/2016 7:10:15 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.881 %	96.852 %	0.020 ppb	6.455 ppb	1.056 ppb	0.018 ppb	0.521 ppb
Concentration per Run 1	96.496 %	107.748 %	0.024 ppb	3.504 ppb	0.140 ppb	0.025 ppb	-5.368 ppb
Concentration per Run 2	96.170 %	94.915 %	0.017 ppb	8.467 ppb	2.054 ppb	0.736 ppb	14.711 ppb
Concentration per Run 3	97.977 %	87.893 %	0.020 ppb	7.394 ppb	0.972 ppb	-0.707 ppb	-7.780 ppb
Recovery Percentage 1			4.057 %	6.455 %	1.508 %	0.181 %	0.521 %
Concentration RSD	1.0 %	10.4 %	15.4 %	40.5 %	91.0 %	3,988.6 %	2,370.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7.656 ppb	90.229 %	89.877 %	0.039 ppb	-0.020 ppb	-0.591 ppb	2.313 ppb
Concentration per Run 1	12.299 ppb	96.198 %	89.149 %	0.022 ppb	0.005 ppb	-0.414 ppb	3.055 ppb
Concentration per Run 2	8.448 ppb	85.801 %	89.603 %	0.048 ppb	-0.032 ppb	-0.710 ppb	1.943 ppb
Concentration per Run 3	2.219 ppb	88.688 %	90.879 %	0.047 ppb	-0.033 ppb	-0.649 ppb	1.943 ppb
Recovery Percentage 1	7.656 %			0.775 %	-1.975 %	-59.127 %	4.627 %
Concentration RSD	66.4 %	5.9 %	1.0 %	38.0 %	108.7 %	26.4 %	27.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.022 ppb	0.044 ppb	0.014 ppb	-0.468 ppb	89.236 %	0.011 ppb	-0.754 ppb
Concentration per Run 1	0.008 ppb	-0.014 ppb	0.011 ppb	-0.526 ppb	90.670 %	0.011 ppb	-0.627 ppb
Concentration per Run 2	0.025 ppb	0.024 ppb	-0.009 ppb	-0.621 ppb	90.555 %	0.038 ppb	-1.408 ppb
Concentration per Run 3	0.033 ppb	0.123 ppb	0.039 ppb	-0.257 ppb	86.483 %	-0.016 ppb	-0.227 ppb
Recovery Percentage 1	4.353 %	8.843 %	1.364 %	-4.679 %	89.236 %	2.252 %	-15.080 %
Concentration RSD	59.1 %	159.6 %	177.9 %	40.3 %	2.7 %	240.9 %	79.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.528 ppb	0.030 ppb	0.009 ppb	92.234 %	0.042 ppb	0.052 ppb	-0.020 ppb
Concentration per Run 1	0.486 ppb	0.035 ppb	0.000 ppb	94.508 %	0.038 ppb	0.102 ppb	-0.010 ppb
Concentration per Run 2	0.607 ppb	0.025 ppb	0.007 ppb	91.393 %	0.027 ppb	0.067 ppb	-0.043 ppb
Concentration per Run 3	0.492 ppb	0.029 ppb	0.021 ppb	90.802 %	0.061 ppb	-0.012 ppb	-0.008 ppb
Recovery Percentage 1	17.615 %	7.484 %	4.745 %		1.409 %	2.618 %	-4.095 %
Concentration RSD	12.9 %	17.8 %	114.9 %	2.2 %	41.3 %	111.8 %	96.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	94.252 %	0.025 ppb	0.004 ppb	97.733 %
Concentration per Run 1	97.336 %	0.020 ppb	0.007 ppb	102.368 %
Concentration per Run 2	93.567 %	0.026 ppb	0.001 ppb	97.770 %
Concentration per Run 3	91.852 %	0.028 ppb	0.004 ppb	93.061 %
Recovery Percentage 1		4.908 %	0.751 %	97.733 %
Concentration RSD	3.0 %	17.4 %	73.5 %	4.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 115
Analysis label: L1606944-04 6020TL
Analysis started at: 3/15/2016 7:13:23 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 16

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.267 %	93.139 %	0.005 ppb	17,143.791 ppb	18,930.067 ppb	30.236 ppb	782.504 ppb
Concentration per Run 1	100.752 %	95.642 %	0.002 ppb	16,795.657 ppb	18,486.719 ppb	27.337 ppb	772.531 ppb
Concentration per Run 2	100.024 %	93.947 %	0.007 ppb	16,394.856 ppb	17,597.008 ppb	30.111 ppb	723.804 ppb
Concentration per Run 3	100.027 %	89.830 %	0.004 ppb	18,240.859 ppb	20,706.474 ppb	33.259 ppb	851.177 ppb
Concentration RSD	0.4 %	3.2 %	51.7 %	5.7 %	8.5 %	9.8 %	8.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	74,764.477 ppb	87.509 %	97.257 %	10.665 ppb	3.701 ppb	4.183 ppb	181.660 ppb
Concentration per Run 1	72,763.174 ppb	88.905 %	98.831 %	11.051 ppb	3.706 ppb	4.347 ppb	165.236 ppb
Concentration per Run 2	67,281.676 ppb	93.020 %	99.121 %	9.520 ppb	3.381 ppb	3.806 ppb	169.837 ppb
Concentration per Run 3	84,248.582 ppb	80.603 %	93.818 %	11.424 ppb	4.015 ppb	4.396 ppb	209.907 ppb
Concentration RSD	11.6 %	7.2 %	3.1 %	9.5 %	8.6 %	7.8 %	13.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.107 ppb	2.057 ppb	1.687 ppb	28.255 ppb	88.911 %	0.495 ppb	-0.103 ppb
Concentration per Run 1	0.080 ppb	2.366 ppb	1.744 ppb	25.868 ppb	91.358 %	0.603 ppb	0.810 ppb
Concentration per Run 2	0.125 ppb	1.742 ppb	1.614 ppb	26.068 ppb	92.563 %	0.542 ppb	-1.082 ppb
Concentration per Run 3	0.115 ppb	2.062 ppb	1.703 ppb	32.829 ppb	82.813 %	0.340 ppb	-0.036 ppb
Concentration RSD	21.9 %	15.2 %	3.9 %	14.0 %	6.0 %	27.8 %	922.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.765 ppb	0.027 ppb	0.081 ppb	89.114 %	0.330 ppb	0.231 ppb	5.027 ppb
Concentration per Run 1	0.810 ppb	0.033 ppb	0.063 ppb	91.711 %	0.273 ppb	0.304 ppb	4.497 ppb
Concentration per Run 2	0.631 ppb	0.017 ppb	0.056 ppb	91.724 %	0.353 ppb	0.165 ppb	4.150 ppb
Concentration per Run 3	0.854 ppb	0.032 ppb	0.123 ppb	83.907 %	0.363 ppb	0.225 ppb	6.432 ppb
Concentration RSD	15.4 %	33.3 %	45.5 %	5.1 %	15.0 %	30.3 %	24.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.010 %	0.005 ppb	0.257 ppb	91.721 %
Concentration per Run 1	90.581 %	0.002 ppb	0.258 ppb	95.383 %
Concentration per Run 2	94.920 %	0.008 ppb	0.223 ppb	93.843 %
Concentration per Run 3	84.530 %	0.004 ppb	0.290 ppb	85.937 %
Concentration RSD	5.8 %	62.3 %	13.0 %	5.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 116
Analysis label: L1606944-05 6020TL
Analysis started at: 3/15/2016 7:16:27 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 17

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	92.399 %	85.633 %	0.015 ppb	9,593.297 ppb	24,866.005 ppb	93.288 ppb	844.298 ppb
Concentration per Run 1	92.260 %	84.503 %	0.005 ppb	9,343.440 ppb	24,212.376 ppb	90.467 ppb	780.467 ppb
Concentration per Run 2	91.124 %	89.346 %	0.022 ppb	9,584.904 ppb	25,463.452 ppb	98.794 ppb	927.605 ppb
Concentration per Run 3	93.814 %	83.050 %	0.016 ppb	9,851.546 ppb	24,922.186 ppb	90.603 ppb	824.824 ppb
Concentration RSD	1.5 %	3.8 %	58.3 %	2.6 %	2.5 %	5.1 %	8.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	72,193.175 ppb	87.437 %	87.549 %	20.095 ppb	1.267 ppb	639.231 ppb	3,642.210 ppb
Concentration per Run 1	67,409.727 ppb	94.609 %	86.898 %	18.310 ppb	1.176 ppb	619.606 ppb	3,498.358 ppb
Concentration per Run 2	76,892.910 ppb	81.613 %	87.378 %	21.443 ppb	1.245 ppb	646.949 ppb	3,628.579 ppb
Concentration per Run 3	72,276.886 ppb	86.089 %	88.371 %	20.530 ppb	1.379 ppb	651.138 ppb	3,799.692 ppb
Concentration RSD	6.6 %	7.6 %	0.9 %	8.0 %	8.1 %	2.7 %	4.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.446 ppb	3.416 ppb	3.344 ppb	20.181 ppb	87.287 %	2.325 ppb	-0.080 ppb
Concentration per Run 1	0.445 ppb	3.519 ppb	3.316 ppb	20.512 ppb	87.000 %	2.158 ppb	0.207 ppb
Concentration per Run 2	0.451 ppb	3.220 ppb	3.115 ppb	19.364 ppb	91.645 %	2.266 ppb	-0.616 ppb
Concentration per Run 3	0.443 ppb	3.509 ppb	3.601 ppb	20.666 ppb	83.215 %	2.551 ppb	0.169 ppb
Concentration RSD	0.9 %	5.0 %	7.3 %	3.5 %	4.8 %	8.7 %	583.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.541 ppb	0.026 ppb	0.218 ppb	87.790 %	0.051 ppb	0.112 ppb	14.535 ppb
Concentration per Run 1	0.561 ppb	0.018 ppb	0.225 ppb	89.280 %	0.065 ppb	0.089 ppb	14.169 ppb
Concentration per Run 2	0.616 ppb	0.026 ppb	0.175 ppb	87.885 %	0.016 ppb	0.091 ppb	14.571 ppb
Concentration per Run 3	0.446 ppb	0.036 ppb	0.255 ppb	86.204 %	0.071 ppb	0.156 ppb	14.865 ppb
Concentration RSD	16.0 %	34.0 %	18.4 %	1.8 %	59.0 %	34.0 %	2.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	87.155 %	0.003 ppb	0.157 ppb	89.071 %
Concentration per Run 1	89.505 %	-0.008 ppb	0.175 ppb	91.050 %
Concentration per Run 2	86.857 %	0.008 ppb	0.133 ppb	89.051 %
Concentration per Run 3	85.101 %	0.008 ppb	0.164 ppb	87.113 %
Concentration RSD	2.5 %	350.5 %	13.9 %	2.2 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 117
Analysis label: L1606944-06 6020TL
Analysis started at: 3/15/2016 7:19:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 18

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	92.973 %	90.234 %	0.009 ppb	13,877.246 ppb	18,372.766 ppb	121.072 ppb	1,736.144 ppb
Concentration per Run 1	93.285 %	91.041 %	0.004 ppb	13,997.545 ppb	18,245.098 ppb	121.166 ppb	1,613.572 ppb
Concentration per Run 2	92.863 %	87.409 %	0.002 ppb	13,628.962 ppb	18,172.535 ppb	120.069 ppb	1,779.944 ppb
Concentration per Run 3	92.770 %	92.252 %	0.020 ppb	14,005.231 ppb	18,700.666 ppb	121.981 ppb	1,814.916 ppb
Concentration RSD	0.3 %	2.8 %	117.5 %	1.5 %	1.6 %	0.8 %	6.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	36,211.880 ppb	87.365 %	88.750 %	10.755 ppb	1.588 ppb	706.916 ppb	182.923 ppb
Concentration per Run 1	35,108.825 ppb	89.049 %	88.989 %	10.696 ppb	1.674 ppb	677.523 ppb	181.018 ppb
Concentration per Run 2	36,243.251 ppb	90.276 %	90.511 %	10.356 ppb	1.646 ppb	694.941 ppb	181.198 ppb
Concentration per Run 3	37,283.563 ppb	82.768 %	86.750 %	11.212 ppb	1.445 ppb	748.283 ppb	186.553 ppb
Concentration RSD	3.0 %	4.6 %	2.1 %	4.0 %	7.9 %	5.2 %	1.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.330 ppb	4.457 ppb	13.416 ppb	11.995 ppb	87.611 %	0.692 ppb	-0.336 ppb
Concentration per Run 1	0.389 ppb	4.223 ppb	13.394 ppb	11.583 ppb	89.236 %	0.782 ppb	-0.650 ppb
Concentration per Run 2	0.291 ppb	4.671 ppb	13.083 ppb	11.473 ppb	88.089 %	0.794 ppb	-0.207 ppb
Concentration per Run 3	0.309 ppb	4.478 ppb	13.770 ppb	12.928 ppb	85.508 %	0.501 ppb	-0.149 ppb
Concentration RSD	15.7 %	5.1 %	2.6 %	6.8 %	2.2 %	23.9 %	81.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.724 ppb	0.062 ppb	0.138 ppb	88.043 %	0.306 ppb	0.139 ppb	32.997 ppb
Concentration per Run 1	0.643 ppb	0.033 ppb	0.106 ppb	91.667 %	0.322 ppb	0.106 ppb	31.042 ppb
Concentration per Run 2	0.774 ppb	0.074 ppb	0.174 ppb	84.867 %	0.373 ppb	0.178 ppb	33.969 ppb
Concentration per Run 3	0.756 ppb	0.080 ppb	0.133 ppb	87.596 %	0.223 ppb	0.133 ppb	33.981 ppb
Concentration RSD	9.8 %	41.3 %	25.0 %	3.9 %	25.0 %	26.1 %	5.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.156 %	-0.011 ppb	0.065 ppb	89.085 %
Concentration per Run 1	91.466 %	-0.014 ppb	0.069 ppb	90.363 %
Concentration per Run 2	89.870 %	-0.012 ppb	0.061 ppb	90.162 %
Concentration per Run 3	86.133 %	-0.006 ppb	0.065 ppb	86.731 %
Concentration RSD	3.1 %	35.5 %	5.9 %	2.3 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 118
Analysis label: L1606944-07 6020TL
Analysis started at: 3/15/2016 7:22:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 19

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	87.651 %	84.261 %	0.045 ppb	103,752.732 ppb	10,328.070 ppb	314.667 ppb	25,500.092 ppb
Concentration per Run 1	88.161 %	92.009 %	0.039 ppb	95,817.586 ppb	9,587.902 ppb	284.928 ppb	24,658.768 ppb
Concentration per Run 2	87.392 %	80.145 %	0.051 ppb	109,005.151 ppb	10,865.998 ppb	337.935 ppb	26,599.773 ppb
Concentration per Run 3	87.401 %	80.629 %	0.044 ppb	106,435.459 ppb	10,530.309 ppb	321.136 ppb	25,241.734 ppb
Concentration RSD	0.5 %	8.0 %	14.1 %	6.7 %	6.4 %	8.6 %	3.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	50,859.259 ppb	84.381 %	83.674 %	6.161 ppb	2.282 ppb	705.464 ppb	10,592.394 ppb
Concentration per Run 1	46,752.553 ppb	85.007 %	83.956 %	5.778 ppb	2.581 ppb	680.940 ppb	10,196.273 ppb
Concentration per Run 2	54,649.460 ppb	82.696 %	82.491 %	6.607 ppb	2.256 ppb	735.829 ppb	11,198.324 ppb
Concentration per Run 3	51,175.763 ppb	85.439 %	84.575 %	6.099 ppb	2.008 ppb	699.624 ppb	10,382.584 ppb
Concentration RSD	7.8 %	1.7 %	1.3 %	6.8 %	12.6 %	4.0 %	5.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	4.795 ppb	3.144 ppb	8.807 ppb	5.872 ppb	83.882 %	2.337 ppb	-0.501 ppb
Concentration per Run 1	4.890 ppb	3.077 ppb	8.356 ppb	5.624 ppb	87.344 %	1.981 ppb	-0.135 ppb
Concentration per Run 2	4.951 ppb	3.009 ppb	9.489 ppb	6.306 ppb	80.692 %	2.605 ppb	-0.975 ppb
Concentration per Run 3	4.546 ppb	3.345 ppb	8.576 ppb	5.687 ppb	83.609 %	2.425 ppb	-0.395 ppb
Concentration RSD	4.6 %	5.6 %	6.8 %	6.4 %	4.0 %	13.8 %	85.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	127.529 ppb	9.733 ppb	2.011 ppb	82.947 %	1.709 ppb	0.139 ppb	45.673 ppb
Concentration per Run 1	113.504 ppb	8.839 ppb	1.922 ppb	89.101 %	1.328 ppb	0.150 ppb	42.361 ppb
Concentration per Run 2	137.839 ppb	10.297 ppb	2.297 ppb	77.776 %	2.129 ppb	0.126 ppb	49.934 ppb
Concentration per Run 3	131.244 ppb	10.063 ppb	1.814 ppb	81.965 %	1.669 ppb	0.141 ppb	44.723 ppb
Concentration RSD	9.9 %	8.0 %	12.6 %	6.9 %	23.5 %	8.7 %	8.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.837 %	-0.006 ppb	1.586 ppb	83.084 %
Concentration per Run 1	90.576 %	-0.002 ppb	1.404 ppb	86.797 %
Concentration per Run 2	83.283 %	-0.008 ppb	1.786 ppb	78.848 %
Concentration per Run 3	86.653 %	-0.006 ppb	1.567 ppb	83.606 %
Concentration RSD	4.2 %	52.0 %	12.1 %	4.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 119
Analysis label: L1607073-01 6020TL
Analysis started at: 3/15/2016 7:25:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 20

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.049 %	90.799 %	0.073 ppb	79,940.926 ppb	16,163.417 ppb	148.984 ppb	5,872.292 ppb
Concentration per Run 1	95.112 %	91.525 %	0.099 ppb	82,450.531 ppb	17,100.192 ppb	169.753 ppb	6,294.001 ppb
Concentration per Run 2	95.352 %	92.978 %	0.070 ppb	77,962.730 ppb	15,153.413 ppb	129.917 ppb	5,355.793 ppb
Concentration per Run 3	94.684 %	87.893 %	0.050 ppb	79,409.519 ppb	16,236.645 ppb	147.281 ppb	5,967.082 ppb
Concentration RSD	0.4 %	2.9 %	33.9 %	2.9 %	6.0 %	13.4 %	8.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	109,981.859 ppb	90.036 %	88.449 %	0.785 ppb	2.154 ppb	2,564.833 ppb	1,751.115 ppb
Concentration per Run 1	120,355.353 ppb	87.605 %	88.309 %	0.686 ppb	4.330 ppb	2,898.091 ppb	2,026.121 ppb
Concentration per Run 2	98,458.633 ppb	93.237 %	89.880 %	0.666 ppb	0.860 ppb	2,291.245 ppb	1,563.383 ppb
Concentration per Run 3	111,131.590 ppb	89.266 %	87.159 %	1.002 ppb	1.273 ppb	2,505.163 ppb	1,663.842 ppb
Concentration RSD	10.0 %	3.2 %	1.5 %	24.0 %	88.0 %	12.0 %	13.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	17.949 ppb	87.411 ppb	3.827 ppb	15.114 ppb	91.829 %	0.561 ppb	-0.690 ppb
Concentration per Run 1	19.864 ppb	98.346 ppb	4.241 ppb	16.409 ppb	86.642 %	0.750 ppb	-0.190 ppb
Concentration per Run 2	16.258 ppb	79.893 ppb	3.354 ppb	14.324 ppb	92.333 %	0.463 ppb	-0.716 ppb
Concentration per Run 3	17.723 ppb	83.994 ppb	3.886 ppb	14.608 ppb	96.513 %	0.469 ppb	-1.164 ppb
Concentration RSD	10.1 %	11.1 %	11.7 %	7.5 %	5.4 %	29.2 %	70.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.466 ppb	0.095 ppb	0.273 ppb	88.135 %	0.125 ppb	0.363 ppb	30.768 ppb
Concentration per Run 1	1.465 ppb	0.107 ppb	0.345 ppb	86.055 %	0.159 ppb	0.219 ppb	34.746 ppb
Concentration per Run 2	1.326 ppb	0.084 ppb	0.253 ppb	91.836 %	0.043 ppb	0.380 ppb	26.140 ppb
Concentration per Run 3	1.607 ppb	0.095 ppb	0.221 ppb	86.513 %	0.175 ppb	0.489 ppb	31.419 ppb
Concentration RSD	9.6 %	12.1 %	23.5 %	3.6 %	57.4 %	37.5 %	14.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.382 %	0.158 ppb	1.051 ppb	85.168 %
Concentration per Run 1	86.624 %	0.160 ppb	1.142 ppb	80.466 %
Concentration per Run 2	94.442 %	0.150 ppb	0.953 ppb	87.985 %
Concentration per Run 3	87.078 %	0.163 ppb	1.058 ppb	87.053 %
Concentration RSD	4.9 %	4.1 %	9.0 %	4.8 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 120
Analysis label: L1607073-03 6020TL
Analysis started at: 3/15/2016 7:28:44 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 21

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	94.147 %	91.202 %	0.350 ppb	82,812.841 ppb	17,057.808 ppb	115.123 ppb	6,141.593 ppb
Concentration per Run 1	94.551 %	91.767 %	0.370 ppb	84,977.658 ppb	17,265.771 ppb	121.858 ppb	6,097.583 ppb
Concentration per Run 2	93.433 %	90.799 %	0.338 ppb	82,421.483 ppb	17,070.325 ppb	111.480 ppb	6,272.176 ppb
Concentration per Run 3	94.458 %	91.041 %	0.343 ppb	81,039.383 ppb	16,837.327 ppb	112.031 ppb	6,055.020 ppb
Concentration RSD	0.7 %	0.6 %	4.9 %	2.4 %	1.3 %	5.1 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	117,196.694 ppb	82.696 %	89.428 %	0.734 ppb	1.625 ppb	2,781.423 ppb	1,805.399 ppb
Concentration per Run 1	117,044.831 ppb	83.346 %	87.635 %	0.955 ppb	1.628 ppb	2,734.526 ppb	1,802.901 ppb
Concentration per Run 2	118,038.221 ppb	81.686 %	89.194 %	0.757 ppb	1.554 ppb	2,839.722 ppb	1,838.494 ppb
Concentration per Run 3	116,507.031 ppb	83.057 %	91.455 %	0.491 ppb	1.693 ppb	2,770.022 ppb	1,774.803 ppb
Concentration RSD	0.7 %	1.1 %	2.1 %	31.8 %	4.3 %	1.9 %	1.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.770 ppb	94.675 ppb	3.063 ppb	17.272 ppb	86.632 %	0.869 ppb	-0.204 ppb
Concentration per Run 1	19.903 ppb	94.550 ppb	3.249 ppb	16.763 ppb	88.362 %	0.792 ppb	-1.154 ppb
Concentration per Run 2	20.102 ppb	97.172 ppb	2.701 ppb	17.987 ppb	82.641 %	1.054 ppb	0.226 ppb
Concentration per Run 3	19.306 ppb	92.304 ppb	3.239 ppb	17.068 ppb	88.893 %	0.760 ppb	0.315 ppb
Concentration RSD	2.1 %	2.6 %	10.2 %	3.7 %	4.0 %	18.6 %	402.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.572 ppb	0.313 ppb	0.532 ppb	82.834 %	0.368 ppb	0.619 ppb	32.156 ppb
Concentration per Run 1	1.793 ppb	0.310 ppb	0.545 ppb	83.601 %	0.346 ppb	0.590 ppb	33.117 ppb
Concentration per Run 2	1.552 ppb	0.364 ppb	0.561 ppb	84.082 %	0.361 ppb	0.567 ppb	30.657 ppb
Concentration per Run 3	1.372 ppb	0.266 ppb	0.490 ppb	80.819 %	0.398 ppb	0.700 ppb	32.696 ppb
Concentration RSD	13.4 %	15.8 %	7.0 %	2.1 %	7.4 %	11.4 %	4.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.805 %	0.371 ppb	1.306 ppb	83.072 %
Concentration per Run 1	86.909 %	0.356 ppb	1.320 ppb	86.450 %
Concentration per Run 2	85.874 %	0.370 ppb	1.281 ppb	82.885 %
Concentration per Run 3	84.633 %	0.387 ppb	1.316 ppb	79.881 %
Concentration RSD	1.3 %	4.2 %	1.6 %	4.0 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 121
Analysis label: WG872439-4D50 MCP-6020TS

Analysis started at: 3/15/2016 7:31:49 PM
User name: ALPHALAB\a1metalsinstrument

Rack: 2
Vial: 22

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.615 %	94.108 %	2.075 ppb	429.289 ppb	1,235.860 ppb	2,460.211 ppb	486.119 ppb
Concentration per Run 1	95.474 %	93.947 %	2.072 ppb	404.024 ppb	1,172.163 ppb	2,272.566 ppb	462.912 ppb
Concentration per Run 2	94.957 %	91.041 %	2.104 ppb	454.247 ppb	1,253.249 ppb	2,611.126 ppb	522.384 ppb
Concentration per Run 3	96.414 %	97.336 %	2.051 ppb	429.596 ppb	1,282.167 ppb	2,496.942 ppb	473.061 ppb
Concentration RSD	0.8 %	3.3 %	1.3 %	5.8 %	4.6 %	7.0 %	6.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,857.328 ppb	88.111 %	88.133 %	30.412 ppb	11.096 ppb	123.779 ppb	5,733.606 ppb
Concentration per Run 1	1,593.168 ppb	91.432 %	87.249 %	27.417 ppb	9.663 ppb	113.834 ppb	5,337.263 ppb
Concentration per Run 2	1,962.649 ppb	85.873 %	88.746 %	31.423 ppb	12.025 ppb	128.355 ppb	6,038.889 ppb
Concentration per Run 3	2,016.167 ppb	87.028 %	88.402 %	32.396 ppb	11.601 ppb	129.146 ppb	5,824.666 ppb
Concentration RSD	12.4 %	3.3 %	0.9 %	8.7 %	11.4 %	7.0 %	6.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	21.693 ppb	24.817 ppb	25.619 ppb	46.745 ppb	87.624 %	6.968 ppb	5.396 ppb
Concentration per Run 1	19.634 ppb	23.863 ppb	23.611 ppb	43.658 ppb	91.301 %	6.747 ppb	6.066 ppb
Concentration per Run 2	22.787 ppb	25.230 ppb	26.255 ppb	48.484 ppb	86.527 %	6.429 ppb	5.163 ppb
Concentration per Run 3	22.659 ppb	25.358 ppb	26.990 ppb	48.091 ppb	85.043 %	7.728 ppb	4.958 ppb
Concentration RSD	8.2 %	3.3 %	6.9 %	5.7 %	3.7 %	9.7 %	10.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	38.251 ppb	12.732 ppb	2.200 ppb	86.627 %	42.159 ppb	17.405 ppb	113.175 ppb
Concentration per Run 1	35.091 ppb	12.247 ppb	1.972 ppb	87.254 %	39.903 ppb	16.154 ppb	106.753 ppb
Concentration per Run 2	39.610 ppb	13.220 ppb	2.351 ppb	87.644 %	43.631 ppb	17.294 ppb	113.742 ppb
Concentration per Run 3	40.051 ppb	12.729 ppb	2.277 ppb	84.982 %	42.943 ppb	18.768 ppb	119.030 ppb
Concentration RSD	7.2 %	3.8 %	9.1 %	1.7 %	4.7 %	7.5 %	5.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.240 %	3.430 ppb	107.905 ppb	95.900 %
Concentration per Run 1	93.308 %	3.250 ppb	101.206 ppb	102.011 %
Concentration per Run 2	88.946 %	3.537 ppb	110.020 ppb	93.294 %
Concentration per Run 3	88.466 %	3.502 ppb	112.487 ppb	92.396 %
Concentration RSD	3.0 %	4.6 %	5.5 %	5.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 122
Analysis label: WG872439-5D50 MCP-6020TS-10
Analysis started at: 3/15/2016 7:34:54 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 23

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.431 %	88.942 %	2.142 ppb	469.043 ppb	1,374.236 ppb	2,530.233 ppb	510.807 ppb
Concentration per Run 1	94.271 %	95.399 %	2.030 ppb	431.566 ppb	1,224.093 ppb	2,227.366 ppb	523.300 ppb
Concentration per Run 2	95.565 %	86.440 %	2.150 ppb	499.140 ppb	1,467.061 ppb	2,738.067 ppb	530.918 ppb
Concentration per Run 3	96.459 %	84.987 %	2.247 ppb	476.422 ppb	1,431.553 ppb	2,625.266 ppb	478.202 ppb
Concentration RSD	1.2 %	6.3 %	5.1 %	7.3 %	9.5 %	10.6 %	5.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,374.856 ppb	85.295 %	86.114 %	34.697 ppb	11.103 ppb	92.001 ppb	7,194.200 ppb
Concentration per Run 1	2,139.293 ppb	90.421 %	86.162 %	33.301 ppb	10.450 ppb	84.430 ppb	6,871.174 ppb
Concentration per Run 2	2,480.026 ppb	81.397 %	87.970 %	34.534 ppb	11.662 ppb	96.434 ppb	7,329.995 ppb
Concentration per Run 3	2,505.248 ppb	84.068 %	84.210 %	36.256 ppb	11.198 ppb	95.139 ppb	7,381.431 ppb
Concentration RSD	8.6 %	5.4 %	2.2 %	4.3 %	5.5 %	7.2 %	3.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	22.483 ppb	26.110 ppb	29.098 ppb	44.899 ppb	89.425 %	6.930 ppb	4.669 ppb
Concentration per Run 1	22.031 ppb	25.157 ppb	28.690 ppb	44.310 ppb	86.483 %	7.072 ppb	4.113 ppb
Concentration per Run 2	22.845 ppb	27.320 ppb	29.785 ppb	45.843 ppb	89.696 %	6.839 ppb	6.169 ppb
Concentration per Run 3	22.572 ppb	25.852 ppb	28.819 ppb	44.545 ppb	92.097 %	6.879 ppb	3.724 ppb
Concentration RSD	1.8 %	4.2 %	2.1 %	1.8 %	3.1 %	1.8 %	28.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	38.368 ppb	12.444 ppb	2.281 ppb	88.779 %	43.737 ppb	16.043 ppb	111.319 ppb
Concentration per Run 1	36.884 ppb	12.078 ppb	2.116 ppb	94.009 %	41.341 ppb	14.385 ppb	104.403 ppb
Concentration per Run 2	39.008 ppb	12.577 ppb	2.282 ppb	86.448 %	45.803 ppb	17.095 ppb	117.206 ppb
Concentration per Run 3	39.211 ppb	12.676 ppb	2.446 ppb	85.879 %	44.067 ppb	16.650 ppb	112.348 ppb
Concentration RSD	3.4 %	2.6 %	7.2 %	5.1 %	5.1 %	9.1 %	5.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.322 %	3.762 ppb	86.470 ppb	94.140 %
Concentration per Run 1	94.861 %	3.643 ppb	81.450 ppb	97.250 %
Concentration per Run 2	87.722 %	3.856 ppb	89.014 ppb	94.344 %
Concentration per Run 3	88.383 %	3.787 ppb	88.945 ppb	90.827 %
Concentration RSD	4.4 %	2.9 %	5.0 %	3.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 123
Analysis label: L1606551-05D10 MCP-6020TS-10
Analysis started at: 3/15/2016 7:37:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 24

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.780 %	92.413 %	0.668 ppb	108.147 ppb	3,749.662 ppb	9,817.267 ppb	511.853 ppb
Concentration per Run 1	86.528 %	91.525 %	0.712 ppb	102.266 ppb	3,568.768 ppb	9,395.521 ppb	477.926 ppb
Concentration per Run 2	93.123 %	96.610 %	0.628 ppb	107.321 ppb	3,636.612 ppb	9,356.615 ppb	524.875 ppb
Concentration per Run 3	92.689 %	89.104 %	0.665 ppb	114.853 ppb	4,043.606 ppb	10,699.664 ppb	532.756 ppb
Concentration RSD	4.1 %	4.1 %	6.3 %	5.9 %	6.8 %	7.8 %	5.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	6,735.801 ppb	88.135 %	85.183 %	47.780 ppb	20.539 ppb	399.789 ppb	32,205.750 ppb
Concentration per Run 1	6,016.635 ppb	93.454 %	86.662 %	43.844 ppb	19.446 ppb	373.087 ppb	29,159.445 ppb
Concentration per Run 2	6,926.433 ppb	86.739 %	84.112 %	47.076 ppb	19.991 ppb	406.815 ppb	31,871.801 ppb
Concentration per Run 3	7,264.336 ppb	84.212 %	84.775 %	52.421 ppb	22.182 ppb	419.465 ppb	35,586.005 ppb
Concentration RSD	9.6 %	5.4 %	1.6 %	9.1 %	7.1 %	6.0 %	10.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	11.105 ppb	25.068 ppb	75.963 ppb	124.103 ppb	91.463 %	7.468 ppb	8.368 ppb
Concentration per Run 1	10.181 ppb	24.002 ppb	71.795 ppb	113.426 ppb	95.740 %	6.917 ppb	9.831 ppb
Concentration per Run 2	10.989 ppb	24.159 ppb	75.115 ppb	126.324 ppb	89.884 %	6.956 ppb	8.667 ppb
Concentration per Run 3	12.145 ppb	27.042 ppb	80.979 ppb	132.559 ppb	88.764 %	8.531 ppb	6.604 ppb
Concentration RSD	8.9 %	6.8 %	6.1 %	7.9 %	4.1 %	12.3 %	19.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.631 ppb	0.060 ppb	0.512 ppb	87.968 %	83.621 ppb	1.314 ppb	155.337 ppb
Concentration per Run 1	1.809 ppb	0.066 ppb	0.452 ppb	94.008 %	78.124 ppb	1.040 ppb	141.565 ppb
Concentration per Run 2	1.345 ppb	0.054 ppb	0.425 ppb	89.595 %	79.824 ppb	1.455 ppb	150.577 ppb
Concentration per Run 3	1.739 ppb	0.060 ppb	0.660 ppb	80.301 %	92.916 ppb	1.446 ppb	173.868 ppb
Concentration RSD	15.3 %	10.1 %	25.1 %	8.0 %	9.7 %	18.1 %	10.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.204 %	0.083 ppb	287.044 ppb	96.455 %
Concentration per Run 1	98.327 %	0.065 ppb	270.322 ppb	99.650 %
Concentration per Run 2	92.685 %	0.086 ppb	288.515 ppb	98.030 %
Concentration per Run 3	82.601 %	0.099 ppb	302.296 ppb	91.685 %
Concentration RSD	8.7 %	20.7 %	5.6 %	4.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 124
Analysis label: L1607142-04D5 6020TL
Analysis started at: 3/15/2016 7:41:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 25

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.833 %	82.970 %	0.019 ppb	71,251.445 ppb	7,114.833 ppb	84.828 ppb	3,341.311 ppb
Concentration per Run 1	86.386 %	86.925 %	0.017 ppb	64,109.521 ppb	6,291.898 ppb	73.209 ppb	3,065.537 ppb
Concentration per Run 2	87.012 %	84.261 %	0.022 ppb	72,938.010 ppb	7,022.591 ppb	85.872 ppb	3,297.531 ppb
Concentration per Run 3	87.100 %	77.723 %	0.017 ppb	76,706.802 ppb	8,030.011 ppb	95.404 ppb	3,660.863 ppb
Concentration RSD	0.4 %	5.7 %	16.0 %	9.1 %	12.3 %	13.1 %	9.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,344.377 ppb	85.608 %	83.309 %	0.454 ppb	1.001 ppb	54.231 ppb	5,758.784 ppb
Concentration per Run 1	6,675.367 ppb	92.876 %	82.560 %	0.532 ppb	0.885 ppb	45.865 ppb	4,932.159 ppb
Concentration per Run 2	7,610.147 ppb	84.140 %	83.106 %	0.494 ppb	1.031 ppb	57.288 ppb	5,923.560 ppb
Concentration per Run 3	7,747.616 ppb	79.808 %	84.260 %	0.338 ppb	1.088 ppb	59.539 ppb	6,420.634 ppb
Concentration RSD	7.9 %	7.8 %	1.0 %	22.6 %	10.5 %	13.5 %	13.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.650 ppb	1.786 ppb	8.372 ppb	11.946 ppb	85.105 %	4.859 ppb	-0.562 ppb
Concentration per Run 1	2.334 ppb	1.508 ppb	6.759 ppb	10.493 ppb	94.793 %	4.035 ppb	-0.102 ppb
Concentration per Run 2	2.670 ppb	1.754 ppb	8.117 ppb	12.320 ppb	81.896 %	4.995 ppb	-1.043 ppb
Concentration per Run 3	2.945 ppb	2.096 ppb	10.240 ppb	13.024 ppb	78.627 %	5.545 ppb	-0.541 ppb
Concentration RSD	11.6 %	16.5 %	21.0 %	10.9 %	10.0 %	15.7 %	83.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.476 ppb	0.014 ppb	0.157 ppb	83.170 %	0.936 ppb	5.540 ppb	43.926 ppb
Concentration per Run 1	0.541 ppb	0.001 ppb	0.160 ppb	88.152 %	0.693 ppb	4.975 ppb	38.053 ppb
Concentration per Run 2	0.409 ppb	0.025 ppb	0.142 ppb	81.789 %	0.996 ppb	5.428 ppb	44.188 ppb
Concentration per Run 3	0.478 ppb	0.017 ppb	0.170 ppb	79.570 %	1.119 ppb	6.215 ppb	49.537 ppb
Concentration RSD	13.9 %	83.2 %	9.1 %	5.4 %	23.4 %	11.3 %	13.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.612 %	0.003 ppb	9.333 ppb	87.182 %
Concentration per Run 1	95.997 %	-0.002 ppb	8.323 ppb	91.903 %
Concentration per Run 2	86.692 %	0.006 ppb	9.718 ppb	86.529 %
Concentration per Run 3	86.147 %	0.006 ppb	9.957 ppb	83.115 %
Concentration RSD	6.2 %	142.0 %	9.5 %	5.1 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 125 Analysis started at: 3/15/2016 7:44:09 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	91.816 %	84.261 %	96.022 ppb	9,820.554 ppb	9,704.224 ppb	94.784 ppb	9,526.102 ppb
Concentration per Run 1	90.435 %	88.135 %	97.191 ppb	9,465.627 ppb	9,247.662 ppb	85.670 ppb	8,924.786 ppb
Concentration per Run 2	93.164 %	84.745 %	95.340 ppb	9,936.502 ppb	9,857.832 ppb	92.077 ppb	9,639.962 ppb
Concentration per Run 3	91.849 %	79.903 %	95.536 ppb	10,059.534 ppb	10,007.179 ppb	106.606 ppb	10,013.558 ppb
Recovery Percentage 1			96.022 %	98.206 %	97.042 %	94.784 %	95.261 %
Concentration RSD	1.5 %	4.9 %	1.1 %	3.2 %	4.1 %	11.3 %	5.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,503.071 ppb	82.383 %	87.404 %	95.369 ppb	95.282 ppb	94.119 ppb	9,882.058 ppb
Concentration per Run 1	8,984.284 ppb	83.418 %	85.702 %	90.983 ppb	93.053 ppb	92.678 ppb	9,551.825 ppb
Concentration per Run 2	9,942.083 ppb	83.707 %	89.376 %	97.952 ppb	97.942 ppb	95.201 ppb	10,025.056 ppb
Concentration per Run 3	9,582.845 ppb	80.025 %	87.134 %	97.173 ppb	94.850 ppb	94.477 ppb	10,069.293 ppb
Recovery Percentage 1	95.031 %			95.369 %	95.282 %	94.119 %	98.821 %
Concentration RSD	5.1 %	2.5 %	2.1 %	4.0 %	2.6 %	1.4 %	2.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	99.919 ppb	104.026 ppb	101.345 ppb	100.272 ppb	83.400 %	99.184 ppb	92.728 ppb
Concentration per Run 1	93.988 ppb	100.156 ppb	93.286 ppb	95.851 ppb	85.411 %	93.897 ppb	96.881 ppb
Concentration per Run 2	102.518 ppb	104.234 ppb	106.110 ppb	103.079 ppb	81.147 %	100.203 ppb	93.037 ppb
Concentration per Run 3	103.252 ppb	107.690 ppb	104.638 ppb	101.886 ppb	83.643 %	103.452 ppb	88.265 ppb
Recovery Percentage 1	99.919 %	104.026 %	101.345 %	100.272 %		99.184 %	92.728 %
Concentration RSD	5.2 %	3.6 %	6.9 %	3.9 %	2.6 %	4.9 %	4.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	97.139 ppb	103.122 ppb	96.181 ppb	88.172 %	99.285 ppb	98.145 ppb	93.360 ppb
Concentration per Run 1	95.400 ppb	102.783 ppb	94.336 ppb	89.999 %	92.322 ppb	93.542 ppb	90.433 ppb
Concentration per Run 2	95.812 ppb	101.251 ppb	95.549 ppb	90.197 %	99.228 ppb	97.563 ppb	92.709 ppb
Concentration per Run 3	100.204 ppb	105.333 ppb	98.657 ppb	84.319 %	106.304 ppb	103.330 ppb	96.939 ppb
Recovery Percentage 1	97.139 %	103.122 %	96.181 %		99.285 %	98.145 %	93.360 %
Concentration RSD	2.7 %	2.0 %	2.3 %	3.8 %	7.0 %	5.0 %	3.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.573 %	95.730 ppb	107.467 ppb	92.463 %
Concentration per Run 1	92.924 %	92.480 ppb	103.328 ppb	95.976 %
Concentration per Run 2	87.820 %	99.475 ppb	111.056 ppb	89.624 %
Concentration per Run 3	90.975 %	95.235 ppb	108.016 ppb	91.788 %
Recovery Percentage 1		95.730 %	107.467 %	
Concentration RSD	2.8 %	3.7 %	3.6 %	3.5 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 126 Analysis started at: 3/15/2016 7:47:17 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	90.417 %	82.243 %	0.015 ppb	9.265 ppb	1.681 ppb	-0.084 ppb	2.895 ppb
Concentration per Run 1	90.136 %	83.777 %	0.009 ppb	8.410 ppb	2.705 ppb	0.159 ppb	-0.970 ppb
Concentration per Run 2	91.598 %	83.050 %	0.017 ppb	10.738 ppb	2.448 ppb	-0.681 ppb	1.867 ppb
Concentration per Run 3	89.518 %	79.903 %	0.019 ppb	8.646 ppb	-0.111 ppb	0.269 ppb	7.789 ppb
Recovery Percentage 1			3.036 %	9.265 %	2.401 %	-0.844 %	2.895 %
Concentration RSD	1.2 %	2.5 %	35.5 %	13.8 %	92.7 %	615.5 %	154.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	11.830 ppb	86.138 %	86.754 %	0.054 ppb	0.010 ppb	-0.594 ppb	2.916 ppb
Concentration per Run 1	6.530 ppb	95.042 %	86.272 %	0.088 ppb	-0.008 ppb	-0.701 ppb	2.472 ppb
Concentration per Run 2	16.716 ppb	79.447 %	87.999 %	0.026 ppb	-0.011 ppb	-0.479 ppb	1.395 ppb
Concentration per Run 3	12.243 ppb	83.923 %	85.992 %	0.049 ppb	0.048 ppb	-0.601 ppb	4.882 ppb
Recovery Percentage 1	11.830 %			1.086 %	0.989 %	-59.392 %	5.833 %
Concentration RSD	43.2 %	9.3 %	1.3 %	58.4 %	335.1 %	18.7 %	61.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.028 ppb	0.038 ppb	0.001 ppb	-0.593 ppb	86.847 %	0.022 ppb	0.039 ppb
Concentration per Run 1	0.016 ppb	0.019 ppb	-0.033 ppb	-0.626 ppb	87.917 %	0.040 ppb	-0.478 ppb
Concentration per Run 2	0.026 ppb	0.067 ppb	0.018 ppb	-0.517 ppb	85.853 %	-0.016 ppb	0.950 ppb
Concentration per Run 3	0.042 ppb	0.028 ppb	0.016 ppb	-0.637 ppb	86.770 %	0.041 ppb	-0.356 ppb
Recovery Percentage 1	5.624 %	7.628 %	0.056 %	-5.932 %	86.847 %	4.329 %	0.775 %
Concentration RSD	47.6 %	66.3 %	5,154.8 %	11.2 %	1.2 %	150.0 %	2,042.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.437 ppb	0.023 ppb	0.022 ppb	89.930 %	0.076 ppb	0.048 ppb	0.004 ppb
Concentration per Run 1	0.451 ppb	0.021 ppb	0.021 ppb	92.467 %	0.025 ppb	0.007 ppb	0.025 ppb
Concentration per Run 2	0.507 ppb	0.025 ppb	0.007 ppb	91.905 %	0.043 ppb	0.087 ppb	-0.043 ppb
Concentration per Run 3	0.355 ppb	0.023 ppb	0.038 ppb	85.418 %	0.160 ppb	0.051 ppb	0.030 ppb
Recovery Percentage 1	14.581 %	5.741 %	10.965 %		2.543 %	2.421 %	0.767 %
Concentration RSD	17.6 %	9.3 %	69.9 %	4.4 %	95.6 %	82.2 %	1,066.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	91.154 %	0.029 ppb	0.013 ppb	94.661 %
Concentration per Run 1	94.985 %	0.026 ppb	0.017 ppb	97.828 %
Concentration per Run 2	88.227 %	0.035 ppb	0.010 ppb	92.917 %
Concentration per Run 3	90.249 %	0.025 ppb	0.013 ppb	93.237 %
Recovery Percentage 1		5.723 %	2.670 %	94.661 %
Concentration RSD	3.8 %	19.2 %	26.8 %	2.9 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 127
Analysis label: L1607142-05D5 6020TL
Analysis started at: 3/15/2016 7:50:24 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 26

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.819 %	83.535 %	0.010 ppb	60,615.586 ppb	2,308.547 ppb	130.739 ppb	16,346.434 ppb
Concentration per Run 1	86.745 %	82.324 %	0.008 ppb	59,770.747 ppb	2,193.556 ppb	129.211 ppb	16,287.160 ppb
Concentration per Run 2	87.376 %	87.167 %	0.010 ppb	62,395.406 ppb	2,450.025 ppb	134.056 ppb	16,947.342 ppb
Concentration per Run 3	86.336 %	81.113 %	0.012 ppb	59,680.605 ppb	2,282.061 ppb	128.951 ppb	15,804.801 ppb
Concentration RSD	0.6 %	3.8 %	18.2 %	2.5 %	5.6 %	2.2 %	3.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,658.057 ppb	81.950 %	84.289 %	2.278 ppb	2.917 ppb	16.860 ppb	476.055 ppb
Concentration per Run 1	5,539.500 ppb	82.479 %	84.537 %	2.508 ppb	3.081 ppb	17.389 ppb	471.881 ppb
Concentration per Run 2	6,092.055 ppb	77.498 %	83.542 %	2.226 ppb	3.149 ppb	17.071 ppb	489.615 ppb
Concentration per Run 3	5,342.615 ppb	85.872 %	84.788 %	2.101 ppb	2.520 ppb	16.119 ppb	466.669 ppb
Concentration RSD	6.9 %	5.1 %	0.8 %	9.2 %	11.8 %	3.9 %	2.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.202 ppb	0.967 ppb	2.908 ppb	1.720 ppb	85.011 %	4.173 ppb	0.478 ppb
Concentration per Run 1	0.171 ppb	1.080 ppb	2.712 ppb	1.357 ppb	86.139 %	3.612 ppb	1.888 ppb
Concentration per Run 2	0.197 ppb	0.987 ppb	3.032 ppb	1.809 ppb	84.361 %	4.327 ppb	-0.605 ppb
Concentration per Run 3	0.237 ppb	0.834 ppb	2.981 ppb	1.993 ppb	84.534 %	4.581 ppb	0.150 ppb
Concentration RSD	16.5 %	12.9 %	5.9 %	19.0 %	1.2 %	12.0 %	267.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	7.851 ppb	0.036 ppb	0.016 ppb	81.657 %	0.362 ppb	2.312 ppb	28.721 ppb
Concentration per Run 1	7.435 ppb	0.038 ppb	0.016 ppb	80.978 %	0.322 ppb	2.418 ppb	28.489 ppb
Concentration per Run 2	7.568 ppb	0.033 ppb	0.023 ppb	82.448 %	0.371 ppb	2.421 ppb	30.254 ppb
Concentration per Run 3	8.548 ppb	0.038 ppb	0.008 ppb	81.547 %	0.393 ppb	2.097 ppb	27.421 ppb
Concentration RSD	7.7 %	7.7 %	49.4 %	0.9 %	10.0 %	8.1 %	5.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.956 %	0.006 ppb	0.964 ppb	86.090 %
Concentration per Run 1	87.489 %	0.008 ppb	0.962 ppb	88.490 %
Concentration per Run 2	82.984 %	0.009 ppb	0.980 ppb	84.855 %
Concentration per Run 3	87.397 %	0.002 ppb	0.950 ppb	84.926 %
Concentration RSD	3.0 %	56.7 %	1.6 %	2.4 %

Alpha ICPMSQ Full

3/16/2016 10:41:42 AM

Analysis index: 128
Analysis label: L1607142-08D5 6020TL
Analysis started at: 3/15/2016 7:53:29 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 2
Vial: 27

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.788 %	83.131 %	-0.002 ppb	690,074.084 ppb	92,870.702 ppb	8.855 ppb	25,762.146 ppb
Concentration per Run 1	84.730 %	89.588 %	-0.002 ppb	628,388.095 ppb	81,989.030 ppb	9.501 ppb	24,174.492 ppb
Concentration per Run 2	83.933 %	76.513 %	0.001 ppb	750,999.748 ppb	102,575.222 ppb	7.838 ppb	26,953.425 ppb
Concentration per Run 3	85.701 %	83.293 %	-0.004 ppb	690,834.409 ppb	94,047.853 ppb	9.226 ppb	26,158.521 ppb
Concentration RSD	1.0 %	7.9 %	173.2 %	8.9 %	11.1 %	10.1 %	5.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	31,848.986 ppb	83.755 %	91.432 %	0.151 ppb	0.285 ppb	11.194 ppb	78.365 ppb
Concentration per Run 1	29,022.425 ppb	89.194 %	90.558 %	0.093 ppb	0.357 ppb	9.820 ppb	64.239 ppb
Concentration per Run 2	33,684.192 ppb	79.592 %	91.675 %	0.310 ppb	0.271 ppb	11.677 ppb	94.909 ppb
Concentration per Run 3	32,840.343 ppb	82.479 %	92.064 %	0.050 ppb	0.227 ppb	12.085 ppb	75.947 ppb
Concentration RSD	7.8 %	5.9 %	0.9 %	92.1 %	23.2 %	10.8 %	19.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.026 ppb	1.062 ppb	2.234 ppb	3.620 ppb	83.724 %	0.327 ppb	-0.776 ppb
Concentration per Run 1	0.017 ppb	0.811 ppb	2.039 ppb	3.124 ppb	85.559 %	0.357 ppb	-0.689 ppb
Concentration per Run 2	0.027 ppb	1.345 ppb	2.539 ppb	3.743 ppb	81.839 %	0.315 ppb	-0.516 ppb
Concentration per Run 3	0.035 ppb	1.029 ppb	2.123 ppb	3.995 ppb	83.774 %	0.307 ppb	-1.123 ppb
Concentration RSD	35.1 %	25.3 %	12.0 %	12.4 %	2.2 %	8.3 %	40.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.724 ppb	0.005 ppb	0.032 ppb	80.766 %	0.121 ppb	0.239 ppb	20.712 ppb
Concentration per Run 1	0.759 ppb	0.010 ppb	0.030 ppb	86.873 %	0.104 ppb	0.236 ppb	19.552 ppb
Concentration per Run 2	0.765 ppb	0.003 ppb	0.041 ppb	77.892 %	0.109 ppb	0.285 ppb	21.910 ppb
Concentration per Run 3	0.649 ppb	0.003 ppb	0.025 ppb	77.533 %	0.149 ppb	0.196 ppb	20.674 ppb
Concentration RSD	9.0 %	76.0 %	26.4 %	6.6 %	20.7 %	18.8 %	5.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.853 %	-0.002 ppb	0.160 ppb	74.001 %
Concentration per Run 1	90.946 %	-0.004 ppb	0.166 ppb	77.668 %
Concentration per Run 2	86.389 %	0.002 ppb	0.156 ppb	72.546 %
Concentration per Run 3	83.224 %	-0.004 ppb	0.159 ppb	71.790 %
Concentration RSD	4.5 %	194.4 %	3.2 %	4.3 %

Analysis index: 129 Analysis started at: 3/15/2016 7:56:33 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	86.512 %	82.001 %	97.769 ppb	10,277.645 ppb	9,838.306 ppb	98.187 ppb	10,137.205 ppb
Concentration per Run 1	86.425 %	84.503 %	97.187 ppb	9,747.261 ppb	9,114.141 ppb	81.908 ppb	9,254.956 ppb
Concentration per Run 2	86.816 %	86.440 %	97.220 ppb	9,974.118 ppb	9,599.231 ppb	104.942 ppb	10,138.748 ppb
Concentration per Run 3	86.296 %	75.060 %	98.900 ppb	11,111.555 ppb	10,801.546 ppb	107.712 ppb	11,017.910 ppb
Recovery Percentage 1			97.769 %	102.776 %	98.383 %	98.187 %	101.372 %
Concentration RSD	0.3 %	7.4 %	1.0 %	7.1 %	8.8 %	14.4 %	8.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,653.231 ppb	81.445 %	85.880 %	95.582 ppb	93.950 ppb	93.777 ppb	9,597.791 ppb
Concentration per Run 1	8,938.196 ppb	87.028 %	86.826 %	85.941 ppb	84.628 ppb	86.040 ppb	8,857.215 ppb
Concentration per Run 2	9,532.435 ppb	81.324 %	84.281 %	100.073 ppb	94.463 ppb	91.930 ppb	9,341.070 ppb
Concentration per Run 3	10,489.061 ppb	75.983 %	86.534 %	100.732 ppb	102.760 ppb	103.361 ppb	10,595.089 ppb
Recovery Percentage 1	96.532 %			95.582 %	93.950 %	93.777 %	95.978 %
Concentration RSD	8.1 %	6.8 %	1.6 %	8.7 %	9.7 %	9.4 %	9.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	97.823 ppb	96.664 ppb	99.843 ppb	93.265 ppb	89.385 %	93.827 ppb	85.409 ppb
Concentration per Run 1	93.304 ppb	92.158 ppb	93.418 ppb	87.090 ppb	91.032 %	87.227 ppb	83.631 ppb
Concentration per Run 2	95.828 ppb	95.415 ppb	96.690 ppb	92.804 ppb	91.183 %	95.761 ppb	85.472 ppb
Concentration per Run 3	104.338 ppb	102.420 ppb	109.422 ppb	99.900 ppb	85.940 %	98.494 ppb	87.124 ppb
Recovery Percentage 1	97.823 %	96.664 %	99.843 %	93.265 %		93.827 %	85.409 %
Concentration RSD	5.9 %	5.4 %	8.5 %	6.9 %	3.3 %	6.3 %	2.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	91.135 ppb	97.734 ppb	93.241 ppb	91.302 %	93.321 ppb	92.870 ppb	88.702 ppb
Concentration per Run 1	89.368 ppb	99.462 ppb	90.511 ppb	91.646 %	86.146 ppb	90.412 ppb	86.184 ppb
Concentration per Run 2	89.203 ppb	92.745 ppb	91.841 ppb	94.964 %	94.817 ppb	92.803 ppb	91.082 ppb
Concentration per Run 3	94.835 ppb	100.996 ppb	97.372 ppb	87.296 %	99.000 ppb	95.395 ppb	88.839 ppb
Recovery Percentage 1	91.135 %	97.734 %	93.241 %		93.321 %	92.870 %	88.702 %
Concentration RSD	3.5 %	4.5 %	3.9 %	4.2 %	7.0 %	2.7 %	2.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.574 %	93.860 ppb	105.956 ppb	93.163 %
Concentration per Run 1	93.805 %	90.540 ppb	102.461 ppb	98.178 %
Concentration per Run 2	88.700 %	94.440 ppb	109.120 ppb	91.299 %
Concentration per Run 3	89.216 %	96.600 ppb	106.288 ppb	90.012 %
Recovery Percentage 1		93.860 %	105.956 %	
Concentration RSD	3.1 %	3.3 %	3.2 %	4.7 %

Analysis index: 130 Analysis started at: 3/15/2016 7:59:41 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	71.941 %	83.615 %	0.031 ppb	10.342 ppb	1.994 ppb	0.699 ppb	11.057 ppb
Concentration per Run 1	73.570 %	82.808 %	0.039 ppb	9.808 ppb	2.383 ppb	-0.057 ppb	12.927 ppb
Concentration per Run 2	70.130 %	83.293 %	0.026 ppb	13.242 ppb	1.762 ppb	1.526 ppb	7.575 ppb
Concentration per Run 3	72.125 %	84.745 %	0.029 ppb	7.976 ppb	1.837 ppb	0.627 ppb	12.668 ppb
Recovery Percentage 1			6.233 %	10.342 %	2.849 %	6.987 %	11.057 %
Concentration RSD	2.4 %	1.2 %	21.1 %	25.9 %	17.0 %	113.7 %	27.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3.092 ppb	80.193 %	64.402 %	0.018 ppb	0.010 ppb	-0.664 ppb	3.347 ppb
Concentration per Run 1	3.886 ppb	82.768 %	66.912 %	0.000 ppb	-0.014 ppb	-0.566 ppb	2.038 ppb
Concentration per Run 2	4.053 ppb	81.829 %	60.286 %	0.000 ppb	0.067 ppb	-0.723 ppb	5.012 ppb
Concentration per Run 3	1.336 ppb	75.982 %	66.007 %	0.053 ppb	-0.025 ppb	-0.704 ppb	2.991 ppb
Recovery Percentage 1	3.092 %			0.354 %	0.962 %	-66.446 %	6.694 %
Concentration RSD	49.3 %	4.6 %	5.6 %	173.2 %	523.9 %	12.9 %	45.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.021 ppb	0.009 ppb	0.018 ppb	-0.569 ppb	85.872 %	0.050 ppb	0.060 ppb
Concentration per Run 1	0.008 ppb	-0.039 ppb	0.016 ppb	-0.537 ppb	87.803 %	0.096 ppb	-0.229 ppb
Concentration per Run 2	0.017 ppb	0.065 ppb	-0.031 ppb	-0.582 ppb	85.165 %	0.013 ppb	0.565 ppb
Concentration per Run 3	0.036 ppb	0.001 ppb	0.070 ppb	-0.587 ppb	84.648 %	0.042 ppb	-0.156 ppb
Recovery Percentage 1	4.122 %	1.819 %	1.837 %	-5.686 %	85.872 %	10.093 %	1.199 %
Concentration RSD	68.3 %	577.7 %	276.2 %	4.8 %	2.0 %	83.6 %	732.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.450 ppb	0.035 ppb	0.020 ppb	84.702 %	0.110 ppb	0.052 ppb	-0.006 ppb
Concentration per Run 1	0.353 ppb	0.015 ppb	0.023 ppb	85.002 %	0.039 ppb	0.073 ppb	-0.006 ppb
Concentration per Run 2	0.497 ppb	0.049 ppb	0.023 ppb	84.365 %	0.129 ppb	0.052 ppb	-0.006 ppb
Concentration per Run 3	0.498 ppb	0.040 ppb	0.015 ppb	84.740 %	0.163 ppb	0.031 ppb	-0.005 ppb
Recovery Percentage 1	14.985 %	8.677 %	10.138 %		3.672 %	2.596 %	-1.113 %
Concentration RSD	18.5 %	51.7 %	21.6 %	0.4 %	58.4 %	40.8 %	2.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	85.171 %	0.031 ppb	0.013 ppb	90.819 %
Concentration per Run 1	85.413 %	0.032 ppb	0.020 ppb	92.192 %
Concentration per Run 2	85.612 %	0.022 ppb	0.009 ppb	91.551 %
Concentration per Run 3	84.487 %	0.038 ppb	0.009 ppb	88.714 %
Recovery Percentage 1		6.178 %	2.526 %	90.819 %
Concentration RSD	0.7 %	27.0 %	52.4 %	2.0 %

Analysis index: 131 Analysis started at: 3/15/2016 8:02:49 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.982 %	75.786 %	101.032 ppb	10,416.340 ppb	10,348.489 ppb	97.815 ppb	9,986.491 ppb
Concentration per Run 1	85.681 %	76.513 %	100.063 ppb	10,358.640 ppb	10,260.934 ppb	91.736 ppb	10,038.702 ppb
Concentration per Run 2	84.443 %	72.639 %	102.097 ppb	10,744.239 ppb	10,918.582 ppb	103.425 ppb	9,912.674 ppb
Concentration per Run 3	84.822 %	78.208 %	100.937 ppb	10,146.142 ppb	9,865.952 ppb	98.284 ppb	10,008.096 ppb
Recovery Percentage 1			101.032 %	104.163 %	103.485 %	97.815 %	99.865 %
Concentration RSD	0.7 %	3.8 %	1.0 %	2.9 %	5.1 %	6.0 %	0.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,624.026 ppb	83.129 %	82.400 %	98.077 ppb	96.123 ppb	96.406 ppb	10,083.440 ppb
Concentration per Run 1	9,607.348 ppb	86.378 %	83.120 %	93.711 ppb	96.847 ppb	97.344 ppb	10,026.114 ppb
Concentration per Run 2	9,733.251 ppb	81.036 %	83.220 %	100.565 ppb	99.353 ppb	97.089 ppb	10,547.576 ppb
Concentration per Run 3	9,531.479 ppb	81.975 %	80.858 %	99.956 ppb	92.170 ppb	94.784 ppb	9,676.631 ppb
Recovery Percentage 1	96.240 %			98.077 %	96.123 %	96.406 %	100.834 %
Concentration RSD	1.1 %	3.4 %	1.6 %	3.9 %	3.8 %	1.5 %	4.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	100.858 ppb	99.805 ppb	102.998 ppb	101.166 ppb	84.651 %	98.918 ppb	94.607 ppb
Concentration per Run 1	100.483 ppb	97.562 ppb	104.850 ppb	103.642 ppb	83.863 %	100.988 ppb	98.737 ppb
Concentration per Run 2	104.801 ppb	105.078 ppb	105.827 ppb	102.051 ppb	82.837 %	100.646 ppb	95.693 ppb
Concentration per Run 3	97.289 ppb	96.776 ppb	98.316 ppb	97.806 ppb	87.252 %	95.120 ppb	89.390 ppb
Recovery Percentage 1	100.858 %	99.805 %	102.998 %	101.166 %		98.918 %	94.607 %
Concentration RSD	3.7 %	4.6 %	4.0 %	3.0 %	2.7 %	3.3 %	5.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	97.033 ppb	103.785 ppb	100.069 ppb	85.631 %	101.914 ppb	100.238 ppb	97.610 ppb
Concentration per Run 1	99.475 ppb	108.469 ppb	100.550 ppb	87.346 %	99.522 ppb	100.932 ppb	96.740 ppb
Concentration per Run 2	97.480 ppb	102.592 ppb	102.192 ppb	85.985 %	103.271 ppb	100.703 ppb	97.452 ppb
Concentration per Run 3	94.143 ppb	100.293 ppb	97.466 ppb	83.563 %	102.951 ppb	99.080 ppb	98.638 ppb
Recovery Percentage 1	97.033 %	103.785 %	100.069 %		101.914 %	100.238 %	97.610 %
Concentration RSD	2.8 %	4.1 %	2.4 %	2.2 %	2.0 %	1.0 %	1.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	84.798 %	100.240 ppb	113.907 ppb	87.591 %
Concentration per Run 1	87.575 %	99.508 ppb	111.043 ppb	89.594 %
Concentration per Run 2	84.560 %	101.595 ppb	115.555 ppb	86.844 %
Concentration per Run 3	82.259 %	99.617 ppb	115.122 ppb	86.336 %
Recovery Percentage 1		100.240 %	113.907 %	
Concentration RSD	3.1 %	1.2 %	2.2 %	2.0 %

Analysis index: 132 Analysis started at: 3/15/2016 8:05:56 PM Rack: 4
Analysis label: LLCCV User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.454 %	125.586 %	0.010 ppb	-5.570 ppb	-0.094 ppb	-0.211 ppb	-11.814 ppb
Concentration per Run 1	101.242 %	128.330 %	0.011 ppb	-3.999 ppb	0.806 ppb	0.000 ppb	-10.310 ppb
Concentration per Run 2	100.258 %	121.793 %	0.012 ppb	-6.618 ppb	-1.382 ppb	-0.475 ppb	-10.022 ppb
Concentration per Run 3	108.863 %	126.635 %	0.007 ppb	-6.094 ppb	0.295 ppb	-0.157 ppb	-15.110 ppb
Recovery Percentage 1			1.987 %	-5.570 %	-0.134 %	-2.108 %	-11.814 %
Concentration RSD	4.6 %	2.7 %	26.1 %	24.9 %	1,221.0 %	114.7 %	24.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-6.229 ppb	117.814 %	103.533 %	0.005 ppb	-0.013 ppb	-0.944 ppb	-0.462 ppb
Concentration per Run 1	-7.284 ppb	107.535 %	99.920 %	0.000 ppb	-0.045 ppb	-0.891 ppb	0.260 ppb
Concentration per Run 2	-9.868 ppb	125.228 %	100.444 %	0.016 ppb	0.001 ppb	-0.982 ppb	-0.823 ppb
Concentration per Run 3	-1.536 ppb	120.679 %	110.235 %	0.000 ppb	0.004 ppb	-0.958 ppb	-0.823 ppb
Recovery Percentage 1	-6.229 %			0.109 %	-1.333 %	-188.782 %	-0.924 %
Concentration RSD	68.5 %	7.8 %	5.6 %	173.2 %	203.1 %	5.0 %	135.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.013 ppb	-0.106 ppb	-0.026 ppb	-1.151 ppb	128.551 %	0.003 ppb	-0.734 ppb
Concentration per Run 1	0.032 ppb	-0.106 ppb	0.016 ppb	-1.125 ppb	118.433 %	0.005 ppb	-0.379 ppb
Concentration per Run 2	0.006 ppb	-0.106 ppb	-0.056 ppb	-1.171 ppb	133.237 %	-0.016 ppb	-0.943 ppb
Concentration per Run 3	0.000 ppb	-0.106 ppb	-0.040 ppb	-1.156 ppb	133.985 %	0.021 ppb	-0.880 ppb
Recovery Percentage 1	2.508 %	-21.151 %	-2.650 %	-11.508 %		0.659 %	-14.684 %
Concentration RSD	136.4 %	0.0 %	142.2 %	2.0 %	6.8 %	558.5 %	42.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.109 ppb	0.012 ppb	0.005 ppb	127.433 %	0.043 ppb	0.036 ppb	-0.017 ppb
Concentration per Run 1	0.098 ppb	0.019 ppb	0.005 ppb	119.746 %	0.118 ppb	0.033 ppb	0.010 ppb
Concentration per Run 2	0.099 ppb	0.011 ppb	0.005 ppb	129.856 %	-0.016 ppb	0.002 ppb	-0.043 ppb
Concentration per Run 3	0.131 ppb	0.006 ppb	0.005 ppb	132.697 %	0.028 ppb	0.072 ppb	-0.017 ppb
Recovery Percentage 1	10.932 %	3.037 %	2.534 %		8.649 %	7.107 %	-3.351 %
Concentration RSD	17.1 %	57.6 %	5.6 %	5.3 %	158.1 %	98.3 %	159.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	121.270 %	0.017 ppb	-0.004 ppb	133.874 %
Concentration per Run 1	120.312 %	0.026 ppb	0.006 ppb	128.013 %
Concentration per Run 2	132.060 %	0.017 ppb	-0.007 ppb	134.380 %
Concentration per Run 3	111.438 %	0.010 ppb	-0.011 ppb	139.228 %
Recovery Percentage 1		3.466 %	-0.404 %	
Concentration RSD	8.5 %	46.3 %	212.7 %	4.2 %

Analysis index: 133 Analysis started at: 3/15/2016 8:09:03 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	84.730 %	84.422 %	0.024 ppb	8.969 ppb	0.469 ppb	0.142 ppb	8.615 ppb
Concentration per Run 1	84.785 %	80.629 %	0.017 ppb	8.427 ppb	0.514 ppb	0.262 ppb	13.379 ppb
Concentration per Run 2	84.865 %	86.925 %	0.030 ppb	8.376 ppb	1.018 ppb	0.053 ppb	11.620 ppb
Concentration per Run 3	84.538 %	85.714 %	0.025 ppb	10.103 ppb	-0.125 ppb	0.109 ppb	0.847 ppb
Recovery Percentage 1			4.810 %	8.969 %	0.670 %	1.415 %	8.615 %
Concentration RSD	0.2 %	4.0 %	26.0 %	11.0 %	122.1 %	76.6 %	78.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2.266 ppb	83.081 %	82.817 %	0.033 ppb	0.034 ppb	-0.395 ppb	1.831 ppb
Concentration per Run 1	2.858 ppb	84.068 %	82.278 %	0.049 ppb	0.001 ppb	-0.438 ppb	2.027 ppb
Concentration per Run 2	2.835 ppb	86.161 %	82.579 %	0.024 ppb	0.078 ppb	-0.274 ppb	2.045 ppb
Concentration per Run 3	1.107 ppb	79.014 %	83.595 %	0.026 ppb	0.023 ppb	-0.473 ppb	1.419 ppb
Recovery Percentage 1	2.266 %			0.659 %	3.397 %	-39.524 %	3.661 %
Concentration RSD	44.3 %	4.4 %	0.8 %	41.9 %	116.8 %	26.9 %	19.5 %

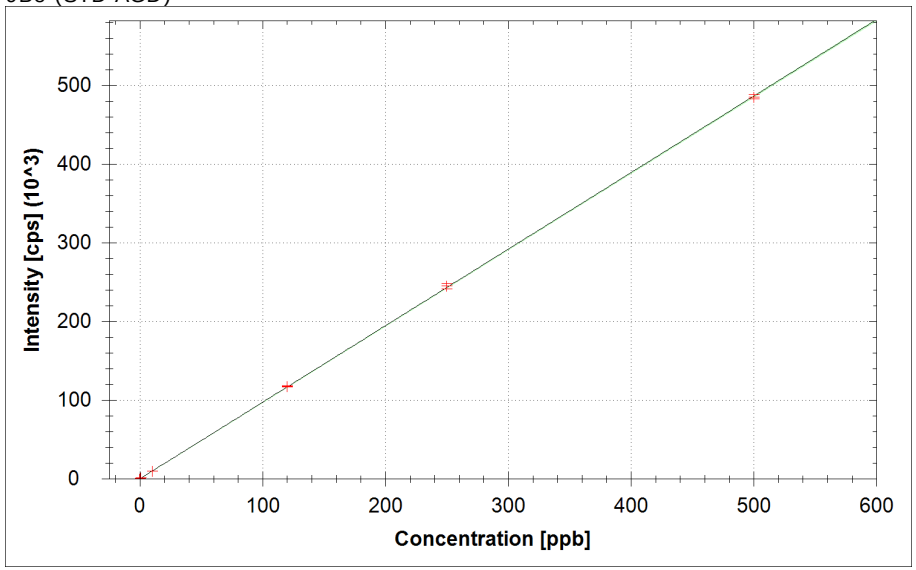
Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.009 ppb	-0.004 ppb	0.002 ppb	-0.574 ppb	84.513 %	0.023 ppb	-0.765 ppb
Concentration per Run 1	0.000 ppb	0.028 ppb	-0.032 ppb	-0.513 ppb	86.770 %	0.041 ppb	-0.441 ppb
Concentration per Run 2	0.026 ppb	-0.038 ppb	0.018 ppb	-0.554 ppb	82.470 %	0.014 ppb	-1.151 ppb
Concentration per Run 3	0.000 ppb	-0.001 ppb	0.019 ppb	-0.656 ppb	84.298 %	0.013 ppb	-0.702 ppb
Recovery Percentage 1	1.712 %	-0.718 %	0.195 %	-5.745 %	84.513 %	4.531 %	-15.295 %
Concentration RSD	173.2 %	920.5 %	1,497.5 %	12.8 %	2.6 %	69.1 %	47.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.255 ppb	0.010 ppb	0.018 ppb	86.256 %	-0.011 ppb	0.016 ppb	-0.020 ppb
Concentration per Run 1	0.279 ppb	0.013 ppb	0.014 ppb	90.170 %	-0.004 ppb	0.028 ppb	0.028 ppb
Concentration per Run 2	0.243 ppb	0.006 ppb	0.015 ppb	84.656 %	-0.014 ppb	0.009 ppb	-0.043 ppb
Concentration per Run 3	0.242 ppb	0.011 ppb	0.023 ppb	83.943 %	-0.013 ppb	0.009 ppb	-0.043 ppb
Recovery Percentage 1	8.496 %	2.553 %	8.779 %		-0.351 %	0.776 %	-3.908 %
Concentration RSD	8.3 %	34.9 %	27.2 %	4.0 %	55.6 %	70.1 %	210.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.022 %	0.018 ppb	0.008 ppb	92.392 %
Concentration per Run 1	89.631 %	0.017 ppb	0.011 ppb	94.523 %
Concentration per Run 2	89.096 %	0.021 ppb	0.006 ppb	91.282 %
Concentration per Run 3	88.339 %	0.017 ppb	0.008 ppb	91.371 %
Recovery Percentage 1		3.641 %	1.676 %	92.392 %
Concentration RSD	0.7 %	12.7 %	30.7 %	2.0 %

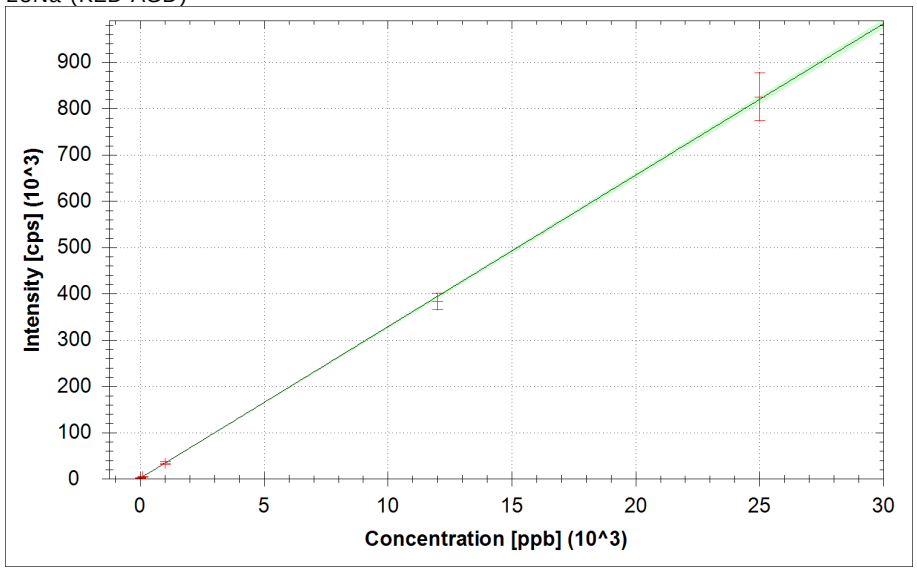
Calibration Curves:

9Be (STD AGD)



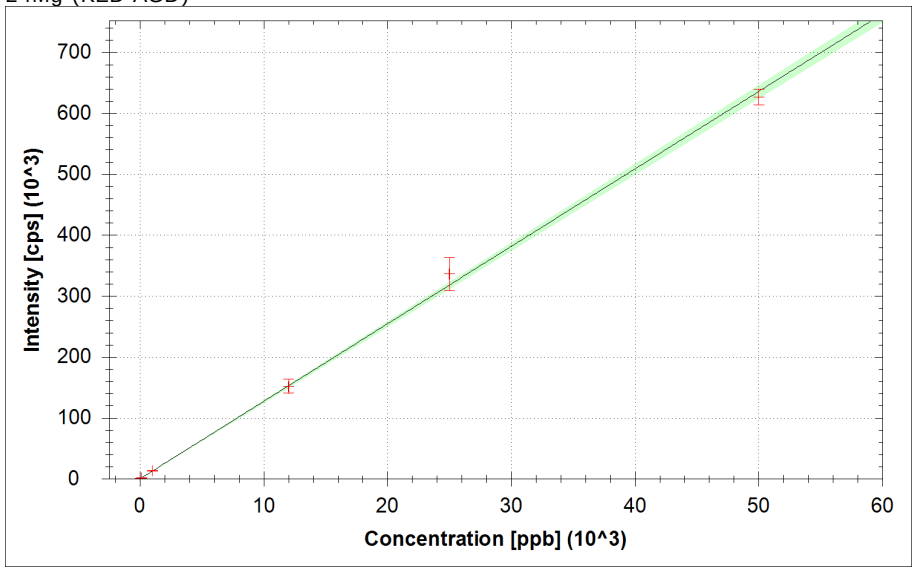
f(x) = 972.8644*x + 13.3369
R^2 = 1.0000
BEC = 0.014 ppb
LoD = 0.0234 ppb

23Na (KED AGD)



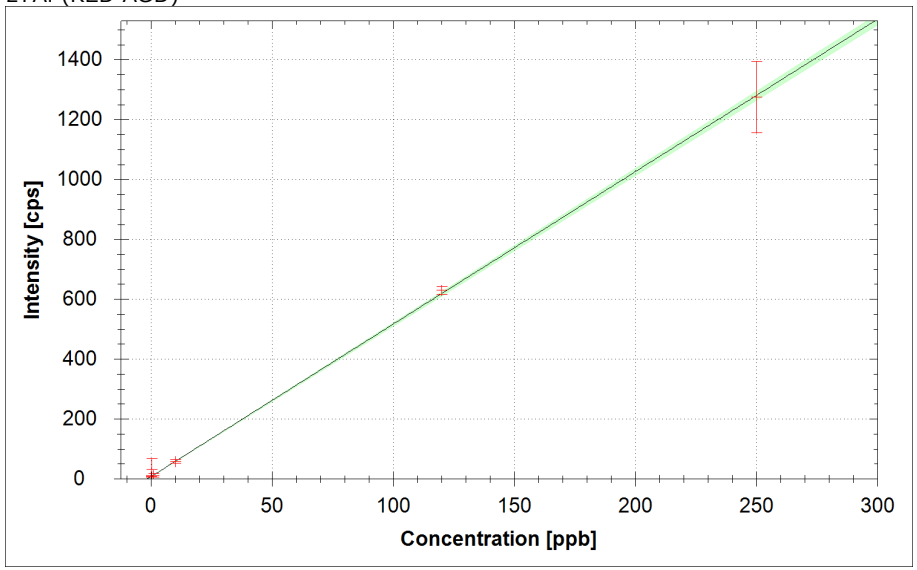
f(x) = 32.7383*x + 1177.3553
R^2 = 0.9997
BEC = 35.963 ppb
LoD = 9.1878 ppb

24Mg (KED AGD)



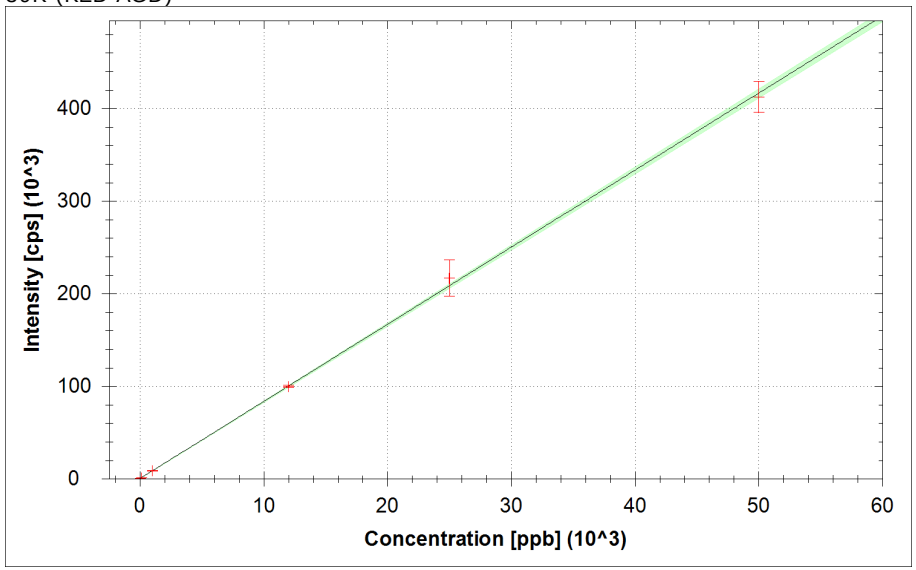
f(x) = 12.7113*x + 29.7081
R^2 = 0.9988
BEC = 2.337 ppb
LoD = 4.6240 ppb

27Al (KED AGD)



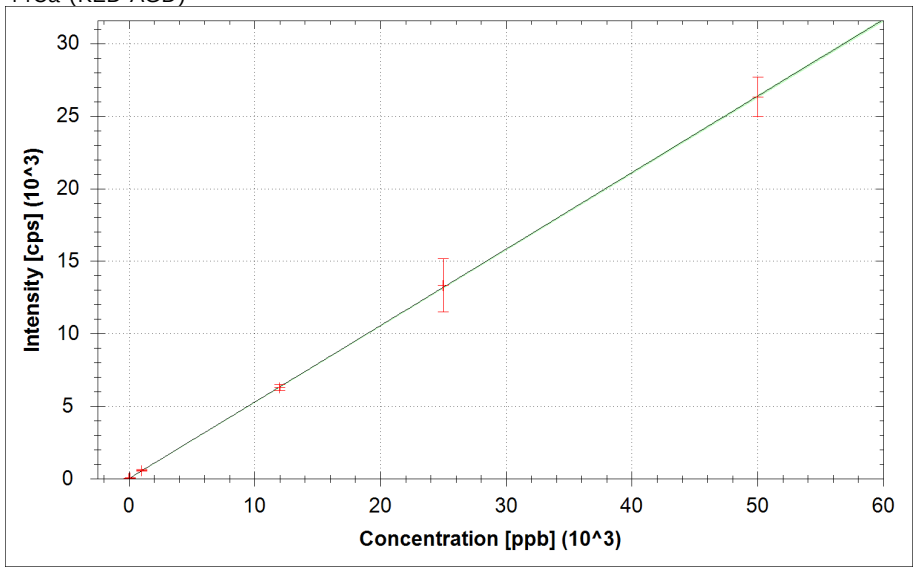
f(x) = 5.0885*x + 7.7378
R^2 = 0.9995
BEC = 1.521 ppb
LoD = 1.8882 ppb

39K (KED AGD)



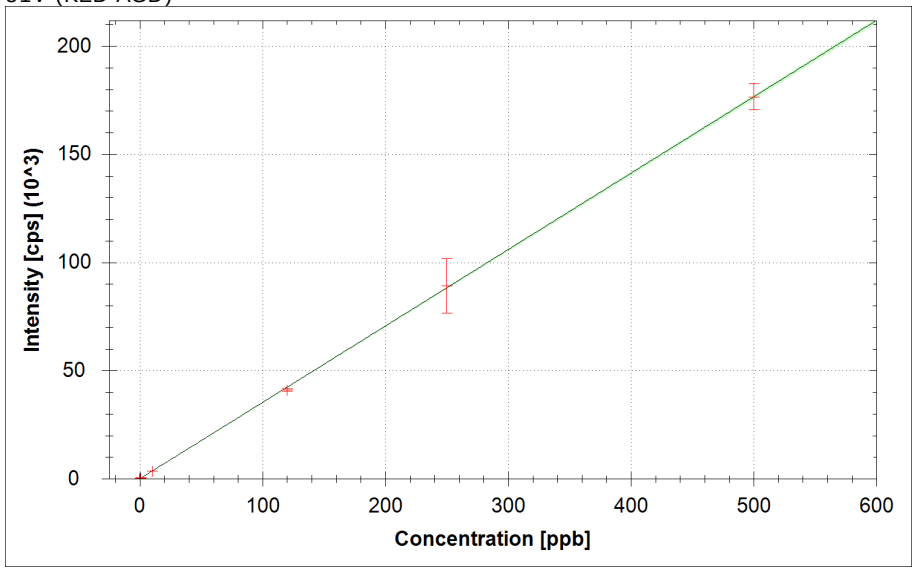
f(x) = 8.3239*x + 342.8621
R^2 = 0.9994
BEC = 41.190 ppb
LoD = 5.0557 ppb

44Ca (KED AGD)



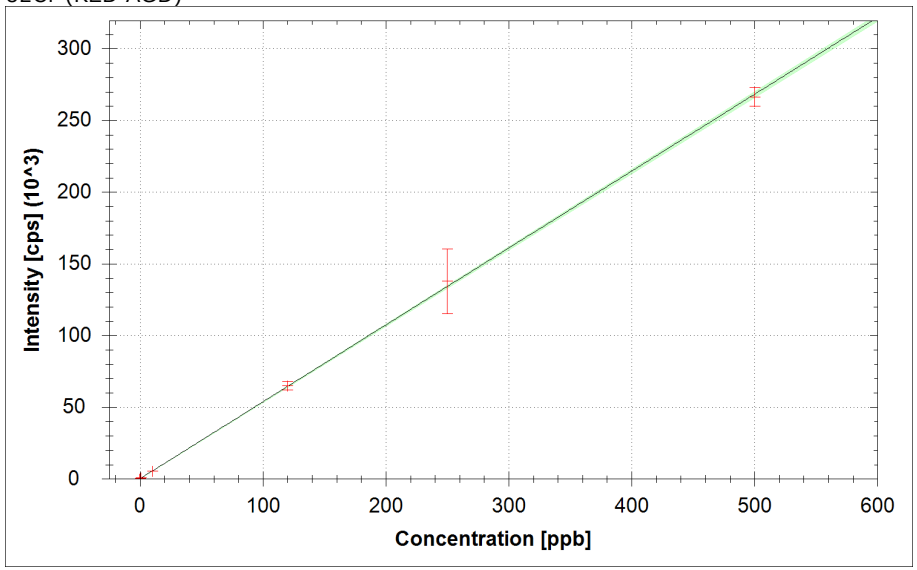
f(x) = 0.5270*x + 15.2863
R^2 = 1.0000
BEC = 29.008 ppb
LoD = 41.9411 ppb

51V (KED AGD)



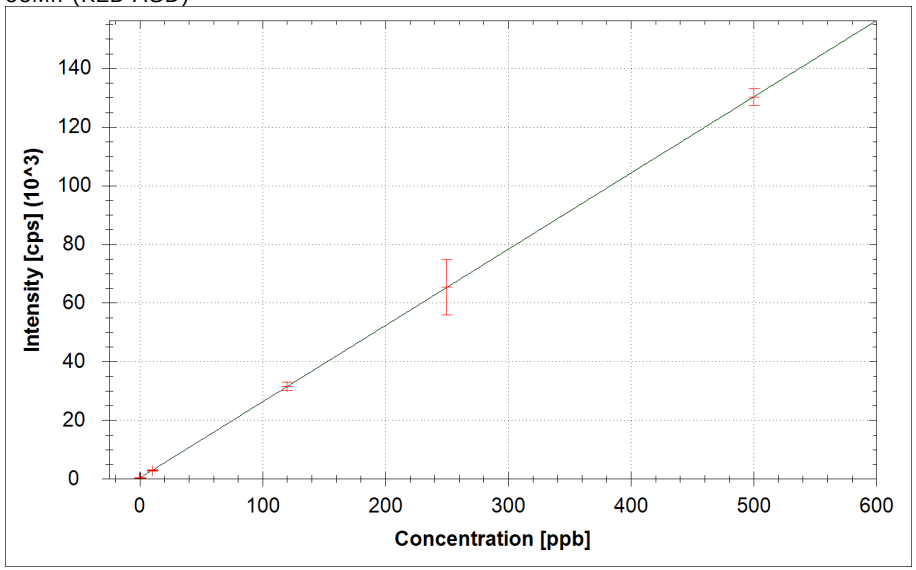
f(x) = 353.1096*x + 10.3479
R^2 = 0.9999
BEC = 0.029 ppb
LoD = 0.0881 ppb

52Cr (KED AGD)



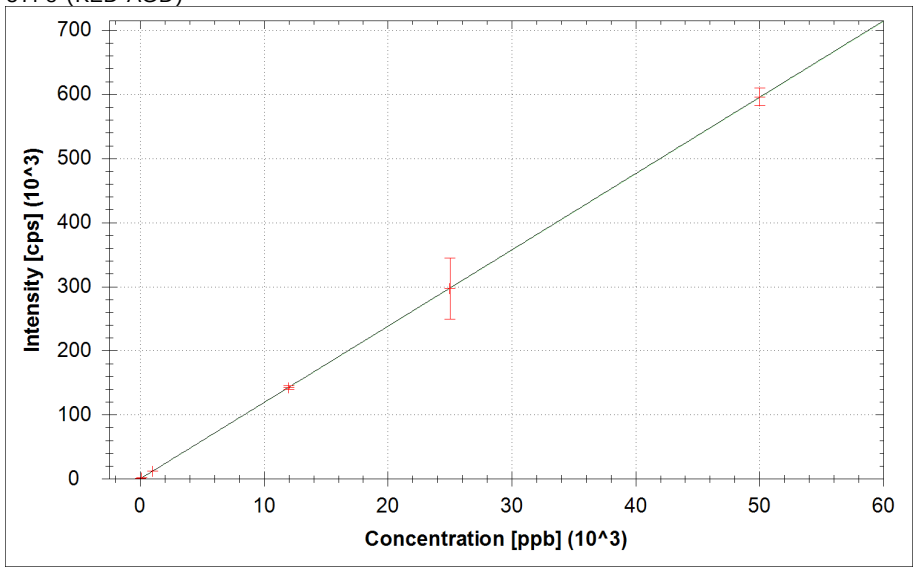
f(x) = 536.2087*x + 62.9334
R^2 = 0.9997
BEC = 0.117 ppb
LoD = 0.0657 ppb

55Mn (KED AGD)



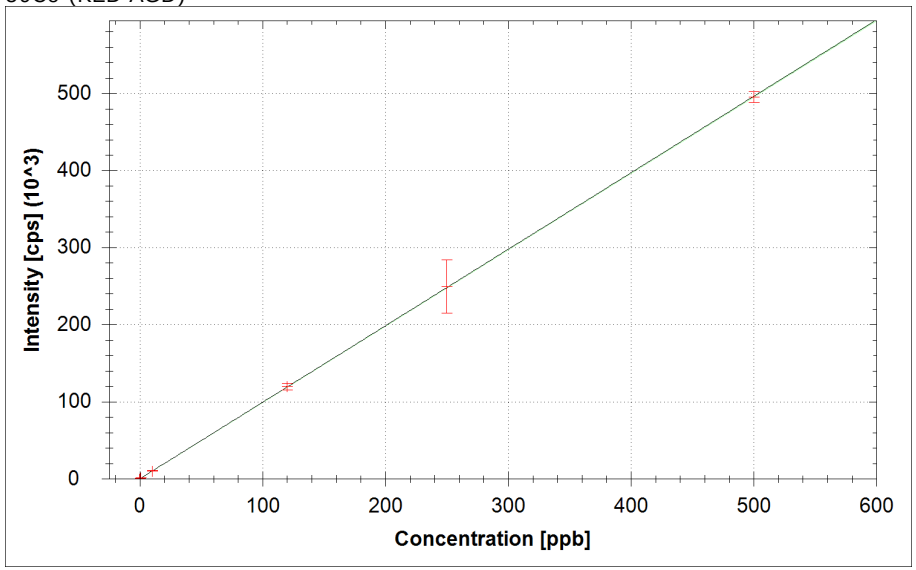
f(x) = 260.0429*x + 255.8292
R^2 = 1.0000
BEC = 0.984 ppb
LoD = 0.5975 ppb

57Fe (KED AGD)



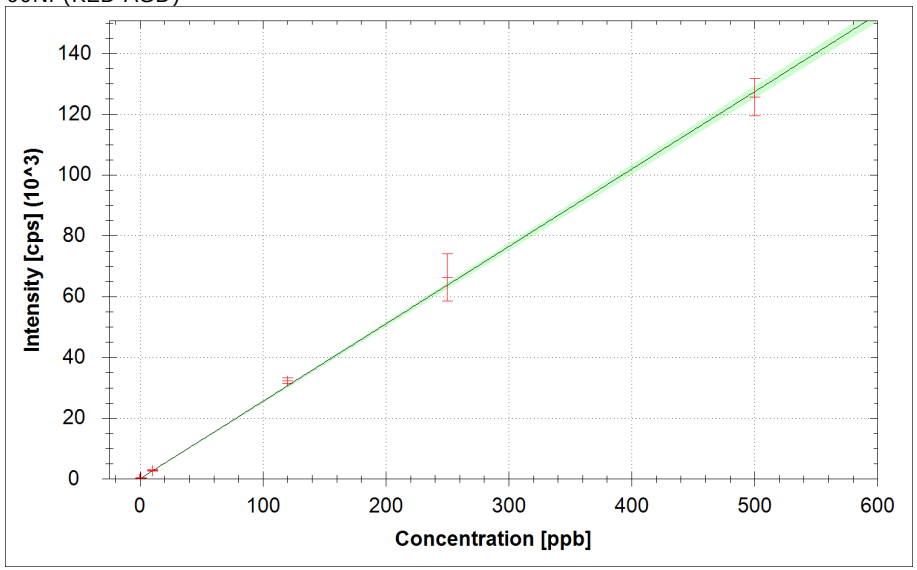
f(x) = 11.9060*x + 6.5910
R^2 = 1.0000
BEC = 0.554 ppb
LoD = 1.4427 ppb

59Co (KED AGD)



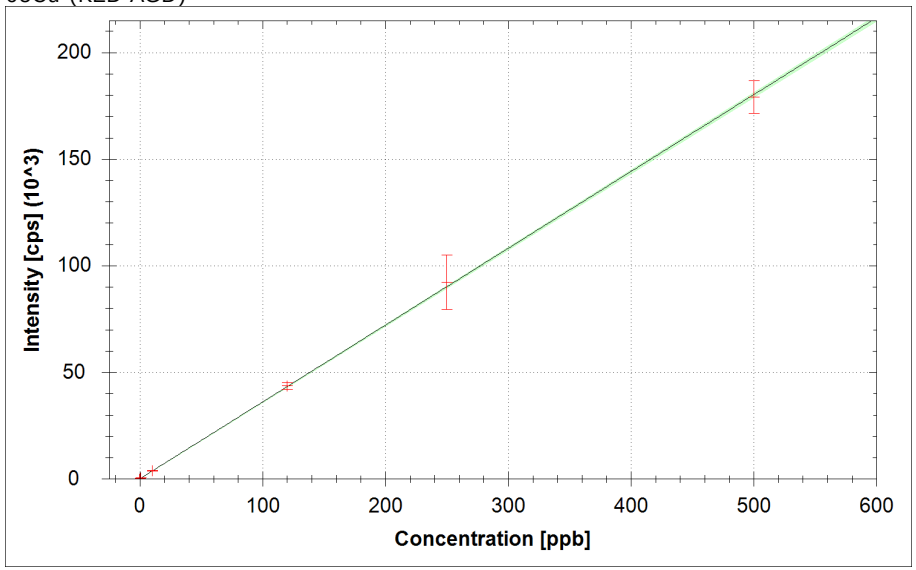
f(x) = 991.8459*x + 23.4808
R^2 = 1.0000
BEC = 0.024 ppb
LoD = 0.0199 ppb

60Ni (KED AGD)



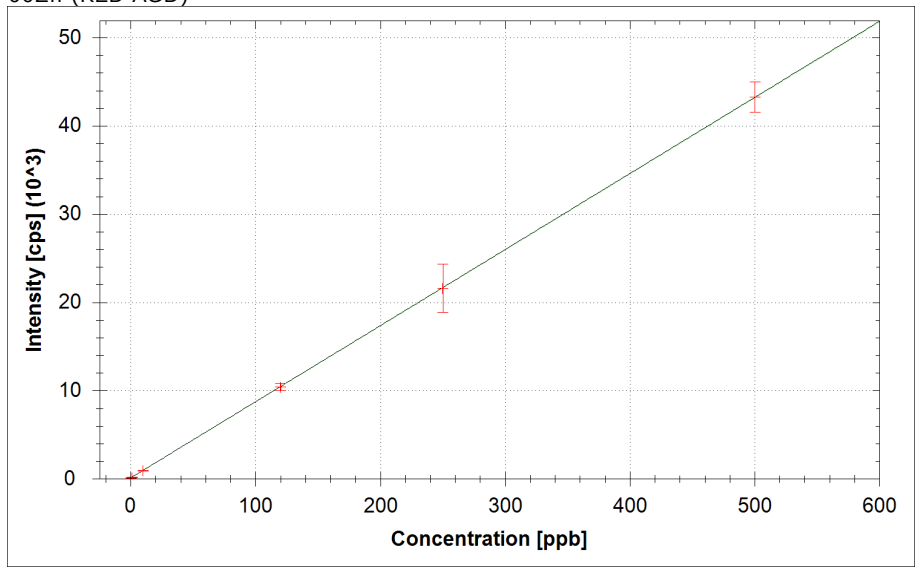
f(x) = 254.6744*x + 10.0159
R^2 = 0.9991
BEC = 0.039 ppb
LoD = 0.0057 ppb

65Cu (KED AGD)



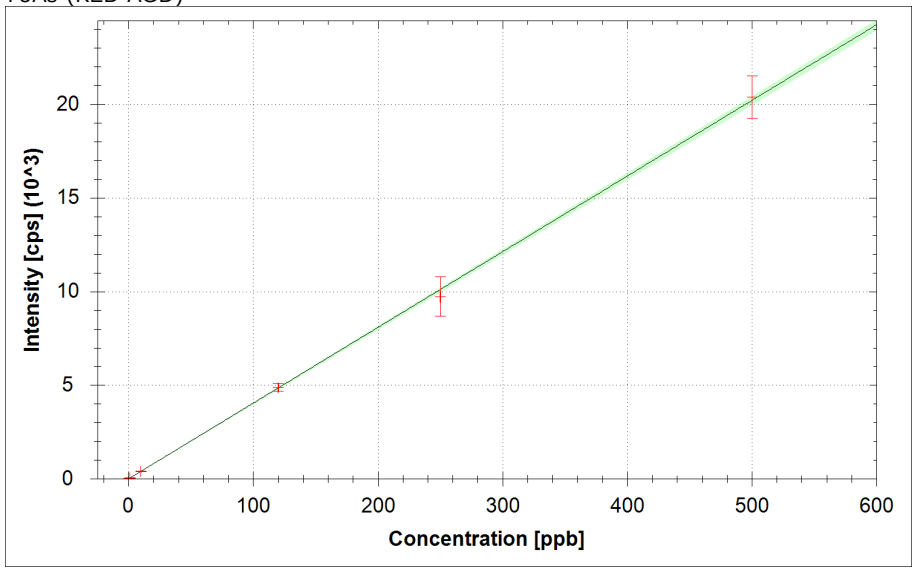
f(x) = 360.2585*x + 17.0063
R^2 = 0.9998
BEC = 0.047 ppb
LoD = 0.1811 ppb

66Zn (KED AGD)



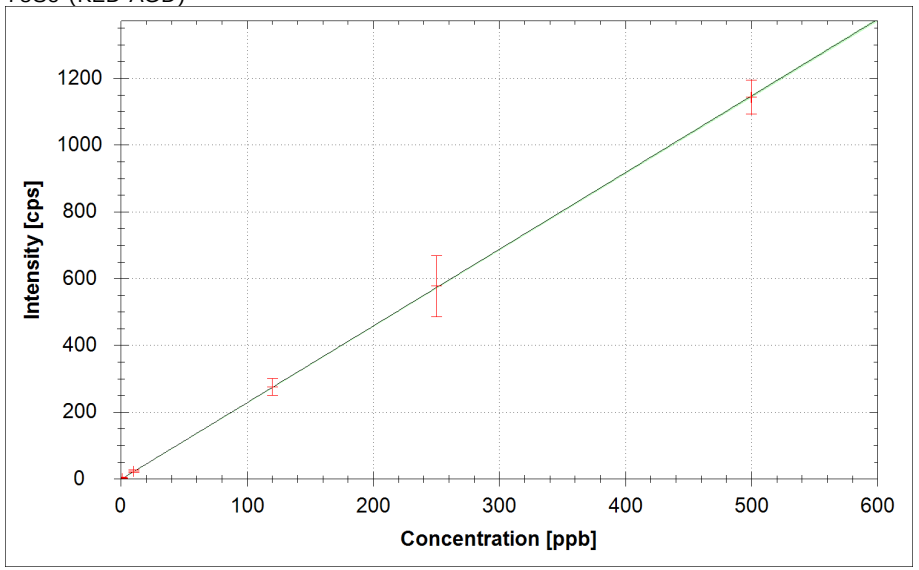
f(x) = 86.2299*x + 107.2816
R^2 = 1.0000
BEC = 1.244 ppb
LoD = 0.9032 ppb

75As (KED AGD)



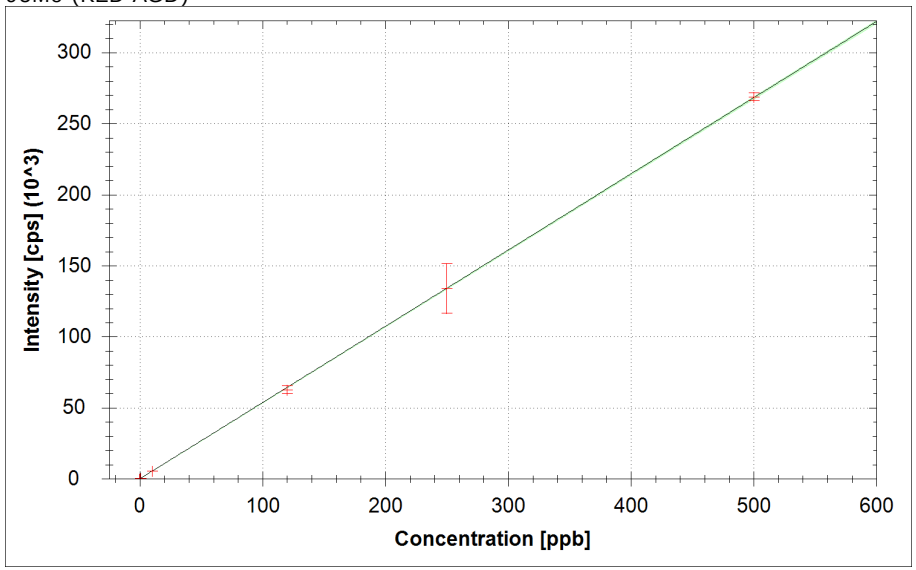
f(x) = 40.3974*x + 0.4341
R^2 = 0.9995
BEC = 0.011 ppb
LoD = 0.0558 ppb

78Se (KED AGD)



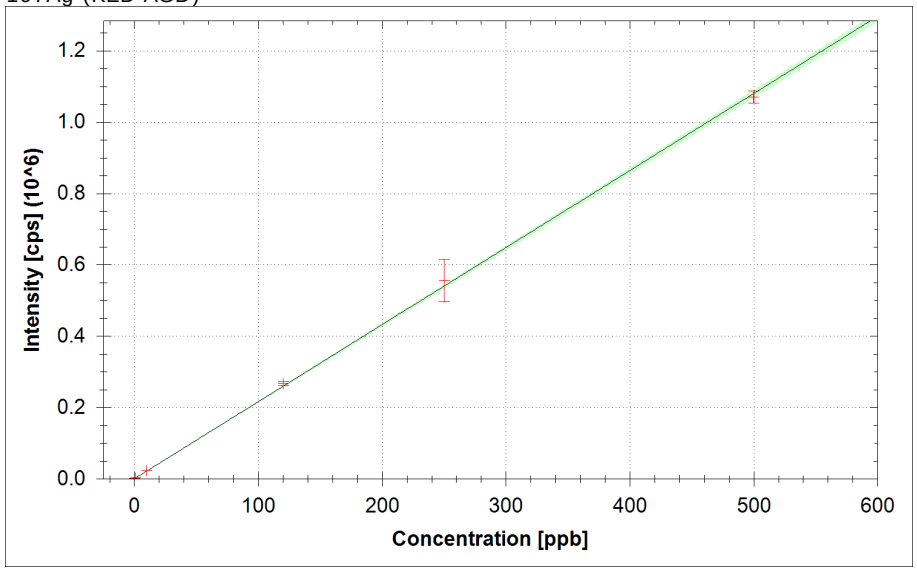
f(x) = 2.2955*x + -1.6446
R^2 = 1.0000
BEC = -0.716 ppb
LoD = 0.5080 ppb

95Mo (KED AGD)



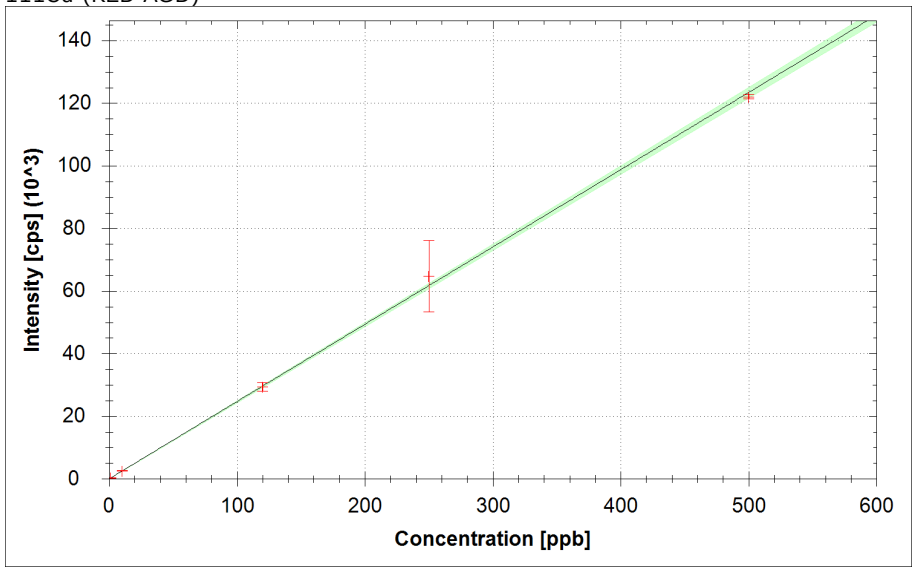
f(x) = 536.5130*x + 6.8220
R^2 = 0.9999
BEC = 0.013 ppb
LoD = 0.0661 ppb

107Ag (KED AGD)



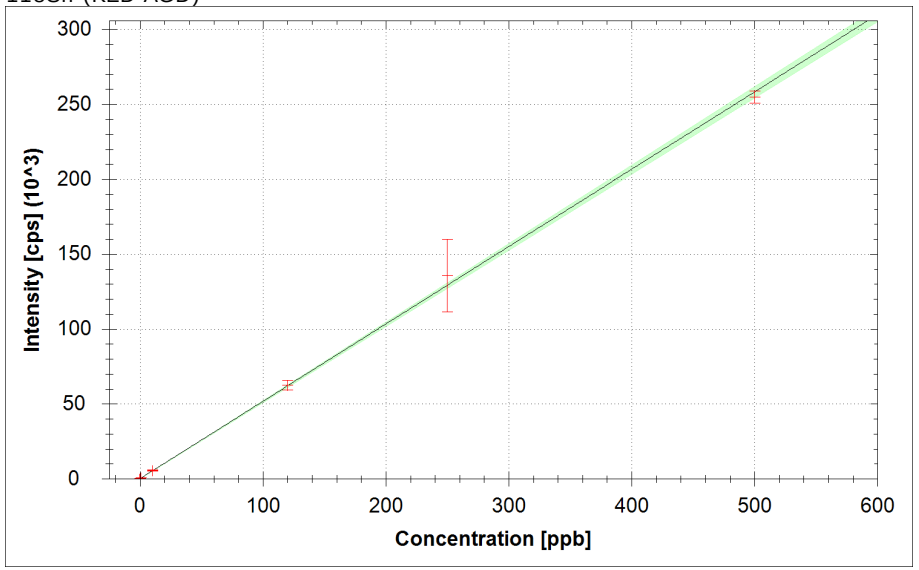
f(x) = 2159.6812*x + 10.0059
R^2 = 0.9996
BEC = 0.005 ppb
LoD = 0.0004 ppb

111Cd (KED AGD)



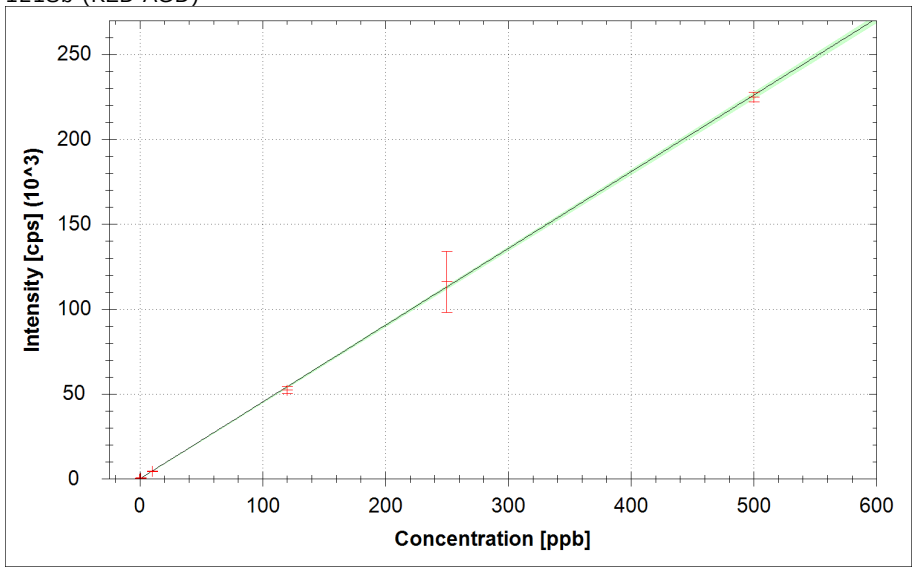
f(x) = 246.8076*x
R^2 = 0.9991
BEC = 0.000 ppb
LoD = 0.0000 ppb

118Sn (KED AGD)



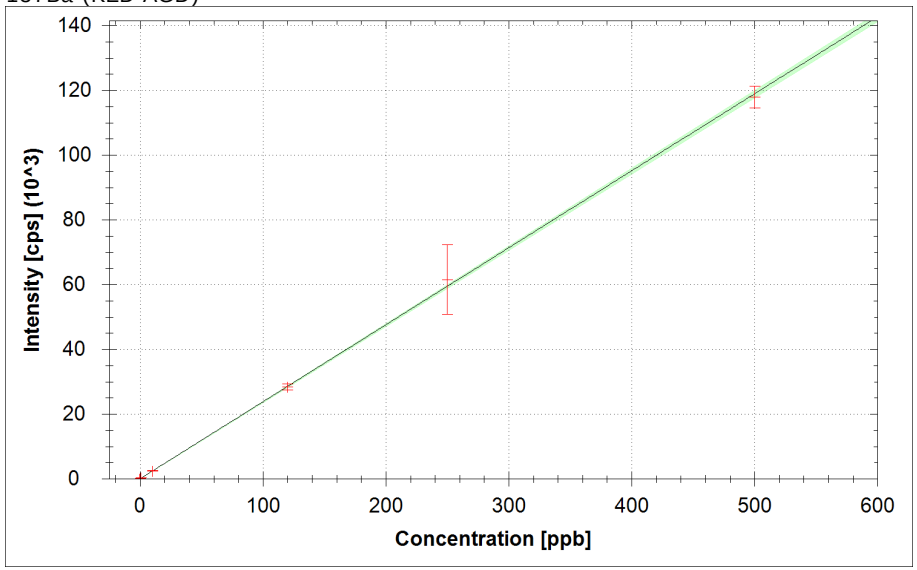
f(x) = 516.2807*x + 53.7273
R^2 = 0.9990
BEC = 0.104 ppb
LoD = 0.2704 ppb

121Sb (KED AGD)



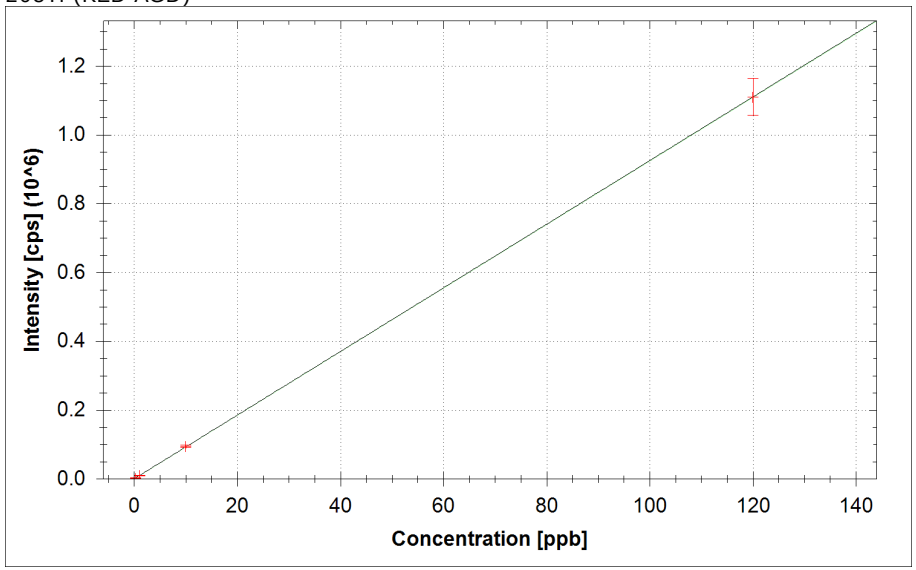
f(x) = 451.9484*x + 6.8412
R^2 = 0.9997
BEC = 0.015 ppb
LoD = 0.0787 ppb

137Ba (KED AGD)



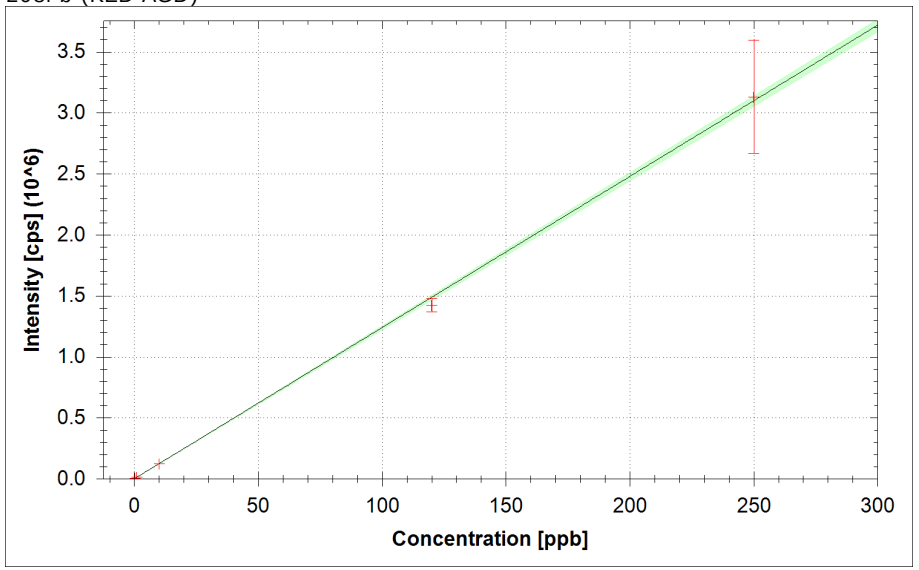
f(x) = 237.7380*x + 10.0057
R^2 = 0.9996
BEC = 0.042 ppb
LoD = 0.0037 ppb

205Tl (KED AGD)



f(x) = 9249.3092*x + 119.6274
R^2 = 1.0000
BEC = 0.013 ppb
LoD = 0.0077 ppb

208Pb (KED AGD)



f(x) = 12390.8182*x + 287.2767
R^2 = 0.9994
BEC = 0.023 ppb
LoD = 0.0060 ppb

Standards:

Analysis Index: 3
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 3/16/2016 11:12:39 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 50000
Rack: 0
Vial: 2

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	103.075 %		
6Li (KED AGD)	101.823 %		
9Be (STD AGD)	0.204 ppb	14.9 %	0.200 ppb
23Na (KED AGD)	25.590 ppb	13.3 %	20.000 ppb
24Mg (KED AGD)	21.355 ppb	22.6 %	20.000 ppb
27Al (KED AGD)	4.649 ppb	154.4 %	0.200 ppb
39K (KED AGD)	39.465 ppb	30.2 %	20.000 ppb
44Ca (KED AGD)	0.725 ppb	846.9 %	20.000 ppb
45Sc (KED AGD)	96.131 %		
45Sc (STD AGD)	103.317 %		
51V (KED AGD)	0.214 ppb	23.9 %	0.200 ppb
52Cr (KED AGD)	0.228 ppb	25.9 %	0.200 ppb
55Mn (KED AGD)	-0.408 ppb	26.4 %	0.200 ppb
57Fe (KED AGD)	23.874 ppb	6.4 %	20.000 ppb
59Co (KED AGD)	0.221 ppb	19.6 %	0.200 ppb
60Ni (KED AGD)	0.211 ppb	65.2 %	0.200 ppb
65Cu (KED AGD)	0.424 ppb	41.5 %	0.200 ppb
66Zn (KED AGD)	-0.236 ppb	56.2 %	0.200 ppb
74Ge (KED AGD)	102.117 %		
75As (KED AGD)	0.193 ppb	41.6 %	0.200 ppb
78Se (KED AGD)	1.218 ppb	102.7 %	0.200 ppb
95Mo (KED AGD)	0.210 ppb	10.7 %	0.200 ppb
107Ag (KED AGD)	0.189 ppb	30.4 %	0.200 ppb
111Cd (KED AGD)	0.185 ppb	19.9 %	0.200 ppb
115In (KED AGD)	99.162 %		
118Sn (KED AGD)	0.163 ppb	47.0 %	0.200 ppb
121Sb (KED AGD)	0.208 ppb	27.6 %	0.200 ppb
137Ba (KED AGD)	0.213 ppb	41.2 %	0.200 ppb
159Tb (KED AGD)	98.999 %		
205Tl (KED AGD)	0.215 ppb	8.6 %	0.200 ppb
208Pb (KED AGD)	0.207 ppb	4.2 %	0.200 ppb
209Bi (KED AGD)	99.476 %		

Standards:

Analysis Index: 4
Analysis Name: 1.0/100 Cal
Analysis Type: STD
Analysis Started at: 3/16/2016 11:15:42 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 10000
Rack: 0
Vial: 3

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	104.188 %		
6Li (KED AGD)	109.721 %		
9Be (STD AGD)	1.054 ppb	5.1 %	1.000 ppb
23Na (KED AGD)	95.409 ppb	4.9 %	100.000 ppb
24Mg (KED AGD)	103.741 ppb	11.1 %	100.000 ppb
27Al (KED AGD)	0.719 ppb	154.0 %	1.000 ppb
39K (KED AGD)	94.686 ppb	16.1 %	100.000 ppb
44Ca (KED AGD)	69.828 ppb	13.9 %	100.000 ppb
45Sc (KED AGD)	100.845 %		
45Sc (STD AGD)	104.198 %		
51V (KED AGD)	0.920 ppb	19.5 %	1.000 ppb
52Cr (KED AGD)	1.066 ppb	13.0 %	1.000 ppb
55Mn (KED AGD)	0.326 ppb	90.9 %	1.000 ppb
57Fe (KED AGD)	106.246 ppb	7.0 %	100.000 ppb
59Co (KED AGD)	1.105 ppb	8.0 %	1.000 ppb
60Ni (KED AGD)	1.014 ppb	24.6 %	1.000 ppb
65Cu (KED AGD)	1.362 ppb	13.2 %	1.000 ppb
66Zn (KED AGD)	0.480 ppb	16.9 %	1.000 ppb
74Ge (KED AGD)	102.653 %		
75As (KED AGD)	0.999 ppb	21.6 %	1.000 ppb
78Se (KED AGD)	1.585 ppb	27.6 %	1.000 ppb
95Mo (KED AGD)	0.899 ppb	4.5 %	1.000 ppb
107Ag (KED AGD)	1.016 ppb	4.2 %	1.000 ppb
111Cd (KED AGD)	1.112 ppb	15.7 %	1.000 ppb
115In (KED AGD)	104.523 %		
118Sn (KED AGD)	0.960 ppb	3.2 %	1.000 ppb
121Sb (KED AGD)	0.941 ppb	11.8 %	1.000 ppb
137Ba (KED AGD)	1.070 ppb	11.8 %	1.000 ppb
159Tb (KED AGD)	102.382 %		
205Tl (KED AGD)	0.994 ppb	4.2 %	1.000 ppb
208Pb (KED AGD)	0.988 ppb	3.5 %	1.000 ppb
209Bi (KED AGD)	102.166 %		

Standards:

Analysis Index: 5
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 3/16/2016 11:18:46 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 1000
Rack: 0
Vial: 4

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	105.353 %		
6Li (KED AGD)	109.599 %		
9Be (STD AGD)	10.055 ppb	2.3 %	10.000 ppb
23Na (KED AGD)	1,002.186 ppb	9.6 %	1,000.000 ppb
24Mg (KED AGD)	1,048.136 ppb	4.6 %	1,000.000 ppb
27Al (KED AGD)	9.855 ppb	12.4 %	10.000 ppb
39K (KED AGD)	1,004.703 ppb	6.6 %	1,000.000 ppb
44Ca (KED AGD)	1,060.861 ppb	10.8 %	1,000.000 ppb
45Sc (KED AGD)	103.251 %		
45Sc (STD AGD)	104.348 %		
51V (KED AGD)	10.048 ppb	3.5 %	10.000 ppb
52Cr (KED AGD)	9.826 ppb	1.5 %	10.000 ppb
55Mn (KED AGD)	10.093 ppb	6.8 %	10.000 ppb
57Fe (KED AGD)	1,021.033 ppb	1.4 %	1,000.000 ppb
59Co (KED AGD)	10.312 ppb	2.3 %	10.000 ppb
60Ni (KED AGD)	10.946 ppb	8.4 %	10.000 ppb
65Cu (KED AGD)	10.491 ppb	2.1 %	10.000 ppb
66Zn (KED AGD)	9.521 ppb	5.1 %	10.000 ppb
74Ge (KED AGD)	103.039 %		
75As (KED AGD)	9.835 ppb	6.5 %	10.000 ppb
78Se (KED AGD)	10.402 ppb	15.3 %	10.000 ppb
95Mo (KED AGD)	10.127 ppb	1.6 %	10.000 ppb
107Ag (KED AGD)	10.596 ppb	2.0 %	10.000 ppb
111Cd (KED AGD)	10.211 ppb	1.5 %	10.000 ppb
115In (KED AGD)	103.017 %		
118Sn (KED AGD)	10.414 ppb	5.9 %	10.000 ppb
121Sb (KED AGD)	9.879 ppb	3.9 %	10.000 ppb
137Ba (KED AGD)	10.160 ppb	3.6 %	10.000 ppb
159Tb (KED AGD)	103.399 %		
205Tl (KED AGD)	10.143 ppb	3.7 %	10.000 ppb
208Pb (KED AGD)	9.865 ppb	1.5 %	10.000 ppb
209Bi (KED AGD)	103.491 %		

Standards:

Analysis Index: 6
Analysis Name: 120/12000
Analysis Type: STD
Analysis Started at: 3/16/2016 11:21:50 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 83.3333333
Rack: 0
Vial: 5

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	100.996 %		
6Li (KED AGD)	108.020 %		
9Be (STD AGD)	120.819 ppb	0.5 %	120.000 ppb
23Na (KED AGD)	11,657.930 ppb	4.6 %	12,000.000 ppb
24Mg (KED AGD)	11,962.797 ppb	7.7 %	12,000.000 ppb
27Al (KED AGD)	122.129 ppb	2.1 %	120.000 ppb
39K (KED AGD)	11,930.272 ppb	1.2 %	12,000.000 ppb
44Ca (KED AGD)	11,907.985 ppb	3.1 %	12,000.000 ppb
45Sc (KED AGD)	103.219 %		
45Sc (STD AGD)	102.027 %		
51V (KED AGD)	115.958 ppb	1.3 %	120.000 ppb
52Cr (KED AGD)	120.693 ppb	4.5 %	120.000 ppb
55Mn (KED AGD)	120.248 ppb	4.8 %	120.000 ppb
57Fe (KED AGD)	11,953.038 ppb	2.1 %	12,000.000 ppb
59Co (KED AGD)	120.598 ppb	3.5 %	120.000 ppb
60Ni (KED AGD)	126.727 ppb	2.6 %	120.000 ppb
65Cu (KED AGD)	120.700 ppb	3.8 %	120.000 ppb
66Zn (KED AGD)	119.487 ppb	3.8 %	120.000 ppb
74Ge (KED AGD)	98.629 %		
75As (KED AGD)	120.692 ppb	4.4 %	120.000 ppb
78Se (KED AGD)	120.446 ppb	9.1 %	120.000 ppb
95Mo (KED AGD)	116.602 ppb	4.5 %	120.000 ppb
107Ag (KED AGD)	123.534 ppb	2.4 %	120.000 ppb
111Cd (KED AGD)	118.735 ppb	4.6 %	120.000 ppb
115In (KED AGD)	101.717 %		
118Sn (KED AGD)	120.652 ppb	5.1 %	120.000 ppb
121Sb (KED AGD)	115.706 ppb	3.8 %	120.000 ppb
137Ba (KED AGD)	119.178 ppb	3.2 %	120.000 ppb
159Tb (KED AGD)	99.794 %		
205Tl (KED AGD)	119.988 ppb	4.8 %	120.000 ppb
208Pb (KED AGD)	114.720 ppb	3.9 %	120.000 ppb
209Bi (KED AGD)	100.331 %		

Standards:

Analysis Index: 7
Analysis Name: 250/25000
Analysis Type: STD
Analysis Started at: 3/16/2016 11:24:55 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 40
Rack: 0
Vial: 6

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	105.842 %		
6Li (KED AGD)	106.318 %		
9Be (STD AGD)	251.797 ppb	1.4 %	250.000 ppb
23Na (KED AGD)	25,164.120 ppb	6.3 %	25,000.000 ppb
24Mg (KED AGD)	26,433.634 ppb	8.2 %	25,000.000 ppb
27Al (KED AGD)	248.981 ppb	9.4 %	250.000 ppb
39K (KED AGD)	26,039.125 ppb	9.1 %	25,000.000 ppb
44Ca (KED AGD)	25,265.164 ppb	13.6 %	25,000.000 ppb
45Sc (KED AGD)	104.845 %		
45Sc (STD AGD)	107.673 %		
51V (KED AGD)	252.425 ppb	14.0 %	250.000 ppb
52Cr (KED AGD)	256.700 ppb	16.5 %	250.000 ppb
55Mn (KED AGD)	250.482 ppb	14.7 %	250.000 ppb
57Fe (KED AGD)	24,945.176 ppb	16.0 %	25,000.000 ppb
59Co (KED AGD)	251.434 ppb	13.8 %	250.000 ppb
60Ni (KED AGD)	260.306 ppb	11.8 %	250.000 ppb
65Cu (KED AGD)	255.576 ppb	13.9 %	250.000 ppb
66Zn (KED AGD)	249.202 ppb	12.7 %	250.000 ppb
74Ge (KED AGD)	106.225 %		
75As (KED AGD)	240.595 ppb	10.8 %	250.000 ppb
78Se (KED AGD)	252.202 ppb	15.8 %	250.000 ppb
95Mo (KED AGD)	249.794 ppb	13.1 %	250.000 ppb
107Ag (KED AGD)	257.248 ppb	10.7 %	250.000 ppb
111Cd (KED AGD)	262.293 ppb	17.5 %	250.000 ppb
115In (KED AGD)	98.292 %		
118Sn (KED AGD)	262.777 ppb	17.8 %	250.000 ppb
121Sb (KED AGD)	256.810 ppb	15.5 %	250.000 ppb
137Ba (KED AGD)	258.585 ppb	17.5 %	250.000 ppb
159Tb (KED AGD)	98.196 %		
205Tl (KED AGD)	210.558 ppb	11.1 %	250.000 ppb
208Pb (KED AGD)	252.540 ppb	14.8 %	250.000 ppb
209Bi (KED AGD)	95.005 %		

Standards:

Analysis Index: 8
Analysis Name: 500/50000
Analysis Type: STD
Analysis Started at: 3/16/2016 11:28:00 AM
Standard (Stock): Calibration Standard 6020/200.8
Standard DF: 20
Rack: 0
Vial: 7

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (STD AGD)	109.399 %		
6Li (KED AGD)	120.171 %		
9Be (STD AGD)	498.904 ppb	0.6 %	500.000 ppb
23Na (KED AGD)	44,793.841 ppb	2.7 %	50,000.000 ppb
24Mg (KED AGD)	49,291.141 ppb	2.1 %	50,000.000 ppb
27Al (KED AGD)	485.974 ppb	2.0 %	500.000 ppb
39K (KED AGD)	49,497.081 ppb	4.1 %	50,000.000 ppb
44Ca (KED AGD)	49,888.353 ppb	5.2 %	50,000.000 ppb
45Sc (KED AGD)	108.649 %		
45Sc (STD AGD)	110.633 %		
51V (KED AGD)	499.757 ppb	3.4 %	500.000 ppb
52Cr (KED AGD)	496.487 ppb	2.5 %	500.000 ppb
55Mn (KED AGD)	499.699 ppb	2.2 %	500.000 ppb
57Fe (KED AGD)	50,038.248 ppb	2.3 %	50,000.000 ppb
59Co (KED AGD)	499.133 ppb	1.4 %	500.000 ppb
60Ni (KED AGD)	493.214 ppb	4.9 %	500.000 ppb
65Cu (KED AGD)	497.033 ppb	4.3 %	500.000 ppb
66Zn (KED AGD)	500.533 ppb	4.0 %	500.000 ppb
74Ge (KED AGD)	102.422 %		
75As (KED AGD)	504.540 ppb	5.6 %	500.000 ppb
78Se (KED AGD)	498.782 ppb	4.5 %	500.000 ppb
95Mo (KED AGD)	500.916 ppb	1.0 %	500.000 ppb
107Ag (KED AGD)	495.516 ppb	1.6 %	500.000 ppb
111Cd (KED AGD)	494.153 ppb	0.5 %	500.000 ppb
115In (KED AGD)	102.478 %		
118Sn (KED AGD)	493.447 ppb	1.6 %	500.000 ppb
121Sb (KED AGD)	497.628 ppb	1.3 %	500.000 ppb
137Ba (KED AGD)	495.901 ppb	2.8 %	500.000 ppb
159Tb (KED AGD)	97.713 %		
205Tl (KED AGD)	383.127 ppb	1.6 %	500.000 ppb
208Pb (KED AGD)	416.785 ppb	1.7 %	500.000 ppb
209Bi (KED AGD)	98.203 %		

Analysis index: 1 Analysis started at: 3/16/2016 11:06:29 AM Rack: 0
Analysis label: rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.546 %	103.402 %	-0.005 ppb	-3.461 ppb	-2.075 ppb	-0.906 ppb	4.773 ppb
Concentration per Run 1	98.400 %	97.327 %	-0.003 ppb	-1.591 ppb	-2.337 ppb	-0.659 ppb	3.956 ppb
Concentration per Run 2	96.364 %	105.346 %	-0.005 ppb	-6.132 ppb	-1.551 ppb	-1.322 ppb	5.282 ppb
Concentration per Run 3	97.873 %	107.534 %	-0.007 ppb	-2.659 ppb	-2.337 ppb	-0.736 ppb	5.080 ppb
Concentration RSD	1.1 %	5.2 %	39.5 %	68.6 %	21.9 %	40.0 %	15.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-21.184 ppb	91.319 %	95.908 %	-0.009 ppb	-0.030 ppb	-0.403 ppb	-0.260 ppb
Concentration per Run 1	-20.722 ppb	86.086 %	96.240 %	-0.029 ppb	-0.033 ppb	-0.551 ppb	-0.554 ppb
Concentration per Run 2	-21.256 ppb	93.887 %	94.783 %	0.001 ppb	0.020 ppb	-0.459 ppb	0.326 ppb
Concentration per Run 3	-21.575 ppb	93.985 %	96.701 %	0.001 ppb	-0.077 ppb	-0.201 ppb	-0.554 ppb
Concentration RSD	2.0 %	5.0 %	1.0 %	187.9 %	163.6 %	45.0 %	195.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.016 ppb	0.089 ppb	-0.028 ppb	-1.023 ppb	94.597 %	0.022 ppb	0.483 ppb
Concentration per Run 1	-0.001 ppb	0.178 ppb	-0.017 ppb	-1.042 ppb	94.062 %	-0.011 ppb	0.897 ppb
Concentration per Run 2	-0.024 ppb	0.043 ppb	-0.018 ppb	-0.908 ppb	97.712 %	0.021 ppb	0.713 ppb
Concentration per Run 3	-0.024 ppb	0.045 ppb	-0.047 ppb	-1.119 ppb	92.017 %	0.056 ppb	-0.160 ppb
Concentration RSD	79.9 %	87.5 %	62.0 %	10.4 %	3.0 %	151.4 %	116.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	-0.006 ppb	0.007 ppb	0.006 ppb	92.204 %	-0.076 ppb	0.023 ppb	-0.026 ppb
Concentration per Run 1	0.008 ppb	-0.005 ppb	0.019 ppb	85.364 %	-0.059 ppb	-0.015 ppb	0.006 ppb
Concentration per Run 2	-0.013 ppb	0.010 ppb	0.000 ppb	96.672 %	-0.084 ppb	0.030 ppb	-0.042 ppb
Concentration per Run 3	-0.013 ppb	0.015 ppb	0.000 ppb	94.577 %	-0.084 ppb	0.055 ppb	-0.042 ppb
Concentration RSD	207.7 %	151.7 %	173.2 %	6.5 %	19.2 %	151.9 %	107.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.327 %	0.002 ppb	0.004 ppb	90.963 %
Concentration per Run 1	88.398 %	0.003 ppb	0.006 ppb	87.080 %
Concentration per Run 2	99.238 %	-0.001 ppb	0.004 ppb	92.168 %
Concentration per Run 3	98.344 %	0.004 ppb	0.001 ppb	93.641 %
Concentration RSD	6.3 %	142.4 %	73.6 %	3.8 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 2 Analysis started at: 3/16/2016 11:09:32 AM Rack: 4
Analysis label: Blank TT User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD			0.6 %	0.1 %	0.7 %	0.4 %	0.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD	0.5 %			1.0 %	0.2 %	0.2 %	0.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb
Concentration RSD	0.3 %	0.0 %	1.3 %	0.2 %		1.7 %	-0.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD	1.7 %	0.0 %			0.9 %	1.7 %	0.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD		0.2 %	0.1 %	

Analysis index: 3 | Analysis started at: 3/16/2016 11:12:39 AM | Rack: 0
Analysis label: 0.2/20 Cal | User name: ALPHALAB\a1metalsinstrument | Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.075 %	101.823 %	0.204 ppb	25.590 ppb	21.355 ppb	4.649 ppb	39.465 ppb
Concentration per Run 1	103.718 %	104.253 %	0.182 ppb	24.434 ppb	20.743 ppb	12.940 ppb	42.407 ppb
Concentration per Run 2	103.534 %	104.982 %	0.238 ppb	22.905 ppb	26.461 ppb	0.436 ppb	26.357 ppb
Concentration per Run 3	101.972 %	96.233 %	0.190 ppb	29.432 ppb	16.861 ppb	0.572 ppb	49.630 ppb
Concentration RSD			14.9 %	13.3 %	22.6 %	154.4 %	30.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	0.725 ppb	96.131 %	103.317 %	0.214 ppb	0.228 ppb	-0.408 ppb	23.874 ppb
Concentration per Run 1	-3.320 ppb	99.935 %	103.955 %	0.169 ppb	0.181 ppb	-0.522 ppb	22.163 ppb
Concentration per Run 2	-2.292 ppb	96.521 %	104.564 %	0.203 ppb	0.207 ppb	-0.396 ppb	25.053 ppb
Concentration per Run 3	7.787 ppb	91.937 %	101.432 %	0.270 ppb	0.294 ppb	-0.307 ppb	24.407 ppb
Concentration RSD	846.9 %			23.9 %	25.9 %	26.4 %	6.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.221 ppb	0.211 ppb	0.424 ppb	-0.236 ppb	102.117 %	0.193 ppb	1.218 ppb
Concentration per Run 1	0.249 ppb	0.354 ppb	0.370 ppb	-0.128 ppb	99.684 %	0.207 ppb	-0.029 ppb
Concentration per Run 2	0.242 ppb	0.080 ppb	0.621 ppb	-0.384 ppb	101.071 %	0.265 ppb	1.211 ppb
Concentration per Run 3	0.171 ppb	0.199 ppb	0.281 ppb	-0.196 ppb	105.598 %	0.107 ppb	2.471 ppb
Concentration RSD	19.6 %	65.2 %	41.5 %	56.2 %		41.6 %	102.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.210 ppb	0.189 ppb	0.185 ppb	99.162 %	0.163 ppb	0.208 ppb	0.213 ppb
Concentration per Run 1	0.213 ppb	0.225 ppb	0.221 ppb	98.681 %	0.092 ppb	0.230 ppb	0.125 ppb
Concentration per Run 2	0.231 ppb	0.221 ppb	0.148 ppb	98.145 %	0.152 ppb	0.142 ppb	0.214 ppb
Concentration per Run 3	0.186 ppb	0.123 ppb	0.184 ppb	100.661 %	0.244 ppb	0.250 ppb	0.301 ppb
Concentration RSD	10.7 %	30.4 %	19.9 %		47.0 %	27.6 %	41.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.999 %	0.215 ppb	0.207 ppb	99.476 %
Concentration per Run 1	102.500 %	0.197 ppb	0.213 ppb	102.022 %
Concentration per Run 2	98.994 %	0.215 ppb	0.211 ppb	99.454 %
Concentration per Run 3	95.504 %	0.234 ppb	0.197 ppb	96.953 %
Concentration RSD		8.6 %	4.2 %	

Analysis index: 4 Analysis started at: 3/16/2016 11:15:42 AM Rack: 0
Analysis label: 1.0/100 Cal User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.188 %	109.721 %	1.054 ppb	95.409 ppb	103.741 ppb	0.719 ppb	94.686 ppb
Concentration per Run 1	102.892 %	108.263 %	1.018 ppb	91.654 ppb	113.702 ppb	1.837 ppb	111.751 ppb
Concentration per Run 2	105.719 %	109.356 %	1.029 ppb	100.702 ppb	106.438 ppb	-0.379 ppb	90.005 ppb
Concentration per Run 3	103.952 %	111.543 %	1.116 ppb	93.871 ppb	91.085 ppb	0.700 ppb	82.301 ppb
Concentration RSD			5.1 %	4.9 %	11.1 %	154.0 %	16.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	69.828 ppb	100.845 %	104.198 %	0.920 ppb	1.066 ppb	0.326 ppb	106.246 ppb
Concentration per Run 1	76.728 ppb	102.861 %	101.751 %	0.980 ppb	1.209 ppb	0.635 ppb	97.993 ppb
Concentration per Run 2	58.701 ppb	98.081 %	107.198 %	0.718 ppb	1.055 ppb	0.300 ppb	112.238 ppb
Concentration per Run 3	74.054 ppb	101.593 %	103.644 %	1.062 ppb	0.933 ppb	0.044 ppb	108.506 ppb
Concentration RSD	13.9 %			19.5 %	13.0 %	90.9 %	7.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.105 ppb	1.014 ppb	1.362 ppb	0.480 ppb	102.653 %	0.999 ppb	1.585 ppb
Concentration per Run 1	1.165 ppb	1.042 ppb	1.156 ppb	0.566 ppb	107.642 %	0.765 ppb	1.987 ppb
Concentration per Run 2	1.003 ppb	0.752 ppb	1.484 ppb	0.406 ppb	100.413 %	1.190 ppb	1.119 ppb
Concentration per Run 3	1.147 ppb	1.247 ppb	1.445 ppb	0.466 ppb	99.903 %	1.042 ppb	1.649 ppb
Concentration RSD	8.0 %	24.6 %	13.2 %	16.9 %		21.6 %	27.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.899 ppb	1.016 ppb	1.112 ppb	104.523 %	0.960 ppb	0.941 ppb	1.070 ppb
Concentration per Run 1	0.882 ppb	0.967 ppb	0.946 ppb	108.941 %	0.946 ppb	0.881 ppb	1.050 ppb
Concentration per Run 2	0.870 ppb	1.036 ppb	1.095 ppb	102.308 %	0.996 ppb	0.874 ppb	1.205 ppb
Concentration per Run 3	0.946 ppb	1.046 ppb	1.294 ppb	102.319 %	0.939 ppb	1.069 ppb	0.955 ppb
Concentration RSD	4.5 %	4.2 %	15.7 %		3.2 %	11.8 %	11.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.382 %	0.994 ppb	0.988 ppb	102.166 %
Concentration per Run 1	106.788 %	0.998 ppb	0.962 ppb	105.948 %
Concentration per Run 2	100.130 %	0.950 ppb	0.975 ppb	102.371 %
Concentration per Run 3	100.228 %	1.034 ppb	1.027 ppb	98.178 %
Concentration RSD		4.2 %	3.5 %	

Analysis index: 5 Analysis started at: 3/16/2016 11:18:46 AM Rack: 0
Analysis label: 10/1000 Cal User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.353 %	109.599 %	10.055 ppb	1,002.186 ppb	1,048.136 ppb	9.855 ppb	1,004.703 ppb
Concentration per Run 1	106.352 %	104.617 %	9.790 ppb	1,039.157 ppb	1,077.624 ppb	8.659 ppb	937.188 ppb
Concentration per Run 2	104.880 %	95.504 %	10.144 ppb	1,074.844 ppb	1,074.395 ppb	9.802 ppb	1,069.863 ppb
Concentration per Run 3	104.827 %	128.676 %	10.232 ppb	892.556 ppb	992.390 ppb	11.106 ppb	1,007.058 ppb
Concentration RSD			2.3 %	9.6 %	4.6 %	12.4 %	6.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,060.861 ppb	103.251 %	104.348 %	10.048 ppb	9.826 ppb	10.093 ppb	1,021.033 ppb
Concentration per Run 1	934.195 ppb	103.934 %	102.578 %	10.365 ppb	9.700 ppb	10.753 ppb	1,019.853 ppb
Concentration per Run 2	1,091.963 ppb	105.104 %	104.864 %	10.113 ppb	9.787 ppb	10.146 ppb	1,007.418 ppb
Concentration per Run 3	1,156.425 ppb	100.715 %	105.603 %	9.666 ppb	9.990 ppb	9.379 ppb	1,035.827 ppb
Concentration RSD	10.8 %			3.5 %	1.5 %	6.8 %	1.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	10.312 ppb	10.946 ppb	10.491 ppb	9.521 ppb	103.039 %	9.835 ppb	10.402 ppb
Concentration per Run 1	10.535 ppb	12.005 ppb	10.236 ppb	9.987 ppb	104.722 %	9.212 ppb	8.730 ppb
Concentration per Run 2	10.055 ppb	10.322 ppb	10.662 ppb	9.562 ppb	101.938 %	10.486 ppb	10.584 ppb
Concentration per Run 3	10.345 ppb	10.511 ppb	10.576 ppb	9.014 ppb	102.458 %	9.807 ppb	11.893 ppb
Concentration RSD	2.3 %	8.4 %	2.1 %	5.1 %		6.5 %	15.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	10.127 ppb	10.596 ppb	10.211 ppb	103.017 %	10.414 ppb	9.879 ppb	10.160 ppb
Concentration per Run 1	9.946 ppb	10.679 ppb	10.383 ppb	103.111 %	10.045 ppb	10.041 ppb	10.081 ppb
Concentration per Run 2	10.250 ppb	10.752 ppb	10.134 ppb	104.362 %	11.120 ppb	9.440 ppb	10.556 ppb
Concentration per Run 3	10.185 ppb	10.358 ppb	10.116 ppb	101.578 %	10.079 ppb	10.156 ppb	9.842 ppb
Concentration RSD	1.6 %	2.0 %	1.5 %		5.9 %	3.9 %	3.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.399 %	10.143 ppb	9.865 ppb	103.491 %
Concentration per Run 1	105.493 %	10.547 ppb	9.959 ppb	103.186 %
Concentration per Run 2	102.845 %	9.817 ppb	9.689 ppb	104.734 %
Concentration per Run 3	101.858 %	10.065 ppb	9.946 ppb	102.552 %
Concentration RSD		3.7 %	1.5 %	

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 6 Analysis started at: 3/16/2016 11:21:50 AM Rack: 0
Analysis label: 120/12000 User name: ALPHALAB\a1metalsinstrument Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.996 %	108.020 %	120.819 ppb	11,657.930 ppb	11,962.797 ppb	122.129 ppb	11,930.272 ppb
Concentration per Run 1	101.734 %	116.647 %	120.183 ppb	11,181.888 ppb	11,085.756 ppb	120.756 ppb	11,796.643 ppb
Concentration per Run 2	100.203 %	109.356 %	120.826 ppb	11,548.944 ppb	11,870.314 ppb	120.549 ppb	12,087.323 ppb
Concentration per Run 3	101.050 %	98.056 %	121.448 ppb	12,242.959 ppb	12,932.322 ppb	125.082 ppb	11,906.848 ppb
Concentration RSD			0.5 %	4.6 %	7.7 %	2.1 %	1.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	11,907.985 ppb	103.219 %	102.027 %	115.958 ppb	120.693 ppb	120.248 ppb	11,953.038 ppb
Concentration per Run 1	11,713.394 ppb	101.496 %	102.268 %	114.725 ppb	114.597 ppb	116.718 ppb	11,722.041 ppb
Concentration per Run 2	11,673.212 ppb	105.397 %	103.527 %	117.694 ppb	125.213 ppb	117.153 ppb	11,910.629 ppb
Concentration per Run 3	12,337.350 ppb	102.763 %	100.287 %	115.454 ppb	122.270 ppb	126.872 ppb	12,226.444 ppb
Concentration RSD	3.1 %			1.3 %	4.5 %	4.8 %	2.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	120.598 ppb	126.727 ppb	120.700 ppb	119.487 ppb	98.629 %	120.692 ppb	120.446 ppb
Concentration per Run 1	115.901 ppb	123.336 ppb	116.373 ppb	114.278 ppb	103.905 %	115.725 ppb	107.811 ppb
Concentration per Run 2	121.614 ppb	129.915 ppb	120.239 ppb	122.045 ppb	92.369 %	126.307 ppb	127.993 ppb
Concentration per Run 3	124.280 ppb	126.930 ppb	125.489 ppb	122.137 ppb	99.614 %	120.042 ppb	125.534 ppb
Concentration RSD	3.5 %	2.6 %	3.8 %	3.8 %		4.4 %	9.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	116.602 ppb	123.534 ppb	118.735 ppb	101.717 %	120.652 ppb	115.706 ppb	119.178 ppb
Concentration per Run 1	110.547 ppb	120.228 ppb	112.794 ppb	106.483 %	114.042 ppb	110.713 ppb	116.004 ppb
Concentration per Run 2	120.230 ppb	126.033 ppb	119.918 ppb	101.322 %	121.710 ppb	118.979 ppb	118.176 ppb
Concentration per Run 3	119.029 ppb	124.342 ppb	123.494 ppb	97.345 %	126.205 ppb	117.425 ppb	123.354 ppb
Concentration RSD	4.5 %	2.4 %	4.6 %		5.1 %	3.8 %	3.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.794 %	119.988 ppb	114.720 ppb	100.331 %
Concentration per Run 1	103.631 %	113.872 ppb	109.626 ppb	104.652 %
Concentration per Run 2	99.939 %	120.691 ppb	116.643 ppb	100.092 %
Concentration per Run 3	95.812 %	125.401 ppb	117.892 ppb	96.249 %
Concentration RSD		4.8 %	3.9 %	

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 7 Analysis started at: 3/16/2016 11:24:55 AM Rack: 0
Analysis label: 250/25000 User name: ALPHALAB\a1metalsinstrument Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.842 %	106.318 %	251.797 ppb	25,164.120 ppb	26,433.634 ppb	248.981 ppb	26,039.125 ppb
Concentration per Run 1	104.597 %	102.066 %	248.626 ppb	25,649.774 ppb	26,190.367 ppb	240.326 ppb	24,755.510 ppb
Concentration per Run 2	106.041 %	109.721 %	251.303 ppb	26,444.916 ppb	28,711.290 ppb	275.503 ppb	28,762.922 ppb
Concentration per Run 3	106.888 %	107.169 %	255.460 ppb	23,397.670 ppb	24,399.246 ppb	231.116 ppb	24,598.942 ppb
Concentration RSD			1.4 %	6.3 %	8.2 %	9.4 %	9.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	25,265.164 ppb	104.845 %	107.673 %	252.425 ppb	256.700 ppb	250.482 ppb	24,945.176 ppb
Concentration per Run 1	23,652.178 ppb	112.030 %	107.361 %	236.676 ppb	244.962 ppb	241.421 ppb	23,313.060 ppb
Concentration per Run 2	29,224.455 ppb	92.913 %	106.969 %	292.896 ppb	303.618 ppb	290.900 ppb	29,495.286 ppb
Concentration per Run 3	22,918.859 ppb	109.592 %	108.689 %	227.703 ppb	221.518 ppb	219.125 ppb	22,027.181 ppb
Concentration RSD	13.6 %			14.0 %	16.5 %	14.7 %	16.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	251.434 ppb	260.306 ppb	255.576 ppb	249.202 ppb	106.225 %	240.595 ppb	252.202 ppb
Concentration per Run 1	242.278 ppb	251.913 ppb	248.978 ppb	243.948 ppb	105.459 %	245.528 ppb	250.235 ppb
Concentration per Run 2	289.677 ppb	294.238 ppb	293.986 ppb	283.229 ppb	100.864 %	263.667 ppb	293.019 ppb
Concentration per Run 3	222.346 ppb	234.768 ppb	223.763 ppb	220.429 ppb	112.353 %	212.589 ppb	213.353 ppb
Concentration RSD	13.8 %	11.8 %	13.9 %	12.7 %		10.8 %	15.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	249.794 ppb	257.248 ppb	262.293 ppb	98.292 %	262.777 ppb	256.810 ppb	258.585 ppb
Concentration per Run 1	250.915 ppb	258.469 ppb	256.368 ppb	100.294 %	257.441 ppb	245.624 ppb	244.212 ppb
Concentration per Run 2	282.063 ppb	284.027 ppb	310.958 ppb	89.124 %	312.024 ppb	300.984 ppb	309.285 ppb
Concentration per Run 3	216.403 ppb	229.247 ppb	219.552 ppb	105.456 %	218.866 ppb	223.824 ppb	222.258 ppb
Concentration RSD	13.1 %	10.7 %	17.5 %		17.8 %	15.5 %	17.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.196 %	210.558 ppb	252.540 ppb	95.005 %
Concentration per Run 1	99.313 %	204.388 ppb	238.425 ppb	98.506 %
Concentration per Run 2	86.996 %	236.405 ppb	294.906 ppb	86.683 %
Concentration per Run 3	108.278 %	190.881 ppb	224.288 ppb	99.826 %
Concentration RSD		11.1 %	14.8 %	

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 8 Analysis started at: 3/16/2016 11:28:00 AM Rack: 0
Analysis label: 500/50000 User name: ALPHALAB\a1metalsinstrument Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	109.399 %	120.171 %	498.904 ppb	44,793.841 ppb	49,291.141 ppb	485.974 ppb	49,497.081 ppb
Concentration per Run 1	109.796 %	113.366 %	496.379 ppb	46,166.192 ppb	49,956.824 ppb	495.665 ppb	51,724.957 ppb
Concentration per Run 2	109.637 %	126.854 %	502.036 ppb	44,343.409 ppb	48,098.232 ppb	476.494 ppb	47,818.543 ppb
Concentration per Run 3	108.762 %	120.292 %	498.297 ppb	43,871.923 ppb	49,818.366 ppb	485.762 ppb	48,947.743 ppb
Concentration RSD			0.6 %	2.7 %	2.1 %	2.0 %	4.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	49,888.353 ppb	108.649 %	110.633 %	499.757 ppb	496.487 ppb	499.699 ppb	50,038.248 ppb
Concentration per Run 1	48,479.496 ppb	109.494 %	111.111 %	502.931 ppb	497.949 ppb	498.385 ppb	49,576.631 ppb
Concentration per Run 2	52,864.121 ppb	106.373 %	111.047 %	514.873 ppb	507.892 ppb	511.476 ppb	51,358.028 ppb
Concentration per Run 3	48,321.440 ppb	110.079 %	109.741 %	481.467 ppb	483.620 ppb	489.237 ppb	49,180.086 ppb
Concentration RSD	5.2 %			3.4 %	2.5 %	2.2 %	2.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	499.133 ppb	493.214 ppb	497.033 ppb	500.533 ppb	102.422 %	504.540 ppb	498.782 ppb
Concentration per Run 1	497.169 ppb	509.011 ppb	492.536 ppb	511.522 ppb	99.711 %	523.412 ppb	512.905 ppb
Concentration per Run 2	507.137 ppb	505.150 ppb	520.316 ppb	512.658 ppb	98.788 %	517.853 ppb	510.375 ppb
Concentration per Run 3	493.093 ppb	465.480 ppb	478.249 ppb	477.419 ppb	108.767 %	472.355 ppb	473.067 ppb
Concentration RSD	1.4 %	4.9 %	4.3 %	4.0 %		5.6 %	4.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	500.916 ppb	495.516 ppb	494.153 ppb	102.478 %	493.447 ppb	497.628 ppb	495.901 ppb
Concentration per Run 1	497.126 ppb	489.666 ppb	492.395 ppb	104.105 %	493.240 ppb	495.809 ppb	484.848 ppb
Concentration per Run 2	506.775 ppb	492.164 ppb	497.154 ppb	103.270 %	485.767 ppb	504.740 ppb	511.687 ppb
Concentration per Run 3	498.848 ppb	504.718 ppb	492.909 ppb	100.060 %	501.333 ppb	492.335 ppb	491.169 ppb
Concentration RSD	1.0 %	1.6 %	0.5 %		1.6 %	1.3 %	2.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.713 %	383.127 ppb	416.785 ppb	98.203 %
Concentration per Run 1	98.231 %	377.174 ppb	422.519 ppb	99.086 %
Concentration per Run 2	96.543 %	382.896 ppb	408.952 ppb	98.529 %
Concentration per Run 3	98.364 %	389.312 ppb	418.885 ppb	96.993 %
Concentration RSD		1.6 %	1.7 %	

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 9 Analysis started at: 3/16/2016 11:31:06 AM Rack: 0
Analysis label: Rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.461 %	125.760 %	0.039 ppb	-3.408 ppb	1.514 ppb	-0.942 ppb	12.400 ppb
Concentration per Run 1	112.482 %	114.095 %	0.034 ppb	-1.644 ppb	2.785 ppb	-0.597 ppb	20.038 ppb
Concentration per Run 2	112.493 %	130.863 %	0.050 ppb	-4.647 ppb	0.233 ppb	-0.871 ppb	7.730 ppb
Concentration per Run 3	112.410 %	132.322 %	0.032 ppb	-3.933 ppb	1.523 ppb	-1.358 ppb	9.433 ppb
Concentration RSD	0.0 %	8.1 %	25.8 %	46.0 %	84.3 %	40.9 %	53.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-19.165 ppb	107.673 %	113.618 %	0.005 ppb	0.061 ppb	-0.754 ppb	5.638 ppb
Concentration per Run 1	-19.089 ppb	99.838 %	113.728 %	-0.001 ppb	0.086 ppb	-0.605 ppb	6.037 ppb
Concentration per Run 2	-15.839 ppb	112.615 %	115.280 %	0.021 ppb	0.080 ppb	-0.848 ppb	6.086 ppb
Concentration per Run 3	-22.568 ppb	110.567 %	111.848 %	-0.004 ppb	0.018 ppb	-0.809 ppb	4.792 ppb
Concentration RSD	17.6 %	6.4 %	1.5 %	253.9 %	61.3 %	17.3 %	13.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.019 ppb	0.131 ppb	0.037 ppb	-0.940 ppb	109.906 %	0.705 ppb	0.580 ppb
Concentration per Run 1	0.016 ppb	0.229 ppb	0.060 ppb	-0.930 ppb	104.941 %	0.786 ppb	0.171 ppb
Concentration per Run 2	0.021 ppb	0.133 ppb	0.074 ppb	-0.921 ppb	115.602 %	0.633 ppb	0.287 ppb
Concentration per Run 3	0.022 ppb	0.032 ppb	-0.022 ppb	-0.969 ppb	109.176 %	0.698 ppb	1.283 ppb
Concentration RSD	17.2 %	75.0 %	138.5 %	2.7 %	4.9 %	10.9 %	105.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.451 ppb	0.096 ppb	0.041 ppb	106.220 %	0.042 ppb	2.199 ppb	-0.015 ppb
Concentration per Run 1	1.453 ppb	0.098 ppb	0.062 ppb	103.682 %	0.027 ppb	2.295 ppb	-0.001 ppb
Concentration per Run 2	1.177 ppb	0.102 ppb	0.045 ppb	107.038 %	0.095 ppb	2.204 ppb	-0.042 ppb
Concentration per Run 3	1.722 ppb	0.090 ppb	0.015 ppb	107.939 %	0.004 ppb	2.096 ppb	-0.002 ppb
Concentration RSD	18.8 %	6.5 %	58.8 %	2.1 %	112.8 %	4.5 %	156.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.210 %	0.045 ppb	0.019 ppb	100.477 %
Concentration per Run 1	101.873 %	0.050 ppb	0.028 ppb	97.798 %
Concentration per Run 2	104.338 %	0.054 ppb	0.022 ppb	102.919 %
Concentration per Run 3	100.419 %	0.031 ppb	0.008 ppb	100.712 %
Concentration RSD	1.9 %	27.3 %	52.9 %	2.6 %

Analysis index: 10 Analysis started at: 3/16/2016 11:34:09 AM Rack: 0
Analysis label: ICV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.401 %	111.543 %	96.896 ppb	10,432.534 ppb	10,773.285 ppb	108.189 ppb	10,758.558 ppb
Concentration per Run 1	113.248 %	102.066 %	96.759 ppb	11,084.961 ppb	11,443.809 ppb	114.739 ppb	10,816.430 ppb
Concentration per Run 2	113.165 %	112.637 %	97.287 ppb	11,205.469 ppb	11,771.622 ppb	127.199 ppb	11,934.215 ppb
Concentration per Run 3	113.788 %	119.928 %	96.641 ppb	9,007.171 ppb	9,104.422 ppb	82.630 ppb	9,525.030 ppb
Recovery Percentage 1			96.896 %	104.325 %	107.733 %	108.189 %	107.586 %
Concentration RSD	0.3 %	8.1 %	0.4 %	11.8 %	13.5 %	21.3 %	11.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,346.371 ppb	108.161 %	116.130 %	101.572 ppb	102.190 ppb	100.427 ppb	10,296.690 ppb
Concentration per Run 1	9,996.005 ppb	109.981 %	118.183 %	101.978 ppb	102.104 ppb	103.647 ppb	10,362.731 ppb
Concentration per Run 2	12,603.983 ppb	97.399 %	113.901 %	118.406 ppb	118.462 ppb	111.983 ppb	12,040.391 ppb
Concentration per Run 3	8,439.124 ppb	117.102 %	116.306 %	84.330 ppb	86.004 ppb	85.653 ppb	8,486.948 ppb
Recovery Percentage 1	103.464 %			101.572 %	102.190 %	100.427 %	102.967 %
Concentration RSD	20.3 %	9.2 %	1.8 %	16.8 %	15.9 %	13.4 %	17.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	102.703 ppb	102.741 ppb	100.619 ppb	99.389 ppb	110.708 %	95.860 ppb	92.692 ppb
Concentration per Run 1	106.562 ppb	103.638 ppb	108.716 ppb	104.966 ppb	106.048 %	103.415 ppb	88.152 ppb
Concentration per Run 2	117.036 ppb	118.399 ppb	110.091 ppb	110.545 ppb	104.636 %	104.516 ppb	96.531 ppb
Concentration per Run 3	84.510 ppb	86.187 ppb	83.051 ppb	82.655 ppb	121.440 %	79.648 ppb	93.394 ppb
Recovery Percentage 1	102.703 %	102.741 %	100.619 %	99.389 %		95.860 %	92.692 %
Concentration RSD	16.2 %	15.7 %	15.1 %	14.8 %	8.4 %	14.7 %	4.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	99.160 ppb	101.666 ppb	101.688 ppb	104.972 %	37.923 ppb	104.420 ppb	101.366 ppb
Concentration per Run 1	103.707 ppb	107.223 ppb	107.598 ppb	102.299 %	38.152 ppb	106.354 ppb	103.492 ppb
Concentration per Run 2	113.398 ppb	108.391 ppb	115.190 ppb	97.298 %	43.663 ppb	121.218 ppb	113.532 ppb
Concentration per Run 3	80.376 ppb	89.384 ppb	82.275 ppb	115.319 %	31.956 ppb	85.688 ppb	87.072 ppb
Recovery Percentage 1	99.160 %	101.666 %	101.688 %		37.923 %	104.420 %	101.366 %
Concentration RSD	17.1 %	10.5 %	16.9 %	8.9 %	15.4 %	17.1 %	13.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.697 %	102.848 ppb	99.990 ppb	96.634 %
Concentration per Run 1	102.426 %	107.743 ppb	102.298 ppb	95.978 %
Concentration per Run 2	91.703 %	111.141 ppb	111.823 ppb	88.878 %
Concentration per Run 3	107.963 %	89.660 ppb	85.849 ppb	105.044 %
Recovery Percentage 1		102.848 %	99.990 %	
Concentration RSD	8.2 %	11.2 %	13.1 %	8.4 %

Analysis index: 11 Analysis started at: 3/16/2016 11:37:16 AM Rack: 0
Analysis label: ICB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.520 %	123.087 %	0.051 ppb	-1.132 ppb	3.543 ppb	-0.319 ppb	12.138 ppb
Concentration per Run 1	111.398 %	128.676 %	0.049 ppb	-1.842 ppb	2.037 ppb	-0.267 ppb	3.526 ppb
Concentration per Run 2	114.223 %	131.228 %	0.039 ppb	-4.943 ppb	5.271 ppb	-0.401 ppb	20.852 ppb
Concentration per Run 3	114.938 %	109.356 %	0.065 ppb	3.389 ppb	3.319 ppb	-0.288 ppb	12.036 ppb
Recovery Percentage 1			10.164 %	-1.132 %	5.061 %	-3.188 %	12.138 %
Concentration RSD	1.6 %	9.7 %	26.2 %	372.0 %	46.0 %	22.6 %	71.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-9.436 ppb	117.298 %	113.804 %	0.061 ppb	-0.010 ppb	-0.552 ppb	2.570 ppb
Concentration per Run 1	-15.088 ppb	122.663 %	113.087 %	0.041 ppb	-0.071 ppb	-0.568 ppb	3.659 ppb
Concentration per Run 2	-7.004 ppb	115.737 %	112.733 %	0.020 ppb	0.044 ppb	-0.651 ppb	2.358 ppb
Concentration per Run 3	-6.215 ppb	113.493 %	115.593 %	0.121 ppb	-0.002 ppb	-0.436 ppb	1.693 ppb
Recovery Percentage 1	-9.436 %			1.212 %	-0.952 %	-55.154 %	5.140 %
Concentration RSD	52.0 %	4.1 %	1.4 %	88.4 %	608.8 %	19.6 %	38.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.005 ppb	0.156 ppb	0.027 ppb	-0.528 ppb	113.484 %	0.234 ppb	1.133 ppb
Concentration per Run 1	0.010 ppb	0.093 ppb	-0.024 ppb	-0.513 ppb	115.310 %	0.311 ppb	0.404 ppb
Concentration per Run 2	0.011 ppb	0.063 ppb	0.001 ppb	-0.620 ppb	114.871 %	0.178 ppb	1.129 ppb
Concentration per Run 3	-0.006 ppb	0.312 ppb	0.102 ppb	-0.451 ppb	110.271 %	0.214 ppb	1.867 ppb
Recovery Percentage 1	1.055 %	31.164 %	2.663 %	-5.278 %	113.484 %	46.898 %	22.669 %
Concentration RSD	179.9 %	87.2 %	251.0 %	16.1 %	2.5 %	29.4 %	64.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.687 ppb	0.063 ppb	0.040 ppb	108.895 %	0.009 ppb	0.515 ppb	0.009 ppb
Concentration per Run 1	0.673 ppb	0.052 ppb	0.021 ppb	113.140 %	0.033 ppb	0.438 ppb	0.072 ppb
Concentration per Run 2	0.656 ppb	0.076 ppb	0.052 ppb	108.233 %	-0.050 ppb	0.639 ppb	-0.042 ppb
Concentration per Run 3	0.731 ppb	0.061 ppb	0.046 ppb	105.312 %	0.043 ppb	0.469 ppb	-0.002 ppb
Recovery Percentage 1	22.891 %	15.738 %	19.917 %		0.291 %	25.767 %	1.880 %
Concentration RSD	5.7 %	18.7 %	40.7 %	3.6 %	589.0 %	21.1 %	616.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	106.476 %	0.035 ppb	0.015 ppb	104.436 %
Concentration per Run 1	107.807 %	0.030 ppb	0.004 ppb	110.077 %
Concentration per Run 2	107.853 %	0.041 ppb	0.014 ppb	104.421 %
Concentration per Run 3	103.770 %	0.035 ppb	0.026 ppb	98.811 %
Recovery Percentage 1		7.076 %	2.908 %	104.436 %
Concentration RSD	2.2 %	14.7 %	75.1 %	5.4 %

Analysis index: 12 Analysis started at: 3/16/2016 11:50:43 AM Rack: 4
Analysis label: LLCCV User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	118.864 %	117.619 %	0.478 ppb	106.775 ppb	85.912 ppb	11.235 ppb	115.301 ppb
Concentration per Run 1	119.555 %	130.134 %	0.468 ppb	89.016 ppb	74.020 ppb	8.916 ppb	117.843 ppb
Concentration per Run 2	119.170 %	119.563 %	0.482 ppb	106.863 ppb	79.922 ppb	10.262 ppb	95.470 ppb
Concentration per Run 3	117.866 %	103.159 %	0.482 ppb	124.444 ppb	103.795 ppb	14.526 ppb	132.590 ppb
Recovery Percentage 1			95.526 %	106.775 %	122.732 %	112.345 %	115.301 %
Concentration RSD	0.7 %	11.6 %	1.7 %	16.6 %	18.4 %	26.1 %	16.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	97.304 ppb	110.698 %	122.127 %	5.384 ppb	1.100 ppb	-0.225 ppb	56.164 ppb
Concentration per Run 1	68.948 ppb	122.762 %	122.997 %	4.831 ppb	1.015 ppb	-0.274 ppb	46.242 ppb
Concentration per Run 2	82.968 ppb	111.250 %	121.679 %	5.285 ppb	0.971 ppb	-0.328 ppb	55.942 ppb
Concentration per Run 3	139.995 ppb	98.082 %	121.706 %	6.037 ppb	1.315 ppb	-0.071 ppb	66.307 ppb
Recovery Percentage 1	97.304 %			107.689 %	110.035 %	-44.901 %	112.327 %
Concentration RSD	38.7 %	11.2 %	0.6 %	11.3 %	17.0 %	60.3 %	17.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.481 ppb	0.704 ppb	1.189 ppb	9.995 ppb	110.403 %	0.587 ppb	5.955 ppb
Concentration per Run 1	0.396 ppb	0.697 ppb	1.177 ppb	9.041 ppb	112.371 %	0.594 ppb	4.574 ppb
Concentration per Run 2	0.501 ppb	0.805 ppb	0.972 ppb	9.782 ppb	111.869 %	0.598 ppb	6.896 ppb
Concentration per Run 3	0.548 ppb	0.611 ppb	1.418 ppb	11.162 ppb	106.968 %	0.569 ppb	6.394 ppb
Recovery Percentage 1	96.269 %	140.846 %	118.907 %	99.950 %		117.484 %	119.095 %
Concentration RSD	16.1 %	13.8 %	18.8 %	10.8 %	2.7 %	2.7 %	20.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.147 ppb	0.455 ppb	0.244 ppb	106.250 %	0.501 ppb	0.794 ppb	0.621 ppb
Concentration per Run 1	1.026 ppb	0.449 ppb	0.236 ppb	117.177 %	0.394 ppb	0.594 ppb	0.476 ppb
Concentration per Run 2	1.127 ppb	0.440 ppb	0.240 ppb	107.436 %	0.475 ppb	0.773 ppb	0.723 ppb
Concentration per Run 3	1.287 ppb	0.475 ppb	0.255 ppb	94.136 %	0.635 ppb	1.015 ppb	0.664 ppb
Recovery Percentage 1	114.658 %	113.670 %	121.888 %		100.285 %	158.863 %	124.171 %
Concentration RSD	11.5 %	3.9 %	4.0 %	10.9 %	24.5 %	26.6 %	20.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.763 %	0.515 ppb	1.107 ppb	102.237 %
Concentration per Run 1	110.254 %	0.460 ppb	0.935 ppb	115.508 %
Concentration per Run 2	101.465 %	0.490 ppb	1.086 ppb	100.155 %
Concentration per Run 3	96.569 %	0.597 ppb	1.298 ppb	91.049 %
Recovery Percentage 1		103.089 %	110.650 %	
Concentration RSD	6.7 %	14.0 %	16.5 %	12.1 %

Analysis index: 13 Analysis started at: 3/16/2016 11:53:50 AM Rack: 4
Analysis label: ICSA User name: ALPHALAB\a1metalsinstrument Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.107 %	107.777 %	0.020 ppb	48,588.934 ppb	21,447.770 ppb	20,321.439 ppb	21,604.395 ppb
Concentration per Run 1	105.641 %	110.814 %	0.012 ppb	47,174.557 ppb	20,712.003 ppb	19,911.615 ppb	21,363.707 ppb
Concentration per Run 2	105.283 %	101.337 %	0.016 ppb	52,004.848 ppb	22,768.507 ppb	21,011.568 ppb	22,253.232 ppb
Concentration per Run 3	104.396 %	111.179 %	0.034 ppb	46,587.398 ppb	20,862.798 ppb	20,041.134 ppb	21,196.245 ppb
Recovery Percentage 1				97.178 %	107.239 %	101.607 %	108.022 %
Concentration RSD	0.6 %	5.2 %	57.3 %	6.1 %	5.3 %	3.0 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	63,394.184 ppb	100.227 %	97.196 %	0.028 ppb	0.185 ppb	0.127 ppb	51,057.019 ppb
Concentration per Run 1	62,020.631 ppb	102.959 %	93.917 %	-0.002 ppb	0.190 ppb	-0.054 ppb	50,001.963 ppb
Concentration per Run 2	67,199.292 ppb	96.228 %	98.795 %	0.058 ppb	0.132 ppb	0.314 ppb	53,310.841 ppb
Concentration per Run 3	60,962.630 ppb	101.495 %	98.875 %	0.027 ppb	0.233 ppb	0.122 ppb	49,858.253 ppb
Recovery Percentage 1	105.657 %						102.114 %
Concentration RSD	5.3 %	3.5 %	2.9 %	108.5 %	27.5 %	144.8 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.260 ppb	0.222 ppb	0.473 ppb	-0.196 ppb	101.630 %	0.358 ppb	1.168 ppb
Concentration per Run 1	0.268 ppb	0.112 ppb	0.541 ppb	-0.307 ppb	104.284 %	0.108 ppb	1.133 ppb
Concentration per Run 2	0.284 ppb	0.319 ppb	0.455 ppb	-0.056 ppb	100.851 %	0.481 ppb	1.870 ppb
Concentration per Run 3	0.227 ppb	0.234 ppb	0.423 ppb	-0.226 ppb	99.756 %	0.487 ppb	0.500 ppb
Recovery Percentage 1							
Concentration RSD	11.3 %	46.9 %	12.8 %	65.1 %	2.3 %	60.5 %	58.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	404.703 ppb	0.106 ppb	0.217 ppb	94.734 %	0.027 ppb	0.441 ppb	0.142 ppb
Concentration per Run 1	390.882 ppb	0.090 ppb	0.249 ppb	96.943 %	-0.004 ppb	0.467 ppb	0.047 ppb
Concentration per Run 2	405.283 ppb	0.149 ppb	0.236 ppb	95.616 %	0.018 ppb	0.312 ppb	0.186 ppb
Concentration per Run 3	417.945 ppb	0.080 ppb	0.167 ppb	91.642 %	0.066 ppb	0.544 ppb	0.194 ppb
Recovery Percentage 1	101.176 %						
Concentration RSD	3.3 %	35.2 %	20.4 %	2.9 %	133.5 %	26.8 %	58.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.370 %	0.003 ppb	0.104 ppb	91.663 %
Concentration per Run 1	92.659 %	0.002 ppb	0.101 ppb	94.937 %
Concentration per Run 2	88.622 %	-0.002 ppb	0.107 ppb	91.369 %
Concentration per Run 3	86.829 %	0.010 ppb	0.105 ppb	88.682 %
Recovery Percentage 1				
Concentration RSD	3.3 %	193.1 %	2.9 %	3.4 %

Analysis index: 14 Analysis started at: 3/16/2016 11:56:56 AM Rack: 4
Analysis label: ICSAB User name: ALPHALAB\a1metalsinstrument Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.817 %	104.496 %	0.030 ppb	45,320.045 ppb	20,974.201 ppb	19,887.369 ppb	21,332.575 ppb
Concentration per Run 1	102.326 %	108.627 %	0.027 ppb	44,065.042 ppb	20,614.928 ppb	19,434.433 ppb	20,992.006 ppb
Concentration per Run 2	104.225 %	100.608 %	0.032 ppb	46,981.226 ppb	20,993.762 ppb	19,775.274 ppb	21,924.939 ppb
Concentration per Run 3	104.901 %	104.253 %	0.031 ppb	44,913.866 ppb	21,313.914 ppb	20,452.398 ppb	21,080.780 ppb
Recovery Percentage 1				90.640 %	104.871 %	99.437 %	106.663 %
Concentration RSD	1.3 %	3.8 %	9.6 %	3.3 %	1.7 %	2.6 %	2.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	62,339.286 ppb	94.571 %	97.753 %	41.733 ppb	40.390 ppb	39.980 ppb	50,677.276 ppb
Concentration per Run 1	61,704.327 ppb	95.839 %	95.016 %	40.796 ppb	41.268 ppb	39.490 ppb	49,336.779 ppb
Concentration per Run 2	62,650.266 ppb	92.230 %	96.171 %	43.001 ppb	39.995 ppb	41.856 ppb	51,996.635 ppb
Concentration per Run 3	62,663.266 ppb	95.643 %	102.072 %	41.402 ppb	39.906 ppb	38.592 ppb	50,698.414 ppb
Recovery Percentage 1	103.899 %			104.332 %	100.974 %	99.949 %	101.355 %
Concentration RSD	0.9 %	2.1 %	3.9 %	2.7 %	1.9 %	4.2 %	2.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	40.243 ppb	40.725 ppb	40.588 ppb	19.523 ppb	99.864 %	19.689 ppb	17.410 ppb
Concentration per Run 1	39.819 ppb	41.372 ppb	38.772 ppb	19.376 ppb	101.282 %	20.071 ppb	14.905 ppb
Concentration per Run 2	41.039 ppb	42.493 ppb	42.373 ppb	19.955 ppb	95.869 %	19.288 ppb	23.267 ppb
Concentration per Run 3	39.869 ppb	38.308 ppb	40.619 ppb	19.238 ppb	102.441 %	19.710 ppb	14.057 ppb
Recovery Percentage 1	100.606 %	101.811 %	101.470 %	97.614 %		98.447 %	87.048 %
Concentration RSD	1.7 %	5.3 %	4.4 %	1.9 %	3.5 %	2.0 %	29.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	388.063 ppb	9.966 ppb	20.127 ppb	97.633 %	0.035 ppb	0.382 ppb	0.222 ppb
Concentration per Run 1	379.937 ppb	9.706 ppb	20.307 ppb	99.486 %	0.091 ppb	0.208 ppb	0.173 ppb
Concentration per Run 2	389.411 ppb	10.129 ppb	19.441 ppb	96.536 %	-0.004 ppb	0.561 ppb	0.224 ppb
Concentration per Run 3	394.840 ppb	10.062 ppb	20.633 ppb	96.877 %	0.016 ppb	0.376 ppb	0.271 ppb
Recovery Percentage 1	97.016 %	99.656 %	100.635 %				
Concentration RSD	1.9 %	2.3 %	3.1 %	1.7 %	144.0 %	46.2 %	22.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.618 %	-0.002 ppb	0.130 ppb	95.307 %
Concentration per Run 1	96.282 %	-0.002 ppb	0.147 ppb	95.272 %
Concentration per Run 2	93.282 %	0.001 ppb	0.103 ppb	96.687 %
Concentration per Run 3	91.290 %	-0.004 ppb	0.140 ppb	93.963 %
Recovery Percentage 1				
Concentration RSD	2.7 %	132.8 %	18.2 %	1.4 %

Analysis index: 15 Analysis started at: 3/16/2016 12:00:03 PM Rack: 0
Analysis label: HIGH STD User name: ALPHALAB\a1metalsinstrument Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	107.835 %	117.983 %	505.706 ppb	46,271.609 ppb	51,077.091 ppb	489.793 ppb	52,662.556 ppb
Concentration per Run 1	106.871 %	103.159 %	507.456 ppb	54,293.461 ppb	62,904.381 ppb	609.518 ppb	59,468.307 ppb
Concentration per Run 2	108.407 %	135.602 %	505.120 ppb	37,912.617 ppb	39,172.911 ppb	383.479 ppb	45,706.458 ppb
Concentration per Run 3	108.228 %	115.189 %	504.542 ppb	46,608.747 ppb	51,153.980 ppb	476.382 ppb	52,812.903 ppb
Recovery Percentage 1			101.141 %	92.543 %	102.154 %	97.959 %	105.325 %
Concentration RSD	0.8 %	13.9 %	0.3 %	17.7 %	23.2 %	23.2 %	13.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	51,939.283 ppb	104.487 %	110.938 %	511.056 ppb	510.788 ppb	502.954 ppb	51,016.586 ppb
Concentration per Run 1	63,250.256 ppb	95.448 %	110.013 %	614.439 ppb	627.354 ppb	606.001 ppb	60,431.967 ppb
Concentration per Run 2	41,901.200 ppb	113.201 %	110.911 %	422.411 ppb	404.723 ppb	406.493 ppb	41,256.073 ppb
Concentration per Run 3	50,666.394 ppb	104.812 %	111.889 %	496.317 ppb	500.287 ppb	496.368 ppb	51,361.718 ppb
Recovery Percentage 1	103.879 %			102.211 %	102.158 %	100.591 %	102.033 %
Concentration RSD	20.7 %	8.5 %	0.8 %	19.0 %	21.9 %	19.9 %	18.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	502.506 ppb	511.695 ppb	505.163 ppb	506.114 ppb	106.250 %	496.870 ppb	487.246 ppb
Concentration per Run 1	597.254 ppb	598.225 ppb	582.435 ppb	585.109 ppb	99.008 %	555.383 ppb	547.189 ppb
Concentration per Run 2	409.129 ppb	430.780 ppb	433.967 ppb	425.190 ppb	117.203 %	425.413 ppb	414.316 ppb
Concentration per Run 3	501.136 ppb	506.081 ppb	499.087 ppb	508.044 ppb	102.538 %	509.813 ppb	500.234 ppb
Recovery Percentage 1	100.501 %	102.339 %	101.033 %	101.223 %		99.374 %	97.449 %
Concentration RSD	18.7 %	16.4 %	14.7 %	15.8 %	9.1 %	13.3 %	13.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	486.631 ppb	485.770 ppb	495.285 ppb	107.134 %	503.515 ppb	494.867 ppb	495.946 ppb
Concentration per Run 1	571.518 ppb	550.752 ppb	594.994 ppb	95.766 %	601.476 ppb	590.387 ppb	591.707 ppb
Concentration per Run 2	408.890 ppb	421.527 ppb	406.449 ppb	118.690 %	419.093 ppb	413.896 ppb	409.261 ppb
Concentration per Run 3	479.486 ppb	485.031 ppb	484.413 ppb	106.947 %	489.976 ppb	480.317 ppb	486.870 ppb
Recovery Percentage 1	97.326 %	97.154 %	99.057 %		100.703 %	98.973 %	99.189 %
Concentration RSD	16.8 %	13.3 %	19.1 %	10.7 %	18.3 %	18.0 %	18.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.676 %	388.276 ppb	425.508 ppb	100.536 %
Concentration per Run 1	94.749 %	428.774 ppb	489.037 ppb	93.494 %
Concentration per Run 2	114.788 %	347.904 ppb	364.414 ppb	107.492 %
Concentration per Run 3	101.490 %	388.151 ppb	423.073 ppb	100.621 %
Recovery Percentage 1		77.655 %	85.102 %	
Concentration RSD	9.8 %	10.4 %	14.7 %	7.0 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 16 Analysis started at: 3/16/2016 12:03:09 PM Rack: 0
Analysis label: Rinse User name: ALPHALAB\a1metalsinstrument Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.381 %	104.982 %	0.046 ppb	-1.993 ppb	0.342 ppb	-1.037 ppb	5.116 ppb
Concentration per Run 1	112.140 %	103.888 %	0.028 ppb	-1.937 ppb	-0.135 ppb	-1.156 ppb	15.627 ppb
Concentration per Run 2	111.704 %	101.337 %	0.030 ppb	-2.027 ppb	1.304 ppb	-0.800 ppb	1.111 ppb
Concentration per Run 3	110.300 %	109.721 %	0.079 ppb	-2.017 ppb	-0.142 ppb	-1.154 ppb	-1.390 ppb
Concentration RSD	0.9 %	4.1 %	62.8 %	2.5 %	243.3 %	19.7 %	179.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-24.300 ppb	110.600 %	114.815 %	0.013 ppb	0.012 ppb	-0.855 ppb	4.048 ppb
Concentration per Run 1	-23.205 ppb	111.055 %	115.230 %	-0.029 ppb	0.001 ppb	-0.879 ppb	4.788 ppb
Concentration per Run 2	-23.060 ppb	115.835 %	117.053 %	0.045 ppb	0.047 ppb	-0.847 ppb	3.206 ppb
Concentration per Run 3	-26.634 ppb	104.909 %	112.162 %	0.024 ppb	-0.012 ppb	-0.840 ppb	4.149 ppb
Concentration RSD	8.3 %	5.0 %	2.2 %	287.3 %	260.2 %	2.5 %	19.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.019 ppb	0.033 ppb	0.012 ppb	-1.010 ppb	108.276 %	0.666 ppb	1.112 ppb
Concentration per Run 1	0.022 ppb	-0.004 ppb	0.029 ppb	-0.968 ppb	108.665 %	0.729 ppb	1.731 ppb
Concentration per Run 2	0.004 ppb	0.032 ppb	0.029 ppb	-1.031 ppb	105.818 %	0.661 ppb	0.688 ppb
Concentration per Run 3	0.033 ppb	0.070 ppb	-0.022 ppb	-1.031 ppb	110.344 %	0.607 ppb	0.918 ppb
Concentration RSD	75.6 %	112.6 %	240.8 %	3.6 %	2.1 %	9.2 %	49.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.779 ppb	0.059 ppb	0.037 ppb	109.604 %	0.020 ppb	2.055 ppb	-0.029 ppb
Concentration per Run 1	1.601 ppb	0.042 ppb	0.051 ppb	110.700 %	0.001 ppb	1.824 ppb	-0.004 ppb
Concentration per Run 2	1.836 ppb	0.066 ppb	0.036 ppb	111.849 %	0.052 ppb	2.035 ppb	-0.042 ppb
Concentration per Run 3	1.899 ppb	0.069 ppb	0.023 ppb	106.264 %	0.006 ppb	2.305 ppb	-0.042 ppb
Concentration RSD	8.8 %	25.7 %	38.7 %	2.7 %	145.2 %	11.7 %	74.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	106.866 %	0.029 ppb	0.012 ppb	104.963 %
Concentration per Run 1	110.449 %	0.034 ppb	0.018 ppb	108.034 %
Concentration per Run 2	106.765 %	0.021 ppb	0.012 ppb	102.426 %
Concentration per Run 3	103.383 %	0.032 ppb	0.007 ppb	104.428 %
Concentration RSD	3.3 %	24.6 %	44.2 %	2.7 %

Analysis index: 17 Analysis started at: 3/16/2016 12:06:12 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.033 %	114.095 %	97.454 ppb	9,890.593 ppb	10,203.582 ppb	101.056 ppb	10,414.666 ppb
Concentration per Run 1	110.857 %	117.740 %	97.355 ppb	9,841.733 ppb	10,178.035 ppb	96.151 ppb	10,190.509 ppb
Concentration per Run 2	109.605 %	115.553 %	97.065 ppb	9,788.716 ppb	10,284.030 ppb	99.364 ppb	10,309.201 ppb
Concentration per Run 3	109.638 %	108.992 %	97.943 ppb	10,041.330 ppb	10,148.681 ppb	107.653 ppb	10,744.288 ppb
Recovery Percentage 1			97.454 %	98.906 %	102.036 %	101.056 %	104.147 %
Concentration RSD	0.6 %	4.0 %	0.5 %	1.3 %	0.7 %	5.9 %	2.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,699.565 ppb	107.608 %	114.899 %	95.673 ppb	97.096 ppb	94.246 ppb	9,605.061 ppb
Concentration per Run 1	9,638.907 ppb	108.714 %	116.685 %	95.739 ppb	95.227 ppb	95.318 ppb	9,232.403 ppb
Concentration per Run 2	9,673.637 ppb	108.616 %	113.699 %	93.911 ppb	96.917 ppb	94.383 ppb	9,951.644 ppb
Concentration per Run 3	9,786.151 ppb	105.494 %	114.314 %	97.368 ppb	99.143 ppb	93.037 ppb	9,631.136 ppb
Recovery Percentage 1	96.996 %			95.673 %	97.096 %	94.246 %	96.051 %
Concentration RSD	0.8 %	1.7 %	1.4 %	1.8 %	2.0 %	1.2 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	101.254 ppb	100.692 ppb	97.935 ppb	94.530 ppb	112.320 %	92.631 ppb	94.820 ppb
Concentration per Run 1	100.482 ppb	99.921 ppb	96.894 ppb	90.624 ppb	119.339 %	88.923 ppb	95.677 ppb
Concentration per Run 2	101.993 ppb	101.984 ppb	100.173 ppb	97.062 ppb	110.412 %	96.741 ppb	102.994 ppb
Concentration per Run 3	101.288 ppb	100.173 ppb	96.739 ppb	95.903 ppb	107.208 %	92.229 ppb	85.788 ppb
Recovery Percentage 1	101.254 %	100.692 %	97.935 %	94.530 %		92.631 %	94.820 %
Concentration RSD	0.7 %	1.1 %	2.0 %	3.6 %	5.6 %	4.2 %	9.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	97.220 ppb	100.502 ppb	97.925 ppb	106.953 %	35.891 ppb	97.358 ppb	95.750 ppb
Concentration per Run 1	94.123 ppb	100.160 ppb	97.938 ppb	107.388 %	34.644 ppb	97.990 ppb	92.189 ppb
Concentration per Run 2	99.284 ppb	101.760 ppb	100.302 ppb	106.756 %	38.045 ppb	100.673 ppb	102.304 ppb
Concentration per Run 3	98.253 ppb	99.586 ppb	95.536 ppb	106.714 %	34.984 ppb	93.412 ppb	92.757 ppb
Recovery Percentage 1	97.220 %	100.502 %	97.925 %		35.891 %	97.358 %	95.750 %
Concentration RSD	2.8 %	1.1 %	2.4 %	0.4 %	5.2 %	3.8 %	5.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.208 %	97.876 ppb	95.951 ppb	102.260 %
Concentration per Run 1	111.461 %	97.593 ppb	94.767 ppb	104.346 %
Concentration per Run 2	105.369 %	101.892 ppb	101.328 ppb	100.095 %
Concentration per Run 3	107.795 %	94.144 ppb	91.757 ppb	102.338 %
Recovery Percentage 1		97.876 %	95.951 %	
Concentration RSD	2.8 %	4.0 %	5.1 %	2.1 %

Analysis index: 18 Analysis started at: 3/16/2016 12:09:19 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.030 %	119.199 %	0.042 ppb	0.738 ppb	1.580 ppb	-0.127 ppb	17.588 ppb
Concentration per Run 1	111.250 %	121.386 %	0.036 ppb	1.535 ppb	0.399 ppb	-0.486 ppb	16.868 ppb
Concentration per Run 2	110.580 %	117.376 %	0.048 ppb	0.911 ppb	1.798 ppb	-0.483 ppb	19.176 ppb
Concentration per Run 3	111.260 %	118.834 %	0.042 ppb	-0.231 ppb	2.542 ppb	0.588 ppb	16.720 ppb
Recovery Percentage 1			8.367 %	0.738 %	2.257 %	-1.270 %	17.588 %
Concentration RSD	0.4 %	1.7 %	13.7 %	121.3 %	68.9 %	487.4 %	7.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-16.961 ppb	107.934 %	111.390 %	0.040 ppb	0.020 ppb	-0.586 ppb	3.602 ppb
Concentration per Run 1	-15.876 ppb	107.543 %	111.632 %	-0.003 ppb	0.037 ppb	-0.666 ppb	1.757 ppb
Concentration per Run 2	-23.319 ppb	110.372 %	111.300 %	0.098 ppb	-0.017 ppb	-0.433 ppb	0.946 ppb
Concentration per Run 3	-11.687 ppb	105.886 %	111.239 %	0.024 ppb	0.040 ppb	-0.659 ppb	8.103 ppb
Recovery Percentage 1	-16.961 %			0.792 %	2.033 %	-58.596 %	7.204 %
Concentration RSD	34.7 %	2.1 %	0.2 %	132.2 %	158.5 %	22.6 %	108.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.010 ppb	0.152 ppb	0.020 ppb	-0.479 ppb	111.147 %	0.185 ppb	0.558 ppb
Concentration per Run 1	-0.005 ppb	0.319 ppb	0.003 ppb	-0.423 ppb	111.220 %	0.184 ppb	1.118 ppb
Concentration per Run 2	0.012 ppb	0.065 ppb	0.002 ppb	-0.568 ppb	114.288 %	0.152 ppb	0.725 ppb
Concentration per Run 3	0.023 ppb	0.071 ppb	0.056 ppb	-0.445 ppb	107.934 %	0.219 ppb	-0.167 ppb
Recovery Percentage 1	2.034 %	30.383 %	2.046 %	-4.787 %	111.147 %	36.973 %	11.169 %
Concentration RSD	142.3 %	95.5 %	151.6 %	16.3 %	2.9 %	18.0 %	117.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.878 ppb	0.032 ppb	0.025 ppb	108.329 %	0.027 ppb	0.360 ppb	-0.016 ppb
Concentration per Run 1	0.734 ppb	0.029 ppb	0.037 ppb	108.520 %	0.003 ppb	0.351 ppb	-0.042 ppb
Concentration per Run 2	0.795 ppb	0.025 ppb	0.015 ppb	107.382 %	0.040 ppb	0.419 ppb	-0.003 ppb
Concentration per Run 3	1.104 ppb	0.042 ppb	0.022 ppb	109.087 %	0.038 ppb	0.310 ppb	-0.003 ppb
Recovery Percentage 1	29.253 %	8.056 %	12.426 %		0.904 %	17.992 %	-3.197 %
Concentration RSD	22.6 %	27.5 %	45.6 %	0.8 %	77.5 %	15.3 %	141.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.957 %	0.039 ppb	0.012 ppb	105.419 %
Concentration per Run 1	110.581 %	0.037 ppb	0.018 ppb	108.116 %
Concentration per Run 2	105.323 %	0.038 ppb	0.009 ppb	105.376 %
Concentration per Run 3	107.968 %	0.043 ppb	0.011 ppb	102.764 %
Recovery Percentage 1		7.863 %	2.492 %	105.419 %
Concentration RSD	2.4 %	7.5 %	38.0 %	2.5 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 19
Analysis label: WG873887-1 6020SL
Analysis started at: 3/16/2016 12:13:34 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 1

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.565 %	115.918 %	0.012 ppb	11.538 ppb	-0.250 ppb	0.576 ppb	6.806 ppb
Concentration per Run 1	112.969 %	113.366 %	0.014 ppb	7.156 ppb	-0.260 ppb	-0.138 ppb	6.281 ppb
Concentration per Run 2	113.981 %	116.282 %	0.015 ppb	12.396 ppb	-1.643 ppb	-0.127 ppb	7.609 ppb
Concentration per Run 3	113.745 %	118.105 %	0.008 ppb	15.061 ppb	1.152 ppb	1.994 ppb	6.528 ppb
Concentration RSD	0.5 %	2.1 %	31.1 %	34.9 %	558.1 %	213.0 %	10.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-22.147 ppb	110.079 %	115.258 %	0.014 ppb	0.726 ppb	-0.398 ppb	4.067 ppb
Concentration per Run 1	-27.201 ppb	113.981 %	114.315 %	0.021 ppb	0.497 ppb	-0.398 ppb	3.226 ppb
Concentration per Run 2	-16.122 ppb	109.786 %	113.883 %	-0.003 ppb	0.737 ppb	-0.348 ppb	4.084 ppb
Concentration per Run 3	-23.118 ppb	106.470 %	117.576 %	0.024 ppb	0.942 ppb	-0.448 ppb	4.891 ppb
Concentration RSD	25.3 %	3.4 %	1.8 %	108.3 %	30.7 %	12.6 %	20.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.014 ppb	1.917 ppb	0.064 ppb	-0.390 ppb	108.080 %	0.074 ppb	0.770 ppb
Concentration per Run 1	-0.005 ppb	1.917 ppb	0.054 ppb	-0.180 ppb	107.058 %	0.018 ppb	0.738 ppb
Concentration per Run 2	-0.024 ppb	1.917 ppb	0.081 ppb	-0.470 ppb	107.058 %	0.047 ppb	0.738 ppb
Concentration per Run 3	-0.014 ppb	1.918 ppb	0.055 ppb	-0.521 ppb	110.125 %	0.158 ppb	0.834 ppb
Concentration RSD	62.9 %	0.0 %	24.4 %	47.2 %	1.6 %	99.2 %	7.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.720 ppb	0.041 ppb	0.010 ppb	105.446 %	0.202 ppb	0.313 ppb	0.051 ppb
Concentration per Run 1	0.426 ppb	0.035 ppb	0.015 ppb	105.469 %	0.153 ppb	0.278 ppb	-0.003 ppb
Concentration per Run 2	0.898 ppb	0.043 ppb	0.015 ppb	105.721 %	0.134 ppb	0.194 ppb	0.118 ppb
Concentration per Run 3	0.836 ppb	0.043 ppb	0.000 ppb	105.147 %	0.319 ppb	0.468 ppb	0.037 ppb
Concentration RSD	35.7 %	12.3 %	86.6 %	0.3 %	50.5 %	44.8 %	120.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	106.395 %	0.006 ppb	0.037 ppb	105.204 %
Concentration per Run 1	107.816 %	0.001 ppb	0.035 ppb	107.500 %
Concentration per Run 2	105.061 %	0.006 ppb	0.031 ppb	103.537 %
Concentration per Run 3	106.308 %	0.010 ppb	0.045 ppb	104.575 %
Concentration RSD	1.3 %	77.4 %	19.4 %	2.0 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 20
Analysis label: WG873887-2D5 6020SL
Analysis started at: 3/16/2016 12:16:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	107.436 %	110.693 %	9.860 ppb	2,056.940 ppb	2,148.821 ppb	417.163 ppb	2,180.820 ppb
Concentration per Run 1	106.413 %	124.302 %	9.798 ppb	1,880.354 ppb	1,976.083 ppb	394.443 ppb	2,123.733 ppb
Concentration per Run 2	105.734 %	104.253 %	9.991 ppb	2,155.791 ppb	2,311.429 ppb	439.011 ppb	2,291.259 ppb
Concentration per Run 3	110.161 %	103.524 %	9.791 ppb	2,134.675 ppb	2,158.951 ppb	418.034 ppb	2,127.468 ppb
Concentration RSD	2.2 %	10.7 %	1.2 %	7.5 %	7.8 %	5.3 %	4.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,092.411 ppb	103.186 %	108.584 %	105.503 ppb	41.123 ppb	101.889 ppb	198.418 ppb
Concentration per Run 1	2,007.966 ppb	106.762 %	105.112 %	103.102 ppb	40.872 ppb	103.824 ppb	197.123 ppb
Concentration per Run 2	2,249.208 ppb	101.788 %	105.834 %	107.961 ppb	40.259 ppb	102.111 ppb	201.085 ppb
Concentration per Run 3	2,020.058 ppb	101.008 %	114.805 %	105.446 ppb	42.239 ppb	99.732 ppb	197.046 ppb
Concentration RSD	6.5 %	3.0 %	5.0 %	2.3 %	2.5 %	2.0 %	1.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	103.665 ppb	107.220 ppb	51.578 ppb	99.849 ppb	106.838 %	23.854 ppb	24.048 ppb
Concentration per Run 1	105.274 ppb	107.057 ppb	53.565 ppb	102.446 ppb	106.513 %	23.373 ppb	24.932 ppb
Concentration per Run 2	100.714 ppb	105.095 ppb	50.579 ppb	99.020 ppb	109.506 %	23.484 ppb	20.721 ppb
Concentration per Run 3	105.008 ppb	109.509 ppb	50.589 ppb	98.080 ppb	104.493 %	24.706 ppb	26.491 ppb
Concentration RSD	2.5 %	2.1 %	3.3 %	2.3 %	2.4 %	3.1 %	12.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	196.628 ppb	10.423 ppb	10.773 ppb	106.783 %	206.488 ppb	97.253 ppb	401.458 ppb
Concentration per Run 1	193.214 ppb	10.661 ppb	11.116 ppb	107.001 %	199.131 ppb	97.917 ppb	404.384 ppb
Concentration per Run 2	195.375 ppb	10.822 ppb	10.813 ppb	107.010 %	214.326 ppb	97.503 ppb	399.061 ppb
Concentration per Run 3	201.295 ppb	9.787 ppb	10.390 ppb	106.339 %	206.006 ppb	96.339 ppb	400.930 ppb
Concentration RSD	2.1 %	5.3 %	3.4 %	0.4 %	3.7 %	0.8 %	0.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.683 %	24.948 ppb	106.477 ppb	101.967 %
Concentration per Run 1	102.859 %	25.007 ppb	103.513 ppb	105.046 %
Concentration per Run 2	107.454 %	25.598 ppb	109.759 ppb	100.369 %
Concentration per Run 3	100.735 %	24.240 ppb	106.158 ppb	100.485 %
Concentration RSD	3.3 %	2.7 %	2.9 %	2.6 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 21
Analysis label: L1600003-77D20 6020SL
Analysis started at: 3/16/2016 12:19:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 3

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.776 %	106.804 %	0.025 ppb	26,242.456 ppb	1,249.338 ppb	4.589 ppb	1,188.852 ppb
Concentration per Run 1	101.431 %	111.543 %	0.031 ppb	25,196.502 ppb	1,196.493 ppb	4.332 ppb	1,198.976 ppb
Concentration per Run 2	108.219 %	96.233 %	0.030 ppb	29,693.224 ppb	1,454.850 ppb	5.374 ppb	1,327.432 ppb
Concentration per Run 3	107.678 %	112.637 %	0.015 ppb	23,837.642 ppb	1,096.672 ppb	4.061 ppb	1,040.147 ppb
Concentration RSD	3.6 %	8.6 %	35.3 %	11.7 %	14.8 %	15.1 %	12.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	7,337.175 ppb	106.795 %	110.741 %	262.298 ppb	0.047 ppb	176.666 ppb	1.322 ppb
Concentration per Run 1	7,226.170 ppb	110.176 %	109.916 %	252.720 ppb	0.036 ppb	164.457 ppb	1.752 ppb
Concentration per Run 2	8,260.742 ppb	97.497 %	112.584 %	312.060 ppb	0.074 ppb	209.862 ppb	2.025 ppb
Concentration per Run 3	6,524.615 ppb	112.713 %	109.722 %	222.113 ppb	0.031 ppb	155.677 ppb	0.190 ppb
Concentration RSD	11.9 %	7.6 %	1.4 %	17.4 %	49.6 %	16.5 %	74.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.173 ppb	0.431 ppb	0.245 ppb	1.891 ppb	106.499 %	0.214 ppb	0.923 ppb
Concentration per Run 1	1.251 ppb	0.357 ppb	0.387 ppb	1.616 ppb	108.080 %	0.161 ppb	0.676 ppb
Concentration per Run 2	1.338 ppb	0.523 ppb	0.151 ppb	2.617 ppb	98.078 %	0.274 ppb	0.794 ppb
Concentration per Run 3	0.931 ppb	0.412 ppb	0.198 ppb	1.441 ppb	113.338 %	0.208 ppb	1.298 ppb
Concentration RSD	18.3 %	19.6 %	50.8 %	33.5 %	7.3 %	26.4 %	35.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.071 ppb	0.017 ppb	0.223 ppb	102.742 %	0.252 ppb	1.222 ppb	9.376 ppb
Concentration per Run 1	1.844 ppb	0.013 ppb	0.197 ppb	106.786 %	0.168 ppb	1.146 ppb	9.187 ppb
Concentration per Run 2	2.556 ppb	0.025 ppb	0.332 ppb	92.194 %	0.336 ppb	1.563 ppb	10.319 ppb
Concentration per Run 3	1.814 ppb	0.012 ppb	0.140 ppb	109.247 %	0.251 ppb	0.957 ppb	8.623 ppb
Concentration RSD	20.3 %	44.0 %	44.1 %	9.0 %	33.4 %	25.4 %	9.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.442 %	0.015 ppb	0.005 ppb	97.471 %
Concentration per Run 1	106.539 %	0.013 ppb	-0.002 ppb	102.923 %
Concentration per Run 2	94.566 %	0.017 ppb	0.011 ppb	89.479 %
Concentration per Run 3	109.222 %	0.014 ppb	0.005 ppb	100.011 %
Concentration RSD	7.5 %	14.1 %	140.0 %	7.3 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 22
Analysis label: WG873887-3D20 6020SL
Analysis started at: 3/16/2016 12:22:42 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 4

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	109.287 %	116.525 %	3.161 ppb	29,012.419 ppb	1,949.005 ppb	124.062 ppb	1,878.884 ppb
Concentration per Run 1	109.506 %	123.937 %	3.134 ppb	27,059.764 ppb	1,859.650 ppb	111.288 ppb	1,770.784 ppb
Concentration per Run 2	109.228 %	117.740 %	3.092 ppb	29,135.954 ppb	1,866.028 ppb	130.420 ppb	1,915.432 ppb
Concentration per Run 3	109.126 %	107.898 %	3.256 ppb	30,841.538 ppb	2,121.337 ppb	130.478 ppb	1,950.436 ppb
Concentration RSD	0.2 %	6.9 %	2.7 %	6.5 %	7.7 %	8.9 %	5.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8,541.756 ppb	111.575 %	110.388 %	325.025 ppb	11.308 ppb	224.622 ppb	60.043 ppb
Concentration per Run 1	7,893.946 ppb	117.980 %	109.960 %	306.176 ppb	10.399 ppb	212.788 ppb	48.785 ppb
Concentration per Run 2	8,641.928 ppb	109.591 %	110.865 %	322.516 ppb	11.560 ppb	223.140 ppb	79.492 ppb
Concentration per Run 3	9,089.394 ppb	107.152 %	110.339 %	346.382 ppb	11.966 ppb	237.937 ppb	51.853 ppb
Concentration RSD	7.1 %	5.1 %	0.4 %	6.2 %	7.2 %	5.6 %	28.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	29.142 ppb	30.292 ppb	15.183 ppb	28.859 ppb	115.331 %	6.781 ppb	8.416 ppb
Concentration per Run 1	26.964 ppb	26.954 ppb	15.183 ppb	28.066 ppb	120.851 %	6.327 ppb	11.055 ppb
Concentration per Run 2	30.326 ppb	31.767 ppb	15.501 ppb	29.468 ppb	113.557 %	6.974 ppb	7.749 ppb
Concentration per Run 3	30.136 ppb	32.154 ppb	14.867 ppb	29.044 ppb	111.585 %	7.042 ppb	6.444 ppb
Concentration RSD	6.5 %	9.6 %	2.1 %	2.5 %	4.2 %	5.8 %	28.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	56.434 ppb	2.897 ppb	3.442 ppb	107.851 %	59.627 ppb	29.046 ppb	125.450 ppb
Concentration per Run 1	54.627 ppb	2.735 ppb	3.145 ppb	110.584 %	58.442 ppb	28.878 ppb	119.713 ppb
Concentration per Run 2	56.719 ppb	2.973 ppb	3.581 ppb	107.343 %	60.719 ppb	27.632 ppb	126.477 ppb
Concentration per Run 3	57.957 ppb	2.984 ppb	3.601 ppb	105.626 %	59.719 ppb	30.629 ppb	130.161 ppb
Concentration RSD	3.0 %	4.9 %	7.5 %	2.3 %	1.9 %	5.2 %	4.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.500 %	6.960 ppb	30.218 ppb	103.997 %
Concentration per Run 1	111.050 %	6.665 ppb	29.561 ppb	107.174 %
Concentration per Run 2	105.841 %	7.200 ppb	30.253 ppb	103.195 %
Concentration per Run 3	105.608 %	7.015 ppb	30.841 ppb	101.623 %
Concentration RSD	2.9 %	3.9 %	2.1 %	2.8 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 23
Analysis label: WG873887-4D20 6020SL
Analysis started at: 3/16/2016 12:25:45 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 5

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.738 %	117.011 %	2.818 ppb	29,309.118 ppb	1,991.471 ppb	121.139 ppb	1,948.281 ppb
Concentration per Run 1	111.543 %	123.208 %	2.865 ppb	28,403.017 ppb	1,933.299 ppb	121.676 ppb	1,873.348 ppb
Concentration per Run 2	112.123 %	112.272 %	2.820 ppb	28,998.481 ppb	1,981.163 ppb	116.743 ppb	1,966.973 ppb
Concentration per Run 3	111.549 %	115.553 %	2.768 ppb	30,525.857 ppb	2,059.953 ppb	124.998 ppb	2,004.522 ppb
Concentration RSD	0.3 %	4.8 %	1.7 %	3.7 %	3.2 %	3.4 %	3.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8,640.217 ppb	110.860 %	114.519 %	326.420 ppb	11.452 ppb	228.284 ppb	58.868 ppb
Concentration per Run 1	8,166.806 ppb	110.957 %	113.648 %	318.337 ppb	11.222 ppb	224.024 ppb	58.421 ppb
Concentration per Run 2	8,623.854 ppb	116.712 %	113.847 %	312.418 ppb	11.111 ppb	221.235 ppb	59.712 ppb
Concentration per Run 3	9,129.992 ppb	104.910 %	116.063 %	348.505 ppb	12.022 ppb	239.593 ppb	58.471 ppb
Concentration RSD	5.6 %	5.3 %	1.2 %	5.9 %	4.3 %	4.3 %	1.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	29.650 ppb	29.996 ppb	14.999 ppb	30.547 ppb	112.773 %	6.886 ppb	7.823 ppb
Concentration per Run 1	28.532 ppb	30.471 ppb	14.770 ppb	30.954 ppb	114.726 %	6.841 ppb	8.679 ppb
Concentration per Run 2	29.382 ppb	29.780 ppb	14.393 ppb	29.921 ppb	110.847 %	6.411 ppb	9.009 ppb
Concentration per Run 3	31.037 ppb	29.737 ppb	15.835 ppb	30.766 ppb	112.746 %	7.407 ppb	5.781 ppb
Concentration RSD	4.3 %	1.4 %	5.0 %	1.8 %	1.7 %	7.3 %	22.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	55.111 ppb	2.872 ppb	3.154 ppb	110.579 %	60.687 ppb	28.486 ppb	125.529 ppb
Concentration per Run 1	55.159 ppb	2.835 ppb	2.935 ppb	114.244 %	58.905 ppb	27.249 ppb	124.231 ppb
Concentration per Run 2	54.610 ppb	2.908 ppb	3.035 ppb	109.628 %	60.911 ppb	29.066 ppb	123.856 ppb
Concentration per Run 3	55.565 ppb	2.873 ppb	3.493 ppb	107.867 %	62.245 ppb	29.144 ppb	128.502 ppb
Concentration RSD	0.9 %	1.3 %	9.4 %	3.0 %	2.8 %	3.8 %	2.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.206 %	7.042 ppb	29.613 ppb	104.195 %
Concentration per Run 1	110.123 %	7.110 ppb	29.362 ppb	104.939 %
Concentration per Run 2	105.138 %	7.091 ppb	30.291 ppb	102.764 %
Concentration per Run 3	106.357 %	6.925 ppb	29.186 ppb	104.881 %
Concentration RSD	2.4 %	1.4 %	2.0 %	1.2 %

Analysis index: 24
Analysis label: XWG873887-5D20 6020SL
Analysis started at: 3/16/2016 12:28:48 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 6

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.367 %	107.777 %	0.019 ppb	30,416.450 ppb	1,396.020 ppb	4.905 ppb	1,416.775 ppb
Concentration per Run 1	111.318 %	101.337 %	0.021 ppb	31,872.227 ppb	1,500.969 ppb	5.974 ppb	1,445.031 ppb
Concentration per Run 2	113.811 %	112.637 %	0.013 ppb	29,577.698 ppb	1,318.063 ppb	4.140 ppb	1,397.180 ppb
Concentration per Run 3	111.972 %	109.356 %	0.021 ppb	29,799.425 ppb	1,369.027 ppb	4.600 ppb	1,408.114 ppb
Concentration RSD	1.2 %	5.4 %	24.5 %	4.2 %	6.8 %	19.5 %	1.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8,325.778 ppb	108.909 %	116.731 %	309.963 ppb	0.007 ppb	206.077 ppb	0.968 ppb
Concentration per Run 1	8,812.337 ppb	107.933 %	115.245 %	324.838 ppb	0.035 ppb	215.407 ppb	1.709 ppb
Concentration per Run 2	7,922.072 ppb	109.786 %	118.726 %	306.489 ppb	0.035 ppb	200.689 ppb	-0.554 ppb
Concentration per Run 3	8,242.925 ppb	109.007 %	116.223 %	298.563 ppb	-0.049 ppb	202.136 ppb	1.748 ppb
Concentration RSD	5.4 %	0.9 %	1.5 %	4.3 %	676.2 %	3.9 %	136.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.232 ppb	0.422 ppb	0.227 ppb	1.666 ppb	112.146 %	0.211 ppb	1.142 ppb
Concentration per Run 1	1.283 ppb	0.486 ppb	0.270 ppb	1.831 ppb	116.186 %	0.176 ppb	0.782 ppb
Concentration per Run 2	1.270 ppb	0.461 ppb	0.230 ppb	1.582 ppb	110.053 %	0.158 ppb	-0.102 ppb
Concentration per Run 3	1.145 ppb	0.319 ppb	0.180 ppb	1.585 ppb	110.198 %	0.298 ppb	2.748 ppb
Concentration RSD	6.2 %	21.3 %	19.9 %	8.6 %	3.1 %	36.1 %	127.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.675 ppb	0.012 ppb	0.240 ppb	108.157 %	0.139 ppb	0.596 ppb	10.953 ppb
Concentration per Run 1	1.677 ppb	0.013 ppb	0.273 ppb	102.519 %	0.028 ppb	0.672 ppb	11.250 ppb
Concentration per Run 2	1.711 ppb	0.008 ppb	0.213 ppb	110.501 %	0.230 ppb	0.591 ppb	10.749 ppb
Concentration per Run 3	1.635 ppb	0.016 ppb	0.233 ppb	111.450 %	0.158 ppb	0.526 ppb	10.860 ppb
Concentration RSD	2.3 %	33.6 %	12.8 %	4.5 %	74.0 %	12.3 %	2.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.624 %	0.013 ppb	-0.004 ppb	99.634 %
Concentration per Run 1	106.105 %	0.014 ppb	-0.005 ppb	101.189 %
Concentration per Run 2	103.908 %	0.014 ppb	-0.004 ppb	98.775 %
Concentration per Run 3	103.858 %	0.012 ppb	-0.004 ppb	98.938 %
Concentration RSD	1.2 %	8.5 %	14.5 %	1.4 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 25
Analysis label: WG873887-6D100 6020SL
Analysis started at: 3/16/2016 12:31:51 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 7

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	114.034 %	124.180 %	0.011 ppb	1,220.437 ppb	56.692 ppb	0.010 ppb	72.381 ppb
Concentration per Run 1	114.541 %	126.489 %	0.015 ppb	1,233.823 ppb	63.137 ppb	-0.070 ppb	79.667 ppb
Concentration per Run 2	113.055 %	122.844 %	0.012 ppb	1,245.496 ppb	55.226 ppb	0.669 ppb	91.574 ppb
Concentration per Run 3	114.506 %	123.208 %	0.006 ppb	1,181.993 ppb	51.713 ppb	-0.568 ppb	45.903 ppb
Concentration RSD	0.7 %	1.6 %	41.7 %	2.8 %	10.3 %	5,957.2 %	32.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	334.388 ppb	117.883 %	117.707 %	12.924 ppb	-0.016 ppb	7.156 ppb	-0.069 ppb
Concentration per Run 1	271.933 ppb	117.981 %	117.548 %	12.903 ppb	-0.023 ppb	5.963 ppb	0.155 ppb
Concentration per Run 2	404.287 ppb	111.347 %	117.878 %	12.641 ppb	0.016 ppb	8.252 ppb	0.192 ppb
Concentration per Run 3	326.944 ppb	124.322 %	117.695 %	13.228 ppb	-0.041 ppb	7.253 ppb	-0.554 ppb
Concentration RSD	19.9 %	5.5 %	0.1 %	2.3 %	181.0 %	16.0 %	609.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.048 ppb	0.050 ppb	-0.031 ppb	-0.787 ppb	115.675 %	0.043 ppb	0.649 ppb
Concentration per Run 1	0.027 ppb	0.093 ppb	-0.024 ppb	-0.757 ppb	119.399 %	0.041 ppb	1.353 ppb
Concentration per Run 2	0.039 ppb	0.030 ppb	-0.023 ppb	-0.938 ppb	114.507 %	0.043 ppb	0.170 ppb
Concentration per Run 3	0.078 ppb	0.027 ppb	-0.047 ppb	-0.665 ppb	113.119 %	0.044 ppb	0.422 ppb
Concentration RSD	55.3 %	74.4 %	44.1 %	17.6 %	2.9 %	3.5 %	96.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.335 ppb	0.001 ppb	0.016 ppb	116.270 %	0.023 ppb	0.256 ppb	0.568 ppb
Concentration per Run 1	0.344 ppb	0.003 ppb	0.027 ppb	121.070 %	0.073 ppb	0.114 ppb	0.458 ppb
Concentration per Run 2	0.297 ppb	-0.001 ppb	0.014 ppb	114.264 %	-0.002 ppb	0.298 ppb	0.529 ppb
Concentration per Run 3	0.366 ppb	-0.001 ppb	0.007 ppb	113.476 %	-0.001 ppb	0.358 ppb	0.716 ppb
Concentration RSD	10.5 %	327.7 %	62.1 %	3.6 %	185.3 %	49.6 %	23.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	109.819 %	0.002 ppb	-0.011 ppb	107.200 %
Concentration per Run 1	114.513 %	0.004 ppb	-0.014 ppb	111.024 %
Concentration per Run 2	106.618 %	-0.002 ppb	-0.008 ppb	105.957 %
Concentration per Run 3	108.327 %	0.006 ppb	-0.011 ppb	104.618 %
Concentration RSD	3.8 %	151.8 %	26.7 %	3.2 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 26
Analysis label: L1606763-01 6020SL
Analysis started at: 3/16/2016 12:34:55 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 8

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	118.853 %	121.507 %	0.020 ppb	62,086.242 ppb	10,391.823 ppb	4.297 ppb	10,490.247 ppb
Concentration per Run 1	117.766 %	123.208 %	0.019 ppb	59,928.154 ppb	9,860.174 ppb	3.950 ppb	10,275.659 ppb
Concentration per Run 2	117.655 %	114.095 %	0.026 ppb	70,571.658 ppb	12,449.441 ppb	4.953 ppb	11,963.684 ppb
Concentration per Run 3	121.137 %	127.218 %	0.015 ppb	55,758.913 ppb	8,865.853 ppb	3.988 ppb	9,231.399 ppb
Concentration RSD	1.7 %	5.5 %	27.9 %	12.3 %	17.8 %	13.2 %	13.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	107,961.927 ppb	108.226 %	119.605 %	0.400 ppb	0.947 ppb	592.220 ppb	11,412.244 ppb
Concentration per Run 1	98,720.717 ppb	114.566 %	118.769 %	0.271 ppb	1.007 ppb	554.436 ppb	10,414.975 ppb
Concentration per Run 2	133,849.985 ppb	93.888 %	120.526 %	0.537 ppb	1.234 ppb	725.284 ppb	14,139.659 ppb
Concentration per Run 3	91,315.078 ppb	116.224 %	119.522 %	0.391 ppb	0.600 ppb	496.941 ppb	9,682.096 ppb
Concentration RSD	21.0 %	11.5 %	0.7 %	33.3 %	33.9 %	20.1 %	20.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.189 ppb	45.976 ppb	1.071 ppb	37.583 ppb	105.130 %	9.827 ppb	0.560 ppb
Concentration per Run 1	1.129 ppb	40.616 ppb	0.941 ppb	35.099 ppb	107.342 %	9.584 ppb	-0.146 ppb
Concentration per Run 2	1.324 ppb	54.223 ppb	1.345 ppb	43.057 ppb	99.383 %	11.062 ppb	1.100 ppb
Concentration per Run 3	1.114 ppb	43.088 ppb	0.928 ppb	34.593 ppb	108.665 %	8.836 ppb	0.725 ppb
Concentration RSD	9.8 %	15.8 %	22.2 %	12.6 %	4.8 %	11.5 %	114.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	4.574 ppb	0.020 ppb	0.079 ppb	105.043 %	0.109 ppb	0.834 ppb	90.048 ppb
Concentration per Run 1	4.420 ppb	0.021 ppb	0.067 ppb	109.594 %	0.090 ppb	0.752 ppb	88.825 ppb
Concentration per Run 2	5.540 ppb	0.030 ppb	0.105 ppb	92.142 %	0.169 ppb	1.158 ppb	109.442 ppb
Concentration per Run 3	3.763 ppb	0.008 ppb	0.065 ppb	113.393 %	0.067 ppb	0.592 ppb	71.878 ppb
Concentration RSD	19.6 %	57.4 %	28.7 %	10.8 %	49.0 %	35.0 %	20.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.758 %	0.004 ppb	0.064 ppb	95.140 %
Concentration per Run 1	109.665 %	0.006 ppb	0.066 ppb	95.171 %
Concentration per Run 2	94.299 %	0.005 ppb	0.074 ppb	85.772 %
Concentration per Run 3	110.311 %	0.001 ppb	0.051 ppb	104.477 %
Concentration RSD	8.7 %	58.2 %	18.7 %	9.8 %

Alpha ICPMSQ Full

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Analysis index: 27
Analysis label: L1606763-01D20 6020SL
Analysis started at: 3/16/2016 12:38:00 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	115.380 %	117.983 %	0.006 ppb	3,692.074 ppb	557.898 ppb	-0.514 ppb	527.417 ppb
Concentration per Run 1	116.902 %	121.386 %	0.007 ppb	3,596.832 ppb	540.380 ppb	-0.713 ppb	544.408 ppb
Concentration per Run 2	114.566 %	111.179 %	0.004 ppb	3,815.165 ppb	562.419 ppb	0.187 ppb	489.235 ppb
Concentration per Run 3	114.672 %	121.386 %	0.008 ppb	3,664.224 ppb	570.895 ppb	-1.016 ppb	548.608 ppb
Concentration RSD	1.1 %	5.0 %	30.4 %	3.0 %	2.8 %	121.7 %	6.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,484.734 ppb	117.818 %	116.869 %	-0.013 ppb	0.046 ppb	30.131 ppb	611.819 ppb
Concentration per Run 1	5,408.218 ppb	121.980 %	118.898 %	-0.006 ppb	0.006 ppb	29.329 ppb	592.559 ppb
Concentration per Run 2	5,696.065 ppb	118.468 %	116.970 %	-0.029 ppb	0.071 ppb	30.149 ppb	633.498 ppb
Concentration per Run 3	5,349.919 ppb	113.006 %	114.739 %	-0.004 ppb	0.063 ppb	30.914 ppb	609.400 ppb
Concentration RSD	3.4 %	3.8 %	1.8 %	105.6 %	75.8 %	2.6 %	3.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.053 ppb	2.630 ppb	0.133 ppb	1.379 ppb	118.474 %	0.600 ppb	0.504 ppb
Concentration per Run 1	0.027 ppb	2.980 ppb	0.140 ppb	1.178 ppb	117.500 %	0.674 ppb	1.084 ppb
Concentration per Run 2	0.078 ppb	2.291 ppb	0.138 ppb	1.305 ppb	120.714 %	0.554 ppb	0.360 ppb
Concentration per Run 3	0.055 ppb	2.620 ppb	0.120 ppb	1.654 ppb	117.208 %	0.571 ppb	0.068 ppb
Concentration RSD	47.8 %	13.1 %	8.0 %	17.9 %	1.6 %	10.8 %	103.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.384 ppb	-0.003 ppb	0.007 ppb	113.447 %	-0.025 ppb	0.200 ppb	4.195 ppb
Concentration per Run 1	0.336 ppb	-0.001 ppb	0.014 ppb	117.746 %	-0.005 ppb	0.193 ppb	3.995 ppb
Concentration per Run 2	0.441 ppb	-0.005 ppb	0.007 ppb	109.760 %	-0.051 ppb	0.166 ppb	4.272 ppb
Concentration per Run 3	0.376 ppb	-0.005 ppb	0.000 ppb	112.836 %	-0.018 ppb	0.241 ppb	4.318 ppb
Concentration RSD	13.8 %	68.4 %	98.0 %	3.6 %	95.8 %	19.0 %	4.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	111.064 %	-0.005 ppb	-0.004 ppb	107.007 %
Concentration per Run 1	113.565 %	-0.005 ppb	0.002 ppb	106.839 %
Concentration per Run 2	110.586 %	-0.004 ppb	-0.006 ppb	107.096 %
Concentration per Run 3	109.042 %	-0.007 ppb	-0.009 ppb	107.085 %
Concentration RSD	2.1 %	29.4 %	143.6 %	0.1 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 28
Analysis label: L1606799-13 6020SL
Analysis started at: 3/16/2016 12:41:05 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	114.418 %	120.292 %	0.031 ppb	7,764.623 ppb	1,910.296 ppb	99.769 ppb	1,070.336 ppb
Concentration per Run 1	113.112 %	113.731 %	0.034 ppb	8,093.055 ppb	1,981.451 ppb	105.138 ppb	1,137.748 ppb
Concentration per Run 2	115.170 %	124.302 %	0.022 ppb	7,212.679 ppb	1,763.477 ppb	84.356 ppb	957.071 ppb
Concentration per Run 3	114.973 %	122.844 %	0.038 ppb	7,988.133 ppb	1,985.961 ppb	109.812 ppb	1,116.190 ppb
Concentration RSD	1.0 %	4.8 %	26.5 %	6.2 %	6.7 %	13.6 %	9.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,146.324 ppb	113.754 %	113.920 %	0.534 ppb	1.045 ppb	17.056 ppb	107.153 ppb
Concentration per Run 1	3,328.205 ppb	109.202 %	113.286 %	0.518 ppb	1.067 ppb	16.818 ppb	111.116 ppb
Concentration per Run 2	2,832.287 ppb	122.957 %	113.066 %	0.700 ppb	0.924 ppb	15.926 ppb	93.494 ppb
Concentration per Run 3	3,278.481 ppb	109.104 %	115.409 %	0.385 ppb	1.145 ppb	18.423 ppb	116.849 ppb
Concentration RSD	8.7 %	7.0 %	1.1 %	29.6 %	10.7 %	7.4 %	11.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.633 ppb	3.803 ppb	0.354 ppb	3.352 ppb	109.249 %	0.159 ppb	0.566 ppb
Concentration per Run 1	0.601 ppb	4.138 ppb	0.314 ppb	3.711 ppb	107.059 %	0.163 ppb	0.837 ppb
Concentration per Run 2	0.614 ppb	3.833 ppb	0.316 ppb	3.045 ppb	110.710 %	0.185 ppb	0.509 ppb
Concentration per Run 3	0.685 ppb	3.437 ppb	0.434 ppb	3.300 ppb	109.979 %	0.130 ppb	0.352 ppb
Concentration RSD	7.2 %	9.2 %	19.3 %	10.0 %	1.8 %	17.3 %	43.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.579 ppb	0.007 ppb	0.023 ppb	106.990 %	0.138 ppb	0.199 ppb	14.002 ppb
Concentration per Run 1	0.497 ppb	0.009 ppb	0.023 ppb	105.078 %	0.081 ppb	0.175 ppb	14.908 ppb
Concentration per Run 2	0.528 ppb	0.000 ppb	0.030 ppb	109.752 %	0.125 ppb	0.227 ppb	13.002 ppb
Concentration per Run 3	0.712 ppb	0.013 ppb	0.015 ppb	106.141 %	0.207 ppb	0.194 ppb	14.095 ppb
Concentration RSD	20.1 %	96.6 %	31.7 %	2.3 %	46.5 %	13.2 %	6.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.558 %	-0.003 ppb	0.670 ppb	102.082 %
Concentration per Run 1	102.592 %	-0.001 ppb	0.696 ppb	100.932 %
Concentration per Run 2	108.919 %	-0.002 ppb	0.631 ppb	104.378 %
Concentration per Run 3	102.163 %	-0.005 ppb	0.682 ppb	100.937 %
Concentration RSD	3.6 %	86.4 %	5.1 %	1.9 %

Analysis index: 29 Analysis started at: 3/16/2016 12:44:09 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.387 %	121.264 %	95.562 ppb	9,410.364 ppb	9,589.822 ppb	98.604 ppb	9,847.208 ppb
Concentration per Run 1	111.936 %	127.947 %	95.936 ppb	9,017.694 ppb	9,307.274 ppb	92.189 ppb	9,411.980 ppb
Concentration per Run 2	114.132 %	116.282 %	95.684 ppb	9,598.477 ppb	9,825.667 ppb	107.892 ppb	10,720.006 ppb
Concentration per Run 3	111.093 %	119.563 %	95.066 ppb	9,614.922 ppb	9,636.523 ppb	95.730 ppb	9,409.638 ppb
Recovery Percentage 1			95.562 %	94.104 %	95.898 %	98.604 %	98.472 %
Concentration RSD	1.4 %	5.0 %	0.5 %	3.6 %	2.7 %	8.4 %	7.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,636.378 ppb	114.209 %	115.476 %	91.027 ppb	93.863 ppb	91.072 ppb	9,305.043 ppb
Concentration per Run 1	9,132.355 ppb	117.786 %	117.306 %	83.976 ppb	87.885 ppb	85.705 ppb	8,961.783 ppb
Concentration per Run 2	10,115.824 ppb	111.153 %	116.803 %	91.717 ppb	98.036 ppb	90.605 ppb	9,388.871 ppb
Concentration per Run 3	9,660.955 ppb	113.688 %	112.317 %	97.389 ppb	95.669 ppb	96.905 ppb	9,564.474 ppb
Recovery Percentage 1	96.364 %			91.027 %	93.863 %	91.072 %	93.050 %
Concentration RSD	5.1 %	2.9 %	2.4 %	7.4 %	5.7 %	6.2 %	3.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	96.237 ppb	98.318 ppb	94.464 ppb	93.765 ppb	113.688 %	92.097 ppb	93.062 ppb
Concentration per Run 1	92.196 ppb	93.107 ppb	88.964 ppb	90.791 ppb	116.319 %	89.673 ppb	92.063 ppb
Concentration per Run 2	97.629 ppb	98.041 ppb	96.773 ppb	93.243 ppb	115.241 %	92.046 ppb	95.948 ppb
Concentration per Run 3	98.886 ppb	103.806 ppb	97.655 ppb	97.260 ppb	109.506 %	94.570 ppb	91.175 ppb
Recovery Percentage 1	96.237 %	98.318 %	94.464 %	93.765 %		92.097 %	93.062 %
Concentration RSD	3.7 %	5.4 %	5.1 %	3.5 %	3.2 %	2.7 %	2.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	90.747 ppb	96.681 ppb	92.886 ppb	114.429 %	33.537 ppb	92.108 ppb	93.798 ppb
Concentration per Run 1	84.829 ppb	92.007 ppb	88.985 ppb	119.404 %	33.520 ppb	88.635 ppb	90.550 ppb
Concentration per Run 2	92.141 ppb	96.373 ppb	93.120 ppb	112.597 %	32.765 ppb	91.382 ppb	92.056 ppb
Concentration per Run 3	95.272 ppb	101.663 ppb	96.553 ppb	111.286 %	34.327 ppb	96.306 ppb	98.790 ppb
Recovery Percentage 1	90.747 %	96.681 %	92.886 %		33.537 %	92.108 %	93.798 %
Concentration RSD	5.9 %	5.0 %	4.1 %	3.8 %	2.3 %	4.2 %	4.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	113.044 %	94.990 ppb	91.770 ppb	107.624 %
Concentration per Run 1	115.964 %	90.934 ppb	85.565 ppb	113.146 %
Concentration per Run 2	113.251 %	96.564 ppb	94.066 ppb	106.055 %
Concentration per Run 3	109.917 %	97.472 ppb	95.680 ppb	103.672 %
Recovery Percentage 1		94.990 %	91.770 %	
Concentration RSD	2.7 %	3.7 %	5.9 %	4.6 %

Analysis index: 30 Analysis started at: 3/16/2016 12:47:17 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	117.272 %	120.049 %	0.029 ppb	-0.097 ppb	-0.417 ppb	-0.016 ppb	5.504 ppb
Concentration per Run 1	109.036 %	119.199 %	0.032 ppb	1.269 ppb	-2.337 ppb	-1.019 ppb	4.177 ppb
Concentration per Run 2	119.005 %	118.105 %	0.031 ppb	-2.885 ppb	0.833 ppb	-0.264 ppb	1.630 ppb
Concentration per Run 3	123.776 %	122.844 %	0.023 ppb	1.325 ppb	0.253 ppb	1.234 ppb	10.706 ppb
Recovery Percentage 1			5.714 %	-0.097 %	-0.596 %	-0.161 %	5.504 %
Concentration RSD	6.4 %	2.1 %	17.9 %	2,486.8 %	404.7 %	7,107.6 %	85.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-16.901 ppb	122.338 %	116.429 %	-0.006 ppb	-0.015 ppb	-0.490 ppb	2.765 ppb
Concentration per Run 1	-20.447 ppb	116.029 %	101.886 %	-0.005 ppb	-0.004 ppb	-0.451 ppb	3.815 ppb
Concentration per Run 2	-12.694 ppb	131.054 %	117.060 %	-0.007 ppb	-0.016 ppb	-0.685 ppb	0.758 ppb
Concentration per Run 3	-17.563 ppb	119.931 %	130.340 %	-0.005 ppb	-0.023 ppb	-0.333 ppb	3.722 ppb
Recovery Percentage 1	-16.901 %			-0.118 %	-1.467 %	-48.962 %	5.530 %
Concentration RSD	23.2 %	6.4 %	12.2 %	23.0 %	64.3 %	36.5 %	62.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.007 ppb	0.068 ppb	0.022 ppb	-0.539 ppb	117.744 %	-0.002 ppb	0.215 ppb
Concentration per Run 1	0.020 ppb	0.063 ppb	0.025 ppb	-0.497 ppb	114.434 %	-0.011 ppb	-0.285 ppb
Concentration per Run 2	0.008 ppb	0.115 ppb	0.041 ppb	-0.433 ppb	123.854 %	0.014 ppb	0.745 ppb
Concentration per Run 3	-0.007 ppb	0.028 ppb	0.000 ppb	-0.686 ppb	114.944 %	-0.011 ppb	0.186 ppb
Recovery Percentage 1	1.432 %	13.692 %	2.218 %	-5.387 %	117.744 %	-0.486 %	4.309 %
Concentration RSD	185.8 %	64.1 %	91.8 %	24.4 %	4.5 %	592.9 %	239.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.497 ppb	0.045 ppb	0.018 ppb	119.162 %	0.059 ppb	0.113 ppb	0.019 ppb
Concentration per Run 1	0.438 ppb	0.063 ppb	0.022 ppb	108.829 %	0.056 ppb	0.107 ppb	0.036 ppb
Concentration per Run 2	0.603 ppb	0.017 ppb	0.019 ppb	130.345 %	0.045 ppb	0.172 ppb	-0.009 ppb
Concentration per Run 3	0.451 ppb	0.054 ppb	0.014 ppb	118.313 %	0.076 ppb	0.060 ppb	0.030 ppb
Recovery Percentage 1	16.576 %	11.171 %	9.117 %		1.973 %	5.658 %	3.777 %
Concentration RSD	18.4 %	54.7 %	23.4 %	9.0 %	27.0 %	49.9 %	130.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	115.999 %	0.037 ppb	0.016 ppb	113.488 %
Concentration per Run 1	107.363 %	0.041 ppb	0.023 ppb	106.413 %
Concentration per Run 2	126.290 %	0.034 ppb	0.016 ppb	120.184 %
Concentration per Run 3	114.344 %	0.036 ppb	0.009 ppb	113.869 %
Recovery Percentage 1		7.397 %	3.259 %	113.488 %
Concentration RSD	8.3 %	9.8 %	41.9 %	6.1 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 31
Analysis label: L1606799-14 6020SL
Analysis started at: 3/16/2016 1:17:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 11

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	109.267 %	113.488 %	0.011 ppb	33,249.696 ppb	5,815.851 ppb	70.419 ppb	3,370.659 ppb
Concentration per Run 1	108.147 %	118.105 %	0.019 ppb	32,532.146 ppb	5,574.348 ppb	69.309 ppb	3,421.101 ppb
Concentration per Run 2	109.313 %	102.430 %	0.007 ppb	37,913.298 ppb	6,835.658 ppb	78.732 ppb	3,689.747 ppb
Concentration per Run 3	110.340 %	119.928 %	0.007 ppb	29,303.642 ppb	5,037.548 ppb	63.216 ppb	3,001.129 ppb
Concentration RSD	1.0 %	8.5 %	63.1 %	13.1 %	15.9 %	11.1 %	10.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	14,475.171 ppb	103.804 %	110.064 %	0.486 ppb	2.076 ppb	465.292 ppb	2,308.230 ppb
Concentration per Run 1	14,505.488 ppb	105.397 %	106.960 %	0.671 ppb	3.043 ppb	480.834 ppb	2,449.804 ppb
Concentration per Run 2	16,559.263 ppb	94.571 %	111.068 %	0.352 ppb	1.961 ppb	506.065 ppb	2,517.357 ppb
Concentration per Run 3	12,360.763 ppb	111.445 %	112.165 %	0.434 ppb	1.224 ppb	408.978 ppb	1,957.529 ppb
Concentration RSD	14.5 %	8.2 %	2.5 %	34.1 %	44.1 %	10.8 %	13.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.465 ppb	4.270 ppb	0.999 ppb	5.191 ppb	104.308 %	0.722 ppb	0.630 ppb
Concentration per Run 1	0.554 ppb	5.023 ppb	1.202 ppb	4.864 ppb	104.065 %	0.792 ppb	1.106 ppb
Concentration per Run 2	0.474 ppb	4.260 ppb	0.803 ppb	6.247 ppb	104.212 %	0.823 ppb	0.803 ppb
Concentration per Run 3	0.368 ppb	3.526 ppb	0.993 ppb	4.461 ppb	104.649 %	0.551 ppb	-0.019 ppb
Concentration RSD	20.1 %	17.5 %	20.0 %	18.1 %	0.3 %	20.6 %	92.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.749 ppb	0.026 ppb	0.010 ppb	100.800 %	0.104 ppb	0.147 ppb	18.753 ppb
Concentration per Run 1	0.575 ppb	0.031 ppb	0.000 ppb	105.051 %	0.061 ppb	0.132 ppb	18.463 ppb
Concentration per Run 2	1.003 ppb	0.044 ppb	0.000 ppb	94.194 %	0.225 ppb	0.196 ppb	20.566 ppb
Concentration per Run 3	0.669 ppb	0.004 ppb	0.031 ppb	103.156 %	0.027 ppb	0.114 ppb	17.228 ppb
Concentration RSD	30.0 %	76.4 %	173.2 %	5.8 %	100.8 %	29.4 %	9.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.541 %	0.002 ppb	0.533 ppb	98.289 %
Concentration per Run 1	109.112 %	0.004 ppb	0.556 ppb	99.674 %
Concentration per Run 2	96.071 %	-0.001 ppb	0.574 ppb	92.812 %
Concentration per Run 3	102.439 %	0.003 ppb	0.470 ppb	102.379 %
Concentration RSD	6.4 %	149.1 %	10.4 %	5.0 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 32
Analysis label: L1607142-08D200 6020TL
Analysis started at: 3/16/2016 1:20:40 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 12

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.780 %	114.946 %	0.006 ppb	19,055.083 ppb	2,479.249 ppb	0.432 ppb	713.958 ppb
Concentration per Run 1	111.043 %	114.095 %	0.003 ppb	18,814.899 ppb	2,473.367 ppb	0.233 ppb	733.842 ppb
Concentration per Run 2	111.387 %	108.627 %	0.001 ppb	19,813.326 ppb	2,575.545 ppb	1.066 ppb	738.825 ppb
Concentration per Run 3	112.910 %	122.115 %	0.015 ppb	18,537.022 ppb	2,388.835 ppb	-0.003 ppb	669.208 ppb
Concentration RSD	0.9 %	5.9 %	121.4 %	3.5 %	3.8 %	129.9 %	5.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	886.546 ppb	108.811 %	118.319 %	-0.020 ppb	-0.003 ppb	-0.423 ppb	2.486 ppb
Concentration per Run 1	856.859 ppb	110.275 %	116.601 %	-0.029 ppb	-0.033 ppb	-0.254 ppb	6.275 ppb
Concentration per Run 2	1,047.924 ppb	104.421 %	117.431 %	-0.003 ppb	0.022 ppb	-0.484 ppb	-0.554 ppb
Concentration per Run 3	754.855 ppb	111.738 %	120.925 %	-0.029 ppb	0.000 ppb	-0.531 ppb	1.736 ppb
Concentration RSD	16.8 %	3.6 %	1.9 %	75.2 %	823.6 %	35.1 %	139.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.021 ppb	0.032 ppb	0.062 ppb	-0.600 ppb	111.074 %	0.027 ppb	0.833 ppb
Concentration per Run 1	-0.024 ppb	0.138 ppb	0.053 ppb	-0.617 ppb	111.293 %	0.017 ppb	0.986 ppb
Concentration per Run 2	-0.014 ppb	-0.039 ppb	0.053 ppb	-0.620 ppb	114.214 %	0.016 ppb	0.210 ppb
Concentration per Run 3	-0.024 ppb	-0.004 ppb	0.080 ppb	-0.562 ppb	107.715 %	0.047 ppb	1.304 ppb
Concentration RSD	25.9 %	295.8 %	25.6 %	5.5 %	2.9 %	64.7 %	67.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.051 ppb	0.004 ppb	0.005 ppb	104.218 %	-0.086 ppb	0.071 ppb	0.509 ppb
Concentration per Run 1	0.056 ppb	0.008 ppb	0.008 ppb	107.003 %	-0.068 ppb	-0.015 ppb	0.351 ppb
Concentration per Run 2	0.005 ppb	-0.005 ppb	0.008 ppb	100.794 %	-0.085 ppb	0.138 ppb	0.576 ppb
Concentration per Run 3	0.093 ppb	0.009 ppb	0.000 ppb	104.857 %	-0.104 ppb	0.090 ppb	0.598 ppb
Concentration RSD	86.6 %	185.6 %	86.7 %	3.0 %	21.2 %	110.3 %	27.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.226 %	-0.004 ppb	-0.004 ppb	99.775 %
Concentration per Run 1	107.147 %	-0.003 ppb	-0.004 ppb	102.524 %
Concentration per Run 2	103.215 %	-0.001 ppb	-0.007 ppb	98.945 %
Concentration per Run 3	105.316 %	-0.006 ppb	0.000 ppb	97.856 %
Concentration RSD	1.9 %	75.1 %	90.4 %	2.4 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 33
Analysis label: L1607142-06D5 6020TL
Analysis started at: 3/16/2016 1:23:46 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 13

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	95.235 %	113.488 %	0.003 ppb	124,967.156 ppb	18,890.522 ppb	2.142 ppb	4,338.675 ppb
Concentration per Run 1	88.163 %	115.189 %	0.003 ppb	120,001.311 ppb	17,872.846 ppb	3.810 ppb	4,205.904 ppb
Concentration per Run 2	93.696 %	118.105 %	-0.003 ppb	120,402.442 ppb	17,852.968 ppb	1.150 ppb	4,211.911 ppb
Concentration per Run 3	103.846 %	107.169 %	0.010 ppb	134,497.715 ppb	20,945.753 ppb	1.465 ppb	4,598.210 ppb
Concentration RSD	8.4 %	5.0 %	190.6 %	6.6 %	9.4 %	67.9 %	5.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	24,104.803 ppb	111.543 %	91.305 %	0.225 ppb	0.180 ppb	92.740 ppb	3,993.531 ppb
Concentration per Run 1	22,797.925 ppb	113.494 %	81.269 %	0.245 ppb	0.211 ppb	87.851 ppb	3,753.121 ppb
Concentration per Run 2	22,891.698 ppb	117.396 %	88.982 %	0.215 ppb	0.141 ppb	88.939 ppb	3,823.037 ppb
Concentration per Run 3	26,624.786 ppb	103.738 %	103.662 %	0.217 ppb	0.189 ppb	101.431 ppb	4,404.435 ppb
Concentration RSD	9.1 %	6.3 %	12.5 %	7.5 %	20.0 %	8.1 %	9.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.002 ppb	0.246 ppb	0.122 ppb	-0.279 ppb	109.249 %	0.522 ppb	0.368 ppb
Concentration per Run 1	-0.006 ppb	0.202 ppb	0.148 ppb	-0.287 ppb	113.996 %	0.424 ppb	0.957 ppb
Concentration per Run 2	-0.006 ppb	0.271 ppb	0.076 ppb	-0.315 ppb	110.418 %	0.522 ppb	0.450 ppb
Concentration per Run 3	0.006 ppb	0.264 ppb	0.141 ppb	-0.235 ppb	103.334 %	0.619 ppb	-0.301 ppb
Concentration RSD	311.5 %	15.4 %	32.5 %	14.5 %	5.0 %	18.7 %	171.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.208 ppb	0.004 ppb	0.015 ppb	105.426 %	-0.042 ppb	0.126 ppb	61.598 ppb
Concentration per Run 1	0.137 ppb	0.004 ppb	0.037 ppb	109.577 %	-0.033 ppb	0.106 ppb	59.268 ppb
Concentration per Run 2	0.261 ppb	0.013 ppb	0.008 ppb	107.438 %	-0.068 ppb	0.109 ppb	62.251 ppb
Concentration per Run 3	0.227 ppb	-0.005 ppb	0.000 ppb	99.264 %	-0.026 ppb	0.163 ppb	63.275 ppb
Concentration RSD	30.6 %	221.1 %	131.6 %	5.2 %	52.7 %	25.8 %	3.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.896 %	-0.008 ppb	0.026 ppb	97.175 %
Concentration per Run 1	111.978 %	-0.009 ppb	0.026 ppb	102.949 %
Concentration per Run 2	106.888 %	-0.006 ppb	0.024 ppb	95.288 %
Concentration per Run 3	98.822 %	-0.009 ppb	0.028 ppb	93.289 %
Concentration RSD	6.3 %	21.2 %	7.1 %	5.2 %

Analysis index: 34
Analysis label: WG873887-5D20 6020SL
Analysis started at: 3/16/2016 1:26:48 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 14

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.140 %	123.451 %	30.414 ppb	31,245.062 ppb	4,297.232 ppb	35.527 ppb	4,459.449 ppb
Concentration per Run 1	111.341 %	121.021 %	30.446 ppb	32,728.579 ppb	4,650.632 ppb	38.649 ppb	4,615.741 ppb
Concentration per Run 2	111.285 %	127.583 %	30.177 ppb	28,527.842 ppb	3,688.946 ppb	33.808 ppb	4,279.064 ppb
Concentration per Run 3	110.793 %	121.750 %	30.618 ppb	32,478.764 ppb	4,552.117 ppb	34.124 ppb	4,483.541 ppb
Concentration RSD	0.3 %	2.9 %	0.7 %	7.5 %	12.3 %	7.6 %	3.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,909.459 ppb	112.226 %	115.731 %	330.646 ppb	30.443 ppb	226.752 ppb	2,918.425 ppb
Concentration per Run 1	11,923.941 ppb	107.057 %	116.943 %	364.077 ppb	33.786 ppb	253.176 ppb	3,298.968 ppb
Concentration per Run 2	9,777.937 ppb	118.956 %	115.324 %	289.951 ppb	26.266 ppb	196.086 ppb	2,430.162 ppb
Concentration per Run 3	11,026.500 ppb	110.664 %	114.926 %	337.908 ppb	31.278 ppb	230.994 ppb	3,026.146 ppb
Concentration RSD	9.9 %	5.4 %	0.9 %	11.4 %	12.6 %	12.7 %	15.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	31.165 ppb	30.390 ppb	30.716 ppb	30.549 ppb	116.151 %	27.453 ppb	27.372 ppb
Concentration per Run 1	35.257 ppb	34.329 ppb	33.528 ppb	33.503 ppb	106.904 %	31.151 ppb	32.934 ppb
Concentration per Run 2	26.490 ppb	25.022 ppb	27.241 ppb	26.333 ppb	130.785 %	22.438 ppb	20.738 ppb
Concentration per Run 3	31.748 ppb	31.820 ppb	31.378 ppb	31.811 ppb	110.765 %	28.770 ppb	28.444 ppb
Concentration RSD	14.2 %	15.8 %	10.4 %	12.3 %	11.0 %	16.4 %	22.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	30.462 ppb	25.911 ppb	29.723 ppb	110.259 %	29.148 ppb	29.572 ppb	40.465 ppb
Concentration per Run 1	33.166 ppb	27.470 ppb	32.164 ppb	104.650 %	30.326 ppb	31.521 ppb	43.006 ppb
Concentration per Run 2	25.705 ppb	23.132 ppb	25.675 ppb	120.692 %	25.957 ppb	27.033 ppb	36.214 ppb
Concentration per Run 3	32.516 ppb	27.130 ppb	31.329 ppb	105.434 %	31.162 ppb	30.164 ppb	42.175 ppb
Concentration RSD	13.6 %	9.3 %	11.9 %	8.2 %	9.6 %	7.8 %	9.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	110.019 %	31.017 ppb	29.987 ppb	104.116 %
Concentration per Run 1	102.784 %	33.455 ppb	32.731 ppb	98.330 %
Concentration per Run 2	119.792 %	28.702 ppb	27.139 ppb	110.829 %
Concentration per Run 3	107.479 %	30.893 ppb	30.089 ppb	103.189 %
Concentration RSD	8.0 %	7.7 %	9.3 %	6.1 %

Analysis index: 35 Analysis started at: 3/16/2016 1:29:50 PM Rack: 0
Analysis label: xCCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.247 %	114.581 %	94.377 ppb	9,328.632 ppb	9,611.686 ppb	94.658 ppb	9,571.325 ppb
Concentration per Run 1	111.162 %	126.489 %	94.450 ppb	8,391.617 ppb	8,382.272 ppb	79.570 ppb	9,158.890 ppb
Concentration per Run 2	110.571 %	110.814 %	93.978 ppb	9,562.899 ppb	9,777.493 ppb	102.102 ppb	9,704.185 ppb
Concentration per Run 3	112.007 %	106.440 %	94.704 ppb	10,031.379 ppb	10,675.292 ppb	102.303 ppb	9,850.900 ppb
Recovery Percentage 1			94.377 %	93.286 %	96.117 %	94.658 %	95.713 %
Concentration RSD	0.6 %	9.2 %	0.4 %	9.1 %	12.0 %	13.8 %	3.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,088.163 ppb	114.534 %	117.371 %	88.663 ppb	88.972 ppb	88.279 ppb	8,731.581 ppb
Concentration per Run 1	8,544.341 ppb	120.225 %	115.183 %	81.830 ppb	80.304 ppb	81.111 ppb	8,060.988 ppb
Concentration per Run 2	8,820.149 ppb	113.884 %	119.022 %	86.979 ppb	90.376 ppb	89.871 ppb	8,747.251 ppb
Concentration per Run 3	9,899.999 ppb	109.494 %	117.907 %	97.181 ppb	96.236 ppb	93.855 ppb	9,386.505 ppb
Recovery Percentage 1	90.882 %			88.663 %	88.972 %	88.279 %	87.316 %
Concentration RSD	7.9 %	4.7 %	1.7 %	8.8 %	9.1 %	7.4 %	7.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	89.577 ppb	90.089 ppb	88.974 ppb	85.107 ppb	118.160 %	83.179 ppb	82.420 ppb
Concentration per Run 1	84.012 ppb	85.895 ppb	82.957 ppb	81.017 ppb	118.333 %	82.125 ppb	80.540 ppb
Concentration per Run 2	88.010 ppb	87.230 ppb	91.368 ppb	83.187 ppb	123.519 %	77.357 ppb	76.313 ppb
Concentration per Run 3	96.708 ppb	97.142 ppb	92.596 ppb	91.117 ppb	112.629 %	90.054 ppb	90.408 ppb
Recovery Percentage 1	89.577 %	90.089 %	88.974 %	85.107 %		83.179 %	82.420 %
Concentration RSD	7.2 %	6.8 %	5.9 %	6.2 %	4.6 %	7.7 %	8.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	86.949 ppb	93.091 ppb	88.193 ppb	111.320 %	32.518 ppb	88.180 ppb	87.995 ppb
Concentration per Run 1	81.705 ppb	84.882 ppb	79.657 ppb	118.906 %	29.209 ppb	80.561 ppb	81.273 ppb
Concentration per Run 2	86.833 ppb	94.315 ppb	88.944 ppb	110.512 %	32.907 ppb	87.989 ppb	87.392 ppb
Concentration per Run 3	92.309 ppb	100.075 ppb	95.977 ppb	104.543 %	35.437 ppb	95.991 ppb	95.320 ppb
Recovery Percentage 1	86.949 %	93.091 %	88.193 %		32.518 %	88.180 %	87.995 %
Concentration RSD	6.1 %	8.2 %	9.3 %	6.5 %	9.6 %	8.8 %	8.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	111.182 %	89.877 ppb	86.794 ppb	106.352 %
Concentration per Run 1	116.783 %	83.616 ppb	81.146 ppb	110.298 %
Concentration per Run 2	109.640 %	91.101 ppb	86.578 ppb	105.867 %
Concentration per Run 3	107.122 %	94.915 ppb	92.658 ppb	102.890 %
Recovery Percentage 1		89.877 %	86.794 %	
Concentration RSD	4.5 %	6.4 %	6.6 %	3.5 %

Analysis index: 36 Analysis started at: 3/16/2016 1:32:58 PM Rack: 0
Analysis label: xCCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	112.536 %	122.965 %	0.023 ppb	0.041 ppb	0.944 ppb	-0.235 ppb	10.308 ppb
Concentration per Run 1	113.092 %	124.667 %	0.024 ppb	-1.459 ppb	2.218 ppb	-0.214 ppb	11.855 ppb
Concentration per Run 2	113.138 %	121.386 %	0.024 ppb	-0.701 ppb	-1.640 ppb	-0.286 ppb	22.453 ppb
Concentration per Run 3	111.377 %	122.844 %	0.021 ppb	2.282 ppb	2.253 ppb	-0.205 ppb	-3.383 ppb
Recovery Percentage 1			4.660 %	0.041 %	1.348 %	-2.348 %	10.308 %
Concentration RSD	0.9 %	1.3 %	7.6 %	4,872.6 %	237.1 %	18.9 %	126.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-15.181 ppb	111.998 %	117.400 %	-0.004 ppb	0.014 ppb	-0.559 ppb	2.196 ppb
Concentration per Run 1	-16.622 ppb	116.518 %	119.378 %	0.019 ppb	-0.069 ppb	-0.588 ppb	2.326 ppb
Concentration per Run 2	-15.297 ppb	102.861 %	117.396 %	-0.002 ppb	0.148 ppb	-0.478 ppb	2.584 ppb
Concentration per Run 3	-13.624 ppb	116.615 %	115.426 %	-0.029 ppb	-0.036 ppb	-0.611 ppb	1.679 ppb
Recovery Percentage 1	-15.181 %			-0.082 %	1.433 %	-55.896 %	4.393 %
Concentration RSD	9.9 %	7.1 %	1.7 %	590.8 %	817.7 %	12.8 %	21.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.018 ppb	0.148 ppb	0.019 ppb	-0.172 ppb	112.486 %	0.017 ppb	0.293 ppb
Concentration per Run 1	0.028 ppb	0.129 ppb	0.000 ppb	-0.112 ppb	116.917 %	-0.011 ppb	0.319 ppb
Concentration per Run 2	0.032 ppb	0.179 ppb	0.079 ppb	-0.255 ppb	113.046 %	0.044 ppb	0.584 ppb
Concentration per Run 3	-0.006 ppb	0.136 ppb	-0.022 ppb	-0.148 ppb	107.496 %	0.018 ppb	-0.023 ppb
Recovery Percentage 1	3.661 %	29.570 %	1.913 %	-1.718 %	112.486 %	3.422 %	5.867 %
Concentration RSD	114.2 %	18.2 %	277.8 %	43.3 %	4.2 %	160.2 %	103.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.446 ppb	0.026 ppb	0.036 ppb	112.862 %	0.023 ppb	0.081 ppb	-0.003 ppb
Concentration per Run 1	0.394 ppb	0.018 ppb	0.020 ppb	121.159 %	0.008 ppb	0.131 ppb	-0.042 ppb
Concentration per Run 2	0.525 ppb	0.021 ppb	0.052 ppb	108.994 %	-0.015 ppb	0.005 ppb	-0.004 ppb
Concentration per Run 3	0.419 ppb	0.038 ppb	0.037 ppb	108.431 %	0.075 ppb	0.108 ppb	0.037 ppb
Recovery Percentage 1	14.865 %	6.439 %	18.231 %		0.753 %	4.074 %	-0.589 %
Concentration RSD	15.6 %	41.9 %	43.6 %	6.4 %	207.3 %	82.4 %	1,340.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	110.801 %	0.044 ppb	0.013 ppb	106.745 %
Concentration per Run 1	118.281 %	0.042 ppb	0.010 ppb	110.395 %
Concentration per Run 2	109.282 %	0.049 ppb	0.021 ppb	106.915 %
Concentration per Run 3	104.839 %	0.042 ppb	0.008 ppb	102.925 %
Recovery Percentage 1		8.790 %	2.611 %	106.745 %
Concentration RSD	6.2 %	9.2 %	55.2 %	3.5 %

Analysis index: 37 Analysis started at: 3/16/2016 1:36:05 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.177 %	118.712 %	93.127 ppb	9,306.922 ppb	9,745.104 ppb	99.932 ppb	9,945.323 ppb
Concentration per Run 1	113.760 %	112.272 %	93.539 ppb	9,591.183 ppb	10,443.687 ppb	103.418 ppb	10,614.135 ppb
Concentration per Run 2	112.362 %	119.928 %	92.867 ppb	9,137.789 ppb	9,278.171 ppb	94.132 ppb	8,867.487 ppb
Concentration per Run 3	113.409 %	123.937 %	92.976 ppb	9,191.793 ppb	9,513.454 ppb	102.247 ppb	10,354.347 ppb
Recovery Percentage 1			93.127 %	93.069 %	97.451 %	99.932 %	99.453 %
Concentration RSD	0.6 %	5.0 %	0.4 %	2.7 %	6.3 %	5.1 %	9.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,309.062 ppb	117.591 %	117.559 %	93.960 ppb	94.101 ppb	93.232 ppb	9,562.617 ppb
Concentration per Run 1	9,668.603 ppb	113.493 %	118.047 %	95.448 ppb	96.606 ppb	95.012 ppb	9,713.515 ppb
Concentration per Run 2	8,598.612 ppb	129.200 %	117.559 %	85.557 ppb	89.983 ppb	86.378 ppb	9,289.500 ppb
Concentration per Run 3	9,659.971 ppb	110.079 %	117.071 %	100.875 ppb	95.714 ppb	98.306 ppb	9,684.835 ppb
Recovery Percentage 1	93.091 %			93.960 %	94.101 %	93.232 %	95.626 %
Concentration RSD	6.6 %	8.7 %	0.4 %	8.3 %	3.8 %	6.6 %	2.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	96.912 ppb	97.639 ppb	97.311 ppb	91.628 ppb	112.662 %	91.030 ppb	97.878 ppb
Concentration per Run 1	99.638 ppb	96.251 ppb	99.213 ppb	92.255 ppb	114.437 %	91.022 ppb	93.262 ppb
Concentration per Run 2	93.460 ppb	94.210 ppb	92.733 ppb	91.592 ppb	107.608 %	94.193 ppb	102.801 ppb
Concentration per Run 3	97.638 ppb	102.456 ppb	99.989 ppb	91.039 ppb	115.941 %	87.876 ppb	97.572 ppb
Recovery Percentage 1	96.912 %	97.639 %	97.311 %	91.628 %		91.030 %	97.878 %
Concentration RSD	3.3 %	4.4 %	4.1 %	0.7 %	3.9 %	3.5 %	4.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	91.998 ppb	95.019 ppb	91.854 ppb	113.323 %	34.537 ppb	93.312 ppb	95.743 ppb
Concentration per Run 1	91.267 ppb	94.704 ppb	92.044 ppb	115.611 %	34.184 ppb	94.200 ppb	95.589 ppb
Concentration per Run 2	91.098 ppb	93.273 ppb	90.616 ppb	114.951 %	34.421 ppb	87.700 ppb	91.678 ppb
Concentration per Run 3	93.630 ppb	97.080 ppb	92.901 ppb	109.406 %	35.006 ppb	98.037 ppb	99.964 ppb
Recovery Percentage 1	91.998 %	95.019 %	91.854 %		34.537 %	93.312 %	95.743 %
Concentration RSD	1.5 %	2.0 %	1.3 %	3.0 %	1.2 %	5.6 %	4.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.426 %	95.529 ppb	93.793 ppb	103.166 %
Concentration per Run 1	109.028 %	95.162 ppb	94.565 ppb	105.051 %
Concentration per Run 2	108.146 %	94.581 ppb	91.743 ppb	103.492 %
Concentration per Run 3	108.105 %	96.844 ppb	95.072 ppb	100.954 %
Recovery Percentage 1		95.529 %	93.793 %	
Concentration RSD	0.5 %	1.2 %	1.9 %	2.0 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 38 Analysis started at: 3/16/2016 1:39:13 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.347 %	117.983 %	0.022 ppb	-1.575 ppb	3.492 ppb	0.413 ppb	6.872 ppb
Concentration per Run 1	113.313 %	122.479 %	0.013 ppb	-2.752 ppb	4.084 ppb	0.885 ppb	6.845 ppb
Concentration per Run 2	112.452 %	111.908 %	0.021 ppb	-1.170 ppb	2.914 ppb	0.426 ppb	4.412 ppb
Concentration per Run 3	114.275 %	119.563 %	0.031 ppb	-0.804 ppb	3.478 ppb	-0.072 ppb	9.358 ppb
Recovery Percentage 1			4.364 %	-1.575 %	4.989 %	4.128 %	6.872 %
Concentration RSD	0.8 %	4.6 %	41.0 %	65.7 %	16.7 %	116.0 %	36.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-13.511 ppb	125.330 %	118.376 %	-0.006 ppb	-0.031 ppb	-0.686 ppb	2.958 ppb
Concentration per Run 1	-5.415 ppb	122.566 %	120.572 %	-0.006 ppb	-0.025 ppb	-0.535 ppb	4.370 ppb
Concentration per Run 2	-8.584 ppb	129.102 %	117.776 %	-0.007 ppb	0.003 ppb	-0.666 ppb	1.554 ppb
Concentration per Run 3	-26.535 ppb	124.322 %	116.780 %	-0.006 ppb	-0.071 ppb	-0.856 ppb	2.951 ppb
Recovery Percentage 1	-13.511 %			-0.124 %	-3.089 %	-68.582 %	5.917 %
Concentration RSD	84.3 %	2.7 %	1.7 %	5.2 %	122.4 %	23.6 %	47.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.012 ppb	0.161 ppb	0.017 ppb	-0.429 ppb	111.464 %	0.035 ppb	0.434 ppb
Concentration per Run 1	-0.007 ppb	0.093 ppb	0.000 ppb	-0.333 ppb	114.944 %	0.070 ppb	0.552 ppb
Concentration per Run 2	-0.015 ppb	0.363 ppb	0.026 ppb	-0.666 ppb	105.963 %	0.018 ppb	0.491 ppb
Concentration per Run 3	-0.015 ppb	0.027 ppb	0.024 ppb	-0.288 ppb	113.484 %	0.017 ppb	0.259 ppb
Recovery Percentage 1	-2.470 %	32.188 %	1.686 %	-4.290 %	111.464 %	6.998 %	8.674 %
Concentration RSD	39.5 %	110.6 %	86.3 %	48.1 %	4.3 %	86.8 %	35.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.569 ppb	0.027 ppb	0.031 ppb	112.912 %	0.010 ppb	0.077 ppb	0.021 ppb
Concentration per Run 1	0.443 ppb	0.028 ppb	0.014 ppb	113.930 %	0.049 ppb	0.121 ppb	-0.004 ppb
Concentration per Run 2	0.552 ppb	0.025 ppb	0.066 ppb	111.712 %	-0.017 ppb	0.084 ppb	-0.004 ppb
Concentration per Run 3	0.711 ppb	0.028 ppb	0.014 ppb	113.093 %	-0.001 ppb	0.024 ppb	0.072 ppb
Recovery Percentage 1	18.963 %	6.717 %	15.692 %		0.346 %	3.834 %	4.245 %
Concentration RSD	23.7 %	7.1 %	94.5 %	1.0 %	334.2 %	64.0 %	207.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.743 %	0.054 ppb	0.011 ppb	107.148 %
Concentration per Run 1	109.821 %	0.063 ppb	0.012 ppb	106.928 %
Concentration per Run 2	108.329 %	0.052 ppb	0.014 ppb	106.862 %
Concentration per Run 3	108.078 %	0.046 ppb	0.008 ppb	107.653 %
Recovery Percentage 1		10.719 %	2.192 %	107.148 %
Concentration RSD	0.9 %	15.6 %	28.9 %	0.4 %

Alpha ICPMSQ Full

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Analysis index: 39
Analysis label: WG874190-1d10 6020TS
Analysis started at: 3/16/2016 3:19:08 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 15

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	119.724 %	130.013 %	0.007 ppb	-4.796 ppb	-1.038 ppb	0.315 ppb	4.954 ppb
Concentration per Run 1	119.167 %	130.499 %	0.007 ppb	-7.420 ppb	-1.071 ppb	1.192 ppb	5.250 ppb
Concentration per Run 2	120.324 %	126.854 %	0.005 ppb	-2.838 ppb	-0.342 ppb	-0.175 ppb	2.035 ppb
Concentration per Run 3	119.682 %	132.686 %	0.010 ppb	-4.130 ppb	-1.700 ppb	-0.070 ppb	7.576 ppb
Concentration RSD	0.5 %	2.3 %	35.9 %	49.3 %	65.5 %	241.2 %	56.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-16.518 ppb	112.648 %	125.074 %	0.004 ppb	0.080 ppb	-0.476 ppb	2.387 ppb
Concentration per Run 1	-13.318 ppb	116.908 %	123.744 %	0.019 ppb	0.107 ppb	-0.522 ppb	3.053 ppb
Concentration per Run 2	-26.317 ppb	108.323 %	126.573 %	-0.004 ppb	0.068 ppb	-0.605 ppb	0.942 ppb
Concentration per Run 3	-9.918 ppb	112.713 %	124.904 %	-0.004 ppb	0.064 ppb	-0.302 ppb	3.166 ppb
Concentration RSD	52.4 %	3.8 %	1.1 %	351.7 %	29.3 %	32.8 %	52.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.018 ppb	0.052 ppb	0.025 ppb	0.452 ppb	115.626 %	0.007 ppb	0.358 ppb
Concentration per Run 1	-0.015 ppb	0.096 ppb	0.001 ppb	0.474 ppb	115.748 %	0.016 ppb	0.270 ppb
Concentration per Run 2	-0.024 ppb	-0.005 ppb	0.074 ppb	0.546 ppb	117.939 %	-0.011 ppb	0.602 ppb
Concentration per Run 3	-0.015 ppb	0.065 ppb	0.002 ppb	0.336 ppb	113.192 %	0.017 ppb	0.203 ppb
Concentration RSD	28.5 %	98.9 %	164.6 %	23.7 %	2.1 %	214.2 %	59.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.237 ppb	0.036 ppb	0.015 ppb	108.709 %	0.050 ppb	0.066 ppb	0.161 ppb
Concentration per Run 1	0.202 ppb	0.029 ppb	0.007 ppb	110.184 %	0.054 ppb	0.065 ppb	0.335 ppb
Concentration per Run 2	0.201 ppb	0.046 ppb	0.037 ppb	108.903 %	0.074 ppb	0.066 ppb	0.113 ppb
Concentration per Run 3	0.309 ppb	0.034 ppb	0.000 ppb	107.038 %	0.022 ppb	0.067 ppb	0.036 ppb
Concentration RSD	26.2 %	24.0 %	132.6 %	1.5 %	51.7 %	1.8 %	96.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	109.929 %	0.015 ppb	0.012 ppb	106.868 %
Concentration per Run 1	112.703 %	0.019 ppb	0.018 ppb	109.444 %
Concentration per Run 2	108.303 %	0.015 ppb	0.015 ppb	105.083 %
Concentration per Run 3	108.782 %	0.012 ppb	0.004 ppb	106.079 %
Concentration RSD	2.2 %	20.2 %	58.7 %	2.1 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 40
Analysis label: WG874190-2d50 6020TS
Analysis started at: 3/16/2016 3:22:10 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 16

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	116.570 %	122.844 %	13.430 ppb	76.452 ppb	425.901 ppb	902.434 ppb	378.179 ppb
Concentration per Run 1	115.162 %	139.612 %	13.340 ppb	57.476 ppb	359.287 ppb	825.921 ppb	371.728 ppb
Concentration per Run 2	117.685 %	107.169 %	13.476 ppb	90.706 ppb	477.013 ppb	960.193 ppb	399.402 ppb
Concentration per Run 3	116.863 %	121.750 %	13.473 ppb	81.174 ppb	441.405 ppb	921.190 ppb	363.408 ppb
Concentration RSD	1.1 %	13.2 %	0.6 %	22.4 %	14.2 %	7.7 %	5.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	751.436 ppb	113.688 %	123.221 %	15.019 ppb	15.476 ppb	59.023 ppb	2,268.456 ppb
Concentration per Run 1	629.615 ppb	119.053 %	122.192 %	14.456 ppb	14.652 ppb	60.204 ppb	2,229.369 ppb
Concentration per Run 2	855.498 ppb	110.079 %	123.511 %	14.962 ppb	16.123 ppb	59.702 ppb	2,359.729 ppb
Concentration per Run 3	769.194 ppb	111.933 %	123.959 %	15.638 ppb	15.653 ppb	57.164 ppb	2,216.272 ppb
Concentration RSD	15.2 %	4.2 %	0.7 %	3.9 %	4.9 %	2.8 %	3.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	16.833 ppb	12.465 ppb	18.769 ppb	32.755 ppb	110.391 %	16.963 ppb	25.087 ppb
Concentration per Run 1	16.402 ppb	11.834 ppb	18.791 ppb	31.349 ppb	108.849 %	17.202 ppb	23.208 ppb
Concentration per Run 2	17.573 ppb	13.351 ppb	18.926 ppb	32.955 ppb	110.464 %	17.137 ppb	31.337 ppb
Concentration per Run 3	16.522 ppb	12.209 ppb	18.591 ppb	33.962 ppb	111.861 %	16.550 ppb	20.715 ppb
Concentration RSD	3.8 %	6.3 %	0.9 %	4.0 %	1.4 %	2.1 %	22.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	14.864 ppb	6.310 ppb	13.770 ppb	109.643 %	19.940 ppb	26.367 ppb	24.666 ppb
Concentration per Run 1	15.720 ppb	6.075 ppb	13.581 ppb	112.689 %	19.620 ppb	24.430 ppb	24.771 ppb
Concentration per Run 2	14.945 ppb	6.566 ppb	13.745 ppb	109.457 %	20.247 ppb	26.929 ppb	23.406 ppb
Concentration per Run 3	13.929 ppb	6.289 ppb	13.984 ppb	106.783 %	19.954 ppb	27.740 ppb	25.821 ppb
Concentration RSD	6.0 %	3.9 %	1.5 %	2.7 %	1.6 %	6.5 %	4.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.280 %	30.095 ppb	15.002 ppb	103.502 %
Concentration per Run 1	109.784 %	28.762 ppb	14.283 ppb	106.793 %
Concentration per Run 2	108.728 %	31.043 ppb	15.302 ppb	104.439 %
Concentration per Run 3	106.328 %	30.481 ppb	15.419 ppb	99.274 %
Concentration RSD	1.6 %	3.9 %	4.2 %	3.7 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 41
Analysis label: WG874190-6d50 6020TS
Analysis started at: 3/16/2016 3:25:13 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 17

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	114.814 %	121.386 %	0.165 ppb	78.689 ppb	3,236.450 ppb	3,248.411 ppb	332.811 ppb
Concentration per Run 1	115.008 %	119.928 %	0.175 ppb	76.553 ppb	3,183.605 ppb	3,146.330 ppb	352.002 ppb
Concentration per Run 2	114.743 %	123.938 %	0.148 ppb	83.366 ppb	3,268.342 ppb	3,238.039 ppb	328.602 ppb
Concentration per Run 3	114.690 %	120.292 %	0.172 ppb	76.148 ppb	3,257.402 ppb	3,360.864 ppb	317.828 ppb
Concentration RSD	0.1 %	1.8 %	9.2 %	5.2 %	1.4 %	3.3 %	5.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	5,967.949 ppb	115.769 %	117.280 %	9.019 ppb	6.803 ppb	138.828 ppb	6,903.073 ppb
Concentration per Run 1	6,012.076 ppb	120.127 %	120.587 %	9.563 ppb	6.661 ppb	134.747 ppb	6,867.352 ppb
Concentration per Run 2	5,810.506 ppb	113.786 %	114.808 %	8.738 ppb	6.963 ppb	141.426 ppb	7,036.041 ppb
Concentration per Run 3	6,081.265 ppb	113.396 %	116.445 %	8.756 ppb	6.785 ppb	140.311 ppb	6,805.826 ppb
Concentration RSD	2.4 %	3.3 %	2.5 %	5.2 %	2.2 %	2.6 %	1.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.535 ppb	6.448 ppb	9.517 ppb	34.934 ppb	111.333 %	1.782 ppb	1.720 ppb
Concentration per Run 1	2.442 ppb	6.581 ppb	8.966 ppb	34.537 ppb	116.104 %	1.163 ppb	0.914 ppb
Concentration per Run 2	2.444 ppb	6.893 ppb	9.182 ppb	35.872 ppb	104.064 %	2.040 ppb	1.336 ppb
Concentration per Run 3	2.719 ppb	5.871 ppb	10.404 ppb	34.395 ppb	113.832 %	2.142 ppb	2.909 ppb
Concentration RSD	6.3 %	8.1 %	8.1 %	2.3 %	5.7 %	30.2 %	61.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.336 ppb	0.032 ppb	0.077 ppb	105.907 %	1.448 ppb	0.160 ppb	26.901 ppb
Concentration per Run 1	0.365 ppb	0.024 ppb	0.036 ppb	111.067 %	1.455 ppb	0.085 ppb	27.729 ppb
Concentration per Run 2	0.308 ppb	0.035 ppb	0.077 ppb	105.179 %	1.279 ppb	0.259 ppb	26.249 ppb
Concentration per Run 3	0.334 ppb	0.035 ppb	0.118 ppb	101.475 %	1.611 ppb	0.137 ppb	26.724 ppb
Concentration RSD	8.5 %	20.1 %	53.1 %	4.6 %	11.5 %	55.6 %	2.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.594 %	0.119 ppb	26.749 ppb	103.005 %
Concentration per Run 1	103.462 %	0.087 ppb	26.463 ppb	104.119 %
Concentration per Run 2	103.186 %	0.128 ppb	26.718 ppb	103.314 %
Concentration per Run 3	104.133 %	0.141 ppb	27.067 ppb	101.581 %
Concentration RSD	0.5 %	23.9 %	1.1 %	1.3 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 42
Analysis label: L1607446-01d10 6020TS
Analysis started at: 3/16/2016 3:28:17 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 18

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	113.750 %	114.946 %	0.842 ppb	439.021 ppb	16,948.816 ppb	17,102.972 ppb	1,845.134 ppb
Concentration per Run 1	113.556 %	118.469 %	0.866 ppb	411.112 ppb	15,589.599 ppb	15,458.347 ppb	1,826.294 ppb
Concentration per Run 2	114.435 %	118.105 %	0.828 ppb	438.568 ppb	17,291.150 ppb	17,412.058 ppb	1,802.230 ppb
Concentration per Run 3	113.259 %	108.263 %	0.832 ppb	467.384 ppb	17,965.698 ppb	18,438.511 ppb	1,906.878 ppb
Concentration RSD	0.5 %	5.0 %	2.5 %	6.4 %	7.2 %	8.9 %	3.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	33,453.510 ppb	107.413 %	117.804 %	47.673 ppb	36.561 ppb	692.689 ppb	34,316.231 ppb
Concentration per Run 1	31,268.307 ppb	113.200 %	116.297 %	43.151 ppb	33.647 ppb	647.780 ppb	31,309.066 ppb
Concentration per Run 2	35,647.150 ppb	104.226 %	119.844 %	49.995 ppb	38.576 ppb	720.170 ppb	35,914.634 ppb
Concentration per Run 3	33,445.073 ppb	104.812 %	117.273 %	49.874 ppb	37.459 ppb	710.117 ppb	35,724.992 ppb
Concentration RSD	6.5 %	4.7 %	1.6 %	8.2 %	7.1 %	5.7 %	7.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	12.436 ppb	32.450 ppb	48.023 ppb	180.675 ppb	112.536 %	10.115 ppb	7.737 ppb
Concentration per Run 1	11.522 ppb	30.211 ppb	45.138 ppb	167.493 ppb	113.257 %	10.142 ppb	8.573 ppb
Concentration per Run 2	12.904 ppb	34.955 ppb	49.067 ppb	190.288 ppb	111.714 %	9.723 ppb	8.889 ppb
Concentration per Run 3	12.880 ppb	32.183 ppb	49.862 ppb	184.244 ppb	112.638 %	10.482 ppb	5.748 ppb
Concentration RSD	6.4 %	7.3 %	5.3 %	6.5 %	0.7 %	3.8 %	22.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.110 ppb	0.155 ppb	0.337 ppb	104.517 %	7.935 ppb	0.925 ppb	139.729 ppb
Concentration per Run 1	1.043 ppb	0.116 ppb	0.319 ppb	105.829 %	6.902 ppb	0.866 ppb	134.143 ppb
Concentration per Run 2	1.287 ppb	0.194 ppb	0.318 ppb	106.403 %	8.733 ppb	0.828 ppb	143.292 ppb
Concentration per Run 3	0.999 ppb	0.156 ppb	0.372 ppb	101.319 %	8.168 ppb	1.080 ppb	141.752 ppb
Concentration RSD	14.0 %	24.9 %	9.1 %	2.7 %	11.8 %	14.7 %	3.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.131 %	0.283 ppb	134.138 ppb	100.140 %
Concentration per Run 1	102.782 %	0.279 ppb	126.773 ppb	102.011 %
Concentration per Run 2	95.539 %	0.269 ppb	135.571 ppb	100.047 %
Concentration per Run 3	99.072 %	0.299 ppb	140.071 ppb	98.361 %
Concentration RSD	3.7 %	5.4 %	5.0 %	1.8 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 43
Analysis label: WG874190-3d10 6020TS
Analysis started at: 3/16/2016 3:31:20 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 19

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	111.738 %	113.002 %	0.884 ppb	486.637 ppb	6,237.311 ppb	16,867.625 ppb	1,748.562 ppb
Concentration per Run 1	114.370 %	119.563 %	0.853 ppb	439.670 ppb	5,761.585 ppb	15,182.755 ppb	1,607.486 ppb
Concentration per Run 2	110.013 %	115.553 %	0.887 ppb	507.113 ppb	6,321.004 ppb	17,582.393 ppb	1,866.150 ppb
Concentration per Run 3	110.830 %	103.888 %	0.912 ppb	513.128 ppb	6,629.343 ppb	17,837.728 ppb	1,772.049 ppb
Concentration RSD	2.1 %	7.2 %	3.3 %	8.4 %	7.1 %	8.7 %	7.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	16,950.297 ppb	114.664 %	114.544 %	44.905 ppb	36.467 ppb	710.620 ppb	37,940.184 ppb
Concentration per Run 1	16,426.244 ppb	123.639 %	116.820 %	42.754 ppb	35.009 ppb	648.594 ppb	35,087.071 ppb
Concentration per Run 2	17,416.191 ppb	106.665 %	112.891 %	46.051 ppb	39.406 ppb	755.137 ppb	39,918.617 ppb
Concentration per Run 3	17,008.455 ppb	113.688 %	113.919 %	45.909 ppb	34.987 ppb	728.128 ppb	38,814.863 ppb
Concentration RSD	2.9 %	7.4 %	1.8 %	4.2 %	7.0 %	7.8 %	6.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	13.344 ppb	47.140 ppb	65.379 ppb	224.419 ppb	109.777 %	12.282 ppb	8.611 ppb
Concentration per Run 1	12.349 ppb	44.738 ppb	62.029 ppb	217.135 ppb	112.921 %	12.007 ppb	7.510 ppb
Concentration per Run 2	13.926 ppb	46.082 ppb	68.223 ppb	231.742 ppb	108.931 %	12.465 ppb	10.282 ppb
Concentration per Run 3	13.757 ppb	50.601 ppb	65.885 ppb	224.378 ppb	107.480 %	12.375 ppb	8.041 ppb
Concentration RSD	6.5 %	6.5 %	4.8 %	3.3 %	2.6 %	2.0 %	17.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.253 ppb	0.102 ppb	0.383 ppb	109.982 %	9.878 ppb	1.045 ppb	142.544 ppb
Concentration per Run 1	1.071 ppb	0.115 ppb	0.325 ppb	117.489 %	9.032 ppb	0.861 ppb	134.028 ppb
Concentration per Run 2	1.230 ppb	0.077 ppb	0.377 ppb	107.160 %	10.430 ppb	1.144 ppb	146.575 ppb
Concentration per Run 3	1.459 ppb	0.114 ppb	0.445 ppb	105.297 %	10.173 ppb	1.130 ppb	147.030 ppb
Concentration RSD	15.6 %	20.9 %	15.7 %	6.0 %	7.5 %	15.3 %	5.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.924 %	0.247 ppb	156.237 ppb	103.545 %
Concentration per Run 1	108.035 %	0.216 ppb	143.191 ppb	110.568 %
Concentration per Run 2	105.456 %	0.262 ppb	162.039 ppb	101.530 %
Concentration per Run 3	98.282 %	0.264 ppb	163.480 ppb	98.538 %
Concentration RSD	4.9 %	10.9 %	7.2 %	6.0 %

Analysis index: 44
Analysis label: WG874190-4d10 6020TS
Analysis started at: 3/16/2016 3:34:24 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 20

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	106.324 %	111.908 %	2.078 ppb	449.846 ppb	2,244.044 ppb	3,458.521 ppb	744.307 ppb
Concentration per Run 1	108.976 %	119.563 %	2.033 ppb	405.484 ppb	2,013.871 ppb	3,126.078 ppb	687.643 ppb
Concentration per Run 2	104.239 %	111.179 %	2.080 ppb	460.213 ppb	2,325.399 ppb	3,469.846 ppb	688.017 ppb
Concentration per Run 3	105.757 %	104.982 %	2.120 ppb	483.842 ppb	2,392.861 ppb	3,779.638 ppb	857.260 ppb
Concentration RSD	2.3 %	6.5 %	2.1 %	8.9 %	9.0 %	9.5 %	13.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,750.722 ppb	109.916 %	110.859 %	27.460 ppb	14.849 ppb	139.415 ppb	7,291.829 ppb
Concentration per Run 1	3,472.420 ppb	112.322 %	110.146 %	24.799 ppb	14.171 ppb	130.564 ppb	6,793.198 ppb
Concentration per Run 2	3,963.318 ppb	109.104 %	109.725 %	29.029 ppb	15.134 ppb	146.382 ppb	7,478.714 ppb
Concentration per Run 3	3,816.429 ppb	108.323 %	112.707 %	28.552 ppb	15.241 ppb	141.299 ppb	7,603.577 ppb
Concentration RSD	6.7 %	1.9 %	1.5 %	8.4 %	4.0 %	5.8 %	6.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.985 ppb	25.371 ppb	18.455 ppb	51.676 ppb	110.476 %	5.961 ppb	6.198 ppb
Concentration per Run 1	18.155 ppb	23.798 ppb	16.264 ppb	47.261 ppb	114.334 %	5.181 ppb	7.110 ppb
Concentration per Run 2	20.811 ppb	25.973 ppb	19.248 ppb	53.333 ppb	108.647 %	5.969 ppb	5.413 ppb
Concentration per Run 3	20.991 ppb	26.342 ppb	19.854 ppb	54.435 ppb	108.445 %	6.732 ppb	6.070 ppb
Concentration RSD	7.9 %	5.4 %	10.4 %	7.5 %	3.0 %	13.0 %	13.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	33.006 ppb	11.573 ppb	2.083 ppb	110.211 %	38.829 ppb	17.388 ppb	101.244 ppb
Concentration per Run 1	29.195 ppb	10.079 ppb	1.674 ppb	118.536 %	36.207 ppb	14.471 ppb	91.396 ppb
Concentration per Run 2	32.898 ppb	12.054 ppb	2.279 ppb	109.211 %	37.061 ppb	17.468 ppb	107.929 ppb
Concentration per Run 3	36.926 ppb	12.586 ppb	2.296 ppb	102.885 %	43.217 ppb	20.226 ppb	104.408 ppb
Concentration RSD	11.7 %	11.4 %	17.0 %	7.1 %	9.9 %	16.6 %	8.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	109.494 %	4.236 ppb	48.691 ppb	107.630 %
Concentration per Run 1	117.607 %	3.959 ppb	44.695 ppb	110.648 %
Concentration per Run 2	108.652 %	4.207 ppb	49.467 ppb	107.861 %
Concentration per Run 3	102.224 %	4.544 ppb	51.912 ppb	104.380 %
Concentration RSD	7.1 %	6.9 %	7.5 %	2.9 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 45
Analysis label: WG874190-5d10 6020TS
Analysis started at: 3/16/2016 3:37:28 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 21

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.244 %	111.057 %	96.548 ppb	9,678.660 ppb	13,101.751 ppb	3,432.228 ppb	10,331.720 ppb
Concentration per Run 1	104.498 %	114.095 %	96.361 ppb	9,334.551 ppb	12,431.598 ppb	3,214.960 ppb	9,771.143 ppb
Concentration per Run 2	103.705 %	117.740 %	97.632 ppb	9,414.262 ppb	12,954.860 ppb	3,394.044 ppb	10,635.656 ppb
Concentration per Run 3	101.528 %	101.337 %	95.652 ppb	10,287.167 ppb	13,918.793 ppb	3,687.681 ppb	10,588.363 ppb
Concentration RSD	1.5 %	7.8 %	1.0 %	5.5 %	5.8 %	7.0 %	4.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	15,831.318 ppb	107.283 %	105.275 %	104.653 ppb	104.559 ppb	237.607 ppb	16,561.086 ppb
Concentration per Run 1	14,708.146 ppb	111.835 %	106.676 %	99.016 ppb	102.782 ppb	230.703 ppb	16,043.096 ppb
Concentration per Run 2	16,659.440 ppb	104.909 %	103.841 %	110.886 ppb	104.612 ppb	235.218 ppb	16,925.675 ppb
Concentration per Run 3	16,126.368 ppb	105.105 %	105.307 %	104.058 ppb	106.285 ppb	246.900 ppb	16,714.487 ppb
Concentration RSD	6.4 %	3.7 %	1.3 %	5.7 %	1.7 %	3.5 %	2.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	102.438 ppb	103.607 ppb	108.271 ppb	133.024 ppb	102.531 %	94.870 ppb	102.884 ppb
Concentration per Run 1	101.535 ppb	96.696 ppb	104.784 ppb	130.368 ppb	105.846 %	94.274 ppb	100.457 ppb
Concentration per Run 2	101.766 ppb	109.113 ppb	110.147 ppb	129.868 ppb	102.058 %	93.621 ppb	106.777 ppb
Concentration per Run 3	104.012 ppb	105.012 ppb	109.881 ppb	138.837 ppb	99.687 %	96.715 ppb	101.417 ppb
Concentration RSD	1.3 %	6.1 %	2.8 %	3.8 %	3.0 %	1.7 %	3.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	97.404 ppb	81.231 ppb	98.262 ppb	101.114 %	1.681 ppb	98.672 ppb	127.383 ppb
Concentration per Run 1	98.685 ppb	73.610 ppb	98.032 ppb	102.206 %	1.807 ppb	97.344 ppb	128.481 ppb
Concentration per Run 2	100.045 ppb	81.506 ppb	97.353 ppb	102.364 %	1.678 ppb	100.039 ppb	130.044 ppb
Concentration per Run 3	93.482 ppb	88.577 ppb	99.400 ppb	98.773 %	1.559 ppb	98.633 ppb	123.622 ppb
Concentration RSD	3.6 %	9.2 %	1.1 %	2.0 %	7.4 %	1.4 %	2.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.065 %	98.482 ppb	123.241 ppb	99.209 %
Concentration per Run 1	104.375 %	97.830 ppb	119.498 ppb	102.064 %
Concentration per Run 2	99.399 %	98.536 ppb	125.113 ppb	97.983 %
Concentration per Run 3	102.421 %	99.079 ppb	125.111 ppb	97.580 %
Concentration RSD	2.5 %	0.6 %	2.6 %	2.5 %

Analysis index: 46 Analysis started at: 3/16/2016 3:40:33 PM Rack: 0
Analysis label: xCCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	109.150 %	114.824 %	93.818 ppb	9,189.494 ppb	9,527.249 ppb	98.954 ppb	9,280.602 ppb
Concentration per Run 1	108.659 %	114.460 %	94.071 ppb	8,748.586 ppb	9,099.248 ppb	103.019 ppb	8,475.782 ppb
Concentration per Run 2	109.521 %	116.282 %	93.406 ppb	9,037.397 ppb	9,408.552 ppb	94.871 ppb	9,308.429 ppb
Concentration per Run 3	109.270 %	113.731 %	93.977 ppb	9,782.498 ppb	10,073.946 ppb	98.973 ppb	10,057.597 ppb
Recovery Percentage 1			93.818 %	91.895 %	95.272 %	98.954 %	92.806 %
Concentration RSD	0.4 %	1.1 %	0.4 %	5.8 %	5.2 %	4.1 %	8.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8,909.501 ppb	112.583 %	112.434 %	90.911 ppb	89.836 ppb	89.927 ppb	9,100.624 ppb
Concentration per Run 1	8,246.347 ppb	119.054 %	108.674 %	85.071 ppb	83.918 ppb	83.104 ppb	8,828.532 ppb
Concentration per Run 2	8,568.042 ppb	113.884 %	115.212 %	89.146 ppb	87.292 ppb	89.248 ppb	8,869.167 ppb
Concentration per Run 3	9,914.113 ppb	104.812 %	113.415 %	98.517 ppb	98.297 ppb	97.430 ppb	9,604.173 ppb
Recovery Percentage 1	89.095 %			90.911 %	89.836 %	89.927 %	91.006 %
Concentration RSD	9.9 %	6.4 %	3.0 %	7.6 %	8.4 %	8.0 %	4.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	93.080 ppb	91.406 ppb	89.519 ppb	88.129 ppb	113.592 %	86.884 ppb	89.023 ppb
Concentration per Run 1	86.212 ppb	85.319 ppb	84.562 ppb	83.644 ppb	112.870 %	83.714 ppb	71.539 ppb
Concentration per Run 2	92.869 ppb	92.066 ppb	90.379 ppb	88.379 ppb	113.596 %	85.636 ppb	96.311 ppb
Concentration per Run 3	100.160 ppb	96.833 ppb	93.616 ppb	92.364 ppb	114.310 %	91.302 ppb	99.220 ppb
Recovery Percentage 1	93.080 %	91.406 %	89.519 %	88.129 %		86.884 %	89.023 %
Concentration RSD	7.5 %	6.3 %	5.1 %	5.0 %	0.6 %	4.5 %	17.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	90.598 ppb	95.821 ppb	89.661 ppb	112.209 %	33.075 ppb	89.398 ppb	92.486 ppb
Concentration per Run 1	85.735 ppb	90.873 ppb	82.953 ppb	116.553 %	30.602 ppb	78.967 ppb	81.448 ppb
Concentration per Run 2	91.698 ppb	99.285 ppb	92.088 ppb	110.971 %	33.949 ppb	94.777 ppb	95.347 ppb
Concentration per Run 3	94.360 ppb	97.306 ppb	93.942 ppb	109.103 %	34.674 ppb	94.449 ppb	100.665 ppb
Recovery Percentage 1	90.598 %	95.821 %	89.661 %		33.075 %	89.398 %	92.486 %
Concentration RSD	4.9 %	4.6 %	6.6 %	3.5 %	6.6 %	10.1 %	10.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	110.439 %	94.312 ppb	90.704 ppb	105.725 %
Concentration per Run 1	114.389 %	89.810 ppb	85.216 ppb	107.538 %
Concentration per Run 2	110.619 %	93.528 ppb	89.694 ppb	108.014 %
Concentration per Run 3	106.308 %	99.598 ppb	97.200 ppb	101.623 %
Recovery Percentage 1		94.312 %	90.704 %	
Concentration RSD	3.7 %	5.2 %	6.7 %	3.4 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 47 Analysis started at: 3/16/2016 3:43:40 PM Rack: 0
Analysis label: xCCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	106.610 %	112.151 %	0.038 ppb	2.190 ppb	2.703 ppb	1.121 ppb	3.412 ppb
Concentration per Run 1	105.952 %	108.263 %	0.035 ppb	1.557 ppb	7.123 ppb	2.116 ppb	4.425 ppb
Concentration per Run 2	107.300 %	117.011 %	0.042 ppb	3.103 ppb	1.144 ppb	0.579 ppb	0.441 ppb
Concentration per Run 3	106.578 %	111.179 %	0.038 ppb	1.910 ppb	-0.157 ppb	0.668 ppb	5.370 ppb
Recovery Percentage 1			7.637 %	2.190 %	3.862 %	11.208 %	3.412 %
Concentration RSD	0.6 %	4.0 %	9.3 %	37.0 %	143.6 %	77.0 %	76.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-0.756 ppb	107.023 %	110.838 %	0.015 ppb	0.040 ppb	-0.362 ppb	9.886 ppb
Concentration per Run 1	1.029 ppb	107.934 %	110.014 %	0.023 ppb	0.019 ppb	-0.387 ppb	8.613 ppb
Concentration per Run 2	-1.835 ppb	108.323 %	110.349 %	-0.003 ppb	0.004 ppb	-0.374 ppb	11.219 ppb
Concentration per Run 3	-1.462 ppb	104.812 %	112.149 %	0.025 ppb	0.096 ppb	-0.325 ppb	9.826 ppb
Recovery Percentage 1	-0.756 %			0.295 %	3.969 %	-36.232 %	19.772 %
Concentration RSD	205.9 %	1.8 %	1.0 %	104.4 %	123.7 %	9.0 %	13.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.042 ppb	0.265 ppb	0.072 ppb	-0.192 ppb	107.911 %	0.047 ppb	0.736 ppb
Concentration per Run 1	0.077 ppb	0.281 ppb	0.127 ppb	-0.391 ppb	112.827 %	0.044 ppb	0.153 ppb
Concentration per Run 2	0.024 ppb	0.329 ppb	0.005 ppb	-0.238 ppb	105.160 %	0.048 ppb	0.984 ppb
Concentration per Run 3	0.024 ppb	0.184 ppb	0.084 ppb	0.053 ppb	105.745 %	0.048 ppb	1.071 ppb
Recovery Percentage 1	8.308 %	52.916 %	7.229 %	-1.920 %	107.911 %	9.338 %	14.724 %
Concentration RSD	73.7 %	27.8 %	85.8 %	117.5 %	4.0 %	4.7 %	68.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.010 ppb	0.390 ppb	0.066 ppb	105.387 %	0.129 ppb	0.082 ppb	0.091 ppb
Concentration per Run 1	0.919 ppb	0.397 ppb	0.083 ppb	107.393 %	0.149 ppb	0.047 ppb	0.115 ppb
Concentration per Run 2	0.867 ppb	0.322 ppb	0.053 ppb	106.704 %	0.078 ppb	0.192 ppb	-0.003 ppb
Concentration per Run 3	1.244 ppb	0.450 ppb	0.063 ppb	102.062 %	0.161 ppb	0.006 ppb	0.162 ppb
Recovery Percentage 1	33.659 %	97.405 %	33.187 %		4.304 %	4.094 %	18.290 %
Concentration RSD	20.2 %	16.6 %	22.5 %	2.8 %	34.9 %	119.5 %	92.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.651 %	0.059 ppb	0.045 ppb	103.017 %
Concentration per Run 1	106.537 %	0.053 ppb	0.055 ppb	109.327 %
Concentration per Run 2	106.058 %	0.061 ppb	0.048 ppb	101.136 %
Concentration per Run 3	104.358 %	0.062 ppb	0.031 ppb	98.586 %
Recovery Percentage 1		11.759 %	8.910 %	103.017 %
Concentration RSD	1.1 %	8.0 %	28.0 %	5.4 %

Analysis index:	48	Analysis started at:	3/16/2016 3:46:48 PM	Rack:	1
Analysis label:	aborted	User name:	ALPHALAB\a1metalsinstrument	Vial:	22

Analysis index: 50 Analysis started at: 3/16/2016 3:52:43 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.615 %	102.552 %	100.452 ppb	10,236.052 ppb	10,761.511 ppb	164.170 ppb	10,231.206 ppb
Concentration per Run 1	102.645 %	110.085 %	100.314 ppb	9,569.842 ppb	10,116.593 ppb	147.829 ppb	9,577.185 ppb
Concentration per Run 2	99.959 %	108.627 %	100.950 ppb	10,060.091 ppb	10,545.228 ppb	165.396 ppb	10,859.757 ppb
Concentration per Run 3	102.240 %	88.943 %	100.092 ppb	11,078.223 ppb	11,622.712 ppb	179.287 ppb	10,256.676 ppb
Recovery Percentage 1			100.452 %	102.361 %	107.615 %	164.170 %	102.312 %
Concentration RSD	1.4 %	11.5 %	0.4 %	7.5 %	7.2 %	9.6 %	6.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,077.462 ppb	100.520 %	102.723 %	100.990 ppb	103.754 ppb	101.793 ppb	10,085.580 ppb
Concentration per Run 1	9,841.634 ppb	104.324 %	101.085 %	99.899 ppb	102.206 ppb	99.198 ppb	9,781.218 ppb
Concentration per Run 2	10,000.308 ppb	96.033 %	102.584 %	103.233 ppb	103.257 ppb	104.364 ppb	10,224.635 ppb
Concentration per Run 3	10,390.445 ppb	101.203 %	104.501 %	99.839 ppb	105.801 ppb	101.816 ppb	10,250.886 ppb
Recovery Percentage 1	100.775 %			100.990 %	103.754 %	101.793 %	100.856 %
Concentration RSD	2.8 %	4.2 %	1.7 %	1.9 %	1.8 %	2.5 %	2.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	99.770 ppb	101.323 ppb	98.419 ppb	96.792 ppb	104.953 %	92.598 ppb	97.571 ppb
Concentration per Run 1	98.223 ppb	98.997 ppb	100.300 ppb	99.281 ppb	102.445 %	91.936 ppb	81.892 ppb
Concentration per Run 2	96.892 ppb	101.132 ppb	95.112 ppb	95.940 ppb	108.978 %	89.758 ppb	109.358 ppb
Concentration per Run 3	104.197 ppb	103.841 ppb	99.846 ppb	95.155 ppb	103.438 %	96.101 ppb	101.463 ppb
Recovery Percentage 1	99.770 %	101.323 %	98.419 %	96.792 %		92.598 %	97.571 %
Concentration RSD	3.9 %	2.4 %	2.9 %	2.3 %	3.4 %	3.5 %	14.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	95.607 ppb	101.606 ppb	97.986 ppb	102.587 %	37.490 ppb	100.723 ppb	100.099 ppb
Concentration per Run 1	94.112 ppb	97.290 ppb	93.708 ppb	107.002 %	34.439 ppb	97.477 ppb	99.186 ppb
Concentration per Run 2	93.687 ppb	101.881 ppb	97.995 ppb	101.781 %	38.571 ppb	100.880 ppb	101.013 ppb
Concentration per Run 3	99.021 ppb	105.646 ppb	102.256 ppb	98.977 %	39.461 ppb	103.811 ppb	100.097 ppb
Recovery Percentage 1	95.607 %	101.606 %	97.986 %		37.490 %	100.723 %	100.099 %
Concentration RSD	3.1 %	4.1 %	4.4 %	4.0 %	7.1 %	3.1 %	0.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.871 %	101.589 ppb	99.707 ppb	96.902 %
Concentration per Run 1	103.036 %	103.253 ppb	97.268 ppb	98.419 %
Concentration per Run 2	99.123 %	98.565 ppb	98.787 ppb	97.832 %
Concentration per Run 3	97.453 %	102.949 ppb	103.067 ppb	94.454 %
Recovery Percentage 1		101.589 %	99.707 %	
Concentration RSD	2.9 %	2.6 %	3.0 %	2.2 %

Analysis index: 51 Analysis started at: 3/16/2016 3:55:50 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.482 %	105.954 %	0.068 ppb	8.918 ppb	24.149 ppb	11.050 ppb	18.016 ppb
Concentration per Run 1	103.017 %	100.243 %	0.085 ppb	13.185 ppb	27.275 ppb	6.780 ppb	18.643 ppb
Concentration per Run 2	102.725 %	107.898 %	0.064 ppb	7.569 ppb	18.101 ppb	7.233 ppb	12.363 ppb
Concentration per Run 3	104.705 %	109.721 %	0.055 ppb	6.000 ppb	27.071 ppb	19.136 ppb	23.042 ppb
Recovery Percentage 1			13.633 %	8.918 %	34.499 %	110.499 %	18.016 %
Concentration RSD	1.0 %	4.7 %	23.0 %	42.4 %	21.7 %	63.4 %	29.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	6.810 ppb	106.340 %	108.184 %	0.158 ppb	0.210 ppb	-0.125 ppb	43.727 ppb
Concentration per Run 1	-1.669 ppb	107.543 %	111.011 %	0.182 ppb	0.334 ppb	-0.446 ppb	40.204 ppb
Concentration per Run 2	8.700 ppb	107.641 %	105.921 %	0.103 ppb	0.161 ppb	0.168 ppb	24.628 ppb
Concentration per Run 3	13.399 ppb	103.837 %	107.621 %	0.189 ppb	0.134 ppb	-0.098 ppb	66.350 ppb
Recovery Percentage 1	6.810 %			3.154 %	20.974 %	-12.530 %	87.455 %
Concentration RSD	113.2 %	2.0 %	2.4 %	30.2 %	51.9 %	245.5 %	48.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.186 ppb	0.282 ppb	0.224 ppb	-0.169 ppb	105.598 %	0.234 ppb	0.252 ppb
Concentration per Run 1	0.155 ppb	0.217 ppb	0.212 ppb	-0.268 ppb	106.620 %	0.134 ppb	-0.030 ppb
Concentration per Run 2	0.203 ppb	0.292 ppb	0.293 ppb	-0.216 ppb	105.452 %	0.341 ppb	0.161 ppb
Concentration per Run 3	0.199 ppb	0.337 ppb	0.165 ppb	-0.023 ppb	104.722 %	0.225 ppb	0.624 ppb
Recovery Percentage 1	37.152 %	56.469 %	22.355 %	-1.690 %	105.598 %	46.754 %	5.034 %
Concentration RSD	14.3 %	21.4 %	28.8 %	76.3 %	0.9 %	44.4 %	133.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.451 ppb	0.291 ppb	0.186 ppb	105.855 %	0.141 ppb	0.263 ppb	0.171 ppb
Concentration per Run 1	1.481 ppb	0.267 ppb	0.192 ppb	105.522 %	0.098 ppb	0.341 ppb	0.117 ppb
Concentration per Run 2	1.530 ppb	0.260 ppb	0.170 ppb	104.764 %	0.229 ppb	0.133 ppb	0.160 ppb
Concentration per Run 3	1.341 ppb	0.347 ppb	0.197 ppb	107.278 %	0.095 ppb	0.316 ppb	0.235 ppb
Recovery Percentage 1	48.359 %	72.810 %	93.118 %		4.684 %	13.160 %	34.120 %
Concentration RSD	6.8 %	16.5 %	7.6 %	1.2 %	54.6 %	43.1 %	35.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.990 %	0.139 ppb	0.199 ppb	104.784 %
Concentration per Run 1	106.580 %	0.126 ppb	0.225 ppb	106.176 %
Concentration per Run 2	103.137 %	0.117 ppb	0.155 ppb	103.452 %
Concentration per Run 3	105.253 %	0.174 ppb	0.216 ppb	104.723 %
Recovery Percentage 1		27.739 %	39.769 %	104.784 %
Concentration RSD	1.7 %	22.2 %	19.4 %	1.3 %

Alpha ICPMSQ Full

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Analysis index: 52
Analysis label: L1607446-02d10 6020TS
Analysis started at: 3/16/2016 3:58:58 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 22

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.422 %	105.103 %	0.706 ppb	260.956 ppb	5,073.711 ppb	16,315.939 ppb	1,274.346 ppb
Concentration per Run 1	105.375 %	99.878 %	0.742 ppb	287.241 ppb	5,441.912 ppb	17,390.645 ppb	1,406.415 ppb
Concentration per Run 2	103.464 %	104.982 %	0.674 ppb	251.022 ppb	4,978.142 ppb	15,767.709 ppb	1,169.053 ppb
Concentration per Run 3	104.428 %	110.450 %	0.702 ppb	244.606 ppb	4,801.080 ppb	15,789.462 ppb	1,247.569 ppb
Concentration RSD	0.9 %	5.0 %	4.9 %	8.8 %	6.5 %	5.7 %	9.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,447.091 ppb	109.071 %	108.315 %	48.084 ppb	34.161 ppb	618.382 ppb	35,554.195 ppb
Concentration per Run 1	10,478.816 ppb	107.348 %	110.493 %	50.641 ppb	36.678 ppb	646.428 ppb	38,119.568 ppb
Concentration per Run 2	8,876.316 ppb	111.542 %	107.438 %	46.306 ppb	32.691 ppb	599.566 ppb	34,485.226 ppb
Concentration per Run 3	8,986.140 ppb	108.323 %	107.012 %	47.306 ppb	33.115 ppb	609.153 ppb	34,057.791 ppb
Concentration RSD	9.5 %	2.0 %	1.8 %	4.7 %	6.4 %	4.0 %	6.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	12.800 ppb	29.798 ppb	37.449 ppb	148.380 ppb	104.581 %	8.344 ppb	6.968 ppb
Concentration per Run 1	13.664 ppb	32.413 ppb	39.586 ppb	157.159 ppb	102.690 %	8.674 ppb	6.051 ppb
Concentration per Run 2	12.810 ppb	29.259 ppb	36.676 ppb	143.193 ppb	104.541 %	8.753 ppb	6.845 ppb
Concentration per Run 3	11.927 ppb	27.722 ppb	36.085 ppb	144.787 ppb	106.512 %	7.603 ppb	8.009 ppb
Concentration RSD	6.8 %	8.0 %	5.0 %	5.2 %	1.8 %	7.7 %	14.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.142 ppb	0.145 ppb	0.274 ppb	102.578 %	3.163 ppb	0.677 ppb	112.756 ppb
Concentration per Run 1	1.371 ppb	0.139 ppb	0.292 ppb	99.427 %	3.272 ppb	0.699 ppb	117.323 ppb
Concentration per Run 2	0.957 ppb	0.143 ppb	0.259 ppb	103.113 %	3.128 ppb	0.629 ppb	111.325 ppb
Concentration per Run 3	1.097 ppb	0.153 ppb	0.269 ppb	105.195 %	3.091 ppb	0.704 ppb	109.619 ppb
Concentration RSD	18.5 %	5.2 %	6.3 %	2.8 %	3.0 %	6.2 %	3.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.234 %	0.220 ppb	97.733 ppb	101.692 %
Concentration per Run 1	97.118 %	0.215 ppb	104.275 ppb	100.452 %
Concentration per Run 2	102.886 %	0.229 ppb	92.331 ppb	103.195 %
Concentration per Run 3	100.697 %	0.216 ppb	96.594 ppb	101.430 %
Concentration RSD	2.9 %	3.6 %	6.2 %	1.4 %

Alpha ICPMSQ Full

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Analysis index: 53
Analysis label: L1607446-03d10 6020TS
Analysis started at: 3/16/2016 4:02:03 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 23

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.293 %	105.225 %	0.781 ppb	268.131 ppb	5,307.753 ppb	21,137.024 ppb	1,901.422 ppb
Concentration per Run 1	106.606 %	108.627 %	0.786 ppb	256.771 ppb	5,381.430 ppb	20,862.107 ppb	1,908.419 ppb
Concentration per Run 2	103.709 %	103.888 %	0.819 ppb	285.191 ppb	5,266.606 ppb	21,658.698 ppb	1,862.763 ppb
Concentration per Run 3	102.563 %	103.159 %	0.737 ppb	262.432 ppb	5,275.225 ppb	20,890.267 ppb	1,933.082 ppb
Concentration RSD	2.0 %	2.8 %	5.3 %	5.6 %	1.2 %	2.1 %	1.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,660.422 ppb	105.137 %	108.583 %	58.677 ppb	41.831 ppb	634.449 ppb	35,059.932 ppb
Concentration per Run 1	10,955.602 ppb	106.470 %	107.892 %	60.430 ppb	42.929 ppb	652.648 ppb	36,811.504 ppb
Concentration per Run 2	10,618.553 ppb	101.398 %	109.709 %	58.156 ppb	43.699 ppb	641.398 ppb	34,561.085 ppb
Concentration per Run 3	10,407.110 ppb	107.543 %	108.148 %	57.447 ppb	38.864 ppb	609.300 ppb	33,807.208 ppb
Concentration RSD	2.6 %	3.1 %	0.9 %	2.7 %	6.2 %	3.5 %	4.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	13.764 ppb	36.314 ppb	37.029 ppb	113.272 ppb	103.277 %	8.572 ppb	10.020 ppb
Concentration per Run 1	14.167 ppb	34.815 ppb	37.843 ppb	116.755 ppb	101.951 %	8.577 ppb	9.496 ppb
Concentration per Run 2	13.564 ppb	37.949 ppb	35.711 ppb	113.606 ppb	105.280 %	8.429 ppb	11.408 ppb
Concentration per Run 3	13.560 ppb	36.179 ppb	37.532 ppb	109.455 ppb	102.599 %	8.709 ppb	9.156 ppb
Concentration RSD	2.5 %	4.3 %	3.1 %	3.2 %	1.7 %	1.6 %	12.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.058 ppb	0.116 ppb	0.201 ppb	102.089 %	3.891 ppb	0.443 ppb	121.201 ppb
Concentration per Run 1	0.933 ppb	0.135 ppb	0.229 ppb	102.914 %	3.896 ppb	0.331 ppb	122.209 ppb
Concentration per Run 2	1.206 ppb	0.090 ppb	0.197 ppb	102.785 %	3.751 ppb	0.483 ppb	123.685 ppb
Concentration per Run 3	1.033 ppb	0.124 ppb	0.177 ppb	100.570 %	4.027 ppb	0.515 ppb	117.711 ppb
Concentration RSD	13.0 %	20.4 %	13.0 %	1.3 %	3.5 %	22.3 %	2.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.470 %	0.206 ppb	74.954 ppb	99.357 %
Concentration per Run 1	99.293 %	0.217 ppb	77.198 ppb	98.641 %
Concentration per Run 2	98.783 %	0.215 ppb	73.766 ppb	100.617 %
Concentration per Run 3	97.333 %	0.186 ppb	73.897 ppb	98.813 %
Concentration RSD	1.0 %	8.3 %	2.6 %	1.1 %

Alpha ICPMSQ Full

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Analysis index: 54
Analysis label: L1607449-01d10 6020TS
Analysis started at: 3/16/2016 4:05:08 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 24

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.029 %	107.534 %	0.796 ppb	876.665 ppb	9,063.240 ppb	15,106.869 ppb	1,943.863 ppb
Concentration per Run 1	103.967 %	103.524 %	0.828 ppb	923.170 ppb	9,375.869 ppb	15,804.041 ppb	1,988.980 ppb
Concentration per Run 2	103.557 %	111.543 %	0.782 ppb	856.543 ppb	8,861.631 ppb	14,775.983 ppb	1,892.984 ppb
Concentration per Run 3	101.564 %	107.534 %	0.778 ppb	850.282 ppb	8,952.218 ppb	14,740.582 ppb	1,949.624 ppb
Concentration RSD	1.2 %	3.7 %	3.5 %	4.6 %	3.0 %	4.0 %	2.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	18,247.411 ppb	103.934 %	103.641 %	53.925 ppb	37.334 ppb	632.154 ppb	36,181.758 ppb
Concentration per Run 1	18,938.677 ppb	99.447 %	105.542 %	58.100 ppb	40.356 ppb	666.687 ppb	36,654.959 ppb
Concentration per Run 2	17,862.096 ppb	109.299 %	103.632 %	50.883 ppb	35.619 ppb	602.005 ppb	36,219.101 ppb
Concentration per Run 3	17,941.462 ppb	103.056 %	101.747 %	52.792 ppb	36.026 ppb	627.769 ppb	35,671.214 ppb
Concentration RSD	3.3 %	4.8 %	1.8 %	6.9 %	7.0 %	5.2 %	1.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	20.647 ppb	64.784 ppb	116.393 ppb	216.234 ppb	99.199 %	10.675 ppb	8.735 ppb
Concentration per Run 1	21.471 ppb	64.607 ppb	120.046 ppb	222.965 ppb	97.660 %	10.472 ppb	7.405 ppb
Concentration per Run 2	20.574 ppb	66.062 ppb	116.302 ppb	215.608 ppb	96.801 %	10.994 ppb	7.758 ppb
Concentration per Run 3	19.894 ppb	63.684 ppb	112.830 ppb	210.128 ppb	103.136 %	10.560 ppb	11.041 ppb
Concentration RSD	3.8 %	1.9 %	3.1 %	3.0 %	3.5 %	2.6 %	23.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.308 ppb	0.263 ppb	0.576 ppb	101.272 %	11.453 ppb	2.002 ppb	147.358 ppb
Concentration per Run 1	1.367 ppb	0.220 ppb	0.693 ppb	99.511 %	11.974 ppb	1.899 ppb	146.077 ppb
Concentration per Run 2	1.334 ppb	0.268 ppb	0.497 ppb	105.144 %	11.103 ppb	2.041 ppb	143.784 ppb
Concentration per Run 3	1.223 ppb	0.301 ppb	0.537 ppb	99.160 %	11.282 ppb	2.066 ppb	152.213 ppb
Concentration RSD	5.8 %	15.6 %	18.0 %	3.3 %	4.0 %	4.5 %	3.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.457 %	0.186 ppb	190.623 ppb	98.369 %
Concentration per Run 1	98.645 %	0.174 ppb	184.979 ppb	103.177 %
Concentration per Run 2	99.510 %	0.189 ppb	194.434 ppb	96.894 %
Concentration per Run 3	97.216 %	0.194 ppb	192.456 ppb	95.037 %
Concentration RSD	1.2 %	5.4 %	2.6 %	4.3 %

Alpha ICPMSQ Full

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Analysis index: 55
Analysis label: L1607449-02d10 6020TS
Analysis started at: 3/16/2016 4:08:14 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 25

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.467 %	102.066 %	1.000 ppb	1,773.232 ppb	7,203.419 ppb	18,452.579 ppb	2,246.736 ppb
Concentration per Run 1	96.272 %	109.356 %	1.241 ppb	1,697.870 ppb	6,819.398 ppb	17,954.216 ppb	2,223.201 ppb
Concentration per Run 2	100.763 %	103.888 %	0.952 ppb	1,768.290 ppb	7,006.014 ppb	17,815.713 ppb	2,255.626 ppb
Concentration per Run 3	107.367 %	92.952 %	0.807 ppb	1,853.536 ppb	7,784.845 ppb	19,587.809 ppb	2,261.380 ppb
Concentration RSD	5.5 %	8.2 %	22.1 %	4.4 %	7.1 %	5.3 %	0.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	19,222.040 ppb	103.479 %	100.807 %	57.785 ppb	41.352 ppb	667.850 ppb	42,918.267 ppb
Concentration per Run 1	19,189.098 ppb	101.788 %	93.236 %	58.749 ppb	41.996 ppb	680.366 ppb	43,893.480 ppb
Concentration per Run 2	18,853.334 ppb	106.080 %	99.729 %	57.579 ppb	40.518 ppb	656.808 ppb	41,130.322 ppb
Concentration per Run 3	19,623.686 ppb	102.568 %	109.456 %	57.028 ppb	41.541 ppb	666.375 ppb	43,731.000 ppb
Concentration RSD	2.0 %	2.2 %	8.1 %	1.5 %	1.8 %	1.8 %	3.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	22.361 ppb	70.317 ppb	108.849 ppb	228.276 ppb	105.544 %	12.689 ppb	8.391 ppb
Concentration per Run 1	23.242 ppb	69.146 ppb	108.431 ppb	227.364 ppb	106.496 %	12.660 ppb	10.636 ppb
Concentration per Run 2	22.202 ppb	70.328 ppb	108.004 ppb	220.725 ppb	107.746 %	13.106 ppb	5.866 ppb
Concentration per Run 3	21.639 ppb	71.476 ppb	110.113 ppb	236.739 ppb	102.389 %	12.300 ppb	8.669 ppb
Concentration RSD	3.6 %	1.7 %	1.0 %	3.5 %	2.7 %	3.2 %	28.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.626 ppb	0.274 ppb	0.460 ppb	101.679 %	11.767 ppb	1.862 ppb	252.927 ppb
Concentration per Run 1	1.534 ppb	0.354 ppb	0.376 ppb	105.616 %	10.582 ppb	1.895 ppb	247.475 ppb
Concentration per Run 2	1.669 ppb	0.231 ppb	0.455 ppb	100.762 %	11.858 ppb	1.726 ppb	246.898 ppb
Concentration per Run 3	1.675 ppb	0.238 ppb	0.548 ppb	98.658 %	12.860 ppb	1.966 ppb	264.408 ppb
Concentration RSD	4.9 %	25.3 %	18.8 %	3.5 %	9.7 %	6.6 %	3.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.446 %	0.229 ppb	164.763 ppb	99.498 %
Concentration per Run 1	104.133 %	0.227 ppb	161.366 ppb	102.608 %
Concentration per Run 2	98.112 %	0.250 ppb	165.757 ppb	98.304 %
Concentration per Run 3	96.094 %	0.211 ppb	167.165 ppb	97.583 %
Concentration RSD	4.2 %	8.5 %	1.8 %	2.7 %

Alpha ICPMSQ Full

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Analysis index: 56
Analysis label: L1607449-03d10 6020TS
Analysis started at: 3/16/2016 4:11:16 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 26

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.016 %	110.328 %	0.914 ppb	574.131 ppb	6,297.195 ppb	16,712.916 ppb	1,987.495 ppb
Concentration per Run 1	103.388 %	114.460 %	0.912 ppb	544.325 ppb	6,017.254 ppb	15,857.818 ppb	1,913.026 ppb
Concentration per Run 2	102.750 %	111.543 %	0.942 ppb	529.281 ppb	6,134.491 ppb	16,272.419 ppb	1,898.336 ppb
Concentration per Run 3	102.910 %	104.982 %	0.888 ppb	648.786 ppb	6,739.840 ppb	18,008.513 ppb	2,151.123 ppb
Concentration RSD	0.3 %	4.4 %	3.0 %	11.3 %	6.2 %	6.8 %	7.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	8,666.157 ppb	109.364 %	106.078 %	55.241 ppb	38.299 ppb	666.324 ppb	37,145.390 ppb
Concentration per Run 1	8,333.593 ppb	110.859 %	107.219 %	52.545 ppb	36.555 ppb	629.422 ppb	36,102.650 ppb
Concentration per Run 2	8,428.574 ppb	117.005 %	105.904 %	53.503 ppb	36.485 ppb	654.560 ppb	35,669.915 ppb
Concentration per Run 3	9,236.303 ppb	100.227 %	105.111 %	59.676 ppb	41.858 ppb	714.989 ppb	39,663.604 ppb
Concentration RSD	5.7 %	7.8 %	1.0 %	7.0 %	8.0 %	6.6 %	5.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	18.761 ppb	59.725 ppb	115.861 ppb	170.660 ppb	104.943 %	10.904 ppb	9.341 ppb
Concentration per Run 1	19.690 ppb	56.095 ppb	119.509 ppb	171.466 ppb	104.515 %	10.786 ppb	10.416 ppb
Concentration per Run 2	17.623 ppb	60.649 ppb	110.011 ppb	161.926 ppb	107.844 %	10.819 ppb	8.582 ppb
Concentration per Run 3	18.969 ppb	62.432 ppb	118.064 ppb	178.588 ppb	102.471 %	11.107 ppb	9.024 ppb
Concentration RSD	5.6 %	5.5 %	4.4 %	4.9 %	2.6 %	1.6 %	10.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.278 ppb	0.242 ppb	0.391 ppb	103.856 %	8.047 ppb	1.338 ppb	146.633 ppb
Concentration per Run 1	1.388 ppb	0.193 ppb	0.338 ppb	108.236 %	8.180 ppb	1.098 ppb	141.846 ppb
Concentration per Run 2	1.227 ppb	0.272 ppb	0.353 ppb	102.787 %	7.729 ppb	1.431 ppb	147.619 ppb
Concentration per Run 3	1.218 ppb	0.261 ppb	0.483 ppb	100.544 %	8.232 ppb	1.486 ppb	150.436 ppb
Concentration RSD	7.5 %	17.6 %	20.3 %	3.8 %	3.4 %	15.7 %	3.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.292 %	0.209 ppb	106.358 ppb	100.528 %
Concentration per Run 1	101.890 %	0.195 ppb	104.678 ppb	102.985 %
Concentration per Run 2	100.612 %	0.216 ppb	107.557 ppb	101.068 %
Concentration per Run 3	98.375 %	0.215 ppb	106.839 ppb	97.530 %
Concentration RSD	1.8 %	5.7 %	1.4 %	2.8 %

Alpha ICPMSQ Full

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Analysis index: 57
Analysis label: L1607451-01d10 6020TS
Analysis started at: 3/16/2016 4:14:19 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 27

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.103 %	104.982 %	1.057 ppb	962.061 ppb	9,724.354 ppb	19,649.314 ppb	2,459.702 ppb
Concentration per Run 1	103.625 %	110.450 %	1.014 ppb	962.435 ppb	9,907.936 ppb	20,255.623 ppb	2,425.975 ppb
Concentration per Run 2	104.580 %	99.878 %	1.024 ppb	952.097 ppb	9,456.468 ppb	19,083.729 ppb	2,477.239 ppb
Concentration per Run 3	104.104 %	104.617 %	1.132 ppb	971.651 ppb	9,808.659 ppb	19,608.591 ppb	2,475.893 ppb
Concentration RSD	0.5 %	5.0 %	6.2 %	1.0 %	2.4 %	3.0 %	1.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	27,278.840 ppb	99.772 %	106.190 %	60.537 ppb	44.145 ppb	750.298 ppb	46,993.194 ppb
Concentration per Run 1	27,504.440 ppb	100.812 %	105.694 %	62.572 ppb	46.666 ppb	748.220 ppb	48,630.069 ppb
Concentration per Run 2	26,308.097 ppb	102.081 %	107.209 %	58.300 ppb	42.932 ppb	712.231 ppb	44,091.580 ppb
Concentration per Run 3	28,023.984 ppb	96.423 %	105.667 %	60.740 ppb	42.838 ppb	790.443 ppb	48,257.932 ppb
Concentration RSD	3.2 %	3.0 %	0.8 %	3.5 %	4.9 %	5.2 %	5.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	25.589 ppb	164.673 ppb	114.027 ppb	220.943 ppb	100.368 %	14.669 ppb	9.532 ppb
Concentration per Run 1	26.178 ppb	171.053 ppb	114.752 ppb	226.418 ppb	102.243 %	15.637 ppb	9.932 ppb
Concentration per Run 2	24.169 ppb	155.154 ppb	108.264 ppb	214.946 ppb	100.260 %	14.265 ppb	11.428 ppb
Concentration per Run 3	26.421 ppb	167.811 ppb	119.065 ppb	221.466 ppb	98.601 %	14.106 ppb	7.236 ppb
Concentration RSD	4.8 %	5.1 %	4.8 %	2.6 %	1.8 %	5.7 %	22.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.774 ppb	0.246 ppb	0.519 ppb	102.124 %	19.326 ppb	5.282 ppb	173.571 ppb
Concentration per Run 1	1.812 ppb	0.245 ppb	0.587 ppb	102.053 %	19.285 ppb	5.003 ppb	179.535 ppb
Concentration per Run 2	1.609 ppb	0.206 ppb	0.523 ppb	104.271 %	18.658 ppb	5.211 ppb	165.535 ppb
Concentration per Run 3	1.901 ppb	0.288 ppb	0.446 ppb	100.050 %	20.034 ppb	5.633 ppb	175.643 ppb
Concentration RSD	8.4 %	16.7 %	13.6 %	2.1 %	3.6 %	6.1 %	4.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.915 %	0.237 ppb	216.022 ppb	99.538 %
Concentration per Run 1	97.433 %	0.254 ppb	219.961 ppb	99.467 %
Concentration per Run 2	100.358 %	0.238 ppb	217.682 ppb	97.965 %
Concentration per Run 3	98.956 %	0.219 ppb	210.423 ppb	101.181 %
Concentration RSD	1.5 %	7.3 %	2.3 %	1.6 %

Alpha ICPMSQ Full

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Analysis index: 58
Analysis label: L1607451-02d10 6020TS
Analysis started at: 3/16/2016 4:17:22 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 28

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.168 %	100.851 %	0.783 ppb	883.346 ppb	7,882.961 ppb	16,334.455 ppb	1,974.031 ppb
Concentration per Run 1	102.060 %	98.056 %	0.793 ppb	860.754 ppb	7,913.380 ppb	16,242.087 ppb	1,932.456 ppb
Concentration per Run 2	100.986 %	100.243 %	0.813 ppb	911.363 ppb	7,995.665 ppb	16,883.988 ppb	2,069.462 ppb
Concentration per Run 3	103.458 %	104.253 %	0.742 ppb	877.922 ppb	7,739.839 ppb	15,877.292 ppb	1,920.174 ppb
Concentration RSD	1.2 %	3.1 %	4.7 %	2.9 %	1.7 %	3.1 %	4.2 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	12,252.603 ppb	100.618 %	104.485 %	50.936 ppb	35.649 ppb	501.759 ppb	35,731.367 ppb
Concentration per Run 1	12,186.791 ppb	104.909 %	103.491 %	50.785 ppb	34.307 ppb	476.064 ppb	33,735.683 ppb
Concentration per Run 2	12,389.022 ppb	96.814 %	103.592 %	52.464 ppb	35.871 ppb	509.807 ppb	36,744.201 ppb
Concentration per Run 3	12,181.997 ppb	100.130 %	106.373 %	49.559 ppb	36.769 ppb	519.407 ppb	36,714.217 ppb
Concentration RSD	1.0 %	4.0 %	1.6 %	2.9 %	3.5 %	4.5 %	4.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.425 ppb	65.762 ppb	110.930 ppb	189.878 ppb	103.005 %	11.606 ppb	9.445 ppb
Concentration per Run 1	17.949 ppb	63.423 ppb	108.827 ppb	180.663 ppb	107.616 %	11.045 ppb	7.952 ppb
Concentration per Run 2	20.153 ppb	68.660 ppb	111.734 ppb	196.719 ppb	104.597 %	10.793 ppb	11.869 ppb
Concentration per Run 3	20.172 ppb	65.201 ppb	112.230 ppb	192.251 ppb	96.801 %	12.978 ppb	8.515 ppb
Concentration RSD	6.6 %	4.0 %	1.7 %	4.4 %	5.4 %	10.3 %	22.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.220 ppb	0.173 ppb	0.380 ppb	102.397 %	9.272 ppb	1.588 ppb	137.015 ppb
Concentration per Run 1	1.360 ppb	0.189 ppb	0.428 ppb	101.678 %	9.654 ppb	1.814 ppb	139.880 ppb
Concentration per Run 2	1.177 ppb	0.162 ppb	0.364 ppb	102.212 %	8.697 ppb	1.611 ppb	134.950 ppb
Concentration per Run 3	1.123 ppb	0.168 ppb	0.347 ppb	103.300 %	9.464 ppb	1.341 ppb	136.215 ppb
Concentration RSD	10.2 %	8.2 %	11.2 %	0.8 %	5.5 %	15.0 %	1.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.718 %	0.188 ppb	121.753 ppb	99.365 %
Concentration per Run 1	101.213 %	0.185 ppb	125.486 ppb	97.348 %
Concentration per Run 2	101.092 %	0.201 ppb	119.112 ppb	100.950 %
Concentration per Run 3	99.848 %	0.177 ppb	120.663 ppb	99.799 %
Concentration RSD	0.7 %	6.7 %	2.7 %	1.9 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 59
Analysis label: L1607451-03d10 6020TS
Analysis started at: 3/16/2016 4:20:25 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 29

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.231 %	106.318 %	0.823 ppb	655.834 ppb	8,391.788 ppb	17,845.578 ppb	2,545.914 ppb
Concentration per Run 1	101.366 %	108.627 %	0.798 ppb	672.849 ppb	8,518.754 ppb	19,003.942 ppb	2,711.314 ppb
Concentration per Run 2	102.578 %	100.243 %	0.761 ppb	677.950 ppb	9,410.767 ppb	19,428.960 ppb	2,660.096 ppb
Concentration per Run 3	102.750 %	110.085 %	0.909 ppb	616.702 ppb	7,245.843 ppb	15,103.832 ppb	2,266.334 ppb
Concentration RSD	0.7 %	5.0 %	9.4 %	5.2 %	13.0 %	13.4 %	9.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	36,252.014 ppb	104.097 %	103.422 %	49.352 ppb	34.371 ppb	665.379 ppb	35,931.923 ppb
Concentration per Run 1	38,155.943 ppb	102.666 %	100.524 %	52.356 ppb	38.225 ppb	702.666 ppb	38,292.290 ppb
Concentration per Run 2	38,845.076 ppb	101.983 %	104.648 %	53.708 ppb	35.439 ppb	707.879 ppb	39,160.751 ppb
Concentration per Run 3	31,755.022 ppb	107.641 %	105.092 %	41.990 ppb	29.449 ppb	585.591 ppb	30,342.728 ppb
Concentration RSD	10.8 %	3.0 %	2.4 %	13.0 %	13.0 %	10.4 %	13.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	14.952 ppb	36.651 ppb	69.806 ppb	185.868 ppb	105.938 %	9.162 ppb	9.444 ppb
Concentration per Run 1	15.667 ppb	40.019 ppb	75.138 ppb	200.807 ppb	105.902 %	9.637 ppb	10.620 ppb
Concentration per Run 2	15.912 ppb	40.365 ppb	73.947 ppb	196.065 ppb	104.623 %	10.084 ppb	9.375 ppb
Concentration per Run 3	13.277 ppb	29.568 ppb	60.333 ppb	160.733 ppb	107.290 %	7.766 ppb	8.337 ppb
Concentration RSD	9.7 %	16.7 %	11.8 %	11.8 %	1.3 %	13.4 %	12.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.015 ppb	0.132 ppb	0.360 ppb	105.686 %	4.433 ppb	0.886 ppb	145.264 ppb
Concentration per Run 1	1.235 ppb	0.134 ppb	0.360 ppb	103.257 %	5.277 ppb	0.782 ppb	158.173 ppb
Concentration per Run 2	1.096 ppb	0.141 ppb	0.417 ppb	100.631 %	4.416 ppb	1.003 ppb	151.273 ppb
Concentration per Run 3	0.714 ppb	0.119 ppb	0.302 ppb	113.169 %	3.607 ppb	0.871 ppb	126.345 ppb
Concentration RSD	26.6 %	8.5 %	16.0 %	6.3 %	18.8 %	12.6 %	11.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.528 %	0.201 ppb	114.443 ppb	101.994 %
Concentration per Run 1	98.948 %	0.209 ppb	122.783 ppb	98.851 %
Concentration per Run 2	95.457 %	0.209 ppb	124.128 ppb	97.658 %
Concentration per Run 3	107.178 %	0.186 ppb	96.418 ppb	109.473 %
Concentration RSD	6.0 %	6.6 %	13.7 %	6.4 %

Analysis index: 60 Analysis started at: 3/16/2016 4:23:28 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.939 %	107.777 %	94.347 ppb	9,463.742 ppb	9,651.224 ppb	101.510 ppb	9,845.324 ppb
Concentration per Run 1	104.028 %	107.534 %	93.536 ppb	10,057.168 ppb	10,787.884 ppb	114.086 ppb	10,745.660 ppb
Concentration per Run 2	101.462 %	111.908 %	94.694 ppb	8,783.144 ppb	8,492.371 ppb	90.972 ppb	8,896.693 ppb
Concentration per Run 3	103.327 %	103.888 %	94.812 ppb	9,550.914 ppb	9,673.417 ppb	99.470 ppb	9,893.619 ppb
Recovery Percentage 1			94.347 %	94.637 %	96.512 %	101.510 %	98.453 %
Concentration RSD	1.3 %	3.7 %	0.7 %	6.8 %	11.9 %	11.5 %	9.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,327.186 ppb	110.014 %	108.461 %	92.591 ppb	92.239 ppb	90.756 ppb	9,327.970 ppb
Concentration per Run 1	9,931.133 ppb	103.251 %	107.094 %	98.678 ppb	100.637 ppb	96.620 ppb	10,064.679 ppb
Concentration per Run 2	8,318.705 ppb	120.322 %	104.819 %	84.432 ppb	79.670 ppb	81.454 ppb	8,321.104 ppb
Concentration per Run 3	9,731.719 ppb	106.470 %	113.471 %	94.663 ppb	96.411 ppb	94.192 ppb	9,598.129 ppb
Recovery Percentage 1	93.272 %			92.591 %	92.239 %	90.756 %	93.280 %
Concentration RSD	9.4 %	8.2 %	4.1 %	7.9 %	12.0 %	9.0 %	9.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	92.979 ppb	96.704 ppb	94.321 ppb	92.987 ppb	110.110 %	93.788 ppb	92.500 ppb
Concentration per Run 1	99.586 ppb	103.835 ppb	100.691 ppb	96.687 ppb	112.090 %	105.124 ppb	91.594 ppb
Concentration per Run 2	83.553 ppb	88.850 ppb	86.354 ppb	86.871 ppb	112.629 %	80.410 ppb	94.267 ppb
Concentration per Run 3	95.799 ppb	97.427 ppb	95.917 ppb	95.402 ppb	105.610 %	95.831 ppb	91.639 ppb
Recovery Percentage 1	92.979 %	96.704 %	94.321 %	92.987 %		93.788 %	92.500 %
Concentration RSD	9.0 %	7.8 %	7.7 %	5.7 %	3.5 %	13.3 %	1.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	93.710 ppb	95.984 ppb	92.321 ppb	109.538 %	33.982 ppb	93.665 ppb	94.617 ppb
Concentration per Run 1	97.083 ppb	96.228 ppb	97.840 ppb	108.423 %	35.824 ppb	96.977 ppb	97.646 ppb
Concentration per Run 2	89.499 ppb	94.490 ppb	86.077 ppb	111.926 %	31.652 ppb	89.552 ppb	91.082 ppb
Concentration per Run 3	94.548 ppb	97.235 ppb	93.045 ppb	108.265 %	34.470 ppb	94.468 ppb	95.124 ppb
Recovery Percentage 1	93.710 %	95.984 %	92.321 %		33.982 %	93.665 %	94.617 %
Concentration RSD	4.1 %	1.4 %	6.4 %	1.9 %	6.3 %	4.0 %	3.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.698 %	94.720 ppb	92.450 ppb	105.959 %
Concentration per Run 1	103.290 %	99.905 ppb	98.197 ppb	100.317 %
Concentration per Run 2	114.020 %	87.796 ppb	85.995 ppb	112.241 %
Concentration per Run 3	105.783 %	96.461 ppb	93.159 ppb	105.321 %
Recovery Percentage 1		94.720 %	92.450 %	
Concentration RSD	5.2 %	6.6 %	6.6 %	5.7 %

Analysis index: 61 Analysis started at: 3/16/2016 4:26:36 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.470 %	106.926 %	0.054 ppb	0.006 ppb	2.055 ppb	-0.002 ppb	13.307 ppb
Concentration per Run 1	102.620 %	95.869 %	0.054 ppb	6.810 ppb	2.221 ppb	-0.208 ppb	2.514 ppb
Concentration per Run 2	104.117 %	114.460 %	0.061 ppb	-5.221 ppb	2.696 ppb	0.289 ppb	14.756 ppb
Concentration per Run 3	103.673 %	110.450 %	0.047 ppb	-1.570 ppb	1.247 ppb	-0.086 ppb	22.652 ppb
Recovery Percentage 1			10.837 %	0.006 %	2.935 %	-0.019 %	13.307 %
Concentration RSD	0.7 %	9.1 %	12.6 %	96,465.1 %	35.9 %	13,891.9 %	76.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-12.389 ppb	108.323 %	109.707 %	0.014 ppb	0.020 ppb	-0.581 ppb	5.207 ppb
Concentration per Run 1	-5.952 ppb	112.518 %	108.074 %	-0.004 ppb	0.034 ppb	-0.636 ppb	4.021 ppb
Concentration per Run 2	-26.328 ppb	103.544 %	109.585 %	-0.029 ppb	0.008 ppb	-0.578 ppb	9.093 ppb
Concentration per Run 3	-4.888 ppb	108.908 %	111.462 %	0.074 ppb	0.019 ppb	-0.528 ppb	2.509 ppb
Recovery Percentage 1	-12.389 %			0.274 %	2.024 %	-58.063 %	10.415 %
Concentration RSD	97.5 %	4.2 %	1.5 %	393.7 %	63.4 %	9.3 %	66.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.001 ppb	0.157 ppb	0.013 ppb	-0.514 ppb	107.837 %	0.067 ppb	1.205 ppb
Concentration per Run 1	-0.005 ppb	0.140 ppb	-0.022 ppb	-0.474 ppb	106.839 %	0.018 ppb	1.707 ppb
Concentration per Run 2	-0.004 ppb	0.298 ppb	0.058 ppb	-0.539 ppb	105.817 %	0.165 ppb	1.433 ppb
Concentration per Run 3	0.013 ppb	0.032 ppb	0.003 ppb	-0.529 ppb	110.855 %	0.017 ppb	0.476 ppb
Recovery Percentage 1	0.222 %	31.340 %	1.331 %	-5.139 %	107.837 %	13.322 %	24.105 %
Concentration RSD	931.4 %	85.4 %	308.0 %	6.8 %	2.5 %	127.3 %	53.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.343 ppb	0.052 ppb	0.046 ppb	111.997 %	0.052 ppb	0.038 ppb	0.048 ppb
Concentration per Run 1	0.360 ppb	0.062 ppb	0.050 ppb	113.070 %	0.068 ppb	0.005 ppb	0.112 ppb
Concentration per Run 2	0.349 ppb	0.038 ppb	0.037 ppb	110.775 %	0.036 ppb	0.065 ppb	-0.004 ppb
Concentration per Run 3	0.322 ppb	0.057 ppb	0.051 ppb	112.145 %	0.052 ppb	0.045 ppb	0.035 ppb
Recovery Percentage 1	11.445 %	13.048 %	22.969 %		1.733 %	1.902 %	9.550 %
Concentration RSD	5.7 %	24.6 %	17.3 %	1.0 %	30.8 %	80.7 %	123.0 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	106.642 %	0.037 ppb	0.036 ppb	106.067 %
Concentration per Run 1	105.735 %	0.046 ppb	0.039 ppb	108.087 %
Concentration per Run 2	109.165 %	0.028 ppb	0.022 ppb	108.131 %
Concentration per Run 3	105.025 %	0.037 ppb	0.046 ppb	101.983 %
Recovery Percentage 1		7.399 %	7.118 %	106.067 %
Concentration RSD	2.1 %	24.5 %	33.6 %	3.3 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 62
Analysis label: wg873763-1 mcp-6020ts-10
Analysis started at: 3/16/2016 4:31:24 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 30

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.977 %	102.066 %	0.010 ppb	-4.944 ppb	-1.799 ppb	-0.332 ppb	10.991 ppb
Concentration per Run 1	102.139 %	105.711 %	0.016 ppb	-3.853 ppb	-2.337 ppb	-0.226 ppb	15.160 ppb
Concentration per Run 2	103.445 %	93.317 %	0.008 ppb	-3.161 ppb	-0.723 ppb	-0.519 ppb	1.675 ppb
Concentration per Run 3	103.346 %	107.169 %	0.006 ppb	-7.817 ppb	-2.337 ppb	-0.251 ppb	16.139 ppb
Concentration RSD	0.7 %	7.5 %	53.5 %	50.8 %	51.8 %	49.0 %	73.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-21.549 ppb	106.113 %	105.925 %	-0.011 ppb	0.031 ppb	-0.640 ppb	2.963 ppb
Concentration per Run 1	-26.265 ppb	106.763 %	104.688 %	-0.003 ppb	0.023 ppb	-0.404 ppb	2.617 ppb
Concentration per Run 2	-19.268 ppb	102.276 %	104.400 %	-0.002 ppb	0.066 ppb	-0.605 ppb	5.239 ppb
Concentration per Run 3	-19.115 ppb	109.299 %	108.686 %	-0.029 ppb	0.004 ppb	-0.912 ppb	1.034 ppb
Concentration RSD	19.0 %	3.4 %	2.3 %	140.8 %	101.6 %	39.9 %	71.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.014 ppb	0.012 ppb	0.015 ppb	-0.284 ppb	102.069 %	0.009 ppb	1.221 ppb
Concentration per Run 1	-0.024 ppb	-0.002 ppb	0.005 ppb	-0.364 ppb	104.867 %	0.019 ppb	1.633 ppb
Concentration per Run 2	-0.004 ppb	0.077 ppb	0.008 ppb	-0.256 ppb	100.414 %	-0.011 ppb	1.237 ppb
Concentration per Run 3	-0.014 ppb	-0.039 ppb	0.033 ppb	-0.233 ppb	100.925 %	0.020 ppb	0.792 ppb
Concentration RSD	71.8 %	503.2 %	99.6 %	24.6 %	2.4 %	186.6 %	34.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.115 ppb	0.018 ppb	0.008 ppb	102.429 %	0.029 ppb	0.042 ppb	-0.015 ppb
Concentration per Run 1	0.077 ppb	0.022 ppb	0.016 ppb	103.928 %	-0.011 ppb	0.006 ppb	-0.002 ppb
Concentration per Run 2	0.134 ppb	0.013 ppb	0.008 ppb	103.294 %	0.008 ppb	0.135 ppb	-0.002 ppb
Concentration per Run 3	0.136 ppb	0.018 ppb	0.000 ppb	100.065 %	0.089 ppb	-0.015 ppb	-0.042 ppb
Concentration RSD	29.1 %	24.2 %	99.7 %	2.0 %	184.1 %	193.6 %	153.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.277 %	0.006 ppb	0.001 ppb	102.391 %
Concentration per Run 1	105.773 %	0.009 ppb	-0.006 ppb	105.321 %
Concentration per Run 2	104.167 %	0.003 ppb	0.005 ppb	100.787 %
Concentration per Run 3	102.890 %	0.005 ppb	0.004 ppb	101.064 %
Concentration RSD	1.4 %	49.1 %	759.1 %	2.5 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 63
Analysis label: wg873763-2d50 mcp-6020ts-10
Analysis started at: 3/16/2016 4:34:27 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 31

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.540 %	110.814 %	13.196 ppb	68.710 ppb	404.643 ppb	856.259 ppb	356.035 ppb
Concentration per Run 1	102.922 %	107.898 %	12.976 ppb	69.790 ppb	402.577 ppb	824.367 ppb	335.344 ppb
Concentration per Run 2	102.022 %	121.386 %	13.343 ppb	66.010 ppb	392.550 ppb	841.010 ppb	368.919 ppb
Concentration per Run 3	102.675 %	103.159 %	13.268 ppb	70.329 ppb	418.801 ppb	903.401 ppb	363.840 ppb
Concentration RSD	0.5 %	8.5 %	1.5 %	3.4 %	3.3 %	4.9 %	5.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	623.706 ppb	103.869 %	106.804 %	14.479 ppb	16.111 ppb	56.849 ppb	2,168.108 ppb
Concentration per Run 1	560.996 ppb	108.226 %	107.643 %	13.903 ppb	15.099 ppb	52.633 ppb	2,027.495 ppb
Concentration per Run 2	702.591 ppb	101.886 %	104.651 %	14.536 ppb	17.047 ppb	58.108 ppb	2,251.542 ppb
Concentration per Run 3	607.530 ppb	101.496 %	108.118 %	14.999 ppb	16.188 ppb	59.807 ppb	2,225.286 ppb
Concentration RSD	11.6 %	3.6 %	1.8 %	3.8 %	6.1 %	6.6 %	5.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.733 ppb	11.916 ppb	17.480 ppb	30.950 ppb	106.487 %	15.748 ppb	27.607 ppb
Concentration per Run 1	14.985 ppb	10.905 ppb	16.962 ppb	30.659 ppb	109.888 %	15.254 ppb	23.615 ppb
Concentration per Run 2	16.301 ppb	13.319 ppb	17.531 ppb	31.957 ppb	106.684 %	16.176 ppb	29.694 ppb
Concentration per Run 3	15.914 ppb	11.525 ppb	17.947 ppb	30.234 ppb	102.887 %	15.815 ppb	29.512 ppb
Concentration RSD	4.3 %	10.5 %	2.8 %	2.9 %	3.3 %	2.9 %	12.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	15.396 ppb	6.270 ppb	13.165 ppb	105.464 %	18.822 ppb	24.237 ppb	24.514 ppb
Concentration per Run 1	14.279 ppb	6.062 ppb	12.580 ppb	109.049 %	17.271 ppb	24.397 ppb	24.231 ppb
Concentration per Run 2	15.564 ppb	6.226 ppb	13.720 ppb	106.158 %	19.257 ppb	24.260 ppb	24.350 ppb
Concentration per Run 3	16.345 ppb	6.521 ppb	13.194 ppb	101.186 %	19.939 ppb	24.053 ppb	24.960 ppb
Concentration RSD	6.8 %	3.7 %	4.3 %	3.8 %	7.4 %	0.7 %	1.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	106.394 %	28.368 ppb	13.734 ppb	106.489 %
Concentration per Run 1	109.352 %	26.778 ppb	13.116 ppb	111.170 %
Concentration per Run 2	108.071 %	29.445 ppb	13.865 ppb	105.581 %
Concentration per Run 3	101.759 %	28.881 ppb	14.220 ppb	102.715 %
Concentration RSD	3.8 %	5.0 %	4.1 %	4.0 %

Analysis index: 64
Analysis label: wg873763-2d50 mcp-6020ts-10
Analysis started at: 3/16/2016 4:37:31 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 32

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.743 %	105.225 %	14.102 ppb	67.571 ppb	432.866 ppb	906.963 ppb	439.870 ppb
Concentration per Run 1	101.091 %	99.514 %	14.216 ppb	69.968 ppb	422.288 ppb	893.474 ppb	430.129 ppb
Concentration per Run 2	101.938 %	111.543 %	14.108 ppb	64.345 ppb	424.842 ppb	871.650 ppb	435.783 ppb
Concentration per Run 3	102.200 %	104.617 %	13.982 ppb	68.399 ppb	451.468 ppb	955.766 ppb	453.697 ppb
Concentration RSD	0.6 %	5.7 %	0.8 %	4.3 %	3.7 %	4.8 %	2.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	707.376 ppb	107.218 %	106.554 %	14.363 ppb	15.757 ppb	55.879 ppb	2,200.633 ppb
Concentration per Run 1	710.104 ppb	107.544 %	105.123 %	12.663 ppb	14.674 ppb	52.155 ppb	2,068.148 ppb
Concentration per Run 2	660.595 ppb	107.738 %	108.499 %	14.007 ppb	15.021 ppb	52.943 ppb	2,066.260 ppb
Concentration per Run 3	751.429 ppb	106.372 %	106.041 %	16.418 ppb	17.577 ppb	62.541 ppb	2,467.489 ppb
Concentration RSD	6.4 %	0.7 %	1.6 %	13.2 %	10.1 %	10.3 %	10.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.390 ppb	11.648 ppb	17.283 ppb	31.185 ppb	108.352 %	17.168 ppb	28.980 ppb
Concentration per Run 1	15.216 ppb	10.689 ppb	17.130 ppb	30.070 ppb	109.816 %	17.391 ppb	26.232 ppb
Concentration per Run 2	15.099 ppb	12.029 ppb	15.786 ppb	28.962 ppb	112.728 %	15.685 ppb	26.010 ppb
Concentration per Run 3	15.856 ppb	12.226 ppb	18.934 ppb	34.521 ppb	102.514 %	18.427 ppb	34.697 ppb
Concentration RSD	2.6 %	7.2 %	9.1 %	9.4 %	4.9 %	8.1 %	17.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	16.215 ppb	6.290 ppb	13.305 ppb	105.178 %	19.563 ppb	24.993 ppb	24.946 ppb
Concentration per Run 1	15.588 ppb	6.087 ppb	12.478 ppb	105.658 %	19.395 ppb	23.056 ppb	25.741 ppb
Concentration per Run 2	15.925 ppb	6.090 ppb	13.343 ppb	106.209 %	18.436 ppb	26.195 ppb	23.800 ppb
Concentration per Run 3	17.132 ppb	6.691 ppb	14.095 ppb	103.667 %	20.857 ppb	25.729 ppb	25.296 ppb
Concentration RSD	5.0 %	5.5 %	6.1 %	1.3 %	6.2 %	6.8 %	4.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	106.739 %	28.981 ppb	15.221 ppb	103.569 %
Concentration per Run 1	109.753 %	27.721 ppb	14.485 ppb	105.275 %
Concentration per Run 2	105.908 %	27.510 ppb	14.688 ppb	107.390 %
Concentration per Run 3	104.557 %	31.712 ppb	16.490 ppb	98.043 %
Concentration RSD	2.5 %	8.2 %	7.2 %	4.7 %

Alpha ICPMSQ Full

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Analysis index: 65
Analysis label: wg873763-3d50 mcp-6020ts-10

Analysis started at: 3/16/2016 4:40:36 PM
User name: ALPHALAB\a1metalsinstrument

Rack: 1
Vial: 31

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.114 %	105.346 %	12.696 ppb	71.389 ppb	402.023 ppb	865.358 ppb	410.278 ppb
Concentration per Run 1	102.256 %	111.179 %	12.736 ppb	66.097 ppb	357.466 ppb	787.486 ppb	382.666 ppb
Concentration per Run 2	103.075 %	106.440 %	12.759 ppb	77.516 ppb	418.487 ppb	884.994 ppb	426.143 ppb
Concentration per Run 3	104.011 %	98.420 %	12.592 ppb	70.553 ppb	430.115 ppb	923.595 ppb	422.026 ppb
Concentration RSD	0.9 %	6.1 %	0.7 %	8.1 %	9.7 %	8.1 %	5.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	645.417 ppb	106.568 %	107.926 %	13.667 ppb	14.654 ppb	52.657 ppb	2,025.195 ppb
Concentration per Run 1	610.196 ppb	109.104 %	109.250 %	12.285 ppb	13.678 ppb	51.562 ppb	1,944.862 ppb
Concentration per Run 2	671.827 ppb	101.885 %	108.122 %	13.910 ppb	14.667 ppb	55.703 ppb	2,052.780 ppb
Concentration per Run 3	654.228 ppb	108.714 %	106.406 %	14.806 ppb	15.616 ppb	50.706 ppb	2,077.943 ppb
Concentration RSD	4.9 %	3.8 %	1.3 %	9.3 %	6.6 %	5.1 %	3.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.087 ppb	11.683 ppb	16.661 ppb	29.669 ppb	108.985 %	15.663 ppb	29.029 ppb
Concentration per Run 1	14.127 ppb	10.997 ppb	15.624 ppb	27.712 ppb	117.629 %	14.309 ppb	23.721 ppb
Concentration per Run 2	15.464 ppb	11.846 ppb	16.792 ppb	28.726 ppb	107.406 %	15.685 ppb	35.310 ppb
Concentration per Run 3	15.669 ppb	12.205 ppb	17.568 ppb	32.569 ppb	101.921 %	16.995 ppb	28.056 ppb
Concentration RSD	5.6 %	5.3 %	5.9 %	8.6 %	7.3 %	8.6 %	20.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	14.363 ppb	5.923 ppb	12.392 ppb	108.167 %	17.758 ppb	23.806 ppb	24.271 ppb
Concentration per Run 1	13.079 ppb	5.224 ppb	10.864 ppb	114.589 %	17.001 ppb	23.333 ppb	23.196 ppb
Concentration per Run 2	14.336 ppb	6.068 ppb	12.476 ppb	109.036 %	17.943 ppb	23.762 ppb	23.426 ppb
Concentration per Run 3	15.674 ppb	6.476 ppb	13.837 ppb	100.877 %	18.331 ppb	24.323 ppb	26.193 ppb
Concentration RSD	9.0 %	10.8 %	12.0 %	6.4 %	3.9 %	2.1 %	6.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.716 %	27.766 ppb	13.513 ppb	105.294 %
Concentration per Run 1	112.098 %	26.911 ppb	12.709 ppb	107.824 %
Concentration per Run 2	108.249 %	26.893 ppb	13.562 ppb	107.469 %
Concentration per Run 3	102.800 %	29.493 ppb	14.269 ppb	100.588 %
Concentration RSD	4.3 %	5.4 %	5.8 %	3.9 %

Alpha ICPMSQ Full

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Analysis index: 66
Analysis label: wg873763-3d50 mcp-6020ts-10
Analysis started at: 3/16/2016 4:43:40 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 32

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.677 %	105.954 %	13.753 ppb	68.265 ppb	443.737 ppb	904.025 ppb	436.646 ppb
Concentration per Run 1	100.747 %	104.253 %	13.651 ppb	64.612 ppb	445.211 ppb	876.489 ppb	408.993 ppb
Concentration per Run 2	102.531 %	98.420 %	13.691 ppb	72.777 ppb	443.782 ppb	953.302 ppb	459.795 ppb
Concentration per Run 3	101.753 %	115.189 %	13.918 ppb	67.405 ppb	442.216 ppb	882.282 ppb	441.149 ppb
Concentration RSD	0.9 %	8.0 %	1.0 %	6.1 %	0.3 %	4.7 %	5.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	715.170 ppb	109.299 %	106.232 %	14.484 ppb	15.647 ppb	56.772 ppb	2,218.681 ppb
Concentration per Run 1	600.221 ppb	110.373 %	107.638 %	14.150 ppb	14.467 ppb	53.537 ppb	2,069.975 ppb
Concentration per Run 2	790.589 ppb	105.690 %	105.819 %	14.175 ppb	16.727 ppb	57.713 ppb	2,340.415 ppb
Concentration per Run 3	754.701 ppb	111.835 %	105.238 %	15.126 ppb	15.748 ppb	59.067 ppb	2,245.652 ppb
Concentration RSD	14.1 %	2.9 %	1.2 %	3.8 %	7.2 %	5.1 %	6.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.848 ppb	11.332 ppb	17.703 ppb	31.733 ppb	106.679 %	16.941 ppb	29.062 ppb
Concentration per Run 1	15.182 ppb	10.318 ppb	16.289 ppb	28.285 ppb	114.708 %	15.024 ppb	28.576 ppb
Concentration per Run 2	16.262 ppb	11.589 ppb	18.950 ppb	34.144 ppb	103.755 %	17.890 ppb	28.241 ppb
Concentration per Run 3	16.099 ppb	12.089 ppb	17.870 ppb	32.771 ppb	101.573 %	17.910 ppb	30.368 ppb
Concentration RSD	3.7 %	8.1 %	7.6 %	9.7 %	6.6 %	9.8 %	3.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	15.893 ppb	6.455 ppb	13.228 ppb	106.970 %	18.917 ppb	23.709 ppb	24.904 ppb
Concentration per Run 1	14.962 ppb	6.204 ppb	12.328 ppb	111.733 %	17.898 ppb	22.520 ppb	24.141 ppb
Concentration per Run 2	15.377 ppb	6.501 ppb	12.865 ppb	109.342 %	19.111 ppb	24.569 ppb	23.762 ppb
Concentration per Run 3	17.340 ppb	6.660 ppb	14.490 ppb	99.836 %	19.742 ppb	24.038 ppb	26.809 ppb
Concentration RSD	8.0 %	3.6 %	8.5 %	5.9 %	5.0 %	4.5 %	6.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.012 %	28.785 ppb	15.289 ppb	104.150 %
Concentration per Run 1	108.523 %	27.377 ppb	14.768 ppb	105.524 %
Concentration per Run 2	104.525 %	28.929 ppb	15.543 ppb	106.334 %
Concentration per Run 3	101.988 %	30.051 ppb	15.555 ppb	100.592 %
Concentration RSD	3.1 %	4.7 %	2.9 %	3.0 %

Alpha ICPMSQ Full

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Analysis index: 67
Analysis label: wg873763-6d50 mcp-6020ts-10
Analysis started at: 3/16/2016 4:46:44 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 33

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	106.454 %	112.029 %	0.126 ppb	30.407 ppb	711.076 ppb	3,311.212 ppb	84.360 ppb
Concentration per Run 1	105.479 %	114.095 %	0.111 ppb	27.485 ppb	667.537 ppb	3,076.130 ppb	83.766 ppb
Concentration per Run 2	107.401 %	115.553 %	0.141 ppb	28.503 ppb	720.054 ppb	3,306.965 ppb	66.396 ppb
Concentration per Run 3	106.481 %	106.440 %	0.127 ppb	35.234 ppb	745.637 ppb	3,550.540 ppb	102.918 ppb
Concentration RSD	0.9 %	4.4 %	12.0 %	13.8 %	5.6 %	7.2 %	21.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	339.014 ppb	110.990 %	110.760 %	6.704 ppb	3.523 ppb	97.293 ppb	5,598.610 ppb
Concentration per Run 1	301.254 ppb	117.883 %	109.368 %	5.845 ppb	3.214 ppb	90.329 ppb	5,434.751 ppb
Concentration per Run 2	311.232 ppb	108.323 %	110.679 %	7.089 ppb	3.882 ppb	103.931 ppb	5,830.090 ppb
Concentration per Run 3	404.556 ppb	106.763 %	112.233 %	7.179 ppb	3.473 ppb	97.619 ppb	5,530.988 ppb
Concentration RSD	16.8 %	5.4 %	1.3 %	11.1 %	9.6 %	7.0 %	3.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	1.560 ppb	3.707 ppb	7.392 ppb	34.138 ppb	104.954 %	2.182 ppb	2.075 ppb
Concentration per Run 1	1.523 ppb	3.837 ppb	7.507 ppb	31.829 ppb	107.350 %	2.063 ppb	2.736 ppb
Concentration per Run 2	1.647 ppb	3.626 ppb	7.122 ppb	34.332 ppb	103.974 %	1.982 ppb	1.131 ppb
Concentration per Run 3	1.510 ppb	3.660 ppb	7.548 ppb	36.252 ppb	103.537 %	2.500 ppb	2.358 ppb
Concentration RSD	4.9 %	3.1 %	3.2 %	6.5 %	2.0 %	12.8 %	40.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.338 ppb	0.023 ppb	0.112 ppb	106.968 %	0.881 ppb	0.144 ppb	17.294 ppb
Concentration per Run 1	0.398 ppb	0.016 ppb	0.088 ppb	110.515 %	0.913 ppb	0.105 ppb	16.245 ppb
Concentration per Run 2	0.393 ppb	0.026 ppb	0.121 ppb	107.276 %	0.856 ppb	0.213 ppb	17.964 ppb
Concentration per Run 3	0.222 ppb	0.027 ppb	0.126 ppb	103.113 %	0.872 ppb	0.113 ppb	17.673 ppb
Concentration RSD	29.7 %	24.8 %	18.3 %	3.5 %	3.4 %	41.8 %	5.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.031 %	0.186 ppb	87.117 ppb	105.075 %
Concentration per Run 1	109.046 %	0.140 ppb	81.976 ppb	109.420 %
Concentration per Run 2	102.075 %	0.170 ppb	90.058 ppb	102.126 %
Concentration per Run 3	103.973 %	0.248 ppb	89.318 ppb	103.680 %
Concentration RSD	3.4 %	29.8 %	5.1 %	3.7 %

Alpha ICPMSQ Full

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Analysis index: 68
Analysis label: l1606949-02d10 mcp-6020ts-10
Analysis started at: 3/16/2016 4:49:49 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 34

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	107.632 %	110.814 %	0.617 ppb	195.433 ppb	3,719.972 ppb	17,070.562 ppb	476.502 ppb
Concentration per Run 1	110.052 %	95.140 %	0.619 ppb	222.612 ppb	4,142.678 ppb	19,066.348 ppb	531.919 ppb
Concentration per Run 2	107.670 %	110.450 %	0.607 ppb	193.990 ppb	3,628.546 ppb	16,210.001 ppb	406.696 ppb
Concentration per Run 3	105.174 %	126.854 %	0.626 ppb	169.696 ppb	3,388.691 ppb	15,935.338 ppb	490.890 ppb
Concentration RSD	2.3 %	14.3 %	1.6 %	13.6 %	10.4 %	10.2 %	13.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,099.437 ppb	104.617 %	106.474 %	32.314 ppb	18.473 ppb	514.647 ppb	28,791.627 ppb
Concentration per Run 1	2,117.060 ppb	101.886 %	107.006 %	33.974 ppb	19.195 ppb	535.335 ppb	29,978.400 ppb
Concentration per Run 2	2,062.423 ppb	109.592 %	107.820 %	30.664 ppb	18.493 ppb	488.830 ppb	27,832.592 ppb
Concentration per Run 3	2,118.829 ppb	102.373 %	104.596 %	32.303 ppb	17.731 ppb	519.777 ppb	28,563.889 ppb
Concentration RSD	1.5 %	4.1 %	1.6 %	5.1 %	4.0 %	4.6 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	8.470 ppb	18.985 ppb	37.999 ppb	176.203 ppb	106.661 %	10.284 ppb	9.087 ppb
Concentration per Run 1	9.489 ppb	20.085 ppb	40.629 ppb	183.275 ppb	105.636 %	9.712 ppb	10.802 ppb
Concentration per Run 2	8.099 ppb	18.493 ppb	36.238 ppb	168.617 ppb	109.953 %	10.270 ppb	7.253 ppb
Concentration per Run 3	7.822 ppb	18.379 ppb	37.130 ppb	176.715 ppb	104.395 %	10.871 ppb	9.207 ppb
Concentration RSD	10.5 %	5.0 %	6.1 %	4.2 %	2.7 %	5.6 %	19.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.263 ppb	0.083 ppb	0.502 ppb	105.259 %	5.326 ppb	0.990 ppb	87.340 ppb
Concentration per Run 1	1.253 ppb	0.074 ppb	0.632 ppb	106.450 %	5.226 ppb	0.968 ppb	87.555 ppb
Concentration per Run 2	1.005 ppb	0.091 ppb	0.426 ppb	106.200 %	5.451 ppb	0.989 ppb	87.160 ppb
Concentration per Run 3	1.532 ppb	0.085 ppb	0.447 ppb	103.129 %	5.300 ppb	1.013 ppb	87.306 ppb
Concentration RSD	20.9 %	10.3 %	22.6 %	1.8 %	2.1 %	2.3 %	0.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.228 %	0.255 ppb	394.128 ppb	104.161 %
Concentration per Run 1	101.556 %	0.242 ppb	397.756 ppb	103.565 %
Concentration per Run 2	103.425 %	0.273 ppb	384.123 ppb	107.841 %
Concentration per Run 3	104.702 %	0.251 ppb	400.505 ppb	101.078 %
Concentration RSD	1.5 %	6.2 %	2.2 %	3.3 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 69
Analysis label: wg873763-4d50 mcp-6020ts-10
Analysis started at: 3/16/2016 4:52:54 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 35

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.487 %	108.627 %	1.993 ppb	425.052 ppb	1,161.173 ppb	3,989.768 ppb	516.994 ppb
Concentration per Run 1	102.817 %	108.627 %	1.915 ppb	433.840 ppb	1,136.102 ppb	4,057.716 ppb	517.437 ppb
Concentration per Run 2	102.921 %	103.888 %	2.042 ppb	451.303 ppb	1,236.453 ppb	4,101.346 ppb	529.571 ppb
Concentration per Run 3	101.723 %	113.366 %	2.023 ppb	390.013 ppb	1,110.964 ppb	3,810.242 ppb	503.973 ppb
Concentration RSD	0.6 %	4.4 %	3.4 %	7.4 %	5.7 %	3.9 %	2.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	851.641 ppb	100.065 %	105.520 %	26.042 ppb	12.752 ppb	105.588 ppb	6,096.699 ppb
Concentration per Run 1	896.638 ppb	97.691 %	107.632 %	26.594 ppb	12.385 ppb	105.464 ppb	6,240.119 ppb
Concentration per Run 2	887.908 ppb	97.301 %	104.339 %	26.951 ppb	13.218 ppb	106.993 ppb	6,308.878 ppb
Concentration per Run 3	770.375 ppb	105.202 %	104.589 %	24.580 ppb	12.654 ppb	104.307 ppb	5,741.099 ppb
Concentration RSD	8.3 %	4.5 %	1.7 %	4.9 %	3.3 %	1.3 %	5.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	22.344 ppb	24.268 ppb	16.523 ppb	52.197 ppb	100.210 %	6.944 ppb	8.520 ppb
Concentration per Run 1	22.383 ppb	24.582 ppb	16.328 ppb	51.283 ppb	102.814 %	7.216 ppb	10.080 ppb
Concentration per Run 2	23.598 ppb	25.636 ppb	17.313 ppb	54.558 ppb	96.982 %	7.006 ppb	7.847 ppb
Concentration per Run 3	21.050 ppb	22.585 ppb	15.928 ppb	50.749 ppb	100.834 %	6.610 ppb	7.634 ppb
Concentration RSD	5.7 %	6.4 %	4.3 %	4.0 %	3.0 %	4.4 %	15.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	38.226 ppb	12.404 ppb	2.288 ppb	101.518 %	41.414 ppb	16.533 ppb	96.063 ppb
Concentration per Run 1	38.397 ppb	12.352 ppb	2.228 ppb	100.541 %	43.439 ppb	17.876 ppb	99.657 ppb
Concentration per Run 2	39.760 ppb	12.945 ppb	2.528 ppb	98.565 %	41.787 ppb	16.270 ppb	96.208 ppb
Concentration per Run 3	36.519 ppb	11.913 ppb	2.107 ppb	105.448 %	39.014 ppb	15.455 ppb	92.325 ppb
Concentration RSD	4.3 %	4.2 %	9.5 %	3.5 %	5.4 %	7.4 %	3.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.433 %	4.589 ppb	100.205 ppb	99.010 %
Concentration per Run 1	101.745 %	4.808 ppb	104.323 ppb	97.089 %
Concentration per Run 2	101.339 %	4.590 ppb	100.419 ppb	98.036 %
Concentration per Run 3	101.216 %	4.370 ppb	95.872 ppb	101.906 %
Concentration RSD	0.3 %	4.8 %	4.2 %	2.6 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 70
Analysis label: wg873763-4d50 mcp-6020ts-10
Analysis started at: 3/16/2016 4:55:59 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 35

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.782 %	108.749 %	1.980 ppb	399.731 ppb	1,084.582 ppb	3,596.114 ppb	457.059 ppb
Concentration per Run 1	102.651 %	108.992 %	2.028 ppb	461.986 ppb	1,268.195 ppb	4,440.800 ppb	585.540 ppb
Concentration per Run 2	101.851 %	109.356 %	1.973 ppb	350.298 ppb	932.057 ppb	2,967.731 ppb	398.730 ppb
Concentration per Run 3	103.844 %	107.898 %	1.938 ppb	386.909 ppb	1,053.495 ppb	3,379.811 ppb	386.908 ppb
Concentration RSD	1.0 %	0.7 %	2.3 %	14.2 %	15.7 %	21.1 %	24.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	751.305 ppb	106.016 %	104.785 %	23.363 ppb	10.519 ppb	92.750 ppb	5,472.862 ppb
Concentration per Run 1	923.022 ppb	88.036 %	104.710 %	28.522 ppb	12.663 ppb	115.346 ppb	6,788.713 ppb
Concentration per Run 2	604.877 ppb	118.273 %	104.137 %	20.002 ppb	9.193 ppb	78.958 ppb	4,541.791 ppb
Concentration per Run 3	726.015 ppb	111.737 %	105.509 %	21.565 ppb	9.703 ppb	83.945 ppb	5,088.084 ppb
Concentration RSD	21.4 %	15.0 %	0.7 %	19.4 %	17.8 %	21.3 %	21.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.316 ppb	22.265 ppb	15.695 ppb	47.370 ppb	105.608 %	6.765 ppb	6.262 ppb
Concentration per Run 1	23.202 ppb	27.891 ppb	18.771 ppb	56.548 ppb	99.447 %	7.149 ppb	6.815 ppb
Concentration per Run 2	16.889 ppb	18.588 ppb	13.448 ppb	41.454 ppb	110.546 %	6.002 ppb	7.426 ppb
Concentration per Run 3	17.856 ppb	20.317 ppb	14.866 ppb	44.107 ppb	106.831 %	7.143 ppb	4.544 ppb
Concentration RSD	17.6 %	22.2 %	17.6 %	17.0 %	5.3 %	9.8 %	24.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	34.239 ppb	11.437 ppb	1.934 ppb	106.341 %	38.052 ppb	15.526 ppb	88.399 ppb
Concentration per Run 1	39.802 ppb	12.580 ppb	2.168 ppb	97.759 %	45.682 ppb	17.337 ppb	101.047 ppb
Concentration per Run 2	28.752 ppb	10.443 ppb	1.678 ppb	114.368 %	30.614 ppb	13.374 ppb	76.574 ppb
Concentration per Run 3	34.165 ppb	11.288 ppb	1.956 ppb	106.896 %	37.861 ppb	15.866 ppb	87.574 ppb
Concentration RSD	16.1 %	9.4 %	12.7 %	7.8 %	19.8 %	12.9 %	13.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.469 %	3.976 ppb	91.020 ppb	103.774 %
Concentration per Run 1	95.491 %	4.540 ppb	105.712 ppb	95.384 %
Concentration per Run 2	112.120 %	3.425 ppb	77.240 ppb	113.714 %
Concentration per Run 3	102.796 %	3.962 ppb	90.108 ppb	102.225 %
Concentration RSD	8.1 %	14.0 %	15.7 %	8.9 %

Analysis index: 71 Analysis started at: 3/16/2016 4:59:04 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.077 %	108.627 %	90.133 ppb	9,105.291 ppb	9,493.159 ppb	93.753 ppb	9,637.931 ppb
Concentration per Run 1	103.321 %	120.292 %	91.547 ppb	8,478.293 ppb	9,034.630 ppb	87.317 ppb	9,250.727 ppb
Concentration per Run 2	103.062 %	98.785 %	90.544 ppb	9,584.588 ppb	9,790.908 ppb	94.078 ppb	10,012.047 ppb
Concentration per Run 3	105.849 %	106.805 %	88.308 ppb	9,252.992 ppb	9,653.939 ppb	99.866 ppb	9,651.018 ppb
Recovery Percentage 1			90.133 %	91.053 %	94.932 %	93.753 %	96.379 %
Concentration RSD	1.5 %	10.0 %	1.8 %	6.2 %	4.2 %	6.7 %	4.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,360.019 ppb	105.559 %	106.815 %	90.865 ppb	92.023 ppb	89.696 ppb	8,985.130 ppb
Concentration per Run 1	9,229.313 ppb	103.543 %	105.231 %	90.708 ppb	91.977 ppb	87.134 ppb	9,127.400 ppb
Concentration per Run 2	9,283.381 ppb	108.128 %	106.137 %	90.719 ppb	89.241 ppb	86.900 ppb	8,901.862 ppb
Concentration per Run 3	9,567.363 ppb	105.007 %	109.075 %	91.169 ppb	94.851 ppb	95.052 ppb	8,926.130 ppb
Recovery Percentage 1	93.600 %			90.865 %	92.023 %	89.696 %	89.851 %
Concentration RSD	1.9 %	2.2 %	1.9 %	0.3 %	3.0 %	5.2 %	1.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	91.722 ppb	92.538 ppb	92.982 ppb	90.320 ppb	104.391 %	91.393 ppb	92.725 ppb
Concentration per Run 1	92.552 ppb	92.532 ppb	91.793 ppb	91.220 ppb	100.198 %	93.629 ppb	83.837 ppb
Concentration per Run 2	89.971 ppb	88.602 ppb	92.217 ppb	90.564 ppb	105.245 %	90.048 ppb	95.485 ppb
Concentration per Run 3	92.645 ppb	96.480 ppb	94.935 ppb	89.175 ppb	107.728 %	90.504 ppb	98.854 ppb
Recovery Percentage 1	91.722 %	92.538 %	92.982 %	90.320 %		91.393 %	92.725 %
Concentration RSD	1.7 %	4.3 %	1.8 %	1.2 %	3.7 %	2.1 %	8.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	92.905 ppb	92.293 ppb	90.199 ppb	106.362 %	34.738 ppb	90.310 ppb	90.461 ppb
Concentration per Run 1	94.197 ppb	87.137 ppb	85.777 ppb	110.706 %	33.206 ppb	88.839 ppb	88.233 ppb
Concentration per Run 2	89.984 ppb	95.398 ppb	91.725 ppb	105.887 %	34.182 ppb	91.789 ppb	91.967 ppb
Concentration per Run 3	94.534 ppb	94.346 ppb	93.094 ppb	102.493 %	36.827 ppb	90.303 ppb	91.184 ppb
Recovery Percentage 1	92.905 %	92.293 %	90.199 %		34.738 %	90.310 %	90.461 %
Concentration RSD	2.7 %	4.9 %	4.3 %	3.9 %	5.4 %	1.6 %	2.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.141 %	92.728 ppb	90.255 ppb	103.026 %
Concentration per Run 1	107.829 %	92.399 ppb	87.629 ppb	103.412 %
Concentration per Run 2	108.451 %	91.618 ppb	89.393 ppb	104.263 %
Concentration per Run 3	108.144 %	94.167 ppb	93.744 ppb	101.403 %
Recovery Percentage 1		92.728 %	90.255 %	
Concentration RSD	0.3 %	1.4 %	3.5 %	1.4 %

Analysis index: 72 Analysis started at: 3/16/2016 5:02:11 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	105.326 %	105.589 %	0.036 ppb	0.789 ppb	2.865 ppb	-0.098 ppb	8.601 ppb
Concentration per Run 1	103.672 %	105.711 %	0.040 ppb	1.328 ppb	0.597 ppb	0.308 ppb	6.423 ppb
Concentration per Run 2	105.817 %	116.647 %	0.033 ppb	-1.595 ppb	3.185 ppb	-0.655 ppb	-2.488 ppb
Concentration per Run 3	106.489 %	94.411 %	0.034 ppb	2.633 ppb	4.813 ppb	0.055 ppb	21.868 ppb
Recovery Percentage 1			7.110 %	0.789 %	4.093 %	-0.976 %	8.601 %
Concentration RSD	1.4 %	10.5 %	10.1 %	274.5 %	74.2 %	511.5 %	143.3 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-15.486 ppb	108.096 %	111.331 %	0.075 ppb	-0.024 ppb	-0.602 ppb	3.086 ppb
Concentration per Run 1	-12.515 ppb	109.006 %	110.488 %	0.128 ppb	0.003 ppb	-0.484 ppb	6.484 ppb
Concentration per Run 2	-26.241 ppb	110.860 %	112.345 %	0.074 ppb	-0.083 ppb	-0.632 ppb	2.533 ppb
Concentration per Run 3	-7.702 ppb	104.422 %	111.162 %	0.025 ppb	0.007 ppb	-0.692 ppb	0.243 ppb
Recovery Percentage 1	-15.486 %			1.508 %	-2.434 %	-60.237 %	6.173 %
Concentration RSD	62.1 %	3.1 %	0.8 %	68.4 %	210.1 %	17.8 %	102.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.020 ppb	0.144 ppb	0.031 ppb	-0.381 ppb	106.060 %	0.086 ppb	0.320 ppb
Concentration per Run 1	0.023 ppb	0.181 ppb	0.057 ppb	-0.240 ppb	105.160 %	0.019 ppb	0.303 ppb
Concentration per Run 2	0.023 ppb	0.178 ppb	0.030 ppb	-0.553 ppb	106.036 %	0.135 ppb	0.351 ppb
Concentration per Run 3	0.014 ppb	0.072 ppb	0.005 ppb	-0.349 ppb	106.985 %	0.105 ppb	0.307 ppb
Recovery Percentage 1	4.043 %	28.731 %	3.083 %	-3.806 %	106.060 %	17.248 %	6.404 %
Concentration RSD	24.5 %	43.2 %	84.5 %	41.7 %	0.9 %	70.2 %	8.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.553 ppb	0.051 ppb	0.022 ppb	109.585 %	0.086 ppb	0.093 ppb	0.086 ppb
Concentration per Run 1	0.493 ppb	0.044 ppb	0.021 ppb	115.572 %	0.014 ppb	0.101 ppb	0.108 ppb
Concentration per Run 2	0.680 ppb	0.071 ppb	0.016 ppb	103.832 %	0.119 ppb	0.112 ppb	0.037 ppb
Concentration per Run 3	0.487 ppb	0.038 ppb	0.030 ppb	109.352 %	0.127 ppb	0.066 ppb	0.113 ppb
Recovery Percentage 1	18.449 %	12.755 %	11.084 %		2.882 %	4.644 %	17.227 %
Concentration RSD	19.8 %	34.3 %	32.1 %	5.4 %	73.0 %	25.8 %	49.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.069 %	0.073 ppb	0.032 ppb	104.410 %
Concentration per Run 1	109.123 %	0.055 ppb	0.029 ppb	108.344 %
Concentration per Run 2	108.027 %	0.077 ppb	0.039 ppb	103.962 %
Concentration per Run 3	107.058 %	0.087 ppb	0.028 ppb	100.925 %
Recovery Percentage 1		14.629 %	6.384 %	104.410 %
Concentration RSD	1.0 %	22.7 %	18.9 %	3.6 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 73
Analysis label: wg873763-5d50 mcp-6020ts-10
Analysis started at: 3/16/2016 5:05:19 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 36

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	107.486 %	115.189 %	1.926 ppb	401.928 ppb	1,033.300 ppb	3,451.577 ppb	458.632 ppb
Concentration per Run 1	108.068 %	113.731 %	1.925 ppb	431.188 ppb	1,055.203 ppb	3,451.046 ppb	454.895 ppb
Concentration per Run 2	107.255 %	112.273 %	1.926 ppb	401.735 ppb	1,038.365 ppb	3,490.309 ppb	442.328 ppb
Concentration per Run 3	107.134 %	119.563 %	1.928 ppb	372.860 ppb	1,006.333 ppb	3,413.377 ppb	478.673 ppb
Concentration RSD	0.5 %	3.3 %	0.1 %	7.3 %	2.4 %	1.1 %	4.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	764.961 ppb	107.510 %	110.279 %	25.234 ppb	11.352 ppb	92.833 ppb	5,517.819 ppb
Concentration per Run 1	741.818 ppb	108.421 %	109.224 %	24.889 ppb	10.953 ppb	86.073 ppb	5,543.243 ppb
Concentration per Run 2	765.064 ppb	109.103 %	111.462 %	24.785 ppb	11.603 ppb	96.793 ppb	5,427.442 ppb
Concentration per Run 3	788.001 ppb	105.007 %	110.150 %	26.027 ppb	11.499 ppb	95.634 ppb	5,582.773 ppb
Concentration RSD	3.0 %	2.0 %	1.0 %	2.7 %	3.1 %	6.3 %	1.5 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.779 ppb	22.143 ppb	16.261 ppb	49.264 ppb	111.836 %	6.026 ppb	5.856 ppb
Concentration per Run 1	19.821 ppb	20.873 ppb	15.900 ppb	49.984 ppb	113.037 %	5.847 ppb	8.840 ppb
Concentration per Run 2	20.334 ppb	22.857 ppb	16.764 ppb	49.507 ppb	112.079 %	6.096 ppb	6.020 ppb
Concentration per Run 3	19.181 ppb	22.697 ppb	16.119 ppb	48.303 ppb	110.391 %	6.136 ppb	2.709 ppb
Concentration RSD	2.9 %	5.0 %	2.8 %	1.8 %	1.2 %	2.6 %	52.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	34.626 ppb	11.848 ppb	2.033 ppb	108.538 %	38.839 ppb	14.904 ppb	92.597 ppb
Concentration per Run 1	35.052 ppb	11.643 ppb	1.991 ppb	113.172 %	37.314 ppb	13.921 ppb	86.234 ppb
Concentration per Run 2	34.411 ppb	11.194 ppb	2.093 ppb	108.027 %	40.084 ppb	15.487 ppb	97.941 ppb
Concentration per Run 3	34.416 ppb	12.706 ppb	2.014 ppb	104.415 %	39.119 ppb	15.304 ppb	93.616 ppb
Concentration RSD	1.1 %	6.6 %	2.6 %	4.1 %	3.6 %	5.7 %	6.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	108.257 %	4.097 ppb	125.546 ppb	105.414 %
Concentration per Run 1	113.650 %	4.104 ppb	124.483 ppb	107.769 %
Concentration per Run 2	104.252 %	3.924 ppb	123.616 ppb	106.811 %
Concentration per Run 3	106.868 %	4.262 ppb	128.538 ppb	101.663 %
Concentration RSD	4.5 %	4.1 %	2.1 %	3.1 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 74
Analysis label: wg873763-5d50 mcp-6020ts-10
Analysis started at: 3/16/2016 5:08:25 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 36

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.259 %	103.402 %	1.865 ppb	433.117 ppb	1,115.999 ppb	3,573.777 ppb	490.578 ppb
Concentration per Run 1	102.782 %	105.346 %	1.895 ppb	404.185 ppb	1,058.964 ppb	3,528.298 ppb	452.538 ppb
Concentration per Run 2	102.456 %	98.056 %	1.799 ppb	461.809 ppb	1,220.708 ppb	3,827.033 ppb	528.200 ppb
Concentration per Run 3	104.539 %	106.804 %	1.903 ppb	433.357 ppb	1,068.326 ppb	3,366.002 ppb	490.997 ppb
Concentration RSD	1.1 %	4.5 %	3.1 %	6.7 %	8.1 %	6.5 %	7.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	777.932 ppb	107.511 %	104.756 %	23.896 ppb	10.646 ppb	92.191 ppb	5,428.282 ppb
Concentration per Run 1	732.792 ppb	110.274 %	105.504 %	23.716 ppb	10.231 ppb	92.893 ppb	5,582.160 ppb
Concentration per Run 2	774.691 ppb	104.129 %	104.725 %	23.750 ppb	10.828 ppb	94.594 ppb	5,422.933 ppb
Concentration per Run 3	826.312 ppb	108.129 %	104.039 %	24.221 ppb	10.879 ppb	89.088 ppb	5,279.754 ppb
Concentration RSD	6.0 %	2.9 %	0.7 %	1.2 %	3.4 %	3.1 %	2.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	19.216 ppb	21.732 ppb	16.614 ppb	48.077 ppb	111.915 %	5.906 ppb	5.732 ppb
Concentration per Run 1	19.304 ppb	21.356 ppb	17.699 ppb	49.940 ppb	108.957 %	6.834 ppb	7.053 ppb
Concentration per Run 2	19.690 ppb	21.422 ppb	16.918 ppb	47.125 ppb	113.330 %	5.921 ppb	5.149 ppb
Concentration per Run 3	18.653 ppb	22.417 ppb	15.225 ppb	47.167 ppb	113.458 %	4.963 ppb	4.994 ppb
Concentration RSD	2.7 %	2.7 %	7.6 %	3.4 %	2.3 %	15.8 %	20.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	33.436 ppb	11.891 ppb	2.254 ppb	106.713 %	38.928 ppb	15.563 ppb	90.801 ppb
Concentration per Run 1	32.896 ppb	11.390 ppb	2.212 ppb	108.375 %	38.988 ppb	14.660 ppb	86.704 ppb
Concentration per Run 2	33.330 ppb	12.183 ppb	2.411 ppb	107.678 %	38.549 ppb	15.538 ppb	92.332 ppb
Concentration per Run 3	34.081 ppb	12.101 ppb	2.138 ppb	104.087 %	39.248 ppb	16.492 ppb	93.367 ppb
Concentration RSD	1.8 %	3.7 %	6.3 %	2.2 %	0.9 %	5.9 %	3.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.875 %	4.027 ppb	128.800 ppb	103.134 %
Concentration per Run 1	108.864 %	4.037 ppb	127.402 ppb	104.093 %
Concentration per Run 2	106.998 %	4.039 ppb	127.754 ppb	103.526 %
Concentration per Run 3	107.762 %	4.004 ppb	131.244 ppb	101.782 %
Concentration RSD	0.9 %	0.5 %	1.6 %	1.2 %

Alpha ICPMSQ Full

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Analysis index: 75
Analysis label: l1606941-01d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:11:30 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 37

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.258 %	106.804 %	0.230 ppb	89.474 ppb	1,934.256 ppb	10,209.223 ppb	647.110 ppb
Concentration per Run 1	101.704 %	106.804 %	0.243 ppb	94.569 ppb	2,061.705 ppb	11,337.286 ppb	723.678 ppb
Concentration per Run 2	100.819 %	103.524 %	0.241 ppb	87.614 ppb	1,871.457 ppb	9,500.833 ppb	567.187 ppb
Concentration per Run 3	101.250 %	110.085 %	0.205 ppb	86.238 ppb	1,869.605 ppb	9,789.551 ppb	650.463 ppb
Concentration RSD	0.4 %	3.1 %	9.3 %	5.0 %	5.7 %	9.7 %	12.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,710.311 ppb	98.439 %	102.160 %	42.937 ppb	11.587 ppb	139.952 ppb	9,569.097 ppb
Concentration per Run 1	4,248.126 ppb	89.011 %	100.727 %	46.085 ppb	12.306 ppb	153.642 ppb	10,143.542 ppb
Concentration per Run 2	3,342.686 ppb	105.592 %	102.331 %	39.797 ppb	9.938 ppb	126.773 ppb	8,743.554 ppb
Concentration per Run 3	3,540.119 ppb	100.715 %	103.424 %	42.930 ppb	12.517 ppb	139.441 ppb	9,820.194 ppb
Concentration RSD	12.8 %	8.7 %	1.3 %	7.3 %	12.4 %	9.6 %	7.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	2.612 ppb	15.813 ppb	6.804 ppb	20.484 ppb	108.015 %	3.853 ppb	4.909 ppb
Concentration per Run 1	2.592 ppb	17.980 ppb	7.349 ppb	22.257 ppb	109.077 %	3.456 ppb	3.258 ppb
Concentration per Run 2	2.391 ppb	12.627 ppb	5.956 ppb	18.686 ppb	110.052 %	3.956 ppb	5.464 ppb
Concentration per Run 3	2.852 ppb	16.832 ppb	7.107 ppb	20.508 ppb	104.915 %	4.147 ppb	6.006 ppb
Concentration RSD	8.9 %	17.8 %	10.9 %	8.7 %	2.5 %	9.3 %	29.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.875 ppb	0.107 ppb	0.031 ppb	104.742 %	0.533 ppb	0.134 ppb	54.610 ppb
Concentration per Run 1	0.891 ppb	0.130 ppb	0.024 ppb	101.535 %	0.618 ppb	0.201 ppb	56.832 ppb
Concentration per Run 2	0.881 ppb	0.086 ppb	0.045 ppb	107.022 %	0.458 ppb	0.089 ppb	54.410 ppb
Concentration per Run 3	0.855 ppb	0.105 ppb	0.023 ppb	105.670 %	0.522 ppb	0.112 ppb	52.587 ppb
Concentration RSD	2.1 %	20.9 %	41.2 %	2.7 %	15.2 %	44.5 %	3.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.346 %	0.153 ppb	21.165 ppb	103.527 %
Concentration per Run 1	106.704 %	0.138 ppb	21.889 ppb	100.546 %
Concentration per Run 2	104.133 %	0.162 ppb	20.088 ppb	109.112 %
Concentration per Run 3	99.199 %	0.158 ppb	21.518 ppb	100.924 %
Concentration RSD	3.7 %	8.4 %	4.5 %	4.7 %

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Analysis index: 76
Analysis label: l1606941-02d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:14:33 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 38

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.648 %	108.506 %	0.624 ppb	87.045 ppb	5,700.728 ppb	8,857.696 ppb	333.623 ppb
Concentration per Run 1	102.528 %	106.440 %	0.617 ppb	84.245 ppb	5,357.271 ppb	8,114.360 ppb	320.877 ppb
Concentration per Run 2	102.973 %	112.637 %	0.625 ppb	86.025 ppb	5,616.186 ppb	9,251.257 ppb	346.932 ppb
Concentration per Run 3	102.442 %	106.440 %	0.630 ppb	90.866 ppb	6,128.728 ppb	9,207.471 ppb	333.060 ppb
Concentration RSD	0.3 %	3.3 %	1.1 %	3.9 %	6.9 %	7.3 %	3.9 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	34,132.799 ppb	102.048 %	98.503 %	139.506 ppb	31.598 ppb	549.702 ppb	51,851.762 ppb
Concentration per Run 1	30,300.964 ppb	112.030 %	96.735 %	120.839 ppb	28.823 ppb	494.223 ppb	47,384.887 ppb
Concentration per Run 2	36,128.276 ppb	96.229 %	99.960 %	148.122 ppb	33.866 ppb	576.873 ppb	53,455.853 ppb
Concentration per Run 3	35,969.156 ppb	97.887 %	98.815 %	149.558 ppb	32.103 ppb	578.010 ppb	54,714.546 ppb
Concentration RSD	9.7 %	8.5 %	1.7 %	11.6 %	8.1 %	8.7 %	7.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	8.812 ppb	77.322 ppb	1,806.223 ppb	1,645.639 ppb	102.836 %	11.632 ppb	7.772 ppb
Concentration per Run 1	8.002 ppb	70.202 ppb	1,760.510 ppb	1,581.372 ppb	100.177 %	10.678 ppb	6.657 ppb
Concentration per Run 2	8.733 ppb	77.408 ppb	1,771.412 ppb	1,643.075 ppb	107.569 %	11.449 ppb	9.102 ppb
Concentration per Run 3	9.699 ppb	84.355 ppb	1,886.748 ppb	1,712.469 ppb	100.761 %	12.767 ppb	7.557 ppb
Concentration RSD	9.7 %	9.2 %	3.9 %	4.0 %	4.0 %	9.1 %	15.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.927 ppb	0.698 ppb	5.331 ppb	104.818 %	195.838 ppb	38.500 ppb	186.250 ppb
Concentration per Run 1	3.948 ppb	0.699 ppb	4.615 ppb	111.359 %	178.733 ppb	36.312 ppb	174.532 ppb
Concentration per Run 2	3.756 ppb	0.738 ppb	5.612 ppb	103.256 %	204.507 ppb	41.010 ppb	190.541 ppb
Concentration per Run 3	4.076 ppb	0.657 ppb	5.766 ppb	99.839 %	204.272 ppb	38.180 ppb	193.676 ppb
Concentration RSD	4.1 %	5.8 %	11.7 %	5.6 %	7.6 %	6.1 %	5.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.237 %	0.282 ppb	1,092.993 ppb	105.504 %
Concentration per Run 1	106.467 %	0.258 ppb	1,042.401 ppb	107.774 %
Concentration per Run 2	100.479 %	0.309 ppb	1,117.280 ppb	104.747 %
Concentration per Run 3	96.765 %	0.278 ppb	1,119.300 ppb	103.991 %
Concentration RSD	4.8 %	9.1 %	4.0 %	1.9 %

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Analysis index: 77
Analysis label: l1606941-03d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:17:36 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 39

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.539 %	108.141 %	1.477 ppb	281.588 ppb	4,147.196 ppb	15,013.669 ppb	792.969 ppb
Concentration per Run 1	104.338 %	104.253 %	1.414 ppb	291.341 ppb	4,292.892 ppb	15,270.224 ppb	780.464 ppb
Concentration per Run 2	104.114 %	117.011 %	1.613 ppb	252.074 ppb	3,786.899 ppb	14,077.795 ppb	789.585 ppb
Concentration per Run 3	102.163 %	103.159 %	1.403 ppb	301.348 ppb	4,361.796 ppb	15,692.987 ppb	808.857 ppb
Concentration RSD	1.2 %	7.1 %	8.0 %	9.2 %	7.6 %	5.6 %	1.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,534.954 ppb	102.796 %	105.100 %	100.527 ppb	22.630 ppb	359.464 ppb	46,374.135 ppb
Concentration per Run 1	10,445.412 ppb	105.495 %	107.021 %	101.241 ppb	21.601 ppb	358.029 ppb	46,427.039 ppb
Concentration per Run 2	10,087.517 ppb	104.031 %	104.366 %	97.399 ppb	22.267 ppb	344.426 ppb	44,584.549 ppb
Concentration per Run 3	11,071.933 ppb	98.862 %	103.912 %	102.940 ppb	24.021 ppb	375.938 ppb	48,110.818 ppb
Concentration RSD	4.7 %	3.4 %	1.6 %	2.8 %	5.5 %	4.4 %	3.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	17.337 ppb	169.049 ppb	22.819 ppb	105.514 ppb	105.099 %	31.925 ppb	16.616 ppb
Concentration per Run 1	17.285 ppb	169.298 ppb	21.821 ppb	108.814 ppb	105.529 %	31.807 ppb	20.656 ppb
Concentration per Run 2	17.208 ppb	161.047 ppb	22.146 ppb	100.729 ppb	105.756 %	32.338 ppb	15.651 ppb
Concentration per Run 3	17.517 ppb	176.802 ppb	24.491 ppb	107.000 ppb	104.013 %	31.630 ppb	13.540 ppb
Concentration RSD	0.9 %	4.7 %	6.4 %	4.0 %	0.9 %	1.2 %	22.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	3.136 ppb	0.066 ppb	0.255 ppb	104.848 %	1.681 ppb	0.662 ppb	42.990 ppb
Concentration per Run 1	3.294 ppb	0.048 ppb	0.254 ppb	105.278 %	1.700 ppb	0.742 ppb	42.649 ppb
Concentration per Run 2	2.819 ppb	0.067 ppb	0.263 ppb	111.342 %	1.278 ppb	0.608 ppb	40.982 ppb
Concentration per Run 3	3.294 ppb	0.084 ppb	0.247 ppb	97.923 %	2.065 ppb	0.636 ppb	45.339 ppb
Concentration RSD	8.8 %	27.1 %	3.3 %	6.4 %	23.4 %	10.7 %	5.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	103.027 %	0.765 ppb	48.144 ppb	100.910 %
Concentration per Run 1	104.284 %	0.794 ppb	49.311 ppb	100.658 %
Concentration per Run 2	102.422 %	0.742 ppb	46.818 ppb	101.395 %
Concentration per Run 3	102.375 %	0.761 ppb	48.302 ppb	100.677 %
Concentration RSD	1.1 %	3.5 %	2.6 %	0.4 %

Alpha ICPMSQ Full

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Analysis index: 78
Analysis label: l1606941-04d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:20:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 40

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.597 %	109.113 %	0.951 ppb	187.272 ppb	3,050.047 ppb	23,766.982 ppb	479.887 ppb
Concentration per Run 1	104.491 %	103.888 %	0.968 ppb	183.692 ppb	2,971.564 ppb	22,306.586 ppb	438.319 ppb
Concentration per Run 2	103.670 %	107.898 %	0.928 ppb	184.019 ppb	2,925.673 ppb	22,883.830 ppb	445.809 ppb
Concentration per Run 3	105.629 %	115.553 %	0.958 ppb	194.105 ppb	3,252.902 ppb	26,110.528 ppb	555.534 ppb
Concentration RSD	0.9 %	5.4 %	2.2 %	3.2 %	5.8 %	8.6 %	13.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,145.599 ppb	97.627 %	103.856 %	31.224 ppb	17.947 ppb	419.708 ppb	33,749.884 ppb
Concentration per Run 1	2,051.141 ppb	105.787 %	102.146 %	28.466 ppb	16.763 ppb	391.351 ppb	30,516.863 ppb
Concentration per Run 2	1,946.698 ppb	99.349 %	103.960 %	30.957 ppb	17.283 ppb	410.924 ppb	32,919.580 ppb
Concentration per Run 3	2,438.960 ppb	87.743 %	105.461 %	34.248 ppb	19.794 ppb	456.848 ppb	37,813.208 ppb
Concentration RSD	12.1 %	9.4 %	1.6 %	9.3 %	9.0 %	8.0 %	11.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	6.712 ppb	16.639 ppb	11.568 ppb	38.452 ppb	103.230 %	6.704 ppb	8.165 ppb
Concentration per Run 1	6.083 ppb	15.212 ppb	10.848 ppb	37.059 ppb	103.884 %	6.687 ppb	6.734 ppb
Concentration per Run 2	6.527 ppb	15.743 ppb	12.156 ppb	36.694 ppb	103.081 %	6.709 ppb	10.141 ppb
Concentration per Run 3	7.526 ppb	18.962 ppb	11.701 ppb	41.602 ppb	102.725 %	6.714 ppb	7.621 ppb
Concentration RSD	11.0 %	12.2 %	5.7 %	7.1 %	0.6 %	0.2 %	21.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.944 ppb	0.194 ppb	0.076 ppb	103.268 %	1.455 ppb	0.113 ppb	95.411 ppb
Concentration per Run 1	0.980 ppb	0.162 ppb	0.053 ppb	106.331 %	1.395 ppb	0.215 ppb	93.193 ppb
Concentration per Run 2	0.915 ppb	0.224 ppb	0.108 ppb	105.704 %	1.423 ppb	0.048 ppb	89.583 ppb
Concentration per Run 3	0.936 ppb	0.197 ppb	0.066 ppb	97.771 %	1.546 ppb	0.076 ppb	103.456 ppb
Concentration RSD	3.5 %	16.2 %	37.4 %	4.6 %	5.5 %	79.2 %	7.5 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.775 %	0.119 ppb	24.903 ppb	99.608 %
Concentration per Run 1	100.846 %	0.100 ppb	23.763 ppb	103.637 %
Concentration per Run 2	99.380 %	0.143 ppb	24.639 ppb	100.006 %
Concentration per Run 3	93.100 %	0.113 ppb	26.306 ppb	95.180 %
Concentration RSD	4.2 %	18.5 %	5.2 %	4.3 %

Alpha ICPMSQ Full

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Analysis index: 79
Analysis label: l1606941-05d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:23:42 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 41

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.867 %	107.169 %	0.563 ppb	75.826 ppb	6,092.439 ppb	17,052.886 ppb	664.378 ppb
Concentration per Run 1	102.987 %	103.888 %	0.534 ppb	75.682 ppb	6,086.911 ppb	17,121.585 ppb	631.473 ppb
Concentration per Run 2	104.479 %	105.711 %	0.574 ppb	75.328 ppb	6,064.233 ppb	17,118.224 ppb	687.597 ppb
Concentration per Run 3	104.136 %	111.908 %	0.580 ppb	76.470 ppb	6,126.174 ppb	16,918.849 ppb	674.063 ppb
Concentration RSD	0.8 %	3.9 %	4.4 %	0.8 %	0.5 %	0.7 %	4.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	945.042 ppb	101.886 %	103.761 %	21.495 ppb	22.666 ppb	667.832 ppb	34,992.484 ppb
Concentration per Run 1	934.391 ppb	103.349 %	100.273 %	20.319 ppb	23.202 ppb	686.963 ppb	35,399.709 ppb
Concentration per Run 2	862.567 ppb	104.519 %	104.875 %	22.105 ppb	22.189 ppb	652.488 ppb	35,079.768 ppb
Concentration per Run 3	1,038.167 ppb	97.789 %	106.135 %	22.062 ppb	22.607 ppb	664.044 ppb	34,497.973 ppb
Concentration RSD	9.3 %	3.5 %	3.0 %	4.7 %	2.2 %	2.6 %	1.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	13.163 ppb	29.012 ppb	26.374 ppb	63.675 ppb	106.160 %	7.883 ppb	10.224 ppb
Concentration per Run 1	13.103 ppb	27.609 ppb	25.975 ppb	62.695 ppb	105.134 %	7.880 ppb	13.061 ppb
Concentration per Run 2	13.631 ppb	28.882 ppb	27.517 ppb	65.321 ppb	102.260 %	8.100 ppb	7.002 ppb
Concentration per Run 3	12.754 ppb	30.546 ppb	25.630 ppb	63.009 ppb	111.087 %	7.670 ppb	10.610 ppb
Concentration RSD	3.4 %	5.1 %	3.8 %	2.3 %	4.2 %	2.7 %	29.8 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.550 ppb	0.023 ppb	0.127 ppb	101.427 %	0.641 ppb	0.320 ppb	49.386 ppb
Concentration per Run 1	0.630 ppb	0.018 ppb	0.164 ppb	103.570 %	0.609 ppb	0.243 ppb	48.997 ppb
Concentration per Run 2	0.536 ppb	0.041 ppb	0.119 ppb	101.746 %	0.696 ppb	0.398 ppb	49.646 ppb
Concentration per Run 3	0.485 ppb	0.009 ppb	0.097 ppb	98.963 %	0.617 ppb	0.318 ppb	49.517 ppb
Concentration RSD	13.4 %	72.9 %	26.9 %	2.3 %	7.5 %	24.3 %	0.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.600 %	0.048 ppb	16.084 ppb	99.443 %
Concentration per Run 1	98.609 %	0.045 ppb	16.029 ppb	98.887 %
Concentration per Run 2	101.694 %	0.051 ppb	16.683 ppb	97.581 %
Concentration per Run 3	104.498 %	0.046 ppb	15.542 ppb	101.860 %
Concentration RSD	2.9 %	6.7 %	3.6 %	2.2 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 80
Analysis label: l1606941-06d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:28:56 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 42

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.188 %	108.870 %	0.664 ppb	123.769 ppb	5,266.897 ppb	13,781.731 ppb	671.297 ppb
Concentration per Run 1	103.448 %	103.159 %	0.630 ppb	134.905 ppb	5,539.751 ppb	13,903.368 ppb	651.980 ppb
Concentration per Run 2	94.565 %	109.721 %	0.708 ppb	118.485 ppb	5,030.382 ppb	13,649.685 ppb	677.205 ppb
Concentration per Run 3	102.551 %	113.731 %	0.653 ppb	117.916 ppb	5,230.558 ppb	13,792.140 ppb	684.707 ppb
Concentration RSD	4.9 %	4.9 %	6.0 %	7.8 %	4.9 %	0.9 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,221.977 ppb	100.325 %	102.192 %	19.707 ppb	18.097 ppb	886.945 ppb	35,273.054 ppb
Concentration per Run 1	2,201.287 ppb	101.300 %	103.392 %	19.012 ppb	16.899 ppb	852.215 ppb	34,872.956 ppb
Concentration per Run 2	2,329.479 ppb	99.252 %	102.144 %	20.633 ppb	18.801 ppb	898.443 ppb	36,209.896 ppb
Concentration per Run 3	2,135.164 ppb	100.423 %	101.041 %	19.475 ppb	18.590 ppb	910.178 ppb	34,736.310 ppb
Concentration RSD	4.4 %	1.0 %	1.2 %	4.2 %	5.8 %	3.5 %	2.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	15.367 ppb	26.921 ppb	47.140 ppb	232.637 ppb	103.279 %	9.958 ppb	8.490 ppb
Concentration per Run 1	15.158 ppb	26.071 ppb	45.943 ppb	232.830 ppb	104.961 %	9.597 ppb	7.018 ppb
Concentration per Run 2	14.905 ppb	27.200 ppb	47.121 ppb	230.570 ppb	101.951 %	11.003 ppb	9.985 ppb
Concentration per Run 3	16.038 ppb	27.493 ppb	48.357 ppb	234.509 ppb	102.926 %	9.274 ppb	8.467 ppb
Concentration RSD	3.9 %	2.8 %	2.6 %	0.8 %	1.5 %	9.2 %	17.5 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.787 ppb	0.047 ppb	1.154 ppb	104.885 %	6.019 ppb	0.853 ppb	107.780 ppb
Concentration per Run 1	0.711 ppb	0.048 ppb	1.062 ppb	106.230 %	5.629 ppb	0.904 ppb	107.629 ppb
Concentration per Run 2	0.768 ppb	0.054 ppb	1.265 ppb	103.223 %	6.264 ppb	0.737 ppb	107.432 ppb
Concentration per Run 3	0.883 ppb	0.040 ppb	1.135 ppb	105.204 %	6.164 ppb	0.918 ppb	108.279 ppb
Concentration RSD	11.1 %	15.2 %	9.0 %	1.5 %	5.7 %	11.8 %	0.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.577 %	0.070 ppb	219.794 ppb	101.195 %
Concentration per Run 1	104.173 %	0.071 ppb	217.956 ppb	103.326 %
Concentration per Run 2	101.683 %	0.074 ppb	221.103 ppb	100.074 %
Concentration per Run 3	98.876 %	0.064 ppb	220.323 ppb	100.186 %
Concentration RSD	2.6 %	7.8 %	0.7 %	1.8 %

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Analysis index: 81
Analysis label: l1606941-07d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:32:00 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 43

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	100.124 %	106.318 %	0.692 ppb	48.702 ppb	4,854.601 ppb	12,602.864 ppb	436.804 ppb
Concentration per Run 1	99.576 %	100.243 %	0.676 ppb	53.428 ppb	4,829.364 ppb	12,735.618 ppb	457.387 ppb
Concentration per Run 2	99.969 %	115.918 %	0.662 ppb	42.311 ppb	4,728.482 ppb	12,243.204 ppb	393.763 ppb
Concentration per Run 3	100.826 %	102.795 %	0.737 ppb	50.366 ppb	5,005.957 ppb	12,829.770 ppb	459.262 ppb
Concentration RSD	0.6 %	7.9 %	5.8 %	11.8 %	2.9 %	2.5 %	8.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,191.668 ppb	98.244 %	100.534 %	17.127 ppb	15.573 ppb	766.885 ppb	35,670.571 ppb
Concentration per Run 1	1,239.789 ppb	101.398 %	100.031 %	16.807 ppb	14.765 ppb	783.085 ppb	36,251.555 ppb
Concentration per Run 2	1,155.352 ppb	97.106 %	101.665 %	16.511 ppb	16.660 ppb	776.765 ppb	35,475.371 ppb
Concentration per Run 3	1,179.863 ppb	96.228 %	99.907 %	18.064 ppb	15.293 ppb	740.803 ppb	35,284.786 ppb
Concentration RSD	3.6 %	2.8 %	1.0 %	4.8 %	6.3 %	3.0 %	1.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	14.417 ppb	28.150 ppb	37.579 ppb	70.107 ppb	103.125 %	8.484 ppb	9.403 ppb
Concentration per Run 1	14.635 ppb	28.775 ppb	40.221 ppb	71.951 ppb	102.487 %	8.590 ppb	9.736 ppb
Concentration per Run 2	14.830 ppb	27.507 ppb	37.059 ppb	71.886 ppb	102.058 %	8.183 ppb	6.645 ppb
Concentration per Run 3	13.785 ppb	28.168 ppb	35.457 ppb	66.483 ppb	104.828 %	8.679 ppb	11.829 ppb
Concentration RSD	3.9 %	2.3 %	6.5 %	4.5 %	1.4 %	3.1 %	27.7 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.671 ppb	0.040 ppb	0.342 ppb	100.634 %	1.086 ppb	0.519 ppb	36.410 ppb
Concentration per Run 1	0.617 ppb	0.044 ppb	0.373 ppb	104.587 %	0.953 ppb	0.579 ppb	35.181 ppb
Concentration per Run 2	0.639 ppb	0.037 ppb	0.394 ppb	98.344 %	1.096 ppb	0.389 ppb	35.148 ppb
Concentration per Run 3	0.756 ppb	0.037 ppb	0.261 ppb	98.971 %	1.209 ppb	0.590 ppb	38.903 ppb
Concentration RSD	11.1 %	10.3 %	20.9 %	3.4 %	11.8 %	21.7 %	5.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.815 %	0.048 ppb	33.482 ppb	100.159 %
Concentration per Run 1	102.560 %	0.046 ppb	33.350 ppb	101.321 %
Concentration per Run 2	99.428 %	0.044 ppb	33.088 ppb	100.398 %
Concentration per Run 3	97.458 %	0.054 ppb	34.008 ppb	98.756 %
Concentration RSD	2.6 %	10.9 %	1.4 %	1.3 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 82
Analysis label: l1606941-08d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:35:04 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 44

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.323 %	106.440 %	1.032 ppb	84.313 ppb	2,711.645 ppb	11,461.419 ppb	690.644 ppb
Concentration per Run 1	101.178 %	110.450 %	0.977 ppb	70.943 ppb	2,581.112 ppb	10,420.692 ppb	656.668 ppb
Concentration per Run 2	101.517 %	104.617 %	1.119 ppb	89.163 ppb	2,823.543 ppb	11,873.648 ppb	696.024 ppb
Concentration per Run 3	101.273 %	104.253 %	1.002 ppb	92.833 ppb	2,730.280 ppb	12,089.916 ppb	719.241 ppb
Concentration RSD	0.2 %	3.3 %	7.4 %	13.9 %	4.5 %	7.9 %	4.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,633.856 ppb	100.845 %	102.270 %	66.760 ppb	15.969 ppb	244.592 ppb	34,971.973 ppb
Concentration per Run 1	2,362.539 ppb	101.203 %	102.776 %	63.504 ppb	14.580 ppb	235.860 ppb	33,087.206 ppb
Concentration per Run 2	2,781.869 ppb	99.642 %	103.202 %	68.845 ppb	17.133 ppb	239.448 ppb	35,316.963 ppb
Concentration per Run 3	2,757.159 ppb	101.690 %	100.831 %	67.932 ppb	16.195 ppb	258.468 ppb	36,511.751 ppb
Concentration RSD	8.9 %	1.1 %	1.2 %	4.3 %	8.1 %	5.0 %	5.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	13.385 ppb	118.879 ppb	12.140 ppb	71.995 ppb	106.454 %	21.107 ppb	11.396 ppb
Concentration per Run 1	12.681 ppb	114.135 ppb	11.523 ppb	65.055 ppb	109.991 %	19.123 ppb	13.588 ppb
Concentration per Run 2	13.938 ppb	122.277 ppb	12.628 ppb	75.932 ppb	104.433 %	21.892 ppb	8.836 ppb
Concentration per Run 3	13.537 ppb	120.226 ppb	12.268 ppb	74.997 ppb	104.936 %	22.305 ppb	11.764 ppb
Concentration RSD	4.8 %	3.6 %	4.6 %	8.4 %	2.9 %	8.2 %	21.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.560 ppb	0.025 ppb	0.182 ppb	104.328 %	0.982 ppb	0.356 ppb	28.396 ppb
Concentration per Run 1	1.621 ppb	0.008 ppb	0.163 ppb	109.105 %	0.856 ppb	0.168 ppb	24.171 ppb
Concentration per Run 2	1.567 ppb	0.022 ppb	0.125 ppb	103.296 %	1.058 ppb	0.477 ppb	30.838 ppb
Concentration per Run 3	1.494 ppb	0.046 ppb	0.257 ppb	100.582 %	1.032 ppb	0.424 ppb	30.180 ppb
Concentration RSD	4.1 %	74.9 %	37.2 %	4.2 %	11.2 %	46.4 %	12.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.234 %	0.411 ppb	22.510 ppb	102.663 %
Concentration per Run 1	107.054 %	0.397 ppb	20.190 ppb	106.196 %
Concentration per Run 2	104.362 %	0.425 ppb	23.366 ppb	102.950 %
Concentration per Run 3	101.288 %	0.411 ppb	23.972 ppb	98.843 %
Concentration RSD	2.8 %	3.3 %	9.0 %	3.6 %

Analysis index: 83 Analysis started at: 3/16/2016 5:38:09 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	96.948 %	96.598 %	91.638 ppb	9,556.121 ppb	9,864.790 ppb	95.865 ppb	9,136.930 ppb
Concentration per Run 1	97.173 %	96.962 %	91.227 ppb	9,661.433 ppb	10,143.453 ppb	90.691 ppb	9,324.305 ppb
Concentration per Run 2	96.547 %	99.514 %	91.409 ppb	9,384.549 ppb	9,591.515 ppb	98.849 ppb	9,137.880 ppb
Concentration per Run 3	97.122 %	93.317 %	92.277 ppb	9,622.382 ppb	9,859.403 ppb	98.054 ppb	8,948.604 ppb
Recovery Percentage 1			91.638 %	95.561 %	98.648 %	95.865 %	91.369 %
Concentration RSD	0.4 %	3.2 %	0.6 %	1.6 %	2.8 %	4.7 %	2.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,217.767 ppb	99.577 %	100.564 %	91.487 ppb	92.253 ppb	91.258 ppb	9,317.873 ppb
Concentration per Run 1	9,460.898 ppb	98.960 %	99.195 %	93.506 ppb	92.529 ppb	89.576 ppb	9,173.682 ppb
Concentration per Run 2	9,029.050 ppb	100.520 %	101.539 %	88.663 ppb	89.304 ppb	88.982 ppb	9,161.542 ppb
Concentration per Run 3	9,163.354 ppb	99.252 %	100.957 %	92.292 ppb	94.926 ppb	95.216 ppb	9,618.396 ppb
Recovery Percentage 1	92.178 %			91.487 %	92.253 %	91.258 %	93.179 %
Concentration RSD	2.4 %	0.8 %	1.2 %	2.8 %	3.1 %	3.8 %	2.8 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	93.092 ppb	96.770 ppb	93.500 ppb	90.938 ppb	97.949 %	90.180 ppb	92.240 ppb
Concentration per Run 1	94.256 ppb	98.654 ppb	96.746 ppb	92.574 ppb	96.582 %	89.368 ppb	96.416 ppb
Concentration per Run 2	90.011 ppb	93.397 ppb	88.771 ppb	88.141 ppb	102.827 %	88.538 ppb	81.229 ppb
Concentration per Run 3	95.009 ppb	98.258 ppb	94.983 ppb	92.100 ppb	94.439 %	92.633 ppb	99.074 ppb
Recovery Percentage 1	93.092 %	96.770 %	93.500 %	90.938 %		90.180 %	92.240 %
Concentration RSD	2.9 %	3.0 %	4.5 %	2.7 %	4.4 %	2.4 %	10.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	92.316 ppb	94.701 ppb	91.660 ppb	98.977 %	34.023 ppb	95.032 ppb	93.497 ppb
Concentration per Run 1	94.496 ppb	95.944 ppb	93.447 ppb	100.272 %	32.950 ppb	95.801 ppb	90.847 ppb
Concentration per Run 2	91.054 ppb	93.692 ppb	90.809 ppb	99.703 %	33.709 ppb	93.331 ppb	92.659 ppb
Concentration per Run 3	91.399 ppb	94.466 ppb	90.725 ppb	96.955 %	35.410 ppb	95.962 ppb	96.986 ppb
Recovery Percentage 1	92.316 %	94.701 %	91.660 %		34.023 %	95.032 %	93.497 %
Concentration RSD	2.1 %	1.2 %	1.7 %	1.8 %	3.7 %	1.6 %	3.4 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.551 %	93.605 ppb	92.233 ppb	97.063 %
Concentration per Run 1	102.892 %	92.032 ppb	90.510 ppb	100.172 %
Concentration per Run 2	97.760 %	94.641 ppb	93.612 ppb	95.156 %
Concentration per Run 3	95.002 %	94.141 ppb	92.579 ppb	95.860 %
Recovery Percentage 1		93.605 %	92.233 %	
Concentration RSD	4.1 %	1.5 %	1.7 %	2.8 %

Analysis index: 84 Analysis started at: 3/16/2016 5:41:16 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.631 %	98.785 %	0.030 ppb	1.035 ppb	1.298 ppb	-0.147 ppb	5.706 ppb
Concentration per Run 1	102.311 %	100.608 %	0.034 ppb	0.120 ppb	1.546 ppb	-0.745 ppb	5.990 ppb
Concentration per Run 2	103.290 %	90.036 %	0.022 ppb	4.097 ppb	0.904 ppb	0.880 ppb	1.987 ppb
Concentration per Run 3	102.292 %	105.711 %	0.034 ppb	-1.112 ppb	1.444 ppb	-0.574 ppb	9.141 ppb
Recovery Percentage 1			6.054 %	1.035 %	1.855 %	-1.465 %	5.706 %
Concentration RSD	0.6 %	8.1 %	23.7 %	263.0 %	26.6 %	609.3 %	62.8 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-13.790 ppb	103.154 %	106.294 %	0.034 ppb	-0.022 ppb	-0.532 ppb	6.911 ppb
Concentration per Run 1	-18.275 ppb	102.081 %	106.677 %	0.026 ppb	-0.027 ppb	-0.538 ppb	9.147 ppb
Concentration per Run 2	-4.097 ppb	105.300 %	107.960 %	0.051 ppb	-0.029 ppb	-0.477 ppb	5.759 ppb
Concentration per Run 3	-18.997 ppb	102.080 %	104.244 %	0.025 ppb	-0.010 ppb	-0.580 ppb	5.827 ppb
Recovery Percentage 1	-13.790 %			0.680 %	-2.202 %	-53.185 %	13.822 %
Concentration RSD	60.9 %	1.8 %	1.8 %	43.2 %	48.6 %	9.7 %	28.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.005 ppb	0.147 ppb	0.022 ppb	-0.424 ppb	108.154 %	0.094 ppb	0.759 ppb
Concentration per Run 1	0.015 ppb	0.186 ppb	0.032 ppb	-0.231 ppb	106.474 %	0.076 ppb	0.440 ppb
Concentration per Run 2	-0.005 ppb	0.145 ppb	-0.021 ppb	-0.466 ppb	108.081 %	0.104 ppb	1.570 ppb
Concentration per Run 3	0.005 ppb	0.109 ppb	0.056 ppb	-0.577 ppb	109.906 %	0.102 ppb	0.267 ppb
Recovery Percentage 1	1.011 %	29.315 %	2.227 %	-4.245 %	108.154 %	18.819 %	15.179 %
Concentration RSD	195.8 %	26.6 %	177.9 %	41.7 %	1.6 %	16.2 %	93.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.429 ppb	0.049 ppb	0.044 ppb	105.281 %	0.043 ppb	0.062 ppb	-0.002 ppb
Concentration per Run 1	0.359 ppb	0.049 ppb	0.078 ppb	103.982 %	-0.011 ppb	0.049 ppb	-0.002 ppb
Concentration per Run 2	0.441 ppb	0.069 ppb	0.031 ppb	105.828 %	0.097 ppb	0.027 ppb	-0.002 ppb
Concentration per Run 3	0.488 ppb	0.030 ppb	0.023 ppb	106.033 %	0.042 ppb	0.110 ppb	-0.002 ppb
Recovery Percentage 1	14.311 %	12.337 %	21.860 %		1.426 %	3.089 %	-0.449 %
Concentration RSD	15.2 %	39.9 %	68.0 %	1.1 %	126.6 %	70.1 %	8.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.883 %	0.054 ppb	0.025 ppb	104.493 %
Concentration per Run 1	106.142 %	0.069 ppb	0.029 ppb	106.267 %
Concentration per Run 2	106.244 %	0.039 ppb	0.027 ppb	103.742 %
Concentration per Run 3	105.263 %	0.055 ppb	0.020 ppb	103.471 %
Recovery Percentage 1		10.897 %	5.085 %	104.493 %
Concentration RSD	0.5 %	27.9 %	19.8 %	1.5 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 85
Analysis label: l1606949-01d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:44:23 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 45

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.212 %	99.878 %	0.144 ppb	39.494 ppb	5,500.903 ppb	11,760.887 ppb	449.350 ppb
Concentration per Run 1	102.576 %	98.420 %	0.145 ppb	46.212 ppb	6,055.105 ppb	13,226.016 ppb	512.313 ppb
Concentration per Run 2	100.917 %	97.691 %	0.135 ppb	35.114 ppb	5,178.634 ppb	11,113.717 ppb	420.427 ppb
Concentration per Run 3	103.144 %	103.524 %	0.154 ppb	37.158 ppb	5,268.970 ppb	10,942.929 ppb	415.311 ppb
Concentration RSD	1.1 %	3.2 %	6.6 %	15.0 %	8.8 %	10.8 %	12.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,550.673 ppb	94.115 %	102.086 %	24.721 ppb	18.992 ppb	253.524 ppb	38,140.980 ppb
Concentration per Run 1	1,852.605 ppb	87.548 %	102.400 %	28.142 ppb	21.948 ppb	295.626 ppb	43,087.261 ppb
Concentration per Run 2	1,460.042 ppb	97.594 %	102.092 %	22.491 ppb	17.244 ppb	225.849 ppb	35,420.958 ppb
Concentration per Run 3	1,339.372 ppb	97.204 %	101.766 %	23.530 ppb	17.784 ppb	239.097 ppb	35,914.720 ppb
Concentration RSD	17.3 %	6.0 %	0.3 %	12.2 %	13.6 %	14.6 %	11.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	7.747 ppb	22.336 ppb	15.319 ppb	51.380 ppb	104.142 %	15.782 ppb	8.044 ppb
Concentration per Run 1	8.185 ppb	24.896 ppb	17.175 ppb	56.027 ppb	100.397 %	16.648 ppb	8.566 ppb
Concentration per Run 2	7.247 ppb	20.870 ppb	14.545 ppb	48.273 ppb	108.647 %	14.440 ppb	6.320 ppb
Concentration per Run 3	7.808 ppb	21.242 ppb	14.237 ppb	49.840 ppb	103.381 %	16.256 ppb	9.247 ppb
Concentration RSD	6.1 %	10.0 %	10.5 %	8.0 %	4.0 %	7.5 %	19.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	2.276 ppb	0.043 ppb	0.078 ppb	100.432 %	4.686 ppb	0.475 ppb	37.964 ppb
Concentration per Run 1	2.525 ppb	0.052 ppb	0.109 ppb	96.513 %	5.015 ppb	0.540 ppb	41.527 ppb
Concentration per Run 2	2.220 ppb	0.035 ppb	0.069 ppb	105.113 %	4.610 ppb	0.387 ppb	35.943 ppb
Concentration per Run 3	2.081 ppb	0.041 ppb	0.057 ppb	99.669 %	4.433 ppb	0.497 ppb	36.424 ppb
Concentration RSD	10.0 %	20.9 %	34.7 %	4.3 %	6.4 %	16.6 %	8.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	95.975 %	0.064 ppb	31.543 ppb	96.500 %
Concentration per Run 1	90.756 %	0.072 ppb	34.385 ppb	92.838 %
Concentration per Run 2	100.218 %	0.062 ppb	29.986 ppb	98.388 %
Concentration per Run 3	96.952 %	0.058 ppb	30.257 ppb	98.274 %
Concentration RSD	5.0 %	11.9 %	7.8 %	3.3 %

Analysis index: 86
Analysis label: l1606949-03d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:55:13 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 46

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	104.417 %	109.842 %	0.539 ppb	40.521 ppb	3,420.894 ppb	15,685.565 ppb	410.350 ppb
Concentration per Run 1	104.330 %	111.543 %	0.508 ppb	39.877 ppb	3,399.705 ppb	15,463.514 ppb	441.164 ppb
Concentration per Run 2	105.207 %	111.543 %	0.532 ppb	40.540 ppb	3,442.189 ppb	16,176.971 ppb	418.488 ppb
Concentration per Run 3	103.715 %	106.440 %	0.575 ppb	41.146 ppb	3,420.787 ppb	15,416.211 ppb	371.398 ppb
Concentration RSD	0.7 %	2.7 %	6.3 %	1.6 %	0.6 %	2.7 %	8.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	1,629.787 ppb	100.260 %	108.553 %	22.454 ppb	16.174 ppb	366.513 ppb	27,710.795 ppb
Concentration per Run 1	1,718.624 ppb	100.716 %	109.865 %	21.769 ppb	16.820 ppb	359.011 ppb	28,082.909 ppb
Concentration per Run 2	1,496.855 ppb	98.960 %	108.277 %	22.035 ppb	16.362 ppb	361.174 ppb	27,058.293 ppb
Concentration per Run 3	1,673.881 ppb	101.105 %	107.515 %	23.558 ppb	15.339 ppb	379.354 ppb	27,991.181 ppb
Concentration RSD	7.2 %	1.1 %	1.1 %	4.3 %	4.7 %	3.0 %	2.0 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	10.699 ppb	18.441 ppb	23.110 ppb	49.158 ppb	109.428 %	11.183 ppb	6.985 ppb
Concentration per Run 1	10.813 ppb	19.054 ppb	24.337 ppb	47.242 ppb	115.186 %	10.721 ppb	6.771 ppb
Concentration per Run 2	10.949 ppb	18.624 ppb	21.942 ppb	49.680 ppb	107.809 %	11.368 ppb	5.644 ppb
Concentration per Run 3	10.334 ppb	17.645 ppb	23.050 ppb	50.550 ppb	105.289 %	11.461 ppb	8.539 ppb
Concentration RSD	3.0 %	3.9 %	5.2 %	3.5 %	4.7 %	3.6 %	20.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.238 ppb	0.098 ppb	0.178 ppb	104.548 %	2.029 ppb	0.370 ppb	50.825 ppb
Concentration per Run 1	1.366 ppb	0.104 ppb	0.170 ppb	109.360 %	1.995 ppb	0.311 ppb	48.254 ppb
Concentration per Run 2	1.351 ppb	0.098 ppb	0.180 ppb	102.860 %	1.762 ppb	0.308 ppb	51.306 ppb
Concentration per Run 3	0.998 ppb	0.091 ppb	0.183 ppb	101.424 %	2.330 ppb	0.490 ppb	52.915 ppb
Concentration RSD	16.8 %	7.1 %	4.0 %	4.0 %	14.1 %	28.2 %	4.7 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.026 %	0.192 ppb	80.182 ppb	101.350 %
Concentration per Run 1	102.728 %	0.198 ppb	80.103 ppb	101.977 %
Concentration per Run 2	101.219 %	0.177 ppb	77.365 ppb	103.827 %
Concentration per Run 3	96.131 %	0.200 ppb	83.080 ppb	98.246 %
Concentration RSD	3.5 %	6.6 %	3.6 %	2.8 %

Alpha ICPMSQ Full

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Analysis index: 87
Analysis label: l1606949-04d10 mcp-6020ts-10
Analysis started at: 3/16/2016 5:58:18 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 47

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.392 %	109.356 %	0.609 ppb	38.262 ppb	2,645.715 ppb	12,034.043 ppb	452.238 ppb
Concentration per Run 1	100.550 %	112.637 %	0.594 ppb	33.523 ppb	2,413.119 ppb	10,988.292 ppb	392.434 ppb
Concentration per Run 2	103.613 %	116.647 %	0.595 ppb	34.084 ppb	2,507.481 ppb	11,562.467 ppb	404.022 ppb
Concentration per Run 3	100.015 %	98.785 %	0.638 ppb	47.178 ppb	3,016.545 ppb	13,551.370 ppb	560.260 ppb
Concentration RSD	1.9 %	8.6 %	4.2 %	20.2 %	12.3 %	11.2 %	20.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	999.490 ppb	102.861 %	101.216 %	36.207 ppb	18.987 ppb	394.316 ppb	27,321.196 ppb
Concentration per Run 1	962.807 ppb	109.201 %	99.682 %	33.551 ppb	17.992 ppb	351.993 ppb	24,757.614 ppb
Concentration per Run 2	996.567 ppb	106.373 %	104.984 %	36.533 ppb	18.653 ppb	399.205 ppb	27,312.675 ppb
Concentration per Run 3	1,039.098 ppb	93.010 %	98.982 %	38.536 ppb	20.315 ppb	431.750 ppb	29,893.300 ppb
Concentration RSD	3.8 %	8.4 %	3.2 %	6.9 %	6.3 %	10.2 %	9.4 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	13.762 ppb	23.630 ppb	65.840 ppb	239.974 ppb	101.386 %	11.936 ppb	6.426 ppb
Concentration per Run 1	12.709 ppb	20.527 ppb	60.790 ppb	221.432 ppb	106.676 %	10.747 ppb	2.974 ppb
Concentration per Run 2	13.644 ppb	25.194 ppb	64.618 ppb	236.671 ppb	100.534 %	12.361 ppb	7.091 ppb
Concentration per Run 3	14.931 ppb	25.168 ppb	72.113 ppb	261.819 ppb	96.948 %	12.699 ppb	9.213 ppb
Concentration RSD	8.1 %	11.4 %	8.7 %	8.5 %	4.9 %	8.7 %	49.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.070 ppb	0.115 ppb	0.795 ppb	101.387 %	1.679 ppb	0.656 ppb	147.719 ppb
Concentration per Run 1	0.941 ppb	0.107 ppb	0.787 ppb	108.211 %	1.261 ppb	0.520 ppb	137.045 ppb
Concentration per Run 2	1.134 ppb	0.142 ppb	0.778 ppb	101.019 %	1.967 ppb	0.489 ppb	154.509 ppb
Concentration per Run 3	1.134 ppb	0.097 ppb	0.818 ppb	94.932 %	1.810 ppb	0.960 ppb	151.602 ppb
Concentration RSD	10.4 %	20.4 %	2.6 %	6.6 %	22.1 %	40.2 %	6.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.589 %	0.182 ppb	405.473 ppb	102.395 %
Concentration per Run 1	102.811 %	0.172 ppb	376.249 ppb	107.226 %
Concentration per Run 2	101.227 %	0.219 ppb	412.730 ppb	100.836 %
Concentration per Run 3	97.730 %	0.154 ppb	427.442 ppb	99.122 %
Concentration RSD	2.6 %	18.3 %	6.5 %	4.2 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 88
Analysis label: l1606949-05d10 mcp-6020ts-10
Analysis started at: 3/16/2016 6:01:23 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 48

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	103.624 %	103.038 %	0.596 ppb	126.696 ppb	6,833.488 ppb	16,829.937 ppb	538.929 ppb
Concentration per Run 1	104.880 %	106.440 %	0.563 ppb	141.316 ppb	6,861.661 ppb	17,129.711 ppb	545.039 ppb
Concentration per Run 2	101.831 %	104.617 %	0.584 ppb	118.639 ppb	7,064.477 ppb	16,843.134 ppb	523.381 ppb
Concentration per Run 3	104.160 %	98.056 %	0.639 ppb	120.133 ppb	6,574.327 ppb	16,516.966 ppb	548.366 ppb
Concentration RSD	1.5 %	4.3 %	6.6 %	10.0 %	3.6 %	1.8 %	2.5 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	900.638 ppb	98.537 %	101.709 %	21.078 ppb	19.559 ppb	1,004.398 ppb	44,678.967 ppb
Concentration per Run 1	939.298 ppb	98.374 %	103.175 %	21.308 ppb	20.479 ppb	1,038.657 ppb	46,256.837 ppb
Concentration per Run 2	893.090 ppb	99.449 %	101.564 %	22.145 ppb	20.306 ppb	1,020.786 ppb	46,131.869 ppb
Concentration per Run 3	869.526 ppb	97.789 %	100.388 %	19.782 ppb	17.894 ppb	953.750 ppb	41,648.195 ppb
Concentration RSD	3.9 %	0.9 %	1.4 %	5.7 %	7.4 %	4.5 %	5.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	25.162 ppb	33.925 ppb	37.770 ppb	81.559 ppb	103.055 %	8.229 ppb	12.922 ppb
Concentration per Run 1	26.383 ppb	35.686 ppb	38.537 ppb	84.779 ppb	102.901 %	8.387 ppb	12.508 ppb
Concentration per Run 2	25.159 ppb	33.468 ppb	40.117 ppb	83.535 ppb	97.330 %	8.664 ppb	12.000 ppb
Concentration per Run 3	23.943 ppb	32.620 ppb	34.657 ppb	76.362 ppb	108.935 %	7.637 ppb	14.259 ppb
Concentration RSD	4.8 %	4.7 %	7.4 %	5.6 %	5.6 %	6.5 %	9.2 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.011 ppb	0.024 ppb	0.178 ppb	101.065 %	0.331 ppb	0.329 ppb	38.711 ppb
Concentration per Run 1	1.227 ppb	0.028 ppb	0.163 ppb	98.737 %	0.405 ppb	0.320 ppb	40.061 ppb
Concentration per Run 2	1.105 ppb	0.023 ppb	0.155 ppb	99.356 %	0.267 ppb	0.343 ppb	38.549 ppb
Concentration per Run 3	0.702 ppb	0.022 ppb	0.215 ppb	105.102 %	0.321 ppb	0.324 ppb	37.522 ppb
Concentration RSD	27.2 %	13.4 %	18.2 %	3.5 %	21.0 %	3.8 %	3.3 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.853 %	0.030 ppb	23.156 ppb	99.417 %
Concentration per Run 1	100.838 %	0.034 ppb	24.964 ppb	96.437 %
Concentration per Run 2	95.162 %	0.025 ppb	22.686 ppb	100.091 %
Concentration per Run 3	100.560 %	0.032 ppb	21.818 ppb	101.723 %
Concentration RSD	3.2 %	15.4 %	7.0 %	2.7 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 89
Analysis label: l1606949-06d10 mcp-6020ts-10
Analysis started at: 3/16/2016 6:04:29 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 49

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.074 %	107.412 %	0.699 ppb	104.742 ppb	5,833.175 ppb	19,212.509 ppb	678.662 ppb
Concentration per Run 1	101.683 %	103.524 %	0.625 ppb	100.436 ppb	5,925.511 ppb	19,985.838 ppb	708.060 ppb
Concentration per Run 2	100.925 %	106.440 %	0.736 ppb	106.932 ppb	5,853.680 ppb	18,470.531 ppb	624.116 ppb
Concentration per Run 3	100.614 %	112.272 %	0.737 ppb	106.858 ppb	5,720.334 ppb	19,181.159 ppb	703.811 ppb
Concentration RSD	0.5 %	4.1 %	9.1 %	3.6 %	1.8 %	3.9 %	7.0 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	984.543 ppb	95.839 %	103.171 %	43.762 ppb	25.906 ppb	624.686 ppb	38,157.872 ppb
Concentration per Run 1	952.564 ppb	96.229 %	101.273 %	45.316 ppb	26.259 ppb	634.421 ppb	38,760.432 ppb
Concentration per Run 2	969.786 ppb	98.472 %	104.645 %	43.615 ppb	25.229 ppb	612.633 ppb	36,768.429 ppb
Concentration per Run 3	1,031.280 ppb	92.815 %	103.597 %	42.356 ppb	26.230 ppb	627.003 ppb	38,944.754 ppb
Concentration RSD	4.2 %	3.0 %	1.7 %	3.4 %	2.3 %	1.8 %	3.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	16.326 ppb	29.743 ppb	39.112 ppb	169.330 ppb	103.378 %	10.351 ppb	10.372 ppb
Concentration per Run 1	16.522 ppb	31.273 ppb	41.688 ppb	175.918 ppb	102.024 %	10.146 ppb	13.414 ppb
Concentration per Run 2	15.833 ppb	28.303 ppb	36.484 ppb	158.525 ppb	109.583 %	9.864 ppb	9.143 ppb
Concentration per Run 3	16.623 ppb	29.654 ppb	39.164 ppb	173.546 ppb	98.527 %	11.042 ppb	8.559 ppb
Concentration RSD	2.6 %	5.0 %	6.7 %	5.6 %	5.5 %	5.9 %	25.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.250 ppb	0.073 ppb	0.398 ppb	100.958 %	4.101 ppb	0.515 ppb	79.181 ppb
Concentration per Run 1	1.130 ppb	0.067 ppb	0.432 ppb	103.424 %	4.084 ppb	0.415 ppb	79.247 ppb
Concentration per Run 2	1.445 ppb	0.100 ppb	0.280 ppb	100.352 %	4.242 ppb	0.537 ppb	76.730 ppb
Concentration per Run 3	1.176 ppb	0.052 ppb	0.483 ppb	99.097 %	3.976 ppb	0.592 ppb	81.567 ppb
Concentration RSD	13.6 %	33.7 %	26.5 %	2.2 %	3.3 %	17.6 %	3.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	97.475 %	0.086 ppb	440.006 ppb	97.633 %
Concentration per Run 1	99.276 %	0.072 ppb	446.815 ppb	96.197 %
Concentration per Run 2	99.229 %	0.089 ppb	421.251 ppb	102.493 %
Concentration per Run 3	93.919 %	0.096 ppb	451.953 ppb	94.208 %
Concentration RSD	3.2 %	14.2 %	3.7 %	4.4 %

Alpha ICPMSQ Full

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Analysis index: 90
Analysis label: l1606949-07d10 mcp-6020ts-10
Analysis started at: 3/16/2016 6:07:32 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 50

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	99.727 %	104.253 %	1.206 ppb	91.012 ppb	4,015.549 ppb	10,098.831 ppb	358.301 ppb
Concentration per Run 1	99.215 %	103.159 %	1.280 ppb	88.803 ppb	3,824.015 ppb	9,792.561 ppb	353.974 ppb
Concentration per Run 2	99.454 %	97.327 %	1.136 ppb	98.302 ppb	4,409.928 ppb	10,660.459 ppb	363.628 ppb
Concentration per Run 3	100.512 %	112.272 %	1.202 ppb	85.930 ppb	3,812.705 ppb	9,843.472 ppb	357.301 ppb
Concentration RSD	0.7 %	7.2 %	6.0 %	7.1 %	8.5 %	4.8 %	1.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	784.996 ppb	98.147 %	100.290 %	13.237 ppb	12.301 ppb	428.732 ppb	25,926.183 ppb
Concentration per Run 1	705.175 ppb	101.983 %	98.177 %	12.068 ppb	11.578 ppb	411.252 ppb	25,152.596 ppb
Concentration per Run 2	883.895 ppb	93.498 %	101.070 %	14.465 ppb	12.817 ppb	442.041 ppb	26,830.806 ppb
Concentration per Run 3	765.917 ppb	98.960 %	101.623 %	13.178 ppb	12.506 ppb	432.903 ppb	25,795.147 ppb
Concentration RSD	11.6 %	4.4 %	1.8 %	9.1 %	5.2 %	3.7 %	3.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	14.520 ppb	21.721 ppb	27.402 ppb	54.554 ppb	101.390 %	8.093 ppb	15.938 ppb
Concentration per Run 1	14.269 ppb	21.655 ppb	27.007 ppb	53.387 ppb	99.069 %	8.699 ppb	17.331 ppb
Concentration per Run 2	14.814 ppb	22.173 ppb	27.090 ppb	53.914 ppb	103.484 %	6.999 ppb	16.251 ppb
Concentration per Run 3	14.478 ppb	21.333 ppb	28.110 ppb	56.360 ppb	101.615 %	8.582 ppb	14.233 ppb
Concentration RSD	1.9 %	2.0 %	2.2 %	2.9 %	2.2 %	11.7 %	9.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.846 ppb	0.034 ppb	0.079 ppb	98.538 %	0.321 ppb	0.208 ppb	18.264 ppb
Concentration per Run 1	0.694 ppb	0.037 ppb	0.080 ppb	101.253 %	0.297 ppb	0.269 ppb	17.551 ppb
Concentration per Run 2	1.056 ppb	0.038 ppb	0.084 ppb	95.561 %	0.260 ppb	0.146 ppb	18.197 ppb
Concentration per Run 3	0.787 ppb	0.028 ppb	0.074 ppb	98.799 %	0.407 ppb	0.210 ppb	19.043 ppb
Concentration RSD	22.2 %	16.1 %	6.7 %	2.9 %	23.8 %	29.4 %	4.1 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.918 %	0.030 ppb	27.239 ppb	98.195 %
Concentration per Run 1	102.011 %	0.029 ppb	25.809 ppb	100.603 %
Concentration per Run 2	99.116 %	0.033 ppb	27.520 ppb	98.311 %
Concentration per Run 3	95.629 %	0.028 ppb	28.387 ppb	95.671 %
Concentration RSD	3.2 %	9.6 %	4.8 %	2.5 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 91
Analysis label: l1606949-08d10 mcp-6020ts-10
Analysis started at: 3/16/2016 6:10:35 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 51

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.343 %	103.888 %	0.689 ppb	187.902 ppb	7,768.477 ppb	17,727.720 ppb	746.507 ppb
Concentration per Run 1	100.025 %	104.253 %	0.674 ppb	209.344 ppb	8,910.230 ppb	20,219.155 ppb	767.366 ppb
Concentration per Run 2	102.627 %	98.785 %	0.646 ppb	181.416 ppb	7,281.391 ppb	16,012.895 ppb	728.661 ppb
Concentration per Run 3	101.378 %	108.627 %	0.745 ppb	172.946 ppb	7,113.809 ppb	16,951.110 ppb	743.495 ppb
Concentration RSD	1.3 %	4.7 %	7.4 %	10.1 %	12.8 %	12.5 %	2.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	2,199.075 ppb	102.438 %	99.715 %	20.851 ppb	23.479 ppb	1,142.878 ppb	49,491.345 ppb
Concentration per Run 1	2,428.286 ppb	98.374 %	97.008 %	24.249 ppb	26.593 ppb	1,304.481 ppb	56,457.844 ppb
Concentration per Run 2	1,904.218 ppb	104.715 %	104.777 %	18.988 ppb	20.929 ppb	1,017.896 ppb	44,501.755 ppb
Concentration per Run 3	2,264.721 ppb	104.226 %	97.361 %	19.315 ppb	22.917 ppb	1,106.256 ppb	47,514.436 ppb
Concentration RSD	12.2 %	3.4 %	4.4 %	14.1 %	12.2 %	12.8 %	12.6 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	27.571 ppb	41.972 ppb	58.704 ppb	108.228 ppb	102.981 %	10.478 ppb	14.559 ppb
Concentration per Run 1	31.362 ppb	47.211 ppb	64.616 ppb	122.030 ppb	98.339 %	12.391 ppb	12.449 ppb
Concentration per Run 2	24.269 ppb	38.167 ppb	52.151 ppb	92.731 ppb	107.604 %	8.959 ppb	9.489 ppb
Concentration per Run 3	27.081 ppb	40.536 ppb	59.345 ppb	109.924 ppb	102.999 %	10.084 ppb	21.739 ppb
Concentration RSD	13.0 %	11.2 %	10.7 %	13.6 %	4.5 %	16.7 %	43.9 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	1.829 ppb	0.343 ppb	0.191 ppb	102.692 %	0.278 ppb	0.269 ppb	35.999 ppb
Concentration per Run 1	1.916 ppb	0.458 ppb	0.209 ppb	96.884 %	0.397 ppb	0.352 ppb	42.961 ppb
Concentration per Run 2	1.608 ppb	0.264 ppb	0.142 ppb	108.593 %	0.164 ppb	0.210 ppb	31.760 ppb
Concentration per Run 3	1.964 ppb	0.307 ppb	0.221 ppb	102.597 %	0.273 ppb	0.244 ppb	33.276 ppb
Concentration RSD	10.6 %	29.6 %	22.4 %	5.7 %	42.0 %	27.8 %	16.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	100.589 %	0.038 ppb	111.269 ppb	105.875 %
Concentration per Run 1	92.754 %	0.038 ppb	125.505 ppb	99.865 %
Concentration per Run 2	106.011 %	0.045 ppb	98.665 ppb	110.472 %
Concentration per Run 3	103.003 %	0.030 ppb	109.637 ppb	107.288 %
Concentration RSD	6.9 %	20.6 %	12.1 %	5.1 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 92
Analysis label: l1606941-02d100 mcp-6020ts-10
Analysis started at: 3/16/2016 6:13:39 PM
User name: ALPHALAB\a1metalsinstrument
Rack: 1
Vial: 52

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	97.365 %	100.851 %	0.082 ppb	10.607 ppb	561.782 ppb	881.222 ppb	35.095 ppb
Concentration per Run 1	97.642 %	97.691 %	0.087 ppb	11.821 ppb	542.171 ppb	816.808 ppb	31.954 ppb
Concentration per Run 2	98.283 %	106.804 %	0.074 ppb	9.826 ppb	537.011 ppb	868.534 ppb	47.409 ppb
Concentration per Run 3	96.170 %	98.056 %	0.086 ppb	10.175 ppb	606.163 ppb	958.325 ppb	25.921 ppb
Concentration RSD	1.1 %	5.1 %	8.9 %	10.0 %	6.9 %	8.1 %	31.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	3,203.717 ppb	103.869 %	102.526 %	13.047 ppb	2.906 ppb	51.440 ppb	4,918.863 ppb
Concentration per Run 1	3,056.085 ppb	106.471 %	104.538 %	11.822 ppb	2.727 ppb	47.168 ppb	4,534.209 ppb
Concentration per Run 2	3,085.221 ppb	102.373 %	101.671 %	13.843 ppb	2.777 ppb	54.135 ppb	5,174.694 ppb
Concentration per Run 3	3,469.844 ppb	102.763 %	101.369 %	13.477 ppb	3.214 ppb	53.015 ppb	5,047.686 ppb
Concentration RSD	7.2 %	2.2 %	1.7 %	8.3 %	9.2 %	7.3 %	6.9 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.813 ppb	7.930 ppb	173.042 ppb	161.142 ppb	104.010 %	1.240 ppb	0.569 ppb
Concentration per Run 1	0.813 ppb	8.043 ppb	161.194 ppb	148.160 ppb	108.218 %	1.160 ppb	0.664 ppb
Concentration per Run 2	0.703 ppb	7.879 ppb	177.807 ppb	168.139 ppb	100.048 %	1.226 ppb	0.278 ppb
Concentration per Run 3	0.924 ppb	7.869 ppb	180.127 ppb	167.128 ppb	103.764 %	1.334 ppb	0.764 ppb
Concentration RSD	13.5 %	1.2 %	6.0 %	7.0 %	3.9 %	7.1 %	45.1 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.422 ppb	0.091 ppb	0.530 ppb	103.912 %	18.225 ppb	3.965 ppb	17.408 ppb
Concentration per Run 1	0.290 ppb	0.090 ppb	0.453 ppb	113.179 %	15.130 ppb	3.777 ppb	16.072 ppb
Concentration per Run 2	0.540 ppb	0.073 ppb	0.484 ppb	102.289 %	19.526 ppb	4.046 ppb	16.646 ppb
Concentration per Run 3	0.435 ppb	0.109 ppb	0.652 ppb	96.268 %	20.019 ppb	4.073 ppb	19.507 ppb
Concentration RSD	29.7 %	20.1 %	20.2 %	8.2 %	14.8 %	4.1 %	10.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	105.908 %	0.020 ppb	137.073 ppb	103.318 %
Concentration per Run 1	113.441 %	0.016 ppb	120.745 ppb	109.588 %
Concentration per Run 2	103.425 %	0.026 ppb	138.150 ppb	104.011 %
Concentration per Run 3	100.860 %	0.019 ppb	152.323 ppb	96.355 %
Concentration RSD	6.3 %	24.8 %	11.5 %	6.4 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 93 Analysis started at: 3/16/2016 6:16:42 PM Rack: 1
Analysis label: no sample User name: ALPHALAB\a1metalsinstrument Vial: 53

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	98.150 %	99.028 %	0.004 ppb	4.935 ppb	-1.280 ppb	1.299 ppb	5.201 ppb
Concentration per Run 1	98.592 %	96.962 %	-0.001 ppb	6.826 ppb	0.027 ppb	1.614 ppb	5.830 ppb
Concentration per Run 2	99.524 %	105.346 %	0.007 ppb	3.817 ppb	-2.337 ppb	1.599 ppb	5.295 ppb
Concentration per Run 3	96.333 %	94.775 %	0.008 ppb	4.161 ppb	-1.531 ppb	0.683 ppb	4.478 ppb
Concentration RSD	1.7 %	5.6 %	111.8 %	33.4 %	93.9 %	41.0 %	13.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-22.081 ppb	100.325 %	103.689 %	0.037 ppb	0.655 ppb	-0.540 ppb	6.113 ppb
Concentration per Run 1	-26.025 ppb	103.155 %	105.032 %	0.025 ppb	0.436 ppb	-0.471 ppb	7.413 ppb
Concentration per Run 2	-21.938 ppb	96.911 %	106.394 %	0.029 ppb	0.807 ppb	-0.626 ppb	7.259 ppb
Concentration per Run 3	-18.281 ppb	100.910 %	99.640 %	0.055 ppb	0.721 ppb	-0.521 ppb	3.666 ppb
Concentration RSD	17.5 %	3.2 %	3.4 %	45.2 %	29.7 %	14.7 %	34.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	-0.024 ppb	1.425 ppb	0.070 ppb	-0.486 ppb	100.925 %	0.000 ppb	0.499 ppb
Concentration per Run 1	-0.024 ppb	1.628 ppb	0.134 ppb	-0.443 ppb	108.665 %	-0.011 ppb	0.603 ppb
Concentration per Run 2	-0.024 ppb	1.300 ppb	0.039 ppb	-0.524 ppb	96.544 %	-0.011 ppb	0.222 ppb
Concentration per Run 3	-0.024 ppb	1.346 ppb	0.037 ppb	-0.491 ppb	97.566 %	0.021 ppb	0.672 ppb
Concentration RSD	0.0 %	12.4 %	79.2 %	8.4 %	6.7 %	10,020.7 %	48.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.332 ppb	0.004 ppb	0.010 ppb	103.316 %	0.120 ppb	-0.001 ppb	0.026 ppb
Concentration per Run 1	0.209 ppb	0.012 ppb	0.015 ppb	110.024 %	0.161 ppb	0.005 ppb	0.036 ppb
Concentration per Run 2	0.272 ppb	0.005 ppb	0.008 ppb	99.589 %	0.090 ppb	-0.015 ppb	0.042 ppb
Concentration per Run 3	0.515 ppb	-0.005 ppb	0.008 ppb	100.334 %	0.109 ppb	0.007 ppb	0.000 ppb
Concentration RSD	48.6 %	205.7 %	37.0 %	5.6 %	30.5 %	1,186.4 %	86.8 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	101.854 %	-0.006 ppb	0.054 ppb	103.031 %
Concentration per Run 1	105.975 %	-0.005 ppb	0.062 ppb	110.759 %
Concentration per Run 2	100.877 %	-0.009 ppb	0.042 ppb	100.757 %
Concentration per Run 3	98.710 %	-0.004 ppb	0.059 ppb	97.575 %
Concentration RSD	3.7 %	40.3 %	20.2 %	6.7 %

Analysis index: 94 Analysis started at: 3/16/2016 6:19:45 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	101.789 %	112.515 %	89.474 ppb	8,534.296 ppb	8,758.233 ppb	87.402 ppb	9,324.543 ppb
Concentration per Run 1	102.071 %	107.534 %	89.789 ppb	8,530.941 ppb	8,925.879 ppb	82.323 ppb	9,395.710 ppb
Concentration per Run 2	101.349 %	119.198 %	89.855 ppb	8,192.518 ppb	8,316.549 ppb	86.213 ppb	9,138.286 ppb
Concentration per Run 3	101.945 %	110.814 %	88.778 ppb	8,879.430 ppb	9,032.272 ppb	93.669 ppb	9,439.632 ppb
Recovery Percentage 1			89.474 %	85.343 %	87.582 %	87.402 %	93.245 %
Concentration RSD	0.4 %	5.3 %	0.7 %	4.0 %	4.4 %	6.6 %	1.7 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	9,043.567 ppb	103.544 %	107.005 %	88.184 ppb	92.160 ppb	87.698 ppb	9,063.453 ppb
Concentration per Run 1	9,011.280 ppb	101.105 %	104.312 %	88.541 ppb	90.551 ppb	91.226 ppb	9,177.912 ppb
Concentration per Run 2	8,624.343 ppb	106.665 %	108.533 %	91.060 ppb	90.735 ppb	86.671 ppb	9,277.409 ppb
Concentration per Run 3	9,495.078 ppb	102.861 %	108.169 %	84.952 ppb	95.194 ppb	85.198 ppb	8,735.036 ppb
Recovery Percentage 1	90.436 %			88.184 %	92.160 %	87.698 %	90.635 %
Concentration RSD	4.8 %	2.7 %	2.2 %	3.5 %	2.9 %	3.6 %	3.2 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	91.988 ppb	92.589 ppb	93.575 ppb	90.120 ppb	100.849 %	88.396 ppb	86.199 ppb
Concentration per Run 1	92.592 ppb	92.687 ppb	94.182 ppb	90.459 ppb	100.014 %	89.286 ppb	93.601 ppb
Concentration per Run 2	92.472 ppb	93.148 ppb	97.975 ppb	89.616 ppb	98.511 %	90.336 ppb	83.655 ppb
Concentration per Run 3	90.902 ppb	91.933 ppb	88.570 ppb	90.285 ppb	104.021 %	85.566 ppb	81.342 ppb
Recovery Percentage 1	91.988 %	92.589 %	93.575 %	90.120 %		88.396 %	86.199 %
Concentration RSD	1.0 %	0.7 %	5.1 %	0.5 %	2.8 %	2.8 %	7.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	90.016 ppb	92.575 ppb	91.027 ppb	102.022 %	34.097 ppb	89.805 ppb	90.523 ppb
Concentration per Run 1	89.749 ppb	92.156 ppb	88.685 ppb	103.017 %	34.038 ppb	87.834 ppb	88.607 ppb
Concentration per Run 2	89.515 ppb	89.825 ppb	89.482 ppb	105.624 %	33.472 ppb	92.126 ppb	93.161 ppb
Concentration per Run 3	90.783 ppb	95.742 ppb	94.915 ppb	97.424 %	34.782 ppb	89.453 ppb	89.802 ppb
Recovery Percentage 1	90.016 %	92.575 %	91.027 %		34.097 %	89.805 %	90.523 %
Concentration RSD	0.7 %	3.2 %	3.7 %	4.1 %	1.9 %	2.4 %	2.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	102.918 %	91.600 ppb	89.684 ppb	99.592 %
Concentration per Run 1	100.905 %	92.460 ppb	90.833 ppb	98.452 %
Concentration per Run 2	104.248 %	91.172 ppb	88.917 ppb	100.956 %
Concentration per Run 3	103.601 %	91.169 ppb	89.301 ppb	99.367 %
Recovery Percentage 1		91.600 %	89.684 %	
Concentration RSD	1.7 %	0.8 %	1.1 %	1.3 %

Analysis index: 95 Analysis started at: 3/16/2016 6:22:53 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	102.331 %	102.309 %	0.032 ppb	-0.388 ppb	2.462 ppb	-0.529 ppb	14.705 ppb
Concentration per Run 1	101.508 %	111.908 %	0.035 ppb	-3.607 ppb	1.916 ppb	-0.457 ppb	8.960 ppb
Concentration per Run 2	102.735 %	102.430 %	0.038 ppb	0.960 ppb	1.420 ppb	-0.398 ppb	26.436 ppb
Concentration per Run 3	102.751 %	92.588 %	0.024 ppb	1.484 ppb	4.050 ppb	-0.731 ppb	8.718 ppb
Recovery Percentage 1			6.465 %	-0.388 %	3.517 %	-5.287 %	14.705 %
Concentration RSD	0.7 %	9.4 %	22.3 %	722.4 %	56.8 %	33.6 %	69.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-12.206 ppb	107.576 %	107.366 %	-0.003 ppb	0.033 ppb	-0.505 ppb	5.374 ppb
Concentration per Run 1	-5.763 ppb	109.885 %	106.332 %	0.022 ppb	0.035 ppb	-0.636 ppb	5.511 ppb
Concentration per Run 2	-18.929 ppb	107.348 %	109.929 %	-0.003 ppb	-0.031 ppb	-0.666 ppb	7.145 ppb
Concentration per Run 3	-11.926 ppb	105.495 %	105.839 %	-0.029 ppb	0.096 ppb	-0.212 ppb	3.467 ppb
Recovery Percentage 1	-12.206 %			-0.069 %	3.311 %	-50.463 %	10.749 %
Concentration RSD	54.0 %	2.0 %	2.1 %	739.2 %	192.3 %	50.3 %	34.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.023 ppb	0.117 ppb	0.037 ppb	-0.485 ppb	108.884 %	0.027 ppb	1.109 ppb
Concentration per Run 1	-0.005 ppb	0.102 ppb	0.102 ppb	-0.641 ppb	112.098 %	0.044 ppb	0.571 ppb
Concentration per Run 2	0.041 ppb	0.212 ppb	0.003 ppb	-0.488 ppb	111.585 %	0.017 ppb	0.913 ppb
Concentration per Run 3	0.034 ppb	0.036 ppb	0.006 ppb	-0.327 ppb	102.970 %	0.019 ppb	1.842 ppb
Recovery Percentage 1	4.645 %	23.319 %	3.724 %	-4.852 %	108.884 %	5.385 %	22.175 %
Concentration RSD	108.0 %	76.0 %	151.3 %	32.4 %	4.7 %	56.6 %	59.3 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.441 ppb	0.041 ppb	0.042 ppb	107.895 %	0.017 ppb	0.047 ppb	0.026 ppb
Concentration per Run 1	0.439 ppb	0.045 ppb	0.051 ppb	110.579 %	0.036 ppb	0.065 ppb	-0.004 ppb
Concentration per Run 2	0.422 ppb	0.041 ppb	0.044 ppb	111.597 %	-0.034 ppb	0.025 ppb	-0.003 ppb
Concentration per Run 3	0.461 ppb	0.036 ppb	0.032 ppb	101.507 %	0.049 ppb	0.050 ppb	0.084 ppb
Recovery Percentage 1	14.692 %	10.233 %	21.114 %		0.562 %	2.338 %	5.106 %
Concentration RSD	4.5 %	11.2 %	23.1 %	5.1 %	265.7 %	43.5 %	197.6 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.673 %	0.038 ppb	0.026 ppb	102.292 %
Concentration per Run 1	109.926 %	0.024 ppb	0.023 ppb	101.764 %
Concentration per Run 2	105.094 %	0.045 ppb	0.028 ppb	105.625 %
Concentration per Run 3	98.998 %	0.045 ppb	0.026 ppb	99.486 %
Recovery Percentage 1		7.609 %	5.137 %	102.292 %
Concentration RSD	5.2 %	32.0 %	10.5 %	3.0 %

Analysis index: 96 Analysis started at: 3/16/2016 6:26:01 PM Rack: 0
Analysis label: CCV User name: ALPHALAB\a1metalsinstrument Vial: 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	108.710 %	110.450 %	92.801 ppb	9,741.972 ppb	10,340.392 ppb	104.823 ppb	9,998.327 ppb
Concentration per Run 1	108.405 %	106.440 %	92.469 ppb	9,503.006 ppb	9,719.218 ppb	97.812 ppb	9,652.788 ppb
Concentration per Run 2	108.028 %	108.263 %	94.545 ppb	10,570.795 ppb	11,630.769 ppb	106.860 ppb	10,812.799 ppb
Concentration per Run 3	109.697 %	116.647 %	91.390 ppb	9,152.115 ppb	9,671.188 ppb	109.797 ppb	9,529.394 ppb
Recovery Percentage 1			92.801 %	97.420 %	103.404 %	104.823 %	99.983 %
Concentration RSD	0.8 %	4.9 %	1.7 %	7.6 %	10.8 %	6.0 %	7.1 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	10,116.668 ppb	105.690 %	114.228 %	98.851 ppb	102.530 ppb	100.929 ppb	10,289.758 ppb
Concentration per Run 1	9,175.153 ppb	112.322 %	114.281 %	87.253 ppb	90.303 ppb	93.164 ppb	9,112.580 ppb
Concentration per Run 2	11,775.924 ppb	99.155 %	112.821 %	114.911 ppb	119.098 ppb	113.813 ppb	11,703.802 ppb
Concentration per Run 3	9,398.927 ppb	105.593 %	115.584 %	94.389 ppb	98.187 ppb	95.810 ppb	10,052.891 ppb
Recovery Percentage 1	101.167 %			98.851 %	102.530 %	100.929 %	102.898 %
Concentration RSD	14.2 %	6.2 %	1.2 %	14.5 %	14.5 %	11.1 %	12.7 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	100.276 ppb	100.843 ppb	100.646 ppb	98.953 ppb	105.416 %	95.457 ppb	95.487 ppb
Concentration per Run 1	90.369 ppb	94.287 ppb	87.382 ppb	88.671 ppb	110.438 %	91.803 ppb	86.112 ppb
Concentration per Run 2	115.160 ppb	116.370 ppb	115.696 ppb	113.537 ppb	98.820 %	108.642 ppb	117.039 ppb
Concentration per Run 3	95.298 ppb	91.871 ppb	98.861 ppb	94.652 ppb	106.989 %	85.927 ppb	83.309 ppb
Recovery Percentage 1	100.276 %	100.843 %	100.646 %	98.953 %		95.457 %	95.487 %
Concentration RSD	13.1 %	13.4 %	14.1 %	13.1 %	5.7 %	12.4 %	19.6 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	98.452 ppb	100.145 ppb	102.057 ppb	99.212 %	38.348 ppb	101.230 ppb	101.529 ppb
Concentration per Run 1	87.000 ppb	93.384 ppb	92.333 ppb	104.349 %	34.397 ppb	91.649 ppb	93.148 ppb
Concentration per Run 2	117.480 ppb	112.544 ppb	119.458 ppb	93.701 %	44.989 ppb	118.294 ppb	121.596 ppb
Concentration per Run 3	90.874 ppb	94.506 ppb	94.380 ppb	99.588 %	35.658 ppb	93.747 ppb	89.843 ppb
Recovery Percentage 1	98.452 %	100.145 %	102.057 %		38.348 %	101.230 %	101.529 %
Concentration RSD	16.9 %	10.7 %	14.8 %	5.4 %	15.1 %	14.6 %	17.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.579 %	98.422 ppb	99.748 ppb	94.117 %
Concentration per Run 1	104.106 %	93.910 ppb	89.676 ppb	100.380 %
Concentration per Run 2	91.507 %	108.445 ppb	115.953 ppb	87.459 %
Concentration per Run 3	100.124 %	92.910 ppb	93.616 ppb	94.511 %
Recovery Percentage 1		98.422 %	99.748 %	
Concentration RSD	6.5 %	8.8 %	14.2 %	6.9 %

Alpha ICPMSQ Full

3/17/2016 9:51:47 AM

Analysis index: 97 Analysis started at: 3/16/2016 6:33:20 PM Rack: 4
Analysis label: LLCCV User name: ALPHALAB\a1metalsinstrument Vial: 2

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	108.610 %	120.292 %	0.469 ppb	82.868 ppb	69.747 ppb	8.350 ppb	97.771 ppb
Concentration per Run 1	109.650 %	132.686 %	0.466 ppb	76.330 ppb	59.034 ppb	9.059 ppb	87.231 ppb
Concentration per Run 2	108.147 %	107.898 %	0.461 ppb	89.778 ppb	74.376 ppb	7.219 ppb	101.904 ppb
Concentration per Run 3	108.034 %	120.292 %	0.481 ppb	82.495 ppb	75.830 ppb	8.773 ppb	104.178 ppb
Recovery Percentage 1			93.800 %	82.868 %	99.638 %	83.504 %	97.771 %
Concentration RSD	0.8 %	10.3 %	2.2 %	8.1 %	13.3 %	11.9 %	9.4 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	74.864 ppb	113.266 %	112.218 %	3.968 ppb	0.884 ppb	-0.525 ppb	45.416 ppb
Concentration per Run 1	41.266 ppb	117.395 %	111.697 %	3.845 ppb	0.872 ppb	-0.423 ppb	43.425 ppb
Concentration per Run 2	84.655 ppb	116.322 %	110.089 %	3.882 ppb	0.740 ppb	-0.527 ppb	40.631 ppb
Concentration per Run 3	98.672 ppb	106.080 %	114.869 %	4.177 ppb	1.039 ppb	-0.623 ppb	52.190 ppb
Recovery Percentage 1	74.864 %			79.362 %	88.367 %	-104.919 %	90.831 %
Concentration RSD	40.0 %	5.5 %	2.2 %	4.6 %	17.0 %	19.0 %	13.3 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.436 ppb	0.637 ppb	1.000 ppb	7.396 ppb	114.626 %	0.479 ppb	4.875 ppb
Concentration per Run 1	0.453 ppb	0.602 ppb	0.911 ppb	7.106 ppb	115.237 %	0.553 ppb	5.086 ppb
Concentration per Run 2	0.512 ppb	0.688 ppb	0.997 ppb	6.890 ppb	121.071 %	0.347 ppb	5.575 ppb
Concentration per Run 3	0.345 ppb	0.622 ppb	1.093 ppb	8.193 ppb	107.569 %	0.536 ppb	3.964 ppb
Recovery Percentage 1	87.285 %	127.493 %	100.037 %	73.965 %		95.796 %	97.501 %
Concentration RSD	19.4 %	7.0 %	9.1 %	9.4 %	5.9 %	23.9 %	17.0 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.976 ppb	0.373 ppb	0.177 ppb	111.648 %	0.596 ppb	0.391 ppb	0.536 ppb
Concentration per Run 1	1.100 ppb	0.384 ppb	0.201 ppb	112.738 %	0.772 ppb	0.436 ppb	0.518 ppb
Concentration per Run 2	0.782 ppb	0.358 ppb	0.143 ppb	118.323 %	0.521 ppb	0.325 ppb	0.439 ppb
Concentration per Run 3	1.046 ppb	0.376 ppb	0.187 ppb	103.882 %	0.493 ppb	0.412 ppb	0.650 ppb
Recovery Percentage 1	97.558 %	93.136 %	88.482 %		119.121 %	78.210 %	107.197 %
Concentration RSD	17.4 %	3.6 %	16.9 %	6.5 %	25.8 %	14.9 %	19.9 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	107.986 %	0.458 ppb	0.888 ppb	105.206 %
Concentration per Run 1	112.477 %	0.471 ppb	0.879 ppb	106.894 %
Concentration per Run 2	108.828 %	0.430 ppb	0.871 ppb	107.624 %
Concentration per Run 3	102.654 %	0.474 ppb	0.915 ppb	101.101 %
Recovery Percentage 1		91.640 %	88.836 %	
Concentration RSD	4.6 %	5.4 %	2.6 %	3.4 %

Analysis index: 98 Analysis started at: 3/16/2016 6:36:27 PM Rack: 0
Analysis label: CCB User name: ALPHALAB\a1metalsinstrument Vial: 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)
Concentration average	110.263 %	113.609 %	0.039 ppb	1.486 ppb	5.161 ppb	0.058 ppb	15.493 ppb
Concentration per Run 1	109.488 %	114.095 %	0.044 ppb	-1.174 ppb	4.510 ppb	0.529 ppb	15.986 ppb
Concentration per Run 2	111.247 %	105.711 %	0.051 ppb	3.472 ppb	7.137 ppb	0.475 ppb	13.508 ppb
Concentration per Run 3	110.054 %	121.021 %	0.022 ppb	2.161 ppb	3.835 ppb	-0.829 ppb	16.985 ppb
Recovery Percentage 1			7.794 %	1.486 %	7.372 %	0.585 %	15.493 %
Concentration RSD	0.8 %	6.7 %	39.4 %	161.2 %	33.8 %	1,315.5 %	11.6 %

Category	44Ca (KED AGD)	45Sc (KED AGD)	45Sc (STD AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)
Concentration average	-19.467 ppb	111.250 %	113.681 %	0.031 ppb	-0.016 ppb	-0.703 ppb	4.006 ppb
Concentration per Run 1	-26.105 ppb	115.834 %	112.425 %	0.020 ppb	-0.020 ppb	-0.784 ppb	3.820 ppb
Concentration per Run 2	-16.310 ppb	110.567 %	113.381 %	-0.029 ppb	-0.033 ppb	-0.704 ppb	4.806 ppb
Concentration per Run 3	-15.986 ppb	107.348 %	115.239 %	0.103 ppb	0.005 ppb	-0.623 ppb	3.393 ppb
Recovery Percentage 1	-19.467 %			0.624 %	-1.608 %	-70.346 %	8.013 %
Concentration RSD	29.5 %	3.9 %	1.3 %	214.7 %	119.0 %	11.4 %	18.1 %

Category	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)
Concentration average	0.025 ppb	0.077 ppb	0.038 ppb	-0.335 ppb	109.298 %	0.008 ppb	0.249 ppb
Concentration per Run 1	0.038 ppb	0.200 ppb	0.025 ppb	-0.456 ppb	114.360 %	0.016 ppb	0.262 ppb
Concentration per Run 2	0.004 ppb	0.032 ppb	0.004 ppb	-0.159 ppb	108.446 %	0.018 ppb	0.274 ppb
Concentration per Run 3	0.033 ppb	-0.002 ppb	0.084 ppb	-0.388 ppb	105.087 %	-0.011 ppb	0.211 ppb
Recovery Percentage 1	4.988 %	15.306 %	3.766 %	-3.345 %	109.298 %	1.557 %	4.986 %
Concentration RSD	73.5 %	141.0 %	110.3 %	46.5 %	4.3 %	206.4 %	13.4 %

Category	95Mo (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)
Concentration average	0.090 ppb	0.062 ppb	0.020 ppb	109.726 %	0.008 ppb	0.060 ppb	-0.015 ppb
Concentration per Run 1	0.053 ppb	0.056 ppb	0.021 ppb	113.817 %	0.015 ppb	0.043 ppb	-0.042 ppb
Concentration per Run 2	0.125 ppb	0.064 ppb	0.023 ppb	107.554 %	-0.068 ppb	0.047 ppb	0.038 ppb
Concentration per Run 3	0.092 ppb	0.064 ppb	0.015 ppb	107.807 %	0.076 ppb	0.088 ppb	-0.042 ppb
Recovery Percentage 1	3.004 %	15.408 %	9.834 %		0.263 %	2.978 %	-3.093 %
Concentration RSD	40.4 %	7.5 %	20.5 %	3.2 %	916.3 %	41.9 %	298.2 %

Category	159Tb (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	104.826 %	0.038 ppb	0.016 ppb	102.462 %
Concentration per Run 1	109.712 %	0.041 ppb	0.018 ppb	106.716 %
Concentration per Run 2	103.102 %	0.034 ppb	0.016 ppb	102.723 %
Concentration per Run 3	101.663 %	0.039 ppb	0.016 ppb	97.948 %
Recovery Percentage 1		7.590 %	3.283 %	102.462 %
Concentration RSD	4.1 %	8.4 %	6.7 %	4.3 %

Interference Check Solutions
(ICP-MS)

Solution Component	Solution A Concentration (ug/L)	Solution AB Concentration (ug/L)
Al	20,000	20,000
Ca	60,000	60,000
Fe	50,000	50,000
Mg	20,000	20,000
Na	50,000	50,000
K	20,000	20,000
Mo	400	400
As	0.0	20
Cd	0.0	20
Cr	0.0	40
Co	0.0	40
Cu	0.0	40
Mn	0.0	40
Ni	0.0	40
Se	0.0	20
Ag	0.0	10
V	0.0	40
Zn	0.0	20

LCS & MS Concentrations
(ICP-MS)

Element	Liquid Concentration (mg/L)
Aluminum	2.00
Antimony	0.5
Arsenic	0.12
Barium	2.00
Beryllium	0.05
Cadmium	0.051
Calcium	10.0
Chromium	0.20
Cobalt	0.50
Copper	0.25
Iron	1.00
Lead	0.51
Magnesium	10.0
Manganese	0.50
Molybdenum	1.00
Nickel	0.50
Potassium	10.0
Selenium	0.12
Silver	0.05
Sodium	10.0
Thallium	0.12
Vanadium	0.50
Zinc	0.50

ERA

A Waters Company

Alpha Analytical Labs

Certificate of Analysis

Lot No. D077-540 ~~ERA Project #[redacted]~~

Metals in Soil

Catalog No. 540
Issue Date: April 24, 2012
Revision Date: Original

Certification

Parameter	Total Concentration [1] (mg/kg)	Certified Value [2] (mg/kg)	Uncertainty [3]	QC PALs™ [4] (mg/kg)	PT PALs™ [5] (mg/kg)
aluminum	68100*	9310	12.1%	4470 - 14200	4030 - 14600
antimony	251	120	8.2%	DL - 263	25.0 - 303
arsenic	185	168	12.6%	140 - 197	119 - 218
barium	628	213	13.7%	177 - 249	156 - 270
beryllium	120	110	9.8%	92.6 - 128	82.6 - 138
boron	97.8	85.1	14.4%	66.2 - 104	51.0 - 119
cadmium	112	103	8.1%	86.1 - 119	75.2 - 130
calcium	25400*	6870	3.9%	5700 - 8040	5110 - 8640
chromium	351	119	10.8%	97.1 - 140	82.9 - 154
cobalt	150	131	9.0%	109 - 153	97.4 - 164
copper	136	118	7.8%	96.3 - 139	88.0 - 147
iron	42900*	13000	10.9%	6560 - 19400	4190 - 21800
lead	75.7	76.9	19.4%	62.5 - 91.3	52.8 - 101
magnesium	8640	2780	10.6%	2110 - 3450	1810 - 3760
manganese	919	338	7.0%	279 - 397	255 - 423
mercury	26.5	25.1	1.7%	18.0 - 32.2	12.9 - 37.2
molybdenum	79.2	61.5	4.1%	49.4 - 73.6	41.6 - 84.8
nickel	98.5	70.0	9.8%	57.2 - 82.7	49.6 - 90.3
potassium	20000*	3130	10.8%	2270 - 3980	1970 - 4280
selenium	140	126	9.3%	101 - 152	84.1 - 169
silver	45.1	42.3	12.7%	28.1 - 56.6	28.0 - 56.7
sodium	17100*	350	7.9%	258 - 441	150 - 549
strontium	254	133	9.4%	108 - 158	93.7 - 172
thallium	228	208	11.3%	169 - 247	144 - 272
tin	147	142	1.7%	112 - 172	84.6 - 200
titanium	3240*	219	7.5%	37.7 - 401	0.00 - 492
vanadium	168	87.1	10.9%	67.6 - 107	55.0 - 119
zinc	299	276	9.9%	227 - 325	197 - 355

Please see footnotes on back

DL = Detection Limit

ACCREDITED
REFERENCE MATERIAL PRODUCER
CERT # 1539.03

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Calculation of Method 6020 Metals

Aqueous Samples

The instrument will calculate the concentration (µg/L). This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, mg/L} = C_s \times (1\text{mg}/1000\mu\text{g}) \times (DF)$$

Where:

C_s = Concentration of sample (µg/L)

DF = Dilution Factor

Sample List Summary

3/15/2016 2:28:28 PM

Instrument Name:	Serial Number:
iCAP Q	Undefined

Labbook:	Labbook Path
WG873553_MSQ031416a.imexp	_Application Data\Workspace\LabBooks

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
1	rinse	0	1	3	1	3/14/2016 11:19:09 AM
2	Blank TT	4	1	3	1	3/14/2016 11:22:11 AM
3	0.2/20 Cal	0	2	3	1	3/14/2016 11:25:18 AM
4	1.0/100 Cal	0	3	3	1	3/14/2016 11:28:21 AM
5	10/1000 Cal	0	4	3	1	3/14/2016 11:31:25 AM
6	120/12000	0	5	3	1	3/14/2016 11:34:29 AM
7	250/25000	0	6	3	1	3/14/2016 11:37:34 AM
8	500/50000	0	7	3	1	3/14/2016 11:40:39 AM
9	Rinse	0	1	3	1	3/14/2016 11:43:45 AM
10	ICV	0	9	3	1	3/14/2016 11:46:47 AM
11	ICB	0	10	3	1	3/14/2016 11:49:55 AM
12	LLCCV	4	2	3	1	3/14/2016 12:06:26 PM
13	ICSA	4	3	3	1	3/14/2016 12:09:33 PM
14	ICSAB	4	4	3	1	3/14/2016 12:12:40 PM
15	Rinse	0	1	3	1	3/14/2016 12:15:47 PM
16	CCV	0	9	3	1	3/14/2016 12:18:49 PM
17	CCB	0	10	3	1	3/14/2016 12:21:56 PM
18	200.8 MDL #4	1	1	3	1	3/14/2016 12:38:09 PM
19	200.8 MDL #5	1	2	3	1	3/14/2016 12:41:12 PM
20	200.8 MDL #6	1	3	3	1	3/14/2016 12:44:14 PM
21	L1606041-01 6020TL	1	4	3	1	3/14/2016 12:47:17 PM
22	L1606041-01D20 6020TL	1	5	3	1	3/14/2016 12:50:20 PM
23	L1606041-02 6020TL	1	6	3	1	3/14/2016 12:53:23 PM
24	L1606041-02D20 6020TL	1	7	3	1	3/14/2016 12:56:27 PM
25	WG872439-6D50 MCP-6020TS-10	1	8	3	1	3/14/2016 12:59:31 PM
26	WG872439-2D50 MCP-6020TS-10	1	9	3	1	3/14/2016 1:02:35 PM
27	WG872439-3D50 MCP-6020TS-10	1	10	3	1	3/14/2016 1:05:40 PM
28	XCCV	0	9	3	1	3/14/2016 1:08:44 PM
29	XCCB	0	10	3	1	3/14/2016 1:11:51 PM
30	CCV	0	9	3	1	3/14/2016 1:18:29 PM
31	CCB	0	10	3	1	3/14/2016 1:21:36 PM
32	WG872439-1 MCP-6020TS-10	1	11	3	1	3/14/2016 1:24:43 PM
33	L1606551-05D10 MCP-6020TS-10	1	12	3	1	3/14/2016 1:27:49 PM
34	WG872439-4D50 MCP-6020TS-10	1	13	3	1	3/14/2016 1:30:54 PM
35	WG872439-5D50 MCP-6020TS-10	1	14	3	1	3/14/2016 1:33:56 PM
36	L1606551-01D10 MCP-6020TS-10	1	15	3	1	3/14/2016 1:36:59 PM
37	L1606551-02D10 MCP-6020TS-10	1	16	3	1	3/14/2016 1:40:02 PM
38	L1606551-03D10 MCP-6020TS-10	1	17	3	1	3/14/2016 1:43:05 PM
39	L1606551-04D10 MCP-6020TS-10	1	18	3	1	3/14/2016 1:46:08 PM
40	L1606551-06D10 MCP-6020TS-10	1	19	3	1	3/14/2016 1:49:12 PM
41	L1606551-07D10 MCP-6020TS-10	1	20	3	1	3/14/2016 1:52:16 PM
42	CCV	0	9	3	1	3/14/2016 1:55:20 PM
43	CCB	0	10	3	1	3/14/2016 1:58:27 PM
44	L1606551-08D10 MCP-6020TS-10	1	21	3	1	3/14/2016 2:06:17 PM
45	L1606551-09D10 MCP-6020TS-10	1	22	3	1	3/14/2016 2:09:21 PM
46	L1606551-10D10 MCP-6020TS-10	1	23	3	1	3/14/2016 2:12:26 PM
47	L1606240-08D100 MCP-6020TS-10	1	24	3	1	3/14/2016 2:15:31 PM
48	L1606251-08D200 MCP-6020TS-10	1	25	3	1	3/14/2016 2:18:36 PM
49	WG873268-1 6020TL	1	26	3	1	3/14/2016 3:01:24 PM
50	WG873268-2D5 6020TL	1	27	3	1	3/14/2016 3:04:26 PM
51	L1607151-02 6020TL	1	28	3	1	3/14/2016 3:07:29 PM
52	xWG873268-2d5 6020TL	1	27	3	1	3/14/2016 3:10:32 PM
53	WG873268-4D10 6020TL	1	30	3	1	3/14/2016 3:13:35 PM
54	CCV	0	9	3	1	3/14/2016 3:16:39 PM
55	CCB	0	10	3	1	3/14/2016 3:19:46 PM
56	WG873268-5D10 6020TL	1	31	3	1	3/14/2016 3:47:39 PM
57	WG873268-6D5 6020TL	1	32	3	1	3/14/2016 3:50:43 PM
58	L1606912-01 6020TL	1	33	3	1	3/14/2016 3:53:47 PM
59	L1607151-01 6020TL	1	34	3	1	3/14/2016 3:56:52 PM

Sample List Summary

3/15/2016 2:28:28 PM

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
60	WG873562-1 6020SL	1	35	3	1	3/14/2016 4:06:10 PM
61	WG873562-2D5 6020SL	1	36	3	1	3/14/2016 4:09:16 PM
62	L1606583-02D20 6020SL	1	37	3	1	3/14/2016 4:12:21 PM
63	L1606583-02 6020SL	1	38	3	1	3/14/2016 4:15:24 PM
64	WG873562-3 6020SL	1	39	3	1	3/14/2016 4:18:27 PM
65	WG873562-3D20 6020SL	1	40	3	1	3/14/2016 4:21:30 PM
66	CCV	0	9	3	1	3/14/2016 4:24:33 PM
67	CCB	0	10	3	1	3/14/2016 4:27:40 PM
68	WG873562-4D20 6020SL	1	41	3	1	3/14/2016 4:54:15 PM
69	WG873562-5D20 6020SL	1	42	3	1	3/14/2016 4:57:19 PM
70	WG873562-6D5 6020SL	1	43	3	1	3/14/2016 5:00:23 PM
71	WG873562-6D100 6020SL	1	44	3	1	3/14/2016 5:03:27 PM
72	L1606583-01 6020SL	1	45	3	1	3/14/2016 5:06:31 PM
73	L1606583-01D20 6020SL	1	46	3	1	3/14/2016 5:09:36 PM
74	L1606583-03 6020SL	1	47	3	1	3/14/2016 5:12:40 PM
75	L1606583-03D20 6020SL	1	48	3	1	3/14/2016 5:15:46 PM
76	L1606583-04 6020SL	1	49	3	1	3/14/2016 5:18:51 PM
77	L1606583-04D20 6020SL	1	50	3	1	3/14/2016 5:21:54 PM
78	CCV	0	9	3	1	3/14/2016 5:24:58 PM
79	CCB	0	10	3	1	3/14/2016 5:28:05 PM
80	L1606583-05 6020SL	1	51	3	1	3/14/2016 5:31:38 PM
81	L1606583-05D20 6020SL	1	52	3	1	3/14/2016 5:34:41 PM
82	L1606583-06 6020SL	1	53	3	1	3/14/2016 5:37:44 PM
83	L1606583-06D20 6020SL	1	54	3	1	3/14/2016 5:40:48 PM
84	WG873565-1 6020SL	1	55	3	1	3/14/2016 5:43:52 PM
85	L1606544-05 6020SL	1	56	3	1	3/14/2016 5:46:56 PM
86	WG873565-3 6020SL	1	57	3	1	3/14/2016 5:50:00 PM
87	L1606583-10 6020TL	1	58	3	1	3/14/2016 5:53:05 PM
88	WG873565-2D5 6020SL	1	59	3	1	3/14/2016 5:56:09 PM
89	WG873565-6D5 6020SL	1	60	3	1	3/14/2016 5:59:15 PM
90	CCV	0	9	3	1	3/14/2016 6:02:20 PM
91	CCB	0	10	3	1	3/14/2016 6:05:28 PM
92	WG873565-4D20 6020SL	2	1	3	1	3/14/2016 6:16:36 PM
93	WG873565-5D20 6020SL	2	2	3	1	3/14/2016 6:19:39 PM
94	L1606544-01 6020SL	2	3	3	1	3/14/2016 6:22:43 PM
95	L1606544-01D20 6020SL	2	4	3	1	3/14/2016 6:25:47 PM
96	L1606544-02 6020SL	2	5	3	1	3/14/2016 6:28:51 PM
97	L1606544-02D20 6020SL	2	6	3	1	3/14/2016 6:31:55 PM
98	L1606544-03 6020SL	2	7	3	1	3/14/2016 6:34:59 PM
99	L1606544-03D20 6020SL	2	8	3	1	3/14/2016 6:38:03 PM
100	L1606544-04 6020SL	2	9	3	1	3/14/2016 6:41:08 PM
101	L1606544-04D20 6020SL	2	10	3	1	3/14/2016 6:44:13 PM
102	CCV	0	9	3	1	3/14/2016 6:47:18 PM
103	CCB	0	10	3	1	3/14/2016 6:51:27 PM
104	wg873478-1 6020tl	2	13	3	1	3/14/2016 6:54:35 PM
105	l1606583-10 6020tl	2	14	3	1	3/14/2016 6:57:39 PM
106	L1606755-02 6020SL	2	11	3	1	3/14/2016 7:00:43 PM
107	L1606755-02D20 6020SL	2	12	3	1	3/14/2016 7:03:48 PM
108	wg873478-2d5 6020tl	2	15	3	1	3/14/2016 7:06:54 PM
109	l1606591-02 6020tl	2	16	3	1	3/14/2016 7:09:58 PM
110	l1606591-02d20 6020tl	2	17	3	1	3/14/2016 7:13:02 PM
111	wg873478-3 6020tl	2	18	3	1	3/14/2016 7:16:06 PM
112	wg873478-3d20 6020tl	2	19	3	1	3/14/2016 7:19:10 PM
113	wg873478-4d20 6020tl	2	20	3	1	3/14/2016 7:22:14 PM
114	CCV	0	9	3	1	3/14/2016 7:25:19 PM
115	CCB	0	10	3	1	3/14/2016 7:28:26 PM
116	wg873478-5d20 6020tl	2	21	3	1	3/14/2016 7:31:34 PM
117	wg873478-6d5 6020tl	2	22	3	1	3/14/2016 7:34:39 PM
118	wg873478-6d100 6020tl	2	23	3	1	3/14/2016 7:37:44 PM
119	l1606583-01 6020tl	2	24	3	1	3/14/2016 7:40:49 PM
120	l1606583-01d20 6020tl	2	25	3	1	3/14/2016 7:43:55 PM
121	l1606583-02 6020tl	2	26	3	1	3/14/2016 7:46:59 PM
122	l1606583-02d20 6020tl	2	27	3	1	3/14/2016 7:50:03 PM
123	l1606583-03 6020tl	2	28	3	1	3/14/2016 7:53:08 PM
124	l1606583-03d20 6020tl	2	29	3	1	3/14/2016 7:56:12 PM
125	l1606583-04 6020tl	2	30	3	1	3/14/2016 7:59:17 PM
126	CCV	0	9	3	1	3/14/2016 8:02:21 PM
127	CCB	0	10	3	1	3/14/2016 8:05:28 PM

Sample List Summary

3/15/2016 2:28:28 PM

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
128	l1606583-04d20 6020tl	2	31	3	1	3/14/2016 8:08:36 PM
129	l1606583-05 6020tl	2	32	3	1	3/14/2016 8:11:41 PM
130	l1606583-05d20 6020tl	2	33	3	1	3/14/2016 8:14:45 PM
131	l1606583-06 6020tl	2	34	3	1	3/14/2016 8:17:50 PM
132	l1606583-06d20 6020tl	2	35	3	1	3/14/2016 8:20:55 PM
133	l1606591-01 6020tl	2	36	3	1	3/14/2016 8:24:00 PM
134	l1606591-01d20 6020tl	2	37	3	1	3/14/2016 8:27:06 PM
135	l1606591-03 6020tl	2	38	3	1	3/14/2016 8:30:11 PM
136	l1606591-03d20 6020tl	2	39	3	1	3/14/2016 8:33:15 PM
137	l1606591-04 6020tl	2	40	3	1	3/14/2016 8:36:20 PM
138	CCV	0	9	3	1	3/14/2016 8:39:25 PM
139	CCB	0	10	3	1	3/14/2016 8:42:32 PM
140	l1606591-04d20 6020tl	2	41	3	1	3/14/2016 8:45:40 PM
141	l1606591-05 6020tl	2	42	3	1	3/14/2016 8:48:45 PM
142	l1606591-05d20 6020tl	2	43	3	1	3/14/2016 8:51:50 PM
143	l1606591-06 6020tl	2	44	3	1	3/14/2016 8:54:54 PM
144	l1606591-06d20 6020tl	2	45	3	1	3/14/2016 8:57:59 PM
145	l1606591-07 6020tl	2	46	3	1	3/14/2016 9:01:04 PM
146	l1606591-07d20 6020tl	2	47	3	1	3/14/2016 9:04:09 PM
147	l1606591-08 6020tl	2	48	3	1	3/14/2016 9:07:14 PM
148	l1606591-08d20 6020tl	2	49	3	1	3/14/2016 9:10:20 PM
149	l1606616-01 6020tl	2	50	3	1	3/14/2016 9:13:25 PM
150	CCV	0	9	3	1	3/14/2016 9:16:30 PM
151	CCB	0	10	3	1	3/14/2016 9:19:37 PM
152	l1606763-01 6020tl	2	51	3	1	3/14/2016 9:22:46 PM
153	l1606763-01d20 6020tl	2	52	3	1	3/14/2016 9:25:51 PM
154	l1606577-01d5 6020tl	2	53	3	1	3/14/2016 9:28:56 PM
155	l1606577-01d20 6020tl	2	54	3	1	3/14/2016 9:32:01 PM
156	l1606577-01d200 6020tl	2	55	3	1	3/14/2016 9:35:06 PM
157	l1606577-02d5 6020tl	2	56	3	1	3/14/2016 9:38:11 PM
158	l1606577-02d20 6020tl	2	57	3	1	3/14/2016 9:41:16 PM
159	l1606577-02d200 6020tl	2	58	3	1	3/14/2016 9:44:21 PM
160	CCV	0	9	3	1	3/14/2016 9:47:26 PM
161	CCB	0	10	3	1	3/14/2016 9:50:33 PM
162	CCV	0	9	3	1	3/14/2016 9:53:41 PM
163	LLCV	4	2	3	1	3/14/2016 9:56:49 PM
164	CCB	0	10	3	1	3/14/2016 9:59:56 PM

Sample List Summary

3/16/2016 10:45:25 AM

Instrument Name:	Serial Number:
iCAP Q	SN02236R

Labbook:	Labbook Path
WG873934_MSQ031516.imexp	_Application Data\Workspace\LabBooks

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
1	rinse	0	1	3	1	3/15/2016 12:49:07 PM
2	Blank TT	4	1	3	1	3/15/2016 12:52:09 PM
3	0.2/20 Cal	0	2	3	1	3/15/2016 12:55:16 PM
4	1.0/100 Cal	0	3	3	1	3/15/2016 12:58:19 PM
5	10/1000 Cal	0	4	3	1	3/15/2016 1:01:23 PM
6	120/12000	0	5	3	1	3/15/2016 1:04:27 PM
7	250/25000	0	6	3	1	3/15/2016 1:07:32 PM
8	500/50000	0	7	3	1	3/15/2016 1:10:38 PM
9	Rinse	0	1	3	1	3/15/2016 1:13:44 PM
10	XICV	0	9	3	1	3/15/2016 1:16:46 PM
11	XICB	0	10	3	1	3/15/2016 1:19:54 PM
12	ICV	0	9	3	1	3/15/2016 1:23:01 PM
13	ICB	0	10	3	1	3/15/2016 1:26:08 PM
14	LLCCV	4	2	3	1	3/15/2016 1:29:16 PM
15	ICSA	4	3	3	1	3/15/2016 1:32:23 PM
16	ICSAB	4	4	3	1	3/15/2016 1:35:29 PM
17	HIGH STD	0	7	3	1	3/15/2016 1:38:36 PM
18	Rinse	0	1	3	1	3/15/2016 1:41:42 PM
19	CCV	0	9	3	1	3/15/2016 1:44:44 PM
20	CCB	0	10	3	1	3/15/2016 1:47:52 PM
21	WG873268-3 6020TL	1	1	3	1	3/15/2016 1:53:59 PM
22	l1606583-04d20 6020tl	1	2	3	1	3/15/2016 1:57:03 PM
23	l1606583-05d200 6020tl	1	3	3	1	3/15/2016 2:00:05 PM
24	l1606583-05d20 6020tl	1	4	3	1	3/15/2016 2:03:08 PM
25	l1606583-05 6020tl	1	5	3	1	3/15/2016 2:06:11 PM
26	Xl1606583-06d200 6020tl	1	6	3	1	3/15/2016 2:09:15 PM
27	l1606583-06d20 6020tl	1	7	3	1	3/15/2016 2:12:19 PM
28	l1606583-06 6020tl	1	8	3	1	3/15/2016 2:15:22 PM
29	l1606763-01 6020tl	1	9	3	1	3/15/2016 2:18:27 PM
30	l1606763-01d20 6020tl	1	10	3	1	3/15/2016 2:21:31 PM
31	CCV	0	9	3	1	3/15/2016 2:24:36 PM
32	CCB	0	10	3	1	3/15/2016 2:27:43 PM
33	WG872135-1 6020SL	1	30	3	1	3/15/2016 2:30:59 PM
34	WG873751-1 6020TL	1	31	3	1	3/15/2016 2:34:03 PM
35	L1607312-06 6020TL	1	32	3	1	3/15/2016 2:37:07 PM
36	WG873751-3 6020TL	1	33	3	1	3/15/2016 2:46:25 PM
37	WG873751-2D5 6020TL	1	34	3	1	3/15/2016 2:49:30 PM
38	xWG873751-4D20 6020TL	1	35	3	1	3/15/2016 2:52:34 PM
39	WG873751-5D20 6020TL	1	36	3	1	3/15/2016 2:55:40 PM
40	WG873751-4D20 6020TL	1	35	3	1	3/15/2016 2:58:45 PM
41	WG873751-6D5 6020TL	1	37	3	1	3/15/2016 3:01:50 PM
42	WG872135-2D5 6020SL	1	38	3	1	3/15/2016 3:04:53 PM
43	CCV	0	9	3	1	3/15/2016 3:07:56 PM
44	CCB	0	10	3	1	3/15/2016 3:11:03 PM
45	L1606144-05D5 6020SL	1	39	3	1	3/15/2016 3:17:12 PM
46	WG872135-3D5 6020SL	1	40	3	1	3/15/2016 3:20:14 PM
47	WG872135-4D20 6020SL	1	41	3	1	3/15/2016 3:23:17 PM
48	WG872135-5D20 6020SL	1	42	3	1	3/15/2016 3:26:21 PM
49	WG872135-6D25 6020SL	1	43	3	1	3/15/2016 3:29:24 PM
50	L1606144-01D5 6020SL	1	44	3	1	3/15/2016 3:32:28 PM
51	L1606144-02D5 6020SL	1	45	3	1	3/15/2016 3:35:32 PM
52	L1606144-03D5 6020SL	1	46	3	1	3/15/2016 3:38:37 PM
53	L1606144-04D5 6020SL	1	47	3	1	3/15/2016 3:41:42 PM
54	zL1606144-06D5 6020SL	1	48	3	1	3/15/2016 3:44:47 PM
55	xCCV	0	9	3	1	3/15/2016 3:47:52 PM
56	xCCB	0	10	3	1	3/15/2016 3:51:00 PM
57	CCV	0	9	3	1	3/15/2016 3:57:52 PM
58	CCB	0	10	3	1	3/15/2016 4:00:59 PM
59	l1606577-01d20 6020tl	1	12	3	1	3/15/2016 4:09:32 PM

Sample List Summary

3/16/2016 10:45:25 AM

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
60	l1606577-01d5 6020tl	1	11	3	1	3/15/2016 4:12:37 PM
61	l1606577-02d5 6020tl	1	13	3	1	3/15/2016 4:15:42 PM
62	l1606577-02d20 6020tl	1	14	3	1	3/15/2016 4:18:45 PM
63	L1606144-06 6020SL	1	52	3	1	3/15/2016 4:21:47 PM
64	l1606591-01 6020tl	1	15	3	1	3/15/2016 4:24:51 PM
65	CCV	0	9	3	1	3/15/2016 4:27:53 PM
66	CCB	0	10	3	1	3/15/2016 4:31:00 PM
67	l1606591-01d20 6020tl	1	16	3	1	3/15/2016 4:41:03 PM
68	l1606591-03 6020tl	1	17	3	1	3/15/2016 4:44:05 PM
69	xl1606591-03d20 6020tl	1	18	3	1	3/15/2016 4:47:09 PM
70	l1606591-04 6020tl	1	19	3	1	3/15/2016 4:50:13 PM
71	xl1606591-04d20 6020tl	1	20	3	1	3/15/2016 4:53:17 PM
72	xl1606591-05d20 6020tl	1	22	3	1	3/15/2016 4:56:21 PM
73	l1606591-05 6020tl	1	21	3	1	3/15/2016 4:59:26 PM
74	l1606591-06 6020tl	1	23	3	1	3/15/2016 5:02:30 PM
75	xl1606591-06d20 6020tl	1	24	3	1	3/15/2016 5:05:36 PM
76	xl1606591-07d20 6020tl	1	26	3	1	3/15/2016 5:08:41 PM
77	CCV	0	9	3	1	3/15/2016 5:11:44 PM
78	CCB	0	10	3	1	3/15/2016 5:14:51 PM
79	200.8 MDL 7	1	49	3	1	3/15/2016 5:18:05 PM
80	200.8 MDL 8	1	50	3	1	3/15/2016 5:21:08 PM
81	200.8 MDL 9	1	51	3	1	3/15/2016 5:24:11 PM
82	l1606591-07 6020tl	1	25	3	1	3/15/2016 5:27:14 PM
83	xl1606591-08d20 6020tl	1	28	3	1	3/15/2016 5:30:17 PM
84	l1606591-08 6020tl	1	27	3	1	3/15/2016 5:33:20 PM
85	l1606616-01 6020tl	1	29	3	1	3/15/2016 5:36:28 PM
86	L1607060-05 6020TL	1	53	3	1	3/15/2016 5:39:31 PM
87	L1607060-05D20 6020TL	1	54	3	1	3/15/2016 5:42:34 PM
88	xL1607060-06D20 6020TL	1	56	3	1	3/15/2016 5:45:38 PM
89	CCV	0	9	3	1	3/15/2016 5:48:43 PM
90	CCB	0	10	3	1	3/15/2016 5:51:50 PM
91	L1607060-06 6020TL	1	55	3	1	3/15/2016 5:57:13 PM
92	L1607142-01 6020TL	1	57	3	1	3/15/2016 6:02:27 PM
93	L1607142-01D20 6020TL	1	58	3	1	3/15/2016 6:05:32 PM
94	L1607142-02 6020TL	1	59	3	1	3/15/2016 6:08:37 PM
95	L1607142-02D20 6020TL	1	60	3	1	3/15/2016 6:11:42 PM
96	L1607142-03 6020TL	2	1	3	1	3/15/2016 6:14:47 PM
97	L1607142-03D20 6020TL	2	2	3	1	3/15/2016 6:17:51 PM
98	xL1607142-04 6020TL	2	3	3	1	3/15/2016 6:20:55 PM
99	xL1607142-05 6020TL	2	5	3	1	3/15/2016 6:23:59 PM
100	L1607142-04D20 6020TL	2	4	3	1	3/15/2016 6:27:02 PM
101	CCV	0	9	3	1	3/15/2016 6:30:06 PM
102	CCB	0	10	3	1	3/15/2016 6:33:13 PM
103	L1607142-05D20 6020TL	2	6	3	1	3/15/2016 6:36:21 PM
104	L1607142-06 6020TL	2	7	3	1	3/15/2016 6:39:25 PM
105	L1607142-06D20 6020TL	2	8	3	1	3/15/2016 6:42:30 PM
106	L1607142-07 6020TL	2	9	3	1	3/15/2016 6:45:35 PM
107	L1607142-07D20 6020TL	2	10	3	1	3/15/2016 6:48:39 PM
108	xL1607142-08 6020TL	2	11	3	1	3/15/2016 6:51:45 PM
109	L1607142-08D20 6020TL	2	12	3	1	3/15/2016 6:54:50 PM
110	L1606944-01 6020TL	2	13	3	1	3/15/2016 6:57:55 PM
111	L1606944-02 6020TL	2	14	3	1	3/15/2016 7:00:59 PM
112	L1606944-03 6020TL	2	15	3	1	3/15/2016 7:04:04 PM
113	CCV	0	9	3	1	3/15/2016 7:07:08 PM
114	CCB	0	10	3	1	3/15/2016 7:10:15 PM
115	L1606944-04 6020TL	2	16	3	1	3/15/2016 7:13:23 PM
116	L1606944-05 6020TL	2	17	3	1	3/15/2016 7:16:27 PM
117	L1606944-06 6020TL	2	18	3	1	3/15/2016 7:19:31 PM
118	L1606944-07 6020TL	2	19	3	1	3/15/2016 7:22:35 PM
119	L1607073-01 6020TL	2	20	3	1	3/15/2016 7:25:39 PM
120	L1607073-03 6020TL	2	21	3	1	3/15/2016 7:28:44 PM
121	WG872439-4D50 MCP-6020TS	2	22	3	1	3/15/2016 7:31:49 PM
122	WG872439-5D50 MCP-6020TS-10	2	23	3	1	3/15/2016 7:34:54 PM
123	L1606551-05D10 MCP-6020TS-10	2	24	3	1	3/15/2016 7:37:59 PM
124	L1607142-04D5 6020TL	2	25	3	1	3/15/2016 7:41:05 PM
125	CCV	0	9	3	1	3/15/2016 7:44:09 PM
126	CCB	0	10	3	1	3/15/2016 7:47:17 PM
127	L1607142-05D5 6020TL	2	26	3	1	3/15/2016 7:50:24 PM

Sample List Summary

3/16/2016 10:45:25 AM

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
128	L1607142-08D5 6020TL	2	27	3	1	3/15/2016 7:53:29 PM
129	CCV	0	9	3	1	3/15/2016 7:56:33 PM
130	CCB	0	10	3	1	3/15/2016 7:59:41 PM
131	CCV	0	9	3	1	3/15/2016 8:02:49 PM
132	LLCCV	4	2	3	1	3/15/2016 8:05:56 PM
133	CCB	0	10	3	1	3/15/2016 8:09:03 PM

Sample List Summary

3/17/2016 9:53:44 AM

Instrument Name:	Serial Number:
iCAP Q	Undefined

Labbook:	Labbook Path
WG874341_MSQ031616.imexp	_Application Data\Workspace\LabBooks

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
1	rinse	0	1	3	1	3/16/2016 11:06:29 AM
2	Blank TT	4	1	3	1	3/16/2016 11:09:32 AM
3	0.2/20 Cal	0	2	3	1	3/16/2016 11:12:39 AM
4	1.0/100 Cal	0	3	3	1	3/16/2016 11:15:42 AM
5	10/1000 Cal	0	4	3	1	3/16/2016 11:18:46 AM
6	120/12000	0	5	3	1	3/16/2016 11:21:50 AM
7	250/25000	0	6	3	1	3/16/2016 11:24:55 AM
8	500/50000	0	7	3	1	3/16/2016 11:28:00 AM
9	Rinse	0	1	3	1	3/16/2016 11:31:06 AM
10	ICV	0	9	3	1	3/16/2016 11:34:09 AM
11	ICB	0	10	3	1	3/16/2016 11:37:16 AM
12	LLCCV	4	2	3	1	3/16/2016 11:50:43 AM
13	ICSA	4	3	3	1	3/16/2016 11:53:50 AM
14	ICSAB	4	4	3	1	3/16/2016 11:56:56 AM
15	HIGH STD	0	7	3	1	3/16/2016 12:00:03 PM
16	Rinse	0	1	3	1	3/16/2016 12:03:09 PM
17	CCV	0	9	3	1	3/16/2016 12:06:12 PM
18	CCB	0	10	3	1	3/16/2016 12:09:19 PM
19	WG873887-1 6020SL	1	1	3	1	3/16/2016 12:13:34 PM
20	WG873887-2D5 6020SL	1	2	3	1	3/16/2016 12:16:36 PM
21	L1600003-77D20 6020SL	1	3	3	1	3/16/2016 12:19:39 PM
22	WG873887-3D20 6020SL	1	4	3	1	3/16/2016 12:22:42 PM
23	WG873887-4D20 6020SL	1	5	3	1	3/16/2016 12:25:45 PM
24	XWG873887-5D20 6020SL	1	6	3	1	3/16/2016 12:28:48 PM
25	WG873887-6D100 6020SL	1	7	3	1	3/16/2016 12:31:51 PM
26	L1606763-01 6020SL	1	8	3	1	3/16/2016 12:34:55 PM
27	L1606763-01D20 6020SL	1	9	3	1	3/16/2016 12:38:00 PM
28	L1606799-13 6020SL	1	10	3	1	3/16/2016 12:41:05 PM
29	CCV	0	9	3	1	3/16/2016 12:44:09 PM
30	CCB	0	10	3	1	3/16/2016 12:47:17 PM
31	L1606799-14 6020SL	1	11	3	1	3/16/2016 1:17:35 PM
32	L1607142-08D200 6020TL	1	12	3	1	3/16/2016 1:20:40 PM
33	L1607142-06D5 6020TL	1	13	3	1	3/16/2016 1:23:46 PM
34	WG873887-5D20 6020SL	1	14	3	1	3/16/2016 1:26:48 PM
35	xCCV	0	9	3	1	3/16/2016 1:29:50 PM
36	xCCB	0	10	3	1	3/16/2016 1:32:58 PM
37	CCV	0	9	3	1	3/16/2016 1:36:05 PM
38	CCB	0	10	3	1	3/16/2016 1:39:13 PM
39	WG874190-1d10 6020TS	1	15	3	1	3/16/2016 3:19:08 PM
40	WG874190-2d50 6020TS	1	16	3	1	3/16/2016 3:22:10 PM
41	WG874190-6d50 6020TS	1	17	3	1	3/16/2016 3:25:13 PM
42	L1607446-01d10 6020TS	1	18	3	1	3/16/2016 3:28:17 PM
43	WG874190-3d10 6020TS	1	19	3	1	3/16/2016 3:31:20 PM
44	WG874190-4d10 6020TS	1	20	3	1	3/16/2016 3:34:24 PM
45	WG874190-5d10 6020TS	1	21	3	1	3/16/2016 3:37:28 PM
46	xCCV	0	9	3	1	3/16/2016 3:40:33 PM
47	xCCB	0	10	3	1	3/16/2016 3:43:40 PM
48	aborted	1	22	3	1	3/16/2016 3:46:48 PM
49	aborted	1	23	3	1	3/16/2016 3:49:53 PM
50	CCV	0	9	3	1	3/16/2016 3:52:43 PM
51	CCB	0	10	3	1	3/16/2016 3:55:50 PM
52	L1607446-02d10 6020TS	1	22	3	1	3/16/2016 3:58:58 PM
53	L1607446-03d10 6020TS	1	23	3	1	3/16/2016 4:02:03 PM
54	L1607449-01d10 6020TS	1	24	3	1	3/16/2016 4:05:08 PM
55	L1607449-02d10 6020TS	1	25	3	1	3/16/2016 4:08:14 PM
56	L1607449-03d10 6020TS	1	26	3	1	3/16/2016 4:11:16 PM
57	L1607451-01d10 6020TS	1	27	3	1	3/16/2016 4:14:19 PM
58	L1607451-02d10 6020TS	1	28	3	1	3/16/2016 4:17:22 PM
59	L1607451-03d10 6020TS	1	29	3	1	3/16/2016 4:20:25 PM

Sample List Summary

3/17/2016 9:53:44 AM

Index	Label	Rack	Vial	Main Runs	Survey Runs	Start Time
60	CCV	0	9	3	1	3/16/2016 4:23:28 PM
61	CCB	0	10	3	1	3/16/2016 4:26:36 PM
62	wg873763-1 mcp-6020ts-10	1	30	3	1	3/16/2016 4:31:24 PM
63	wg873763-2d50 mcp-6020ts-10	1	31	3	1	3/16/2016 4:34:27 PM
64	wg873763-2d50 mcp-6020ts-10	1	32	3	1	3/16/2016 4:37:31 PM
65	wg873763-3d50 mcp-6020ts-10	1	31	3	1	3/16/2016 4:40:36 PM
66	wg873763-3d50 mcp-6020ts-10	1	32	3	1	3/16/2016 4:43:40 PM
67	wg873763-6d50 mcp-6020ts-10	1	33	3	1	3/16/2016 4:46:44 PM
68	l1606949-02d10 mcp-6020ts-10	1	34	3	1	3/16/2016 4:49:49 PM
69	wg873763-4d50 mcp-6020ts-10	1	35	3	1	3/16/2016 4:52:54 PM
70	wg873763-4d50 mcp-6020ts-10	1	35	3	1	3/16/2016 4:55:59 PM
71	CCV	0	9	3	1	3/16/2016 4:59:04 PM
72	CCB	0	10	3	1	3/16/2016 5:02:11 PM
73	wg873763-5d50 mcp-6020ts-10	1	36	3	1	3/16/2016 5:05:19 PM
74	wg873763-5d50 mcp-6020ts-10	1	36	3	1	3/16/2016 5:08:25 PM
75	l1606941-01d10 mcp-6020ts-10	1	37	3	1	3/16/2016 5:11:30 PM
76	l1606941-02d10 mcp-6020ts-10	1	38	3	1	3/16/2016 5:14:33 PM
77	l1606941-03d10 mcp-6020ts-10	1	39	3	1	3/16/2016 5:17:36 PM
78	l1606941-04d10 mcp-6020ts-10	1	40	3	1	3/16/2016 5:20:39 PM
79	l1606941-05d10 mcp-6020ts-10	1	41	3	1	3/16/2016 5:23:42 PM
80	l1606941-06d10 mcp-6020ts-10	1	42	3	1	3/16/2016 5:28:56 PM
81	l1606941-07d10 mcp-6020ts-10	1	43	3	1	3/16/2016 5:32:00 PM
82	l1606941-08d10 mcp-6020ts-10	1	44	3	1	3/16/2016 5:35:04 PM
83	CCV	0	9	3	1	3/16/2016 5:38:09 PM
84	CCB	0	10	3	1	3/16/2016 5:41:16 PM
85	l1606949-01d10 mcp-6020ts-10	1	45	3	1	3/16/2016 5:44:23 PM
86	l1606949-03d10 mcp-6020ts-10	1	46	3	1	3/16/2016 5:55:13 PM
87	l1606949-04d10 mcp-6020ts-10	1	47	3	1	3/16/2016 5:58:18 PM
88	l1606949-05d10 mcp-6020ts-10	1	48	3	1	3/16/2016 6:01:23 PM
89	l1606949-06d10 mcp-6020ts-10	1	49	3	1	3/16/2016 6:04:29 PM
90	l1606949-07d10 mcp-6020ts-10	1	50	3	1	3/16/2016 6:07:32 PM
91	l1606949-08d10 mcp-6020ts-10	1	51	3	1	3/16/2016 6:10:35 PM
92	l1606941-02d100 mcp-6020ts-10	1	52	3	1	3/16/2016 6:13:39 PM
93	no sample	1	53	3	1	3/16/2016 6:16:42 PM
94	CCV	0	9	3	1	3/16/2016 6:19:45 PM
95	CCB	0	10	3	1	3/16/2016 6:22:53 PM
96	CCV	0	9	3	1	3/16/2016 6:26:01 PM
97	LLCCV	4	2	3	1	3/16/2016 6:33:20 PM
98	CCB	0	10	3	1	3/16/2016 6:36:27 PM

METALS ELN REPORT

Workgroup: WG873478

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 3005A	1:1 HNO3	tHNO3160711130JM	1:1 HCl	tHCL1608250920JM	METALS	METSPIKE2	IPS,FPS,MIX	METPSMS	IPS,FPS,MIX	140

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
WG873478-1 BLANK	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	IPS1609291130JM,FPS1603191400JM,MIX1603191430JM
WG873478-2 LCS	03/14/16 08:45	Joshua Mertens	50	<2	.5	03/14/16 08:45	1	95.7	03/14/16 11:45	50	
WG873478-3 DUP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
WG873478-4 MS	03/14/16 08:45	Joshua Mertens	50	<2	.5	03/14/16 08:45	1	95.7	03/14/16 11:45	50	
WG873478-5 PS	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
WG873478-6 SERDIL	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606577-01 SAMP	03/14/16 08:45	Joshua Mertens	50	>2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	BROWN
L1606577-02 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	BROWN
L1606583-01 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606583-02 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	CLOUDY TAN
L1606583-03 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	

Reported: 23-MAR-16 10:21 AM

METALS ELN REPORT

Workgroup: WG873478

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L1606583-04 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	LT CLOUDY TAN
L1606583-05 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	GREY PARTICULATE
L1606583-06 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606583-10 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-01 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-02 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-03 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-04 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-05 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-06 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-07 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606591-08 SAMP	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	
L1606616-01 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	

Reported: 23-MAR-16 10:21 AM

METALS ELN REPORT

Workgroup: WG873478

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L1606763-01 WATER	03/14/16 08:45	Joshua Mertens	50	<2		03/14/16 08:45	1	95.7	03/14/16 11:45	50	

Reported: 23-MAR-16 10:21 AM

METALS ELN REPORT

Workgroup: WG873887

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 3005A	1:1 HNO3	tHNO3160711130JM	1:1 HCl	tHCL160825 0920JM	METALS	METSPIKE2	IPS,FPS,MIX	METPSMS	IPS,FPS,MIX	140

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Lab Filtration Date	Sample Vol	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol ml	Comments
WG873887-1 BLANK	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	IPS1609291130JM,FPS1609291118JM,MIX1609291405JM
WG873887-2 LCS	03/15/16 11:40	Joshua Mertens	NA	50	<2	.5	03/15/16 11:40	2	95.0	03/15/16 12:45	50	
WG873887-3 MS	03/15/16 11:40	Joshua Mertens	NA	50	<2	.5	03/15/16 11:40	2	95.0	03/15/16 12:45	50	
WG873887-4 MSD	03/15/16 11:40	Joshua Mertens	NA	50	<2	.5	03/15/16 11:40	2	95.0	03/15/16 12:45	50	
WG873887-5 PS	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	
WG873887-6 SERDIL	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	
L1600003-77 WATER	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	
L1606763-01 WATER	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	
L1606799-13	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	LT YELLLOW W/ DEBRIS
L1606799-14	03/15/16 11:40	Joshua Mertens	NA	50	<2		03/15/16 11:40	2	95.0	03/15/16 12:45	50	LT YELLLOW W/ DEBRIS

Reported: 23-MAR-16 10:22 AM

METALS ELN REPORT

Workgroup: WG873887

Reported: 23-MAR-16 10:22 AM

Inorganic Data
(Mercury Analysis)

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: L1606763-01	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916	**Date Received**	: 03/09/16
Sample Location	: 450 UNION STREET	**Date Analyzed**	: 03/14/16 20:01
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: EA
Lab File ID	: Hg4031416D.pcl	**Instrument ID**	: FIMS4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 03/11/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00006	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: WG873028-1	**Date Collected**	: NA
Client ID	: WG873028-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 03/14/16 19:57
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: EA
Lab File ID	: Hg4031416D.pcl	**Instrument ID**	: FIMS4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 03/11/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00006	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: WG873028-3	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916DUP	**Date Received**	: 03/09/16
Sample Location	:	**Date Analyzed**	: 03/14/16 20:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: EA
Lab File ID	: Hg4031416D.pcl	**Instrument ID**	: FIMS4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 03/11/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.0001	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: L1606763-01	**Date Collected**	: 03/09/16 11:40
Client ID	: MW12_030916	**Date Received**	: 03/09/16
Sample Location	: 450 UNION STREET	**Date Analyzed**	: 03/14/16 20:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: EA
Lab File ID	: Hg4031416D.pcl	**Instrument ID**	: FIMS4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 03/11/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00006	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Lab ID	: WG872887-1	**Date Collected**	: NA
Client ID	: WG872887-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 03/14/16 20:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: EA
Lab File ID	: Hg4031416D.pcl	**Instrument ID**	: FIMS4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 03/11/16

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00006	U

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R846678-8			R846678-10			R846678-12		R846678-14	
Date Analyzed :	03/14/16 18:56			03/14/16 19:18			03/14/16 19:40		03/14/16 20:03	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury	0.0030	0.0031	105.	0.0100	0.0105	105.	0.0107	107.	0.0106	106.

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R846678-16						
Date Analyzed :				03/14/16 20:25						
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				0.0100	0.0106	106.				

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4	**Units**	: mg/l

		Initial Calibration			Continuing Calibration(s)						
Lab ID	:	R846678-8			R846678-10			R846678-12		R846678-14	
Date Analyzed	:	03/14/16 18:56			03/14/16 19:18			03/14/16 19:40		03/14/16 20:03	
Parameter		**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury		0.0030	0.0031	105.	0.0100	0.0105	105.	0.0107	107.	0.0106	106.

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R846678-16			R846678-18			
Date Analyzed :				03/14/16 20:25			03/14/16 20:47			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				**0.0100**	**0.0106**	**106.**	**0.0106**	**106.**		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R846678-9		R846678-11		R846678-13		R846678-15		WG873028-1	
Date Analyzed	:	03/14/16 18:57		03/14/16 19:20		03/14/16 19:42		03/14/16 20:04		03/14/16 19:57	
Parameter		mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q
Mercury		0.0000660	U	0.0000660	U	0.0000660	U	0.0000660	U	0.00006	U

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R846678-17							
Date Analyzed :			03/14/16 20:27							
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury			0.0000660	U						

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :	R846678-9		R846678-11		R846678-13		R846678-15		WG872887-1	
Date Analyzed :	03/14/16 18:57		03/14/16 19:20		03/14/16 19:42		03/14/16 20:04		03/14/16 20:10	
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q
Mercury	0.0000660	U	0.0000660	U	0.0000660	U	0.0000660	U	0.00006	U

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:			R846678-17		R846678-19					
Date Analyzed	:			03/14/16 20:27		03/14/16 20:49					
Parameter		mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury				0.0000660	U	0.0000660	U				

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: MW12_030916	**Matrix**	: WATER
Lab Sample ID	: L1606763-01		
Matrix Spike	: WG873028-4	**MS Analysis Date**	: 03/14/16 20:08
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Mercury, Dissolved	ND	0.005	0.00523	105					75-125	20

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L1606590-08		
Matrix Spike	: WG872887-3	**MS Analysis Date**	: 03/14/16 20:16
Matrix Spike Dup	: WG872887-4	**MSD Analysis Date**	: 03/14/16 20:18

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Mercury, Total	ND	0.005	0.00489	98	0.005	0.00481	96	2	75-125	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: MW12_030916	**Matrix**	: WATER
Lab Sample ID	: L1606763-01	**Analysis Date**	: 03/14/16 20:01
Dup Sample ID	: WG873028-3	**DUP Analysis Date**	: 03/14/16 20:06

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Mercury, Dissolved	ND	ND	NC	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG873028-2	**LCS Analysis Date**	: 03/14/16 19:59
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Mercury, Dissolved	**0.00100**	**0.00113**	**113.**					**80-120**	**20**

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG872887-2	**LCS Analysis Date**	: 03/14/16 20:12
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Mercury, Total	**0.00100**	**0.00104**	**104.**					**80-120**	**20**

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L1606763**
Project Name	:	**450 UNION STREET**	**Project Number**	:	**170301202**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 7470A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L1606763-01	03/11/16 14:33	-	25
WG873028-1	03/11/16 14:33	-	25
WG873028-2	03/11/16 14:33	-	25
WG873028-3	03/11/16 14:33	-	25
WG873028-4	03/11/16 14:33	-	25

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L1606763**
Project Name	:	**450 UNION STREET**	**Project Number**	:	**170301202**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 7470A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L1606763-01	03/11/16 09:44	-	25
WG872887-1	03/11/16 09:44	-	25
WG872887-2	03/11/16 09:44	-	25
WG872887-3	03/11/16 09:44	-	25
WG872887-4	03/11/16 09:44	-	25

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4	**Analysis Method**	: 1,7470A
Start Date	: 03/14/16 18:44	**End Date**	: 03/14/16 20:27

Sample Number	Dilution Factor	Analysis Time	Mercury, Dissolved
R846678-8 ICV	1	18:56:05	X
R846678-9 ICB	1	18:57:57	X
R846678-10 CCV	1	19:18:26	X
R846678-11 CCB	1	19:20:17	X
R846678-12 CCV	1	19:40:47	X
R846678-13 CCB	1	19:42:39	X
WG873028-1 BLANK	1	19:57:32	X
WG873028-2 LCS	1	19:59:23	X
L1606763-01	1	20:01:15	X
R846678-14 CCV	1	20:03:07	X
R846678-15 CCB	1	20:04:59	X
WG873028-3 DUP	1	20:06:52	X
WG873028-4 MS	1	20:08:43	X
R846678-16 CCV	1	20:25:29	X
R846678-17 CCB	1	20:27:20	X

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L1606763
Project Name	: 450 UNION STREET	**Project Number**	: 170301202
Instrument ID	: FIMS4	**Analysis Method**	: 1,7470A
Start Date	: 03/14/16 18:44	**End Date**	: 03/14/16 20:49

Sample Number	Dilution Factor	Analysis Time	Mercury, Total
R846678-8 ICV	1	18:56:05	X
R846678-9 ICB	1	18:57:57	X
R846678-10 CCV	1	19:18:26	X
R846678-11 CCB	1	19:20:17	X
R846678-12 CCV	1	19:40:47	X
R846678-13 CCB	1	19:42:39	X
R846678-14 CCV	1	20:03:07	X
R846678-15 CCB	1	20:04:59	X
WG872887-1 BLANK	1	20:10:34	X
WG872887-2 LCS	1	20:12:26	X
WG872887-3 MS	1	20:16:09	X
WG872887-4 MSD	1	20:18:00	X
R846678-16 CCV	1	20:25:29	X
R846678-17 CCB	1	20:27:20	X
L1606763-01	1	20:42:12	X
R846678-18 CCV	1	20:47:49	X
R846678-19 CCB	1	20:49:40	X

Determination of Method Detection Limits

Alpha Analytical Inc.

Location

Approved

Page 1 of 1	
Analyst:	AH, DM
Date:	2/28, 3/1, 3/3/20111
Instrument ID:	FIMS3 & FIMS4
Column ID:	N/A
Prep Method:	same
Prep Chemist:	EB, AH

Method: EPA 245.1 & 7470A **2011**

Perkin Elmer Mercury Liquid

Table (MDL)		Instrument ID	FIMS 3	FIMS 3	FIMS 3	FIMS 4	FIMS 4	FIMS 4	FIMS 3	FIMS 3	FIMS 3						
		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09						
		Date Analyzed	2/28/2011	2/28/2011	2/28/2011	3/1/2011	3/1/2011	3/1/2011	3/3/2011	3/3/2011	3/3/2011	T value used for calculating MDL: 2.896					
No.	Analytes	Target conc. (mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Mean (mg/L)	Mean Accuracy	Standard Deviation	Calc. MDL (mg/L)	Current RL (mg/L)	Comment
1	Mercury	0.0001	0.0000611	0.0000544	0.0000503	0.0000670	0.0000700	0.0000680	0.0000857	0.0000784	0.0001233	0.0000731	73%	0.0000218	0.0000631	0.0002	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Comments:

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	EZ
Date:	12/9, 12/24, 12/29/2009
Instrument:	FIMS3
Prep Chemist:	TD
Prep Method:	EPA 7471A

Method: EPA 7471A 2009

Perkin Elmer Mercury Soil

		Data File	mdl01	mdl02	mdl03	mdl04	mdl05	mdl06	mdl07	mdl08	mdl09	T-Value used to calculate MDL: 2.896					
		Date Analy.	12/9/2009	12/9/2009	12/9/2009	12/9/2009	12/9/2009	12/9/2009	12/9/2009	12/24/2009	12/29/2009						
No.	Analytes	Target Conc.(mg/kg)	Rep-1 (mg/kg)	Rep-2 (mg/kg)	Rep-3 (mg/kg)	Rep-4 (mg/kg)	Rep-5 (mg/kg)	Rep-6 (mg/kg)	Rep-7 (mg/kg)	Rep-8 (mg/kg)	Rep-9 (mg/kg)	Mean (mg/kg)	Mean Accuracy	Standard Deviation	Calc.MDL (mg/kg)	Current RL (mg/kg)	Comment
1	Mercury	0.0330	0.0310	0.0260	0.0230	0.0320	0.0280	0.0230	0.0160	0.0280	0.0370	0.027	82%	0.006	0.0176	0.080	✓
2																	
3																	

Comments: Hot Block Extraction

12/29/09

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	RC
Date:	11/23, 12/9/2010
Instrument:	FIMS4
Prep Chemist:	KR, TD, RC
Prep Method:	EPA 7471A

Method: EPA 7471A 2010

Perkin Elmer Mercury Soil

		Data File	mdl01	mdl02	mdl03	mdl04	mdl05	mdl06	mdl07	mdl08	mdl09	T-Value used					
		Date Analy.	11/24/2010	11/24/2010	11/24/2010	11/24/2010	11/24/2010	11/24/2010	11/24/2010	12/9/2010	12/9/2010	to calculate MDL: 2.896					
No.	Analytes	Target Conc.(mg/kg)	Rep-1 (mg/kg)	Rep-2 (mg/kg)	Rep-3 (mg/kg)	Rep-4 (mg/kg)	Rep-5 (mg/kg)	Rep-6 (mg/kg)	Rep-7 (mg/kg)	Rep-8 (mg/kg)	Rep-9 (mg/kg)	Mean (mg/kg)	Mean Accuracy	Standard Deviation	Calc.MDL (mg/kg)	Current RL (mg/kg)	Comment
1	Mercury	0.0330	0.0227	0.0233	0.0240	0.0240	0.0218	0.0208	0.0212	0.0320	0.0330	0.025	75%	0.005	0.0132	0.080	
2																	
3																	

Comments: Hot Block Extraction

Determination of Method Detection Limits

Alpha Analytical Inc.

Location

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Page 1 of 1	
Analyst:	AH, DM
Date:	2/28, 3/1, 3/3/20111
Instrument ID:	FIMS3 & FIMS4
Column ID:	N/A
Prep Method:	same
Prep Chemist:	EB, AH

Method: EPA 245.1 & 7470A **2011**

Perkin Elmer Mercury Liquid

Table (MDL)		Instrument ID	FIMS 3	FIMS 3	FIMS 3	FIMS 4	FIMS 4	FIMS 4	FIMS 3	FIMS 3	FIMS 3						
		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09						
		Date Analyzed	2/28/2011	2/28/2011	2/28/2011	3/1/2011	3/1/2011	3/1/2011	3/3/2011	3/3/2011	3/3/2011	T value used for calculating MDL: 2.896					
No.	Analytes	Target conc. (mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Mean (mg/L)	Mean Accuracy	Standard Deviation	Calc. MDL (mg/L)	Current RL (mg/L)	Comment
1	Mercury	0.0001	0.0000611	0.0000544	0.0000503	0.0000670	0.0000700	0.0000680	0.0000857	0.0000784	0.0001233	0.0000731	73%	0.0000218	0.0000631	0.0002	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Comments:

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	JH, TT
Date:	11/7, 11/12, 11/20/2012
Instrument ID	FIMS3 & FIMS4
Column ID:	N/A
Prep Method:	same
Prep Chemist:	JH

Method: EPA 245.1 & 7470A 2012

Perkin Elmer **Mercury** **Liquid**

Table (MDL)		Instrument ID	FIMS4	FIMS4	FIMS4	FIMS4	FIMS4	FIMS4	FIMS3	FIMS3						
		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08						
		Date Analyzed	11/7/2012	11/7/2012	11/7/2012	11/12/2012	11/12/2012	11/12/2012	11/20/2012	11/20/2012	T value used for calculating MDL: 2.998					
No.	Analytes	Target conc. (mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Mean (mg/L)	Mean Accuracy	Standard Deviation	Calc. MDL (mg/L)	Current RL (mg/L)	Comment
1	Mercury	0.0001	0.0000687	0.0000683	0.0000677	0.0000892	0.0000763	0.0000690	0.0001211	0.0001074	0.0000835	83%	0.0000206	0.0000618	0.0002	
2																
3																
4																
5																
6																
7																
8																
9																
10																

Comments: _____

Determination of Method Detection Limits

Alpha Analytical Inc.
Westborough, MA

Approved

Page 1 of 1	
Analyst:	AK
Date:	5/6, 5/7, 6/24/14
Instrument ID:	CETAC M6100
Column ID:	N/A
Prep Method:	same
Prep Chemist:	AK

Method: EPA 7470A 2014

CVAA **Mercury** **Liquid**

Initial Weight/Volume: 25ml
Final Volume: 25ml

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating					
		Date Analyzed	5/6/2014	5/6/2014	5/6/2014	5/7/2014	6/24/2014	6/24/2014	6/24/2014	MDL: 3.143					
No.	Analytes	Target conc. (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Mean (ug/L)	Mean Accuracy	Standard Deviation	Calc. MDL (ug/L)	Current RL (ug/L)	Comment
1	Mercury	0.200	0.207	0.230	0.217	0.192	0.207	0.230	0.217	0.214	107%	0.0136	0.0428	0.200	

Comments:

Technical Director: [signature] Date Effective: 6/25/14

==========

Analysis Begun

Logged In Analyst: Alpha **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Alpha\Sample Information\031416D.sif
Batch ID: EA
Results Data Set: Hg4031416D
Results Library: C:\data-AA\Alpha\Results\Results.mdb

==========

Method Loaded
Method Name: 0.2-20ppb AQ **Method Last Saved: 2/8/2016 13:14:39**
Method Description: 0, 0.2, 1, 2, 5, 10, 20 ppb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/14/2016 18:40:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0000	-0.0003	0.0000	18:41:45	Yes
2		[0.00]	0.0001	0.0004	0.0001	18:42:15	Yes
3		[0.00]	0.0002	0.0011	0.0002	18:42:44	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0001				
%RSD:		0.00	75.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: 0.2 ppb **Date Collected: 3/14/2016 18:42:46**
Analyst: **Data Type: Original**

Replicate Data: 0.2 ppb

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0022	0.0143	0.0023	18:43:36	Yes
2		[0.2]	0.0023	0.0153	0.0024	18:44:06	Yes
3		[0.2]	0.0022	0.0137	0.0023	18:44:36	Yes
Mean:		[0.2]	0.0022				
SD:		0.0	0.0001				
%RSD:		0.0	3.37				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01124 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: 1.0 ppb **Date Collected: 3/14/2016 18:44:38**
Analyst: **Data Type: Original**

Replicate Data: 1.0 ppb

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1]	0.0111	0.0666	0.0111	18:45:29	Yes
2		[1]	0.0109	0.0649	0.0110	18:45:59	Yes
3		[1]	0.0109	0.0647	0.0110	18:46:29	Yes
Mean:		[1]	0.0109				
SD:		0	0.0001				
%RSD:		0	0.93				

Standard number 2 applied. [1]
Correlation Coef.: 0.999952 Slope: 0.01095 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: 2.0 ppb **Date Collected: 3/14/2016 18:46:30**
Analyst: **Data Type: Original**

Replicate Data: 2.0 ppb

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2]	0.0222	0.1333	0.0223	18:47:20	Yes
2	[2]	0.0221	0.1310	0.0222	18:47:50	Yes
3	[2]	0.0220	0.1300	0.0221	18:48:20	Yes
Mean:	[2]	0.0221				
SD:	0	0.0001				
%RSD:	0	0.40				

Standard number 3 applied. [2]
Correlation Coef.: 0.999962 Slope: 0.01104 Intercept: 0.00000

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: 5.0 ppb **Date Collected: 3/14/2016 18:48:22**
Analyst: **Data Type: Original**

Replicate Data: 5.0 ppb

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0548	0.3276	0.0549	18:49:11	Yes
2		[5]	0.0553	0.3278	0.0554	18:49:41	Yes
3		[5]	0.0554	0.3276	0.0555	18:50:11	Yes
Mean:		[5]	0.0552				
SD:		0	0.0003				
%RSD:		0	0.59				

Standard number 4 applied. [5]
Correlation Coef.: 0.999995 Slope: 0.01104 Intercept: 0.00000

==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: 10.0 ppb **Date Collected: 3/14/2016 18:50:13**
Analyst: **Data Type: Original**

Replicate Data: 10.0 ppb

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.1116	0.6689	0.1116	18:51:02	Yes
2		[10]	0.1104	0.6548	0.1105	18:51:32	Yes
3		[10]	0.1118	0.6625	0.1119	18:52:02	Yes
Mean:		[10]	0.1112				
SD:		0	0.0007				
%RSD:		0	0.67				

Standard number 5 applied. [10]
Correlation Coef.: 0.999988 Slope: 0.01110 Intercept: 0.00000

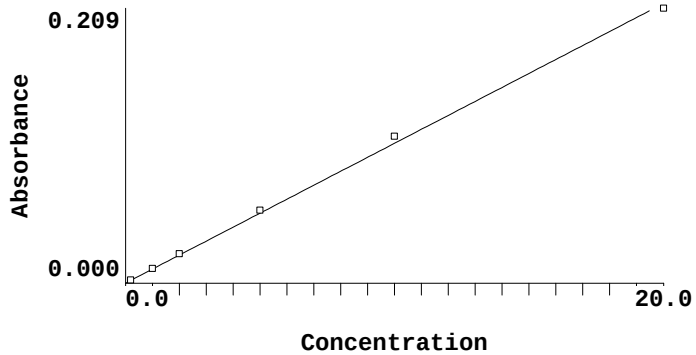
==========

Sequence No.: 7 **Autosampler Location: 7**
Sample ID: 20.0 ppb **Date Collected: 3/14/2016 18:52:04**
Analyst: **Data Type: Original**

Replicate Data: 20.0 ppb

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[20]	0.2091	1.2623	0.2092	18:52:56	Yes
2		[20]	0.2082	1.2471	0.2083	18:53:25	Yes
3		[20]	0.2085	1.2475	0.2086	18:53:55	Yes
Mean:		[20]	0.2086				
SD:		0	0.0005				
%RSD:		0	0.23				

Standard number 6 applied. [20]
Correlation Coef.: 0.999306 Slope: 0.01060 Intercept: 0.00000



Calibration data for Hg 253.7 **Equation: Linear Through Zero**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.0000	0.00	76.0
0.2 ppb	0.0022	0.2	0.2121	0.00	3.4
1.0 ppb	0.0109	1.0	1.0312	0.00	0.9
2.0 ppb	0.0221	2.0	2.0866	0.00	0.4
5.0 ppb	0.0552	5.0	5.2044	0.00	0.6
10.0 ppb	0.1112	10.0	10.4909	0.00	0.7
20.0 ppb	0.2086	20.0	19.6732	0.00	0.2

Correlation Coef.: 0.999306 Slope: 0.01060 Intercept: 0.00000

==========

Sequence No.: 8 **Autosampler Location: 8**
Sample ID: ICV **Date Collected: 3/14/2016 18:54:14**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.129	3.129	0.0332	0.1978	0.0333	18:55:05	Yes
2	3.140	3.140	0.0333	0.1961	0.0334	18:55:35	Yes
3	3.169	3.169	0.0336	0.1978	0.0337	18:56:05	Yes
Mean:	3.146	3.146	0.0334				
SD:	0.0207	0.0207	0.0002				
%RSD:	0.6564	0.6564	0.66				

QC value within limits for Hg 253.7 Recovery = 104.87%
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 9**
Sample ID: ICB **Date Collected: 3/14/2016 18:56:06**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0103	-0.0103	-0.0001	-0.0011	-0.0000	18:56:57	Yes
2	-0.0092	-0.0092	-0.0001	-0.0006	-0.0000	18:57:27	Yes
3	-0.0054	-0.0054	-0.0001	0.0001	0.0000	18:57:57	Yes
Mean:	-0.0083	-0.0083	-0.0001				
SD:	0.0026	0.0026	0.0000				
%RSD:	30.93	30.93	30.93				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 12**
Sample ID: WG873525-1 C **Date Collected: 3/14/2016 18:57:58**
Analyst: **Data Type: Original**

Replicate Data: WG873525-1 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0079	-0.0079	-0.0001	-0.0001	0.0000	18:58:49	Yes
2	-0.0054	-0.0054	-0.0001	-0.0002	0.0000	18:59:19	Yes
3	-0.0061	-0.0061	-0.0001	-0.0001	0.0000	18:59:49	Yes
Mean:	-0.0064	-0.0064	-0.0001				
SD:	0.0013	0.0013	0.0000				
%RSD:	19.92	19.92	19.92				

==========

Sequence No.: 11 **Autosampler Location: 13**
Sample ID: WG873525-2 C **Date Collected: 3/14/2016 18:59:50**
Analyst: **Data Type: Original**

Replicate Data: WG873525-2 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.102	1.102	0.0117	0.0703	0.0118	19:00:41	Yes
2	1.080	1.080	0.0114	0.0685	0.0115	19:01:11	Yes
3	1.091	1.091	0.0116	0.0692	0.0117	19:01:41	Yes
Mean:	1.091	1.091	0.0116				
SD:	0.0112	0.0112	0.0001				

%RSD: 1.025 1.025 1.03

==========

Sequence No.: 12 **Autosampler Location: 14**
Sample ID: L1606521-01 C **Date Collected: 3/14/2016 19:01:42**
Analyst: **Data Type: Original**

Replicate Data: L1606521-01 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0078	-0.0078	-0.0001	-0.0004	0.0000	19:02:34	Yes
2	-0.0096	-0.0096	-0.0001	-0.0005	-0.0000	19:03:03	Yes
3	-0.0054	-0.0054	-0.0001	0.0001	0.0000	19:03:33	Yes
Mean:	-0.0076	-0.0076	-0.0001				
SD:	0.0021	0.0021	0.0000				
%RSD:	27.73	27.73	27.73				

==========

Sequence No.: 13 **Autosampler Location: 15**
Sample ID: WG873525-3 C **Date Collected: 3/14/2016 19:03:35**
Analyst: **Data Type: Original**

Replicate Data: WG873525-3 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0047	-0.0047	-0.0000	-0.0000	0.0000	19:04:25	Yes
2	-0.0063	-0.0063	-0.0001	-0.0001	0.0000	19:04:55	Yes
3	-0.0053	-0.0053	-0.0001	-0.0003	0.0000	19:05:25	Yes
Mean:	-0.0054	-0.0054	-0.0001				
SD:	0.0008	0.0008	0.0000				
%RSD:	15.48	15.48	15.48				

==========

Sequence No.: 14 **Autosampler Location: 16**
Sample ID: WG873525-4 C **Date Collected: 3/14/2016 19:05:26**
Analyst: **Data Type: Original**

Replicate Data: WG873525-4 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.187	5.187	0.0550	0.3310	0.0551	19:06:16	Yes
2	5.434	5.434	0.0576	0.3431	0.0577	19:06:46	Yes
3	5.106	5.106	0.0541	0.3224	0.0542	19:07:16	Yes
Mean:	5.242	5.242	0.0556				
SD:	0.1711	0.1711	0.0018				
%RSD:	3.263	3.263	3.26				

==========

Sequence No.: 15 **Autosampler Location: 17**
Sample ID: L1606521-02 C **Date Collected: 3/14/2016 19:07:17**
Analyst: **Data Type: Original**

Replicate Data: L1606521-02 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0099	-0.0099	-0.0001	-0.0010	-0.0000	19:08:07	Yes
2	-0.0120	-0.0120	-0.0001	-0.0009	-0.0000	19:08:37	Yes
3	-0.0068	-0.0068	-0.0001	-0.0001	0.0000	19:09:07	Yes
Mean:	-0.0096	-0.0096	-0.0001				
SD:	0.0026	0.0026	0.0000				
%RSD:	27.08	27.08	27.08				

==========

Sequence No.: 16 **Autosampler Location: 18**
Sample ID: L1606521-03 C **Date Collected: 3/14/2016 19:09:08**
Analyst: **Data Type: Original**

Replicate Data: L1606521-03 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0077	-0.0077	-0.0001	-0.0003	0.0000	19:09:59	Yes
2	-0.0068	-0.0068	-0.0001	-0.0002	0.0000	19:10:29	Yes
3	-0.0067	-0.0067	-0.0001	0.0000	0.0000	19:10:59	Yes
Mean:	-0.0071	-0.0071	-0.0001				

SD:	0.0006	0.0006	0.0000
%RSD:	8.312	8.312	8.31

==========

Sequence No.: 17 **Autosampler Location: 19**
Sample ID: L1606521-04 C **Date Collected: 3/14/2016 19:11:00**
Analyst: **Data Type: Original**

Replicate Data: L1606521-04 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0075	-0.0075	-0.0001	-0.0004	0.0000	19:11:50	Yes
2	-0.0072	-0.0072	-0.0001	-0.0001	0.0000	19:12:20	Yes
3	-0.0065	-0.0065	-0.0001	-0.0000	0.0000	19:12:50	Yes
Mean:	-0.0071	-0.0071	-0.0001				
SD:	0.0005	0.0005	0.0000				
%RSD:	7.611	7.611	7.61				

==========

Sequence No.: 18 **Autosampler Location: 20**
Sample ID: L1606584-03 C **Date Collected: 3/14/2016 19:12:52**
Analyst: **Data Type: Original**

Replicate Data: L1606584-03 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0076	-0.0076	-0.0001	-0.0003	0.0000	19:13:42	Yes
2	-0.0078	-0.0078	-0.0001	-0.0003	0.0000	19:14:11	Yes
3	-0.0077	-0.0077	-0.0001	-0.0003	0.0000	19:14:41	Yes
Mean:	-0.0077	-0.0077	-0.0001				
SD:	0.0001	0.0001	0.0000				
%RSD:	1.301	1.301	1.30				

==========

Sequence No.: 19 **Autosampler Location: 21**
Sample ID: L1606584-06 C **Date Collected: 3/14/2016 19:14:43**
Analyst: **Data Type: Original**

Replicate Data: L1606584-06 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0026	-0.0026	-0.0000	0.0004	0.0001	19:15:35	Yes
2	-0.0069	-0.0069	-0.0001	-0.0002	0.0000	19:16:05	Yes
3	-0.0065	-0.0065	-0.0001	-0.0002	0.0000	19:16:35	Yes
Mean:	-0.0053	-0.0053	-0.0001				
SD:	0.0024	0.0024	0.0000				
%RSD:	44.88	44.88	44.88				

==========

Sequence No.: 20 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 19:16:36**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.58	10.58	0.1122	0.6724	0.1123	19:17:27	Yes
2	10.57	10.57	0.1121	0.6650	0.1122	19:17:56	Yes
3	10.42	10.42	0.1105	0.6529	0.1106	19:18:26	Yes
Mean:	10.53	10.53	0.1116				
SD:	0.0904	0.0904	0.0010				
%RSD:	0.8589	0.8589	0.86				

QC value within limits for Hg 253.7 Recovery = 105.26%
All analyte(s) passed QC.

==========

Sequence No.: 21 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 19:18:28**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0097	-0.0097	-0.0001	-0.0017	-0.0000	19:19:17	Yes

2	-0.0059	-0.0059	-0.0001	-0.0003	0.0000	19:19:47	Yes
3	-0.0050	-0.0050	-0.0001	-0.0002	0.0000	19:20:17	Yes
Mean:	-0.0069	-0.0069	-0.0001				
SD:	0.0025	0.0025	0.0000				
%RSD:	36.33	36.33	36.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 22 **Autosampler Location: 22**
Sample ID: L1606584-09 C **Date Collected: 3/14/2016 19:20:19**
Analyst: **Data Type: Original**

Replicate Data: L1606584-09 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0082	-0.0082	-0.0001	-0.0005	0.0000	19:21:10	Yes
2	-0.0017	-0.0017	-0.0000	0.0005	0.0001	19:21:40	Yes
3	-0.0084	-0.0084	-0.0001	-0.0005	-0.0000	19:22:10	Yes
Mean:	-0.0061	-0.0061	-0.0001				
SD:	0.0038	0.0038	0.0000				
%RSD:	62.26	62.26	62.26				

==========

Sequence No.: 23 **Autosampler Location: 23**
Sample ID: L1606651-01 C **Date Collected: 3/14/2016 19:22:11**
Analyst: **Data Type: Original**

Replicate Data: L1606651-01 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0053	-0.0053	-0.0001	0.0001	0.0000	19:23:01	Yes
2	-0.0065	-0.0065	-0.0001	-0.0001	0.0000	19:23:31	Yes
3	-0.0052	-0.0052	-0.0001	0.0001	0.0000	19:24:01	Yes
Mean:	-0.0057	-0.0057	-0.0001				
SD:	0.0007	0.0007	0.0000				
%RSD:	13.16	13.16	13.16				

==========

Sequence No.: 24 **Autosampler Location: 24**
Sample ID: L1606711-01 C **Date Collected: 3/14/2016 19:24:03**
Analyst: **Data Type: Original**

Replicate Data: L1606711-01 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0057	-0.0057	-0.0001	0.0001	0.0000	19:24:52	Yes
2	-0.0056	-0.0056	-0.0001	-0.0002	0.0000	19:25:23	Yes
3	-0.0025	-0.0025	-0.0000	0.0003	0.0001	19:25:53	Yes
Mean:	-0.0046	-0.0046	-0.0000				
SD:	0.0018	0.0018	0.0000				
%RSD:	38.93	38.93	38.93				

==========

Sequence No.: 25 **Autosampler Location: 25**
Sample ID: L1606711-04 C **Date Collected: 3/14/2016 19:25:54**
Analyst: **Data Type: Original**

Replicate Data: L1606711-04 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0063	-0.0063	-0.0001	0.0000	0.0000	19:26:44	Yes
2	-0.0075	-0.0075	-0.0001	-0.0004	0.0000	19:27:15	Yes
3	-0.0073	-0.0073	-0.0001	-0.0002	0.0000	19:27:44	Yes
Mean:	-0.0070	-0.0070	-0.0001				
SD:	0.0007	0.0007	0.0000				
%RSD:	9.454	9.454	9.45				

==========

Sequence No.: 26 **Autosampler Location: 26**
Sample ID: L1606711-07 C **Date Collected: 3/14/2016 19:27:46**
Analyst: **Data Type: Original**

Replicate Data: L1606711-07 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0054	-0.0054	-0.0001	0.0001	0.0000	19:28:36	Yes
2	-0.0058	-0.0058	-0.0001	0.0000	0.0000	19:29:06	Yes
3	-0.0050	-0.0050	-0.0001	0.0001	0.0000	19:29:36	Yes
Mean:	-0.0054	-0.0054	-0.0001				
SD:	0.0004	0.0004	0.0000				
%RSD:	7.220	7.220	7.22				

==========

Sequence No.: 27 **Autosampler Location: 27**
Sample ID: L1606711-10 C **Date Collected: 3/14/2016 19:29:37**
Analyst: **Data Type: Original**

Replicate Data: L1606711-10 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0053	-0.0053	-0.0001	-0.0001	0.0000	19:30:27	Yes
2	-0.0051	-0.0051	-0.0001	-0.0001	0.0000	19:30:57	Yes
3	-0.0016	-0.0016	-0.0000	0.0002	0.0001	19:31:27	Yes
Mean:	-0.0040	-0.0040	-0.0000				
SD:	0.0021	0.0021	0.0000				
%RSD:	51.57	51.57	51.57				

==========

Sequence No.: 28 **Autosampler Location: 28**
Sample ID: L1606711-13 C **Date Collected: 3/14/2016 19:31:28**
Analyst: **Data Type: Original**

Replicate Data: L1606711-13 C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0045	-0.0045	-0.0000	-0.0000	0.0000	19:32:20	Yes
2	-0.0052	-0.0052	-0.0001	0.0001	0.0000	19:32:49	Yes
3	-0.0055	-0.0055	-0.0001	-0.0003	0.0000	19:33:19	Yes
Mean:	-0.0051	-0.0051	-0.0001				
SD:	0.0005	0.0005	0.0000				
%RSD:	9.771	9.771	9.77				

==========

Sequence No.: 29 **Autosampler Location: 29**
Sample ID: WG873530-1 T **Date Collected: 3/14/2016 19:33:21**
Analyst: **Data Type: Original**

Replicate Data: WG873530-1 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0062	-0.0062	-0.0001	-0.0003	0.0000	19:34:11	Yes
2	-0.0059	-0.0059	-0.0001	-0.0000	0.0000	19:34:41	Yes
3	-0.0065	-0.0065	-0.0001	-0.0001	0.0000	19:35:11	Yes
Mean:	-0.0062	-0.0062	-0.0001				
SD:	0.0003	0.0003	0.0000				
%RSD:	4.319	4.319	4.32				

==========

Sequence No.: 30 **Autosampler Location: 30**
Sample ID: WG873530-2 T **Date Collected: 3/14/2016 19:35:12**
Analyst: **Data Type: Original**

Replicate Data: WG873530-2 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.137	1.137	0.0121	0.0725	0.0121	19:36:03	Yes
2	1.134	1.134	0.0120	0.0718	0.0121	19:36:33	Yes
3	1.132	1.132	0.0120	0.0715	0.0121	19:37:03	Yes
Mean:	1.134	1.134	0.0120				
SD:	0.0023	0.0023	0.0000				
%RSD:	0.2033	0.2033	0.20				

==========

Sequence No.: 31 **Autosampler Location: 31**
Sample ID: L1607065-07 T **Date Collected: 3/14/2016 19:37:04**
Analyst: **Data Type: Original**

Replicate Data: L1607065-07 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0072	-0.0072	-0.0001	-0.0002	0.0000	19:37:54	Yes
2	-0.0047	-0.0047	-0.0001	0.0001	0.0000	19:38:24	Yes
3	-0.0050	-0.0050	-0.0001	-0.0000	0.0000	19:38:54	Yes
Mean:	-0.0056	-0.0056	-0.0001				
SD:	0.0013	0.0013	0.0000				
%RSD:	23.86	23.86	23.86				

==========

Sequence No.: 32 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 19:38:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.76	10.76	0.1141	0.6817	0.1142	19:39:47	Yes
2	10.55	10.55	0.1118	0.6605	0.1119	19:40:17	Yes
3	10.68	10.68	0.1132	0.6666	0.1133	19:40:47	Yes
Mean:	10.66	10.66	0.1131				
SD:	0.1100	0.1100	0.0012				
%RSD:	1.032	1.032	1.03				

QC value within limits for Hg 253.7 Recovery = 106.64%
All analyte(s) passed QC.

==========

Sequence No.: 33 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 19:40:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0103	-0.0103	-0.0001	-0.0014	-0.0000	19:41:39	Yes
2	-0.0054	-0.0054	-0.0001	-0.0009	0.0000	19:42:09	Yes
3	-0.0023	-0.0023	-0.0000	-0.0000	0.0001	19:42:39	Yes
Mean:	-0.0060	-0.0060	-0.0001				
SD:	0.0041	0.0041	0.0000				
%RSD:	68.12	68.12	68.12				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 34 **Autosampler Location: 32**
Sample ID: WG873530-3 T **Date Collected: 3/14/2016 19:42:40**
Analyst: **Data Type: Original**

Replicate Data: WG873530-3 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0081	-0.0081	-0.0001	-0.0003	0.0000	19:43:31	Yes
2	-0.0044	-0.0044	-0.0000	0.0001	0.0000	19:44:01	Yes
3	-0.0057	-0.0057	-0.0001	0.0000	0.0000	19:44:31	Yes
Mean:	-0.0061	-0.0061	-0.0001				
SD:	0.0019	0.0019	0.0000				
%RSD:	30.59	30.59	30.59				

==========

Sequence No.: 35 **Autosampler Location: 33**
Sample ID: WG873530-4 T **Date Collected: 3/14/2016 19:44:32**
Analyst: **Data Type: Original**

Replicate Data: WG873530-4 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.077	5.077	0.0538	0.3235	0.0539	19:45:22	Yes
2	4.999	4.999	0.0530	0.3156	0.0531	19:45:52	Yes
3	4.957	4.957	0.0526	0.3117	0.0526	19:46:22	Yes
Mean:	5.011	5.011	0.0531				
SD:	0.0607	0.0607	0.0006				
%RSD:	1.211	1.211	1.21				

==========

Sequence No.: 36 **Autosampler Location: 34**
Sample ID: WG873532-1 U **Date Collected: 3/14/2016 19:46:24**
Analyst: **Data Type: Original**

Replicate Data: WG873532-1 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0077	-0.0077	-0.0001	-0.0003	0.0000	19:47:14	Yes
2	-0.0009	-0.0009	-0.0000	0.0005	0.0001	19:47:44	Yes
3	-0.0018	-0.0018	-0.0000	0.0003	0.0001	19:48:14	Yes
Mean:	-0.0035	-0.0035	-0.0000				
SD:	0.0037	0.0037	0.0000				
%RSD:	106.6	106.6	106.57				

Sequence No.: 37 **Autosampler Location: 35**
Sample ID: WG873532-2 U **Date Collected: 3/14/2016 19:48:15**
Analyst: **Data Type: Original**

Replicate Data: WG873532-2 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.101	1.101	0.0117	0.0702	0.0118	19:49:07	Yes
2	1.110	1.110	0.0118	0.0700	0.0119	19:49:37	Yes
3	1.083	1.083	0.0115	0.0685	0.0116	19:50:07	Yes
Mean:	1.098	1.098	0.0116				
SD:	0.0137	0.0137	0.0001				
%RSD:	1.252	1.252	1.25				

Sequence No.: 38 **Autosampler Location: 36**
Sample ID: L1607055-01 U **Date Collected: 3/14/2016 19:50:08**
Analyst: **Data Type: Original**

Replicate Data: L1607055-01 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0069	-0.0069	-0.0001	-0.0002	0.0000	19:50:58	Yes
2	-0.0037	-0.0037	-0.0000	0.0002	0.0000	19:51:28	Yes
3	-0.0030	-0.0030	-0.0000	0.0003	0.0001	19:51:59	Yes
Mean:	-0.0045	-0.0045	-0.0000				
SD:	0.0020	0.0020	0.0000				
%RSD:	44.92	44.92	44.92				

Sequence No.: 39 **Autosampler Location: 37**
Sample ID: WG873532-3 U **Date Collected: 3/14/2016 19:52:00**
Analyst: **Data Type: Original**

Replicate Data: WG873532-3 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0058	-0.0058	-0.0001	-0.0002	0.0000	19:52:50	Yes
2	-0.0023	-0.0023	-0.0000	0.0004	0.0001	19:53:20	Yes
3	-0.0075	-0.0075	-0.0001	-0.0002	0.0000	19:53:50	Yes
Mean:	-0.0052	-0.0052	-0.0001				
SD:	0.0027	0.0027	0.0000				
%RSD:	51.49	51.49	51.49				

Sequence No.: 40 **Autosampler Location: 38**
Sample ID: WG873532-4 U **Date Collected: 3/14/2016 19:53:51**
Analyst: **Data Type: Original**

Replicate Data: WG873532-4 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.843	4.843	0.0514	0.3066	0.0514	19:54:41	Yes
2	4.865	4.865	0.0516	0.3057	0.0517	19:55:11	Yes
3	4.875	4.875	0.0517	0.3058	0.0518	19:55:41	Yes
Mean:	4.861	4.861	0.0515				
SD:	0.0162	0.0162	0.0002				
%RSD:	0.3338	0.3338	0.33				

==========

Sequence No.: 41 **Autosampler Location: 39**
Sample ID: WG873028-1 S **Date Collected: 3/14/2016 19:55:42**
Analyst: **Data Type: Original**

Replicate Data: WG873028-1 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0050	-0.0050	-0.0001	-0.0001	0.0000	19:56:32	Yes
2	-0.0001	-0.0001	-0.0000	0.0003	0.0001	19:57:02	Yes
3	-0.0007	-0.0007	-0.0000	0.0003	0.0001	19:57:32	Yes
Mean:	-0.0019	-0.0019	-0.0000				
SD:	0.0026	0.0026	0.0000				
%RSD:	136.6	136.6	136.63				

==========

Sequence No.: 42 **Autosampler Location: 40**
Sample ID: WG873028-2 S **Date Collected: 3/14/2016 19:57:33**
Analyst: **Data Type: Original**

Replicate Data: WG873028-2 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.142	1.142	0.0121	0.0726	0.0122	19:58:24	Yes
2	1.121	1.121	0.0119	0.0709	0.0120	19:58:54	Yes
3	1.134	1.134	0.0120	0.0711	0.0121	19:59:23	Yes
Mean:	1.132	1.132	0.0120				
SD:	0.0103	0.0103	0.0001				
%RSD:	0.9090	0.9090	0.91				

==========

Sequence No.: 43 **Autosampler Location: 41**
Sample ID: L1606763-01 S **Date Collected: 3/14/2016 19:59:25**
Analyst: **Data Type: Original**

Replicate Data: L1606763-01 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0053	-0.0053	-0.0001	0.0000	0.0000	20:00:15	Yes
2	0.0003	0.0003	0.0000	0.0005	0.0001	20:00:45	Yes
3	0.0040	0.0040	0.0000	0.0003	0.0001	20:01:15	Yes
Mean:	-0.0003	-0.0003	-0.0000				
SD:	0.0047	0.0047	0.0000				
%RSD:	>999.9%	>999.9%	>999.9%				

==========

Sequence No.: 44 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 20:01:16**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.63	10.63	0.1127	0.6736	0.1128	20:02:07	Yes
2	10.59	10.59	0.1123	0.6604	0.1124	20:02:37	Yes
3	10.50	10.50	0.1114	0.6567	0.1114	20:03:07	Yes
Mean:	10.58	10.58	0.1121				
SD:	0.0663	0.0663	0.0007				
%RSD:	0.6269	0.6269	0.63				

QC value within limits for Hg 253.7 Recovery = 105.75%
All analyte(s) passed QC.

==========

Sequence No.: 45 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 20:03:08**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0088	-0.0088	-0.0001	-0.0019	-0.0000	20:03:59	Yes
2	-0.0060	-0.0060	-0.0001	-0.0005	0.0000	20:04:29	Yes
3	-0.0031	-0.0031	-0.0000	0.0000	0.0001	20:04:59	Yes
Mean:	-0.0060	-0.0060	-0.0001				

SD:	0.0029	0.0029	0.0000
%RSD:	47.84	47.84	47.84

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 46 **Autosampler Location: 42**
Sample ID: WG873028-3 S **Date Collected: 3/14/2016 20:05:00**
Analyst: **Data Type: Original**

Replicate Data: WG873028-3 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0090	0.0090	0.0001	0.0009	0.0002	20:05:52	Yes
2	0.0029	0.0029	0.0000	0.0002	0.0001	20:06:22	Yes
3	0.0035	0.0035	0.0000	0.0001	0.0001	20:06:52	Yes
Mean:	0.0051	0.0051	0.0001				
SD:	0.0034	0.0034	0.0000				
%RSD:	65.69	65.69	65.69				

Sequence No.: 47 **Autosampler Location: 43**
Sample ID: WG873028-4 S **Date Collected: 3/14/2016 20:06:53**
Analyst: **Data Type: Original**

Replicate Data: WG873028-4 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.232	5.232	0.0555	0.3316	0.0556	20:07:43	Yes
2	5.181	5.181	0.0549	0.3255	0.0550	20:08:13	Yes
3	5.276	5.276	0.0559	0.3313	0.0560	20:08:43	Yes
Mean:	5.230	5.230	0.0554				
SD:	0.0473	0.0473	0.0005				
%RSD:	0.9042	0.9042	0.90				

Sequence No.: 48 **Autosampler Location: 44**
Sample ID: WG872887-1 T **Date Collected: 3/14/2016 20:08:44**
Analyst: **Data Type: Original**

Replicate Data: WG872887-1 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0092	-0.0092	-0.0001	-0.0009	-0.0000	20:09:35	Yes
2	0.0010	0.0010	0.0000	0.0001	0.0001	20:10:05	Yes
3	0.0083	0.0083	0.0001	0.0010	0.0002	20:10:34	Yes
Mean:	0.0000	0.0000	0.0000				
SD:	0.0088	0.0088	0.0001				
%RSD:	>999.9%	>999.9%	>999.9%				

Sequence No.: 49 **Autosampler Location: 45**
Sample ID: WG872887-2 T **Date Collected: 3/14/2016 20:10:36**
Analyst: **Data Type: Original**

Replicate Data: WG872887-2 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.044	1.044	0.0111	0.0671	0.0112	20:11:26	Yes
2	1.051	1.051	0.0111	0.0661	0.0112	20:11:56	Yes
3	1.039	1.039	0.0110	0.0646	0.0111	20:12:26	Yes
Mean:	1.045	1.045	0.0111				
SD:	0.0060	0.0060	0.0001				
%RSD:	0.5743	0.5743	0.57				

Sequence No.: 50 **Autosampler Location: 46**
Sample ID: L1606590-08 T **Date Collected: 3/14/2016 20:12:27**
Analyst: **Data Type: Original**

Replicate Data: L1606590-08 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0048	0.0048	0.0001	0.0004	0.0001	20:13:17	Yes

2	0.0055	0.0055	0.0001	0.0005	0.0001	20:13:47	Yes
3	0.0062	0.0062	0.0001	0.0006	0.0002	20:14:17	Yes
Mean:	0.0055	0.0055	0.0001				
SD:	0.0007	0.0007	0.0000				
%RSD:	13.12	13.12	13.12				

Sequence No.: 51 **Autosampler Location: 47**
Sample ID: WG872887-3 T **Date Collected: 3/14/2016 20:14:19**
Analyst: **Data Type: Original**

Replicate Data: WG872887-3 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.901	4.901	0.0520	0.3131	0.0521	20:15:09	Yes
2	4.854	4.854	0.0515	0.3061	0.0516	20:15:39	Yes
3	4.925	4.925	0.0522	0.3102	0.0523	20:16:09	Yes
Mean:	4.894	4.894	0.0519				
SD:	0.0363	0.0363	0.0004				
%RSD:	0.7408	0.7408	0.74				

Sequence No.: 52 **Autosampler Location: 48**
Sample ID: WG872887-4 T **Date Collected: 3/14/2016 20:16:10**
Analyst: **Data Type: Original**

Replicate Data: WG872887-4 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.835	4.835	0.0513	0.3065	0.0514	20:17:00	Yes
2	4.787	4.787	0.0508	0.3014	0.0508	20:17:30	Yes
3	4.811	4.811	0.0510	0.3024	0.0511	20:18:00	Yes
Mean:	4.811	4.811	0.0510				
SD:	0.0242	0.0242	0.0003				
%RSD:	0.5031	0.5031	0.50				

Sequence No.: 53 **Autosampler Location: 49**
Sample ID: L1606590-04 T **Date Collected: 3/14/2016 20:18:01**
Analyst: **Data Type: Original**

Replicate Data: L1606590-04 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0089	0.0089	0.0001	0.0006	0.0002	20:18:53	Yes
2	0.0085	0.0085	0.0001	0.0006	0.0002	20:19:23	Yes
3	0.0109	0.0109	0.0001	0.0009	0.0002	20:19:53	Yes
Mean:	0.0094	0.0094	0.0001				
SD:	0.0013	0.0013	0.0000				
%RSD:	13.40	13.40	13.40				

Sequence No.: 54 **Autosampler Location: 50**
Sample ID: L1606590-05 T **Date Collected: 3/14/2016 20:19:55**
Analyst: **Data Type: Original**

Replicate Data: L1606590-05 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0116	0.0116	0.0001	0.0011	0.0002	20:20:45	Yes
2	0.0067	0.0067	0.0001	0.0007	0.0002	20:21:14	Yes
3	0.0055	0.0055	0.0001	0.0007	0.0001	20:21:44	Yes
Mean:	0.0079	0.0079	0.0001				
SD:	0.0032	0.0032	0.0000				
%RSD:	40.53	40.53	40.53				

Sequence No.: 55 **Autosampler Location: 51**
Sample ID: L1606590-06 T **Date Collected: 3/14/2016 20:21:46**
Analyst: **Data Type: Original**

Replicate Data: L1606590-06 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.0022	-0.0022	-0.0000	0.0001	0.0001	20:22:36	Yes
2	-0.0050	-0.0050	-0.0001	-0.0002	0.0000	20:23:06	Yes
3	-0.0041	-0.0041	-0.0000	-0.0000	0.0000	20:23:35	Yes
Mean:	-0.0038	-0.0038	-0.0000				
SD:	0.0014	0.0014	0.0000				
%RSD:	37.90	37.90	37.90				

==========

Sequence No.: 56 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 20:23:37**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.71	10.71	0.1135	0.6746	0.1136	20:24:29	Yes
2	10.56	10.56	0.1119	0.6582	0.1120	20:24:59	Yes
3	10.59	10.59	0.1123	0.6612	0.1124	20:25:29	Yes
Mean:	10.62	10.62	0.1126				
SD:	0.0791	0.0791	0.0008				
%RSD:	0.7448	0.7448	0.74				

QC value within limits for Hg 253.7 Recovery = 106.19%
All analyte(s) passed QC.

==========

Sequence No.: 57 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 20:25:30**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0104	-0.0104	-0.0001	-0.0018	-0.0000	20:26:20	Yes
2	-0.0097	-0.0097	-0.0001	-0.0007	-0.0000	20:26:50	Yes
3	-0.0099	-0.0099	-0.0001	-0.0013	-0.0000	20:27:20	Yes
Mean:	-0.0100	-0.0100	-0.0001				
SD:	0.0004	0.0004	0.0000				
%RSD:	3.742	3.742	3.74				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 58 **Autosampler Location: 52**
Sample ID: L1606590-07 T **Date Collected: 3/14/2016 20:27:21**
Analyst: **Data Type: Original**

Replicate Data: L1606590-07 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0046	-0.0046	-0.0000	-0.0000	0.0000	20:28:13	Yes
2	-0.0078	-0.0078	-0.0001	-0.0001	0.0000	20:28:43	Yes
3	-0.0054	-0.0054	-0.0001	-0.0001	0.0000	20:29:12	Yes
Mean:	-0.0060	-0.0060	-0.0001				
SD:	0.0017	0.0017	0.0000				
%RSD:	27.81	27.81	27.81				

==========

Sequence No.: 59 **Autosampler Location: 53**
Sample ID: L1606590-09 T **Date Collected: 3/14/2016 20:29:14**
Analyst: **Data Type: Original**

Replicate Data: L1606590-09 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0001	0.0008	0.0002	20:30:04	Yes
2	0.0051	0.0051	0.0001	0.0008	0.0001	20:30:34	Yes
3	0.0098	0.0098	0.0001	0.0011	0.0002	20:31:03	Yes
Mean:	0.0069	0.0069	0.0001				
SD:	0.0025	0.0025	0.0000				
%RSD:	35.71	35.71	35.71				

==========

Sequence No.: 60 **Autosampler Location: 54**
Sample ID: L1606590-11 T **Date Collected: 3/14/2016 20:31:05**
Analyst: **Data Type: Original**

Replicate Data: L1606590-11 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0092	0.0092	0.0001	0.0015	0.0002	20:31:55	Yes
2	0.0048	0.0048	0.0001	0.0011	0.0001	20:32:25	Yes
3	0.0051	0.0051	0.0001	0.0010	0.0001	20:32:55	Yes
Mean:	0.0064	0.0064	0.0001				
SD:	0.0024	0.0024	0.0000				
%RSD:	38.38	38.38	38.38				

==========

Sequence No.: 61 **Autosampler Location: 55**
Sample ID: L1606590-12 T **Date Collected: 3/14/2016 20:32:56**
Analyst: **Data Type: Original**

Replicate Data: L1606590-12 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0011	0.0011	0.0000	0.0007	0.0001	20:33:46	Yes
2	0.0025	0.0025	0.0000	0.0007	0.0001	20:34:16	Yes
3	0.0004	0.0004	0.0000	0.0005	0.0001	20:34:46	Yes
Mean:	0.0013	0.0013	0.0000				
SD:	0.0011	0.0011	0.0000				
%RSD:	81.18	81.18	81.18				

==========

Sequence No.: 62 **Autosampler Location: 56**
Sample ID: L1606590-13 T **Date Collected: 3/14/2016 20:34:47**
Analyst: **Data Type: Original**

Replicate Data: L1606590-13 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0008	0.0008	0.0000	0.0006	0.0001	20:35:39	Yes
2	-0.0005	-0.0005	-0.0000	0.0006	0.0001	20:36:09	Yes
3	-0.0023	-0.0023	-0.0000	0.0002	0.0001	20:36:38	Yes
Mean:	-0.0006	-0.0006	-0.0000				
SD:	0.0016	0.0016	0.0000				
%RSD:	246.1	246.1	246.14				

==========

Sequence No.: 63 **Autosampler Location: 57**
Sample ID: L1606590-14 T **Date Collected: 3/14/2016 20:36:40**
Analyst: **Data Type: Original**

Replicate Data: L1606590-14 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0024	-0.0024	-0.0000	0.0003	0.0001	20:37:30	Yes
2	-0.0040	-0.0040	-0.0000	0.0001	0.0000	20:38:00	Yes
3	-0.0050	-0.0050	-0.0001	-0.0000	0.0000	20:38:29	Yes
Mean:	-0.0038	-0.0038	-0.0000				
SD:	0.0013	0.0013	0.0000				
%RSD:	35.21	35.21	35.21				

==========

Sequence No.: 64 **Autosampler Location: 58**
Sample ID: L1606616-01 T **Date Collected: 3/14/2016 20:38:31**
Analyst: **Data Type: Original**

Replicate Data: L1606616-01 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0049	-0.0049	-0.0001	-0.0001	0.0000	20:39:21	Yes
2	-0.0024	-0.0024	-0.0000	0.0003	0.0001	20:39:51	Yes
3	-0.0048	-0.0048	-0.0001	0.0001	0.0000	20:40:20	Yes
Mean:	-0.0040	-0.0040	-0.0000				
SD:	0.0014	0.0014	0.0000				
%RSD:	34.60	34.60	34.60				

==========

Sequence No.: 65 **Autosampler Location: 59**
Sample ID: L1606763-01 T **Date Collected: 3/14/2016 20:40:22**

Analyst: **Data Type: Original**

Replicate Data: L1606763-01 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0099	0.0099	0.0001	0.0011	0.0002	20:41:12	Yes
2	0.0125	0.0125	0.0001	0.0010	0.0002	20:41:42	Yes
3	0.0137	0.0137	0.0001	0.0010	0.0002	20:42:12	Yes
Mean:	0.0120	0.0120	0.0001				
SD:	0.0019	0.0019	0.0000				
%RSD:	15.88	15.88	15.88				

Sequence No.: 66 **Autosampler Location: 60**
Sample ID: L1606768-01 T **Date Collected: 3/14/2016 20:42:13**
Analyst: **Data Type: Original**

Replicate Data: L1606768-01 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0404	0.0404	0.0004	0.0031	0.0005	20:43:03	Yes
2	0.0341	0.0341	0.0004	0.0024	0.0005	20:43:33	Yes
3	0.0346	0.0346	0.0004	0.0025	0.0005	20:44:03	Yes
Mean:	0.0364	0.0364	0.0004				
SD:	0.0035	0.0035	0.0000				
%RSD:	9.576	9.576	9.58				

Sequence No.: 67 **Autosampler Location: 61**
Sample ID: L1606768-02 T **Date Collected: 3/14/2016 20:44:04**
Analyst: **Data Type: Original**

Replicate Data: L1606768-02 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.008	1.008	0.0107	0.0647	0.0108	20:44:55	Yes
2	1.017	1.017	0.0108	0.0641	0.0109	20:45:25	Yes
3	1.022	1.022	0.0108	0.0642	0.0109	20:45:55	Yes
Mean:	1.016	1.016	0.0108				
SD:	0.0073	0.0073	0.0001				
%RSD:	0.7223	0.7223	0.72				

Sequence No.: 68 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 20:45:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.79	10.79	0.1144	0.6750	0.1145	20:46:49	Yes
2	10.54	10.54	0.1117	0.6531	0.1118	20:47:19	Yes
3	10.42	10.42	0.1104	0.6452	0.1105	20:47:49	Yes
Mean:	10.58	10.58	0.1122				
SD:	0.1903	0.1903	0.0020				
%RSD:	1.798	1.798	1.80				

QC value within limits for Hg 253.7 Recovery = 105.81%
All analyte(s) passed QC.

Sequence No.: 69 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 20:47:50**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0109	-0.0109	-0.0001	-0.0019	-0.0000	20:48:40	Yes
2	-0.0064	-0.0064	-0.0001	-0.0004	0.0000	20:49:10	Yes
3	-0.0042	-0.0042	-0.0000	-0.0001	0.0000	20:49:40	Yes
Mean:	-0.0072	-0.0072	-0.0001				
SD:	0.0034	0.0034	0.0000				
%RSD:	47.32	47.32	47.32				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

==========

Sequence No.: 70 **Autosampler Location: 62**
Sample ID: L1606768-03 T **Date Collected: 3/14/2016 20:49:41**
Analyst: **Data Type: Original**

Replicate Data: L1606768-03 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1102	0.1102	0.0012	0.0072	0.0013	20:50:33	Yes
2	0.0581	0.0581	0.0006	0.0034	0.0007	20:51:03	Yes
3	0.0509	0.0509	0.0005	0.0029	0.0006	20:51:33	Yes
Mean:	0.0731	0.0731	0.0008				
SD:	0.0323	0.0323	0.0003				
%RSD:	44.24	44.24	44.24				

==========

Sequence No.: 71 **Autosampler Location: 1**
Sample ID: L1606768-04 T **Date Collected: 3/14/2016 20:51:34**
Analyst: **Data Type: Original**

Replicate Data: L1606768-04 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.138	7.138	0.0757	0.4560	0.0758	20:52:27	Yes
2	7.150	7.150	0.0758	0.4516	0.0759	20:52:57	Yes
3	7.165	7.165	0.0760	0.4496	0.0761	20:53:27	Yes
Mean:	7.151	7.151	0.0758				
SD:	0.0137	0.0137	0.0001				
%RSD:	0.1917	0.1917	0.19				

==========

Sequence No.: 72 **Autosampler Location: 2**
Sample ID: WG873012-1 U **Date Collected: 3/14/2016 20:53:28**
Analyst: **Data Type: Original**

Replicate Data: WG873012-1 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0211	0.0211	0.0002	0.0010	0.0003	20:54:19	Yes
2	0.0446	0.0446	0.0005	0.0030	0.0006	20:54:49	Yes
3	0.0452	0.0452	0.0005	0.0030	0.0006	20:55:19	Yes
Mean:	0.0370	0.0370	0.0004				
SD:	0.0137	0.0137	0.0001				
%RSD:	37.13	37.13	37.13				

==========

Sequence No.: 73 **Autosampler Location: 3**
Sample ID: WG873012-2 U **Date Collected: 3/14/2016 20:55:20**
Analyst: **Data Type: Original**

Replicate Data: WG873012-2 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.8913	0.8913	0.0095	0.0563	0.0095	20:56:11	Yes
2	0.8957	0.8957	0.0095	0.0563	0.0096	20:56:41	Yes
3	0.8939	0.8939	0.0095	0.0563	0.0096	20:57:10	Yes
Mean:	0.8936	0.8936	0.0095				
SD:	0.0022	0.0022	0.0000				
%RSD:	0.2466	0.2466	0.25				

==========

Sequence No.: 74 **Autosampler Location: 4**
Sample ID: L1606724-01 U **Date Collected: 3/14/2016 20:57:11**
Analyst: **Data Type: Original**

Replicate Data: L1606724-01 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.9795	0.9795	0.0104	0.0625	0.0105	20:58:02	Yes
2	0.9920	0.9920	0.0105	0.0628	0.0106	20:58:32	Yes
3	0.9861	0.9861	0.0105	0.0623	0.0105	20:59:02	Yes
Mean:	0.9859	0.9859	0.0105				

SD:	0.0062	0.0062	0.0001
%RSD:	0.6315	0.6315	0.63

Sequence No.: 75 **Autosampler Location: 5**
Sample ID: WG873012-3 U **Date Collected: 3/14/2016 20:59:03**
Analyst: **Data Type: Original**

Replicate Data: WG873012-3 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.045	1.045	0.0111	0.0662	0.0112	20:59:54	Yes
2	1.041	1.041	0.0110	0.0656	0.0111	21:00:24	Yes
3	1.045	1.045	0.0111	0.0659	0.0112	21:00:54	Yes
Mean:	1.044	1.044	0.0111				
SD:	0.0024	0.0024	0.0000				
%RSD:	0.2315	0.2315	0.23				

Sequence No.: 76 **Autosampler Location: 6**
Sample ID: WG873012-4 U **Date Collected: 3/14/2016 21:00:55**
Analyst: **Data Type: Original**

Replicate Data: WG873012-4 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.912	5.912	0.0627	0.3746	0.0628	21:01:46	Yes
2	5.909	5.909	0.0626	0.3699	0.0627	21:02:16	Yes
3	6.006	6.006	0.0637	0.3769	0.0638	21:02:46	Yes
Mean:	5.942	5.942	0.0630				
SD:	0.0553	0.0553	0.0006				
%RSD:	0.9311	0.9311	0.93				

Sequence No.: 77 **Autosampler Location: 7**
Sample ID: L1606724-02 U **Date Collected: 3/14/2016 21:02:48**
Analyst: **Data Type: Original**

Replicate Data: L1606724-02 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.212	1.212	0.0129	0.0769	0.0129	21:03:40	Yes
2	1.211	1.211	0.0128	0.0760	0.0129	21:04:10	Yes
3	1.215	1.215	0.0129	0.0767	0.0130	21:04:39	Yes
Mean:	1.213	1.213	0.0129				
SD:	0.0019	0.0019	0.0000				
%RSD:	0.1594	0.1594	0.16				

Sequence No.: 78 **Autosampler Location: 8**
Sample ID: L1606724-03 U **Date Collected: 3/14/2016 21:04:41**
Analyst: **Data Type: Original**

Replicate Data: L1606724-03 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.27	10.27	0.1089	0.6568	0.1090	21:05:31	Yes
2	10.33	10.33	0.1095	0.6546	0.1096	21:06:01	Yes
3	10.29	10.29	0.1091	0.6497	0.1092	21:06:31	Yes
Mean:	10.30	10.30	0.1092				
SD:	0.0298	0.0298	0.0003				
%RSD:	0.2896	0.2896	0.29				

Sequence No.: 79 **Autosampler Location: 9**
Sample ID: L1606724-04 U **Date Collected: 3/14/2016 21:06:32**
Analyst: **Data Type: Original**

Replicate Data: L1606724-04 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.4519	0.4519	0.0048	0.0283	0.0049	21:07:22	Yes
2	0.4646	0.4646	0.0049	0.0296	0.0050	21:07:52	Yes
3	0.4667	0.4667	0.0049	0.0301	0.0050	21:08:22	Yes

Mean:	0.4611	0.4611	0.0049
SD:	0.0081	0.0081	0.0001
%RSD:	1.746	1.746	1.75

==========

Sequence No.: 80 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 21:08:23**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.90	10.90	0.1155	0.6802	0.1156	21:09:13	Yes
2	10.74	10.74	0.1139	0.6660	0.1140	21:09:43	Yes
3	10.71	10.71	0.1135	0.6637	0.1136	21:10:13	Yes
Mean:	10.78	10.78	0.1143				
SD:	0.1005	0.1005	0.0011				
%RSD:	0.9324	0.9324	0.93				

QC value within limits for Hg 253.7 Recovery = 107.82%
All analyte(s) passed QC.

==========

Sequence No.: 81 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 21:10:14**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0095	-0.0095	-0.0001	-0.0017	-0.0000	21:11:04	Yes
2	-0.0052	-0.0052	-0.0001	-0.0003	0.0000	21:11:34	Yes
3	-0.0011	-0.0011	-0.0000	0.0004	0.0001	21:12:04	Yes
Mean:	-0.0053	-0.0053	-0.0001				
SD:	0.0042	0.0042	0.0000				
%RSD:	79.45	79.45	79.45				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 82 **Autosampler Location: 12**
Sample ID: L1606724-05 U **Date Collected: 3/14/2016 21:12:05**
Analyst: **Data Type: Original**

Replicate Data: L1606724-05 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	24.15	24.15	0.2560	1.5545	0.2561	21:12:55	Yes
	Sample concentration is greater than that of the highest standard.						
2	23.81	23.81	0.2525	1.5190	0.2526	21:13:25	Yes
	Sample concentration is greater than that of the highest standard.						
3	23.43	23.43	0.2484	1.4891	0.2485	21:13:55	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	23.80	23.80	0.2523				
SD:	0.3586	0.3586	0.0038				
%RSD:	1.507	1.507	1.51				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 83 **Autosampler Location: 13**
Sample ID: L1606724-06 U **Date Collected: 3/14/2016 21:14:15**
Analyst: **Data Type: Original**

Replicate Data: L1606724-06 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.476	2.476	0.0262	0.1572	0.0263	21:15:07	Yes
2	2.420	2.420	0.0257	0.1523	0.0258	21:15:37	Yes
3	2.429	2.429	0.0258	0.1532	0.0258	21:16:07	Yes
Mean:	2.442	2.442	0.0259				
SD:	0.0299	0.0299	0.0003				
%RSD:	1.224	1.224	1.22				

==========

Sequence No.: 84 **Autosampler Location: 14**
Sample ID: L1606724-07 U **Date Collected: 3/14/2016 21:16:08**

Analyst: **Data Type: Original**

Replicate Data: L1606724-07 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0900	0.0900	0.0010	0.0058	0.0010	21:17:00	Yes
2	0.0901	0.0901	0.0010	0.0057	0.0010	21:17:30	Yes
3	0.0901	0.0901	0.0010	0.0056	0.0010	21:18:00	Yes
Mean:	0.0900	0.0900	0.0010				
SD:	0.0001	0.0001	0.0000				
%RSD:	0.0736	0.0736	0.07				

==========

Sequence No.: 85 **Autosampler Location: 15**
Sample ID: L1606724-08 U **Date Collected: 3/14/2016 21:18:02**
Analyst: **Data Type: Original**

Replicate Data: L1606724-08 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.43	11.43	0.1212	0.7358	0.1213	21:18:51	Yes
2	11.44	11.44	0.1213	0.7299	0.1214	21:19:21	Yes
3	11.39	11.39	0.1208	0.7227	0.1209	21:19:51	Yes
Mean:	11.42	11.42	0.1211				
SD:	0.0265	0.0265	0.0003				
%RSD:	0.2316	0.2316	0.23				

==========

Sequence No.: 86 **Autosampler Location: 16**
Sample ID: WG872918-1 T **Date Collected: 3/14/2016 21:20:10**
Analyst: **Data Type: Original**

Replicate Data: WG872918-1 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0012	0.0012	0.0000	0.0002	0.0001	21:21:01	Yes
2	0.0058	0.0058	0.0001	0.0006	0.0002	21:21:31	Yes
3	0.0085	0.0085	0.0001	0.0010	0.0002	21:22:00	Yes
Mean:	0.0052	0.0052	0.0001				
SD:	0.0037	0.0037	0.0000				
%RSD:	72.20	72.20	72.20				

==========

Sequence No.: 87 **Autosampler Location: 17**
Sample ID: WG872918-2 T **Date Collected: 3/14/2016 21:22:02**
Analyst: **Data Type: Original**

Replicate Data: WG872918-2 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.098	1.098	0.0116	0.0689	0.0117	21:22:52	Yes
2	1.100	1.100	0.0117	0.0683	0.0118	21:23:22	Yes
3	1.103	1.103	0.0117	0.0691	0.0118	21:23:52	Yes
Mean:	1.101	1.101	0.0117				
SD:	0.0026	0.0026	0.0000				
%RSD:	0.2351	0.2351	0.24				

==========

Sequence No.: 88 **Autosampler Location: 18**
Sample ID: L1606782-05 T **Date Collected: 3/14/2016 21:23:53**
Analyst: **Data Type: Original**

Replicate Data: L1606782-05 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0041	0.0041	0.0000	0.0006	0.0001	21:24:43	Yes
2	0.0101	0.0101	0.0001	0.0010	0.0002	21:25:14	Yes
3	0.0124	0.0124	0.0001	0.0013	0.0002	21:25:43	Yes
Mean:	0.0089	0.0089	0.0001				
SD:	0.0043	0.0043	0.0000				
%RSD:	48.43	48.43	48.43				

==========

Sequence No.: 89 **Autosampler Location: 19**

Sample ID: WG872918-3 T **Date Collected: 3/14/2016 21:25:45**
Analyst: **Data Type: Original**

Replicate Data: WG872918-3 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.459	3.459	0.0367	0.2262	0.0368	21:26:35	Yes
2	3.426	3.426	0.0363	0.2208	0.0364	21:27:05	Yes
3	3.470	3.470	0.0368	0.2233	0.0369	21:27:35	Yes
Mean:	3.452	3.452	0.0366				
SD:	0.0229	0.0229	0.0002				
%RSD:	0.6638	0.6638	0.66				

==========

Sequence No.: 90 **Autosampler Location: 20**
Sample ID: WG872918-4 T **Date Collected: 3/14/2016 21:27:36**
Analyst: **Data Type: Original**

Replicate Data: WG872918-4 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.545	3.545	0.0376	0.2308	0.0377	21:28:27	Yes
2	3.545	3.545	0.0376	0.2279	0.0377	21:28:57	Yes
3	3.518	3.518	0.0373	0.2267	0.0374	21:29:27	Yes
Mean:	3.536	3.536	0.0375				
SD:	0.0155	0.0155	0.0002				
%RSD:	0.4374	0.4374	0.44				

==========

Sequence No.: 91 **Autosampler Location: 21**
Sample ID: L1606782-09 T **Date Collected: 3/14/2016 21:29:28**
Analyst: **Data Type: Original**

Replicate Data: L1606782-09 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0122	0.0122	0.0001	0.0010	0.0002	21:30:20	Yes
2	0.0130	0.0130	0.0001	0.0011	0.0002	21:30:50	Yes
3	0.0143	0.0143	0.0002	0.0011	0.0002	21:31:20	Yes
Mean:	0.0132	0.0132	0.0001				
SD:	0.0011	0.0011	0.0000				
%RSD:	7.970	7.970	7.97				

==========

Sequence No.: 92 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 21:31:21**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.67	10.67	0.1131	0.6684	0.1132	21:32:12	Yes
2	10.53	10.53	0.1116	0.6526	0.1117	21:32:42	Yes
3	10.65	10.65	0.1130	0.6626	0.1131	21:33:11	Yes
Mean:	10.62	10.62	0.1126				
SD:	0.0761	0.0761	0.0008				
%RSD:	0.7169	0.7169	0.72				

QC value within limits for Hg 253.7 Recovery = 106.18%
All analyte(s) passed QC.

==========

Sequence No.: 93 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 21:33:13**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0085	-0.0085	-0.0001	-0.0008	-0.0000	21:34:03	Yes
2	0.0084	0.0084	0.0001	0.0010	0.0002	21:34:33	Yes
3	0.0028	0.0028	0.0000	0.0010	0.0001	21:35:03	Yes
Mean:	0.0009	0.0009	0.0000				
SD:	0.0086	0.0086	0.0001				
%RSD:	946.7	946.7	946.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 94 **Autosampler Location: 22**
Sample ID: WG872918-5 T **Date Collected: 3/14/2016 21:35:05**
Analyst: **Data Type: Original**

Replicate Data: WG872918-5 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0137	0.0137	0.0001	0.0017	0.0002	21:35:56	Yes
2	0.0070	0.0070	0.0001	0.0007	0.0002	21:36:26	Yes
3	0.0092	0.0092	0.0001	0.0010	0.0002	21:36:55	Yes
Mean:	0.0100	0.0100	0.0001				
SD:	0.0035	0.0035	0.0000				
%RSD:	34.66	34.66	34.66				

Sequence No.: 95 **Autosampler Location: 23**
Sample ID: WG872918-6 T **Date Collected: 3/14/2016 21:36:57**
Analyst: **Data Type: Original**

Replicate Data: WG872918-6 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.426	3.426	0.0363	0.2239	0.0364	21:37:47	Yes
2	3.347	3.347	0.0355	0.2159	0.0356	21:38:17	Yes
3	3.389	3.389	0.0359	0.2190	0.0360	21:38:48	Yes
Mean:	3.387	3.387	0.0359				
SD:	0.0393	0.0393	0.0004				
%RSD:	1.160	1.160	1.16				

Sequence No.: 96 **Autosampler Location: 24**
Sample ID: L1606782-01 T **Date Collected: 3/14/2016 21:38:49**
Analyst: **Data Type: Original**

Replicate Data: L1606782-01 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0046	-0.0046	-0.0000	-0.0003	0.0000	21:39:39	Yes
2	0.0011	0.0011	0.0000	0.0001	0.0001	21:40:09	Yes
3	0.0048	0.0048	0.0001	0.0005	0.0001	21:40:39	Yes
Mean:	0.0005	0.0005	0.0000				
SD:	0.0047	0.0047	0.0001				
%RSD:	>999.9%	>999.9%	>999.9%				

Sequence No.: 97 **Autosampler Location: 25**
Sample ID: L1606782-02 T **Date Collected: 3/14/2016 21:40:40**
Analyst: **Data Type: Original**

Replicate Data: L1606782-02 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0039	0.0039	0.0000	0.0007	0.0001	21:41:30	Yes
2	0.0065	0.0065	0.0001	0.0008	0.0002	21:42:00	Yes
3	0.0088	0.0088	0.0001	0.0009	0.0002	21:42:30	Yes
Mean:	0.0064	0.0064	0.0001				
SD:	0.0025	0.0025	0.0000				
%RSD:	38.57	38.57	38.57				

Sequence No.: 98 **Autosampler Location: 26**
Sample ID: L1606782-03 T **Date Collected: 3/14/2016 21:42:31**
Analyst: **Data Type: Original**

Replicate Data: L1606782-03 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0280	0.0280	0.0003	0.0023	0.0004	21:43:21	Yes
2	0.0277	0.0277	0.0003	0.0023	0.0004	21:43:51	Yes
3	0.0299	0.0299	0.0003	0.0024	0.0004	21:44:21	Yes

Mean:	0.0285	0.0285	0.0003
SD:	0.0012	0.0012	0.0000
%RSD:	4.311	4.311	4.31

Sequence No.: 99 **Autosampler Location: 27**
Sample ID: L1606782-04 T **Date Collected: 3/14/2016 21:44:22**
Analyst: **Data Type: Original**

Replicate Data: L1606782-04 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0050	0.0050	0.0001	0.0008	0.0001	21:45:12	Yes
2	0.0061	0.0061	0.0001	0.0007	0.0002	21:45:42	Yes
3	0.0058	0.0058	0.0001	0.0007	0.0001	21:46:12	Yes
Mean:	0.0056	0.0056	0.0001				
SD:	0.0006	0.0006	0.0000				
%RSD:	10.23	10.23	10.23				

Sequence No.: 100 **Autosampler Location: 28**
Sample ID: L1606782-06 T **Date Collected: 3/14/2016 21:46:13**
Analyst: **Data Type: Original**

Replicate Data: L1606782-06 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0078	0.0078	0.0001	0.0008	0.0002	21:47:03	Yes
2	0.0126	0.0126	0.0001	0.0010	0.0002	21:47:32	Yes
3	0.0150	0.0150	0.0002	0.0014	0.0002	21:48:02	Yes
Mean:	0.0118	0.0118	0.0001				
SD:	0.0037	0.0037	0.0000				
%RSD:	31.32	31.32	31.32				

Sequence No.: 101 **Autosampler Location: 29**
Sample ID: L1606782-07 T **Date Collected: 3/14/2016 21:48:04**
Analyst: **Data Type: Original**

Replicate Data: L1606782-07 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0490	0.0490	0.0005	0.0039	0.0006	21:48:54	Yes
2	0.0471	0.0471	0.0005	0.0036	0.0006	21:49:24	Yes
3	0.0477	0.0477	0.0005	0.0038	0.0006	21:49:54	Yes
Mean:	0.0479	0.0479	0.0005				
SD:	0.0010	0.0010	0.0000				
%RSD:	2.003	2.003	2.00				

Sequence No.: 102 **Autosampler Location: 30**
Sample ID: L1606782-08 T **Date Collected: 3/14/2016 21:49:55**
Analyst: **Data Type: Original**

Replicate Data: L1606782-08 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0260	0.0260	0.0003	0.0022	0.0004	21:50:45	Yes
2	0.0232	0.0232	0.0002	0.0017	0.0003	21:51:15	Yes
3	0.0212	0.0212	0.0002	0.0015	0.0003	21:51:45	Yes
Mean:	0.0235	0.0235	0.0002				
SD:	0.0024	0.0024	0.0000				
%RSD:	10.28	10.28	10.28				

Sequence No.: 103 **Autosampler Location: 31**
Sample ID: L1606782-10 T **Date Collected: 3/14/2016 21:51:46**
Analyst: **Data Type: Original**

Replicate Data: L1606782-10 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0054	0.0054	0.0001	0.0007	0.0001	21:52:37	Yes
2	0.0097	0.0097	0.0001	0.0011	0.0002	21:53:07	Yes

3	0.0107	0.0107	0.0001	0.0010	0.0002	21:53:37	Yes
Mean:	0.0086	0.0086	0.0001				
SD:	0.0028	0.0028	0.0000				
%RSD:	33.02	33.02	33.02				

==========

Sequence No.: 104 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 21:53:38**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.63	10.63	0.1127	0.6690	0.1128	21:54:29	Yes
2	10.63	10.63	0.1127	0.6602	0.1128	21:54:59	Yes
3	10.39	10.39	0.1101	0.6451	0.1102	21:55:29	Yes
Mean:	10.55	10.55	0.1118				
SD:	0.1384	0.1384	0.0015				
%RSD:	1.312	1.312	1.31				

QC value within limits for Hg 253.7 Recovery = 105.48%
All analyte(s) passed QC.

==========

Sequence No.: 105 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 21:55:30**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0111	-0.0111	-0.0001	-0.0020	-0.0000	21:56:20	Yes
2	-0.0080	-0.0080	-0.0001	-0.0007	0.0000	21:56:50	Yes
3	-0.0048	-0.0048	-0.0001	-0.0000	0.0000	21:57:20	Yes
Mean:	-0.0080	-0.0080	-0.0001				
SD:	0.0032	0.0032	0.0000				
%RSD:	39.67	39.67	39.67				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 106 **Autosampler Location: 32**
Sample ID: WG873556-1 T **Date Collected: 3/14/2016 21:57:22**
Analyst: **Data Type: Original**

Replicate Data: WG873556-1 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0082	-0.0082	-0.0001	-0.0003	0.0000	21:58:12	Yes
2	-0.0071	-0.0071	-0.0001	-0.0001	0.0000	21:58:42	Yes
3	-0.0076	-0.0076	-0.0001	-0.0002	0.0000	21:59:12	Yes
Mean:	-0.0076	-0.0076	-0.0001				
SD:	0.0005	0.0005	0.0000				
%RSD:	7.207	7.207	7.21				

==========

Sequence No.: 107 **Autosampler Location: 33**
Sample ID: WG873556-2 T **Date Collected: 3/14/2016 21:59:13**
Analyst: **Data Type: Original**

Replicate Data: WG873556-2 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.161	1.161	0.0123	0.0728	0.0124	22:00:04	Yes
2	1.125	1.125	0.0119	0.0697	0.0120	22:00:34	Yes
3	1.115	1.115	0.0118	0.0693	0.0119	22:01:04	Yes
Mean:	1.134	1.134	0.0120				
SD:	0.0244	0.0244	0.0003				
%RSD:	2.151	2.151	2.15				

==========

Sequence No.: 108 **Autosampler Location: 34**
Sample ID: L1607060-05 T **Date Collected: 3/14/2016 22:01:05**
Analyst: **Data Type: Original**

Replicate Data: L1607060-05 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0049	-0.0049	-0.0001	-0.0001	0.0000	22:01:56	Yes
2	-0.0046	-0.0046	-0.0000	-0.0001	0.0000	22:02:26	Yes
3	-0.0037	-0.0037	-0.0000	0.0001	0.0000	22:02:56	Yes
Mean:	-0.0044	-0.0044	-0.0000				
SD:	0.0006	0.0006	0.0000				
%RSD:	13.83	13.83	13.83				

==========

Sequence No.: 109 **Autosampler Location: 35**
Sample ID: WG873556-3 T **Date Collected: 3/14/2016 22:02:57**
Analyst: **Data Type: Original**

Replicate Data: WG873556-3 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0022	-0.0022	-0.0000	0.0002	0.0001	22:03:49	Yes
2	-0.0041	-0.0041	-0.0000	0.0001	0.0000	22:04:19	Yes
3	-0.0031	-0.0031	-0.0000	0.0002	0.0001	22:04:49	Yes
Mean:	-0.0031	-0.0031	-0.0000				
SD:	0.0009	0.0009	0.0000				
%RSD:	29.73	29.73	29.73				

==========

Sequence No.: 110 **Autosampler Location: 36**
Sample ID: WG873556-4 T **Date Collected: 3/14/2016 22:04:50**
Analyst: **Data Type: Original**

Replicate Data: WG873556-4 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.107	5.107	0.0541	0.3229	0.0542	22:05:40	Yes
2	5.184	5.184	0.0550	0.3240	0.0551	22:06:10	Yes
3	5.216	5.216	0.0553	0.3255	0.0554	22:06:40	Yes
Mean:	5.169	5.169	0.0548				
SD:	0.0558	0.0558	0.0006				
%RSD:	1.080	1.080	1.08				

==========

Sequence No.: 111 **Autosampler Location: 37**
Sample ID: L1607060-06 T **Date Collected: 3/14/2016 22:06:41**
Analyst: **Data Type: Original**

Replicate Data: L1607060-06 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0082	-0.0082	-0.0001	-0.0007	0.0000	22:07:31	Yes
2	-0.0064	-0.0064	-0.0001	-0.0003	0.0000	22:08:01	Yes
3	-0.0076	-0.0076	-0.0001	-0.0001	0.0000	22:08:31	Yes
Mean:	-0.0074	-0.0074	-0.0001				
SD:	0.0009	0.0009	0.0000				
%RSD:	12.17	12.17	12.17				

==========

Sequence No.: 112 **Autosampler Location: 38**
Sample ID: L1607073-02 T **Date Collected: 3/14/2016 22:08:32**
Analyst: **Data Type: Original**

Replicate Data: L1607073-02 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.425	1.425	0.0151	0.0905	0.0152	22:09:22	Yes
2	1.396	1.396	0.0148	0.0871	0.0149	22:09:53	Yes
3	1.387	1.387	0.0147	0.0867	0.0148	22:10:23	Yes
Mean:	1.403	1.403	0.0149				
SD:	0.0200	0.0200	0.0002				
%RSD:	1.426	1.426	1.43				

==========

Sequence No.: 113 **Autosampler Location: 39**
Sample ID: L1607142-01 T **Date Collected: 3/14/2016 22:10:24**
Analyst: **Data Type: Original**

Replicate Data: L1607142-01 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0047	-0.0047	-0.0000	0.0001	0.0000	22:11:14	Yes
2	-0.0012	-0.0012	-0.0000	0.0002	0.0001	22:11:44	Yes
3	-0.0022	-0.0022	-0.0000	0.0002	0.0001	22:12:14	Yes
Mean:	-0.0027	-0.0027	-0.0000				
SD:	0.0018	0.0018	0.0000				
%RSD:	66.31	66.31	66.31				

==========

Sequence No.: 114 **Autosampler Location: 40**
Sample ID: L1607142-02 T **Date Collected: 3/14/2016 22:12:16**
Analyst: **Data Type: Original**

Replicate Data: L1607142-02 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0022	-0.0022	-0.0000	0.0003	0.0001	22:13:06	Yes
2	-0.0030	-0.0030	-0.0000	0.0002	0.0001	22:13:36	Yes
3	-0.0011	-0.0011	-0.0000	0.0005	0.0001	22:14:06	Yes
Mean:	-0.0021	-0.0021	-0.0000				
SD:	0.0009	0.0009	0.0000				
%RSD:	45.41	45.41	45.41				

==========

Sequence No.: 115 **Autosampler Location: 41**
Sample ID: L1607142-03 T **Date Collected: 3/14/2016 22:14:07**
Analyst: **Data Type: Original**

Replicate Data: L1607142-03 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0840	0.0840	0.0009	0.0054	0.0010	22:14:57	Yes
2	0.0820	0.0820	0.0009	0.0053	0.0010	22:15:27	Yes
3	0.0820	0.0820	0.0009	0.0053	0.0010	22:15:58	Yes
Mean:	0.0826	0.0826	0.0009				
SD:	0.0011	0.0011	0.0000				
%RSD:	1.391	1.391	1.39				

==========

Sequence No.: 116 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 22:15:59**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.76	10.76	0.1141	0.6732	0.1142	22:16:51	Yes
2	10.66	10.66	0.1131	0.6618	0.1132	22:17:21	Yes
3	10.74	10.74	0.1139	0.6690	0.1139	22:17:51	Yes
Mean:	10.72	10.72	0.1137				
SD:	0.0503	0.0503	0.0005				
%RSD:	0.4696	0.4696	0.47				

QC value within limits for Hg 253.7 Recovery = 107.21%
All analyte(s) passed QC.

==========

Sequence No.: 117 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 22:17:52**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0103	-0.0103	-0.0001	-0.0017	-0.0000	22:18:42	Yes
2	-0.0032	-0.0032	-0.0000	-0.0001	0.0001	22:19:11	Yes
3	-0.0028	-0.0028	-0.0000	0.0002	0.0001	22:19:41	Yes
Mean:	-0.0054	-0.0054	-0.0001				
SD:	0.0042	0.0042	0.0000				
%RSD:	78.18	78.18	78.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 118 **Autosampler Location: 42**
Sample ID: L1607142-04 T **Date Collected: 3/14/2016 22:19:43**
Analyst: **Data Type: Original**

Replicate Data: L1607142-04 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0521	0.0521	0.0006	0.0038	0.0006	22:20:34	Yes
2	0.0488	0.0488	0.0005	0.0033	0.0006	22:21:04	Yes
3	0.0430	0.0430	0.0005	0.0030	0.0005	22:21:34	Yes
Mean:	0.0480	0.0480	0.0005				
SD:	0.0046	0.0046	0.0000				
%RSD:	9.582	9.582	9.58				

Sequence No.: 119 **Autosampler Location: 43**
Sample ID: L1607142-05 T **Date Collected: 3/14/2016 22:21:35**
Analyst: **Data Type: Original**

Replicate Data: L1607142-05 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0179	0.0179	0.0002	0.0017	0.0003	22:22:25	Yes
2	0.0155	0.0155	0.0002	0.0014	0.0003	22:22:55	Yes
3	0.0164	0.0164	0.0002	0.0015	0.0003	22:23:25	Yes
Mean:	0.0166	0.0166	0.0002				
SD:	0.0012	0.0012	0.0000				
%RSD:	7.210	7.210	7.21				

Sequence No.: 120 **Autosampler Location: 44**
Sample ID: L1607142-06 T **Date Collected: 3/14/2016 22:23:26**
Analyst: **Data Type: Original**

Replicate Data: L1607142-06 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0066	0.0066	0.0001	0.0006	0.0002	22:24:17	Yes
2	0.0015	0.0015	0.0000	0.0002	0.0001	22:24:47	Yes
3	-0.0014	-0.0014	-0.0000	-0.0001	0.0001	22:25:17	Yes
Mean:	0.0022	0.0022	0.0000				
SD:	0.0040	0.0040	0.0000				
%RSD:	180.1	180.1	180.15				

Sequence No.: 121 **Autosampler Location: 45**
Sample ID: L1607142-07 T **Date Collected: 3/14/2016 22:25:19**
Analyst: **Data Type: Original**

Replicate Data: L1607142-07 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0126	0.0126	0.0001	0.0012	0.0002	22:26:09	Yes
2	0.0119	0.0119	0.0001	0.0011	0.0002	22:26:39	Yes
3	0.0115	0.0115	0.0001	0.0012	0.0002	22:27:09	Yes
Mean:	0.0120	0.0120	0.0001				
SD:	0.0005	0.0005	0.0000				
%RSD:	4.568	4.568	4.57				

Sequence No.: 122 **Autosampler Location: 46**
Sample ID: L1607142-08 T **Date Collected: 3/14/2016 22:27:10**
Analyst: **Data Type: Original**

Replicate Data: L1607142-08 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0032	0.0032	0.0000	0.0006	0.0001	22:28:01	Yes
2	0.0047	0.0047	0.0001	0.0005	0.0001	22:28:31	Yes
3	0.0062	0.0062	0.0001	0.0008	0.0002	22:29:01	Yes
Mean:	0.0047	0.0047	0.0000				
SD:	0.0015	0.0015	0.0000				
%RSD:	31.44	31.44	31.44				

==========

Sequence No.: 123 **Autosampler Location: 47**
Sample ID: L1607142-09 T **Date Collected: 3/14/2016 22:29:02**
Analyst: **Data Type: Original**

Replicate Data: L1607142-09 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0013	0.0013	0.0000	0.0004	0.0001	22:29:52	Yes
2	0.0017	0.0017	0.0000	0.0004	0.0001	22:30:22	Yes
3	-0.0032	-0.0032	-0.0000	0.0001	0.0001	22:30:52	Yes
Mean:	-0.0001	-0.0001	-0.0000				
SD:	0.0027	0.0027	0.0000				
%RSD:	>999.9%	>999.9%	>999.9%				

==========

Sequence No.: 124 **Autosampler Location: 48**
Sample ID: L1607142-10 T **Date Collected: 3/14/2016 22:30:53**
Analyst: **Data Type: Original**

Replicate Data: L1607142-10 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0001	-0.0001	-0.0000	0.0004	0.0001	22:31:43	Yes
2	-0.0030	-0.0030	-0.0000	0.0001	0.0001	22:32:13	Yes
3	-0.0030	-0.0030	-0.0000	0.0000	0.0001	22:32:43	Yes
Mean:	-0.0020	-0.0020	-0.0000				
SD:	0.0017	0.0017	0.0000				
%RSD:	82.37	82.37	82.37				

==========

Sequence No.: 125 **Autosampler Location: 49**
Sample ID: L1607142-11 T **Date Collected: 3/14/2016 22:32:44**
Analyst: **Data Type: Original**

Replicate Data: L1607142-11 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0047	-0.0047	-0.0000	0.0001	0.0000	22:33:35	Yes
2	-0.0049	-0.0049	-0.0001	-0.0001	0.0000	22:34:05	Yes
3	-0.0053	-0.0053	-0.0001	-0.0002	0.0000	22:34:35	Yes
Mean:	-0.0050	-0.0050	-0.0001				
SD:	0.0003	0.0003	0.0000				
%RSD:	6.940	6.940	6.94				

==========

Sequence No.: 126 **Autosampler Location: 50**
Sample ID: L1607142-12 T **Date Collected: 3/14/2016 22:34:37**
Analyst: **Data Type: Original**

Replicate Data: L1607142-12 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0030	-0.0030	-0.0000	0.0000	0.0001	22:35:27	Yes
2	0.0000	0.0000	0.0000	0.0002	0.0001	22:35:57	Yes
3	-0.0012	-0.0012	-0.0000	0.0004	0.0001	22:36:27	Yes
Mean:	-0.0014	-0.0014	-0.0000				
SD:	0.0015	0.0015	0.0000				
%RSD:	110.2	110.2	110.19				

==========

Sequence No.: 127 **Autosampler Location: 51**
Sample ID: L1607142-13 T **Date Collected: 3/14/2016 22:36:29**
Analyst: **Data Type: Original**

Replicate Data: L1607142-13 T

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0011	-0.0011	-0.0000	0.0005	0.0001	22:37:20	Yes
2	0.0041	0.0041	0.0000	0.0006	0.0001	22:37:50	Yes
3	-0.0012	-0.0012	-0.0000	0.0002	0.0001	22:38:20	Yes
Mean:	0.0006	0.0006	0.0000				
SD:	0.0031	0.0031	0.0000				

%RSD: 512.0 512.0 511.99

==========

Sequence No.: 128 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 22:38:21**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.72	10.72	0.1137	0.6710	0.1138	22:39:14	Yes
2	10.61	10.61	0.1125	0.6591	0.1126	22:39:43	Yes
3	10.61	10.61	0.1125	0.6601	0.1126	22:40:13	Yes
Mean:	10.65	10.65	0.1129				
SD:	0.0651	0.0651	0.0007				
%RSD:	0.6116	0.6116	0.61				

QC value within limits for Hg 253.7 Recovery = 106.46%
All analyte(s) passed QC.

==========

Sequence No.: 129 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 22:40:15**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0053	-0.0053	-0.0001	-0.0004	0.0000	22:41:05	Yes
2	0.0116	0.0116	0.0001	0.0012	0.0002	22:41:35	Yes
3	0.0182	0.0182	0.0002	0.0019	0.0003	22:42:05	Yes
Mean:	0.0082	0.0082	0.0001				
SD:	0.0121	0.0121	0.0001				
%RSD:	148.7	148.7	148.68				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 130 **Autosampler Location: 52**
Sample ID: WG873580-1 S **Date Collected: 3/14/2016 22:42:06**
Analyst: **Data Type: Original**

Replicate Data: WG873580-1 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0031	-0.0031	-0.0000	0.0001	0.0001	22:42:58	Yes
2	-0.0045	-0.0045	-0.0000	-0.0001	0.0000	22:43:28	Yes
3	-0.0034	-0.0034	-0.0000	0.0002	0.0001	22:43:58	Yes
Mean:	-0.0037	-0.0037	-0.0000				
SD:	0.0007	0.0007	0.0000				
%RSD:	19.31	19.31	19.31				

==========

Sequence No.: 131 **Autosampler Location: 53**
Sample ID: WG873580-2 S **Date Collected: 3/14/2016 22:43:59**
Analyst: **Data Type: Original**

Replicate Data: WG873580-2 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.124	1.124	0.0119	0.0707	0.0120	22:44:49	Yes
2	1.106	1.106	0.0117	0.0688	0.0118	22:45:19	Yes
3	1.103	1.103	0.0117	0.0687	0.0118	22:45:49	Yes
Mean:	1.111	1.111	0.0118				
SD:	0.0117	0.0117	0.0001				
%RSD:	1.049	1.049	1.05				

==========

Sequence No.: 132 **Autosampler Location: 54**
Sample ID: L1607142-01 S **Date Collected: 3/14/2016 22:45:51**
Analyst: **Data Type: Original**

Replicate Data: L1607142-01 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.0054	-0.0054	-0.0001	-0.0001	0.0000	22:46:40	Yes
2	-0.0005	-0.0005	-0.0000	0.0001	0.0001	22:47:10	Yes
3	-0.0090	-0.0090	-0.0001	-0.0007	-0.0000	22:47:40	Yes
Mean:	-0.0050	-0.0050	-0.0001				
SD:	0.0043	0.0043	0.0000				
%RSD:	86.13	86.13	86.13				

==========

Sequence No.: 133 **Autosampler Location: 55**
Sample ID: WG873580-3 S **Date Collected: 3/14/2016 22:47:42**
Analyst: **Data Type: Original**

Replicate Data: WG873580-3 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0040	-0.0040	-0.0000	0.0003	0.0000	22:48:32	Yes
2	-0.0050	-0.0050	-0.0001	0.0001	0.0000	22:49:02	Yes
3	-0.0035	-0.0035	-0.0000	0.0001	0.0001	22:49:32	Yes
Mean:	-0.0042	-0.0042	-0.0000				
SD:	0.0007	0.0007	0.0000				
%RSD:	17.79	17.79	17.79				

==========

Sequence No.: 134 **Autosampler Location: 56**
Sample ID: WG873580-4 S **Date Collected: 3/14/2016 22:49:33**
Analyst: **Data Type: Original**

Replicate Data: WG873580-4 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.958	4.958	0.0526	0.3117	0.0527	22:50:25	Yes
2	4.940	4.940	0.0524	0.3074	0.0525	22:50:56	Yes
3	4.943	4.943	0.0524	0.3072	0.0525	22:51:26	Yes
Mean:	4.947	4.947	0.0525				
SD:	0.0099	0.0099	0.0001				
%RSD:	0.2001	0.2001	0.20				

==========

Sequence No.: 135 **Autosampler Location: 57**
Sample ID: L1607142-02 S **Date Collected: 3/14/2016 22:51:27**
Analyst: **Data Type: Original**

Replicate Data: L1607142-02 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0107	-0.0107	-0.0001	-0.0010	-0.0000	22:52:17	Yes
2	-0.0017	-0.0017	-0.0000	0.0002	0.0001	22:52:47	Yes
3	-0.0043	-0.0043	-0.0000	-0.0002	0.0000	22:53:17	Yes
Mean:	-0.0056	-0.0056	-0.0001				
SD:	0.0046	0.0046	0.0000				
%RSD:	82.61	82.61	82.61				

==========

Sequence No.: 136 **Autosampler Location: 58**
Sample ID: L1607142-03 S **Date Collected: 3/14/2016 22:53:18**
Analyst: **Data Type: Original**

Replicate Data: L1607142-03 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0061	-0.0061	-0.0001	-0.0001	0.0000	22:54:08	Yes
2	-0.0055	-0.0055	-0.0001	-0.0002	0.0000	22:54:38	Yes
3	-0.0053	-0.0053	-0.0001	0.0001	0.0000	22:55:08	Yes
Mean:	-0.0056	-0.0056	-0.0001				
SD:	0.0004	0.0004	0.0000				
%RSD:	7.087	7.087	7.09				

==========

Sequence No.: 137 **Autosampler Location: 59**
Sample ID: L1607142-04 S **Date Collected: 3/14/2016 22:55:10**
Analyst: **Data Type: Original**

Replicate Data: L1607142-04 S

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.0031	0.0031	0.0000	0.0006	0.0001	22:55:59	Yes
2	-0.0032	-0.0032	-0.0000	0.0002	0.0001	22:56:29	Yes
3	-0.0041	-0.0041	-0.0000	0.0001	0.0000	22:56:59	Yes
Mean:	-0.0014	-0.0014	-0.0000				
SD:	0.0039	0.0039	0.0000				
%RSD:	275.7	275.7	275.70				

==========

Sequence No.: 138 **Autosampler Location: 60**
Sample ID: L1607142-05 S **Date Collected: 3/14/2016 22:57:01**
Analyst: **Data Type: Original**

Replicate Data: L1607142-05 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0047	0.0047	0.0000	0.0008	0.0001	22:57:51	Yes
2	0.0012	0.0012	0.0000	0.0004	0.0001	22:58:21	Yes
3	0.0029	0.0029	0.0000	0.0006	0.0001	22:58:51	Yes
Mean:	0.0029	0.0029	0.0000				
SD:	0.0017	0.0017	0.0000				
%RSD:	59.25	59.25	59.25				

==========

Sequence No.: 139 **Autosampler Location: 61**
Sample ID: L1607142-06 S **Date Collected: 3/14/2016 22:58:52**
Analyst: **Data Type: Original**

Replicate Data: L1607142-06 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0020	-0.0020	-0.0000	0.0003	0.0001	22:59:42	Yes
2	-0.0060	-0.0060	-0.0001	-0.0001	0.0000	23:00:12	Yes
3	-0.0051	-0.0051	-0.0001	-0.0001	0.0000	23:00:42	Yes
Mean:	-0.0043	-0.0043	-0.0000				
SD:	0.0021	0.0021	0.0000				
%RSD:	48.55	48.55	48.55				

==========

Sequence No.: 140 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 23:00:43**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.69	10.69	0.1134	0.6717	0.1135	23:01:36	Yes
2	10.60	10.60	0.1124	0.6603	0.1125	23:02:06	Yes
3	10.72	10.72	0.1137	0.6650	0.1137	23:02:35	Yes
Mean:	10.67	10.67	0.1131				
SD:	0.0628	0.0628	0.0007				
%RSD:	0.5888	0.5888	0.59				

QC value within limits for Hg 253.7 Recovery = 106.71%
All analyte(s) passed QC.

==========

Sequence No.: 141 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 23:02:37**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0097	-0.0097	-0.0001	-0.0013	-0.0000	23:03:27	Yes
2	0.0010	0.0010	0.0000	-0.0001	0.0001	23:03:57	Yes
3	0.0090	0.0090	0.0001	0.0006	0.0002	23:04:27	Yes
Mean:	0.0001	0.0001	0.0000				
SD:	0.0094	0.0094	0.0001				
%RSD:	>999.9%	>999.9%	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 142 **Autosampler Location: 62**
Sample ID: L1607142-07 S **Date Collected: 3/14/2016 23:04:28**

Analyst: **Data Type: Original**

Replicate Data: L1607142-07 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0051	-0.0051	-0.0001	0.0000	0.0000	23:05:20	Yes
2	-0.0061	-0.0061	-0.0001	0.0000	0.0000	23:05:50	Yes
3	-0.0058	-0.0058	-0.0001	-0.0000	0.0000	23:06:20	Yes
Mean:	-0.0057	-0.0057	-0.0001				
SD:	0.0005	0.0005	0.0000				
%RSD:	8.753	8.753	8.75				

==========

Sequence No.: 143 **Autosampler Location: 1**
Sample ID: L1607142-08 S **Date Collected: 3/14/2016 23:06:22**
Analyst: **Data Type: Original**

Replicate Data: L1607142-08 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0069	-0.0069	-0.0001	-0.0001	0.0000	23:07:14	Yes
2	-0.0065	-0.0065	-0.0001	-0.0002	0.0000	23:07:44	Yes
3	-0.0057	-0.0057	-0.0001	0.0001	0.0000	23:08:14	Yes
Mean:	-0.0063	-0.0063	-0.0001				
SD:	0.0006	0.0006	0.0000				
%RSD:	10.02	10.02	10.02				

==========

Sequence No.: 144 **Autosampler Location: 2**
Sample ID: L1607142-09 S **Date Collected: 3/14/2016 23:08:15**
Analyst: **Data Type: Original**

Replicate Data: L1607142-09 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0059	-0.0059	-0.0001	0.0000	0.0000	23:09:05	Yes
2	-0.0052	-0.0052	-0.0001	0.0001	0.0000	23:09:36	Yes
3	-0.0080	-0.0080	-0.0001	-0.0001	0.0000	23:10:06	Yes
Mean:	-0.0064	-0.0064	-0.0001				
SD:	0.0015	0.0015	0.0000				
%RSD:	23.40	23.40	23.40				

==========

Sequence No.: 145 **Autosampler Location: 3**
Sample ID: L1607142-10 S **Date Collected: 3/14/2016 23:10:07**
Analyst: **Data Type: Original**

Replicate Data: L1607142-10 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0028	-0.0028	-0.0000	0.0003	0.0001	23:10:57	Yes
2	-0.0029	-0.0029	-0.0000	0.0001	0.0001	23:11:27	Yes
3	-0.0024	-0.0024	-0.0000	0.0003	0.0001	23:11:57	Yes
Mean:	-0.0027	-0.0027	-0.0000				
SD:	0.0003	0.0003	0.0000				
%RSD:	9.344	9.344	9.34				

==========

Sequence No.: 146 **Autosampler Location: 4**
Sample ID: L1607142-11 S **Date Collected: 3/14/2016 23:11:58**
Analyst: **Data Type: Original**

Replicate Data: L1607142-11 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0064	-0.0064	-0.0001	-0.0001	0.0000	23:12:49	Yes
2	-0.0035	-0.0035	-0.0000	0.0002	0.0001	23:13:19	Yes
3	-0.0015	-0.0015	-0.0000	0.0004	0.0001	23:13:49	Yes
Mean:	-0.0038	-0.0038	-0.0000				
SD:	0.0025	0.0025	0.0000				
%RSD:	65.29	65.29	65.29				

==========

Sequence No.: 147 **Autosampler Location: 5**

Sample ID: L1607142-12 S **Date Collected: 3/14/2016 23:13:50**
Analyst: **Data Type: Original**

Replicate Data: L1607142-12 S

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0025	-0.0025	-0.0000	0.0001	0.0001	23:14:40	Yes
2	-0.0048	-0.0048	-0.0001	0.0002	0.0000	23:15:10	Yes
3	-0.0024	-0.0024	-0.0000	0.0002	0.0001	23:15:40	Yes
Mean:	-0.0032	-0.0032	-0.0000				
SD:	0.0014	0.0014	0.0000				
%RSD:	42.34	42.34	42.34				

==========

Sequence No.: 148 **Autosampler Location: 6**
Sample ID: WG873012-2 U **Date Collected: 3/14/2016 23:15:41**
Analyst: **Data Type: Original**

Replicate Data: WG873012-2 U

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.125	1.125	0.0119	0.0698	0.0120	23:16:31	Yes
2	1.119	1.119	0.0119	0.0688	0.0120	23:17:01	Yes
3	1.132	1.132	0.0120	0.0695	0.0121	23:17:31	Yes
Mean:	1.125	1.125	0.0119				
SD:	0.0062	0.0062	0.0001				
%RSD:	0.5500	0.5500	0.55				

==========

Sequence No.: 149 **Autosampler Location: 12**
Sample ID: L1606724-05 U 5X **Date Collected: 3/14/2016 23:17:32**
Analyst: **Data Type: Original**

Replicate Data: L1606724-05 U 5X

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	30.71	6.141	0.0651	0.3835	0.0652	23:18:22	Yes
2	29.75	5.949	0.0631	0.3665	0.0632	23:18:52	Yes
3	28.78	5.756	0.0610	0.3561	0.0611	23:19:22	Yes
Mean:	29.75	5.949	0.0631				
SD:	0.9633	0.1927	0.0020				
%RSD:	3.238	3.238	3.24				

==========

Sequence No.: 150 **Autosampler Location: 13**
Sample ID: WG872918-3 T PS **Date Collected: 3/14/2016 23:19:23**
Analyst: **Data Type: Original**

Replicate Data: WG872918-3 T PS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.877	8.877	0.0941	0.5614	0.0942	23:20:13	Yes
2	8.739	8.739	0.0927	0.5494	0.0927	23:20:43	Yes
3	9.020	9.020	0.0956	0.5657	0.0957	23:21:13	Yes
Mean:	8.878	8.878	0.0941				
SD:	0.1405	0.1405	0.0015				
%RSD:	1.582	1.582	1.58				

==========

Sequence No.: 151 **Autosampler Location: 10**
Sample ID: CCV **Date Collected: 3/14/2016 23:21:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.67	10.67	0.1131	0.6646	0.1132	23:22:05	Yes
2	10.50	10.50	0.1114	0.6472	0.1114	23:22:34	Yes
3	10.30	10.30	0.1093	0.6330	0.1093	23:23:04	Yes
Mean:	10.49	10.49	0.1112				
SD:	0.1810	0.1810	0.0019				
%RSD:	1.726	1.726	1.73				

QC value within limits for Hg 253.7 Recovery = 104.91%
All analyte(s) passed QC.

==========

Sequence No.: 152 **Autosampler Location: 11**
Sample ID: CCB **Date Collected: 3/14/2016 23:23:06**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0100	-0.0100	-0.0001	-0.0011	-0.0000	23:23:56	Yes
2	-0.0024	-0.0024	-0.0000	-0.0000	0.0001	23:24:25	Yes
3	-0.0005	-0.0005	-0.0000	0.0003	0.0001	23:24:55	Yes
Mean:	-0.0043	-0.0043	-0.0000				
SD:	0.0050	0.0050	0.0001				
%RSD:	116.8	116.8	116.76				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

MERCURY TRUE VALUE CRITERIA

ICV	3 ug/l
LCSW	1 ug/l
MS	1 ug/l
CCV	5 ug/l

As of 6/1/13, Mercury True Value criteria is as follows:

ICV	3 ug/l
LCSW	1 ug/l
MS(aq)	5 ug/l
MS(soil)	1 ug/l
CCV	10 ug/l

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▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D088-540
Certificate Issue Date: February 26, 2015
Expiration Date: September 30, 2018
Revision Number: Original

CERTIFICATION

Parameter	Total Concentration	Certified Value[1]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	48500	7580	6.41	3640 - 11500	2860 - 12300
Antimony	233	107	2.50	D.L. - 223	23.3 - 273
Arsenic	127	114	8.10	89.7 - 139	79.8 - 161
Barium	636	181	5.95	150 - 212	132 - 230
Beryllium	100	93.8	2.68	77.6 - 110	69.8 - 118
Boron	127	108	5.36	79.7 - 136	64.6 - 151
Cadmium	101	93.2	3.16	77.2 - 109	68.3 - 118
Calcium	11400	5630	4.07	4550 - 6700	4130 - 7120
Chromium	133	109	5.66	86.9 - 131	75.8 - 142
Cobalt	123	108	4.34	90.3 - 125	80.0 - 135
Copper	134	122	8.30	99.1 - 144	91.1 - 152
Iron	29800	14600	7.88	6630 - 22700	5300 - 24000
Lead	116	102	13.2	82.9 - 120	72.2 - 131
Magnesium	5040	2960	0.400	2260 - 3670	1950 - 3980
Manganese	650	407	2.67	331 - 483	310 - 504
Mercury	9.32	9.36	10.4	6.74 - 12.0	4.80 - 13.9
Molybdenum	125	110	3.10	86.5 - 133	76.9 - 142
Nickel	96.0	79.7	5.01	66.1 - 93.4	57.0 - 102
Potassium	19400	2910	3.64	2060 - 3770	1820 - 4010
Selenium	204	186	2.58	145 - 227	127 - 245
Silver	44.6	41.8	8.45	31.5 - 52.1	27.7 - 56.0
Sodium	9810	545	4.85	393 - 696	285 - 804
Strontium	258	99.2	6.04	79.4 - 119	69.8 - 129
Thallium	220	200	3.79	159 - 241	138 - 262

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Parameter	Total Concentration	Certified Value[1]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	136	122	2.46	94.2 - 150	71.5 - 173
Titanium	2340	308	6.87	88.0 - 527	67.0 - 548
Uranium	12.9	11.5	3.14	9.43 - 13.6	9.36 - 13.1
Vanadium	145	103	7.52	80.3 - 126	68.3 - 138
Zinc	234	227	7.50	186 - 269	160 - 295

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	7580	7580	77.1	140	-	-
Antimony	107	107	46.0	147	-	-
Arsenic	114	114	78.3	180	-	-
Barium	181	181	92.3	157	-	-
Beryllium	93.8	93.8	94.8	148	-	-
Boron	108	108	82.2	92	-	-
Cadmium	93.2	93.2	92.3	183	-	-
Calcium	5630	5630	88.4	126	-	-
Chromium	109	109	89.9	181	-	-
Cobalt	108	108	96.0	137	-	-
Copper	122	122	88.2	180	-	-
Iron	14600	14600	89.7	139	-	-
Lead	102	102	90.0	191	-	-
Magnesium	2960	2960	90.0	132	-	-
Manganese	407	407	94.0	147	-	-
Mercury	9.36	9.36	100	133	-	-
Molybdenum	110	110	88.5	151	-	-
Nickel	79.7	79.7	89.9	181	-	-
Potassium	2910	2910	90.8	133	-	-
Selenium	186	186	90.8	170	-	-

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	41.8	41.8	91.7	154	-	-
Sodium	545	545	94.1	119	-	-
Strontium	99.2	99.2	94.5	80	-	-
Thallium	200	200	90.5	149	-	-
Tin	122	122	90.5	102	-	-
Titanium	308	308	85.2	92	-	-
Uranium	11.5	11.5	110	12	-	-
Vanadium	103	103	90.6	145	-	-
Zinc	227	227	97.6	179	-	-

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1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. The Total Concentrations are equal to the background concentrations in the blank soil matrix (measured using neutron activation, XRF, and total acid digestion techniques), plus the amount of each analyte spiked onto the soil. For Trace Metals, the values listed are only ""Theoretical Values"" based upon the methodologies listed.

7. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Tom Widera

Thomas Widera

Quality Officer

Kristina Sanchez



Calculation of 7470A Mercury

Calculate Mercury concentration from the daily calibration curve. The curve is generated utilizing a straight-line equation defined as:

$$A = k1 + k2C$$

Where:

A = Average peak height of the sample/standard integrations
C = Sample/Standard Concentration, µg/L
k1 = y-intercept
k2 = slope

The instrument will plot peak height against concentration (µg/L). The result is generated in µg/L . This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

Result, mg/L = (concentration, µg/L) x (1mg/1000µg) x (DF)

Calculation of 7471B Mercury

Calculate Mercury concentration from the daily calibration curve. The curve is generated utilizing a straight-line equation defined as:

$$A = k1 + k2C$$

Where:

A = Average peak height of the sample/standard integrations
C = Sample/Standard Concentration, µg/L
k1 = y-intercept
k2 = slope

The instrument will plot peak height against concentration (µg/L). The result is generated in µg/L . This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

Result, mg/L = (concentration, µg/L) x (1mg/1000µg) x (DF)

The result in mg/kg is calculated on a dry weight basis using the sample weight digested(Wt), the final volume of the digestate(FV), and the percent total solids(%TS).

Result, mg/kg, wet = ((result, mg/L) x (FV)) /Wt

Result, mg/kg, dry wt = (Result, mg/kg wet)/(%TS)

Analytical Sequence

Method : 0.2-20ppb AQ

FIMS4
3/14/16d

REVIEWED
By drm at 5:16 pm, Mar 15, 2016

Seq.	Loc.	Sample ID	Status
1	1	Calib Blank	Applied
2	2	0.2 ppb	Applied
3	3	1.0 ppb	Applied
4	4	2.0 ppb	Applied
5	5	5.0 ppb	Applied
6	6	10.0 ppb	Applied
7	7	20.0 ppb	Applied
8	8	ICV	QC Passed
9	9	ICB	QC Passed
10	12	WG873525-1 C	Analyzed
11	13	WG873525-2 C	Analyzed
12	14	L1606521-01 C	Analyzed
13	15	WG873525-3 C	Analyzed
14	16	WG873525-4 C	Analyzed
15	17	L1606521-02 C	Analyzed
16	18	L1606521-03 C	Analyzed
17	19	L1606521-04 C	Analyzed
18	20	L1606584-03 C	Analyzed
19	21	L1606584-06 C	Analyzed
20	10	CCV	QC Passed
21	11	CCB	QC Passed
22	22	L1606584-09 C	Analyzed
23	23	L1606651-01 C	Analyzed
24	24	L1606711-01 C	Analyzed
25	25	L1606711-04 C	Analyzed
26	26	L1606711-07 C	Analyzed
27	27	L1606711-10 C	Analyzed
28	28	L1606711-13 C	Analyzed
29	29	WG873530-1 T	Analyzed
30	30	WG873530-2 T	Analyzed
31	31	L1607065-07 T	Analyzed
32	10	CCV	QC Passed
33	11	CCB	QC Passed
34	32	WG873530-3 T	Analyzed
35	33	WG873530-4 T	Analyzed
36	34	WG873532-1 U	Analyzed
37	35	WG873532-2 U	Analyzed
38	36	L1607055-01 U	Analyzed
39	37	WG873532-3 U	Analyzed
40	38	WG873532-4 U	Analyzed
41	39	WG873028-1 S	Analyzed
42	40	WG873028-2 S	Analyzed
43	41	L1606763-01 S	Analyzed
44	10	CCV	QC Passed
45	11	CCB	QC Passed
46	42	WG873028-3 S	Analyzed
47	43	WG873028-4 S	Analyzed
48	44	WG872887-1 T	Analyzed
49	45	WG872887-2 T	Analyzed
50	46	L1606590-08 T	Analyzed
51	47	WG872887-3 T	Analyzed
52	48	WG872887-4 T	Analyzed
53	49	L1606590-04 T	Analyzed
54	50	L1606590-05 T	Analyzed
55	51	L1606590-06 T	Analyzed
56	10	CCV	QC Passed
57	11	CCB	QC Passed
58	52	L1606590-07 T	Analyzed
59	53	L1606590-09 T	Analyzed
60	54	L1606590-11 T	Analyzed
61	55	L1606590-12 T	Analyzed
62	56	L1606590-13 T	Analyzed

Analytical Sequence

Method : 0.2-20ppb AQ

Seq.	Loc.		Sample ID	Status
63	57		L1606590-14 T	Analyzed
64	58		L1606616-01 T	Analyzed
65	59		L1606763-01 T	Analyzed
66	60		L1606768-01 T	Analyzed
67	61		L1606768-02 T	Analyzed
68	10	QC	CCV	QC Passed
69	11	QC	CCB	QC Passed
70	62		L1606768-03 T	Analyzed
71	1		L1606768-04 T	Analyzed
72	2		WG873012-1 U	Analyzed
73	3		WG873012-2 U	Analyzed
74	4		L1606724-01 U	Analyzed
75	5		WG873012-3 U	Analyzed
76	6		WG873012-4 U	Analyzed
77	7		L1606724-02 U	Analyzed
78	8		L1606724-03 U	Analyzed
79	9		L1606724-04 U	Analyzed
80	10	QC	CCV	QC Passed
81	11	QC	CCB	QC Passed
82	12		L1606724-05 U	Analyzed
83	13		L1606724-06 U	Analyzed
84	14		L1606724-07 U	Analyzed
85	15		L1606724-08 U	Analyzed
86	16		WG872918-1 T	Analyzed
87	17		WG872918-2 T	Analyzed
88	18		L1606782-05 T	Analyzed
89	19		WG872918-3 T	Analyzed
90	20		WG872918-4 T	Analyzed
91	21		L1606782-09 T	Analyzed
92	10	QC	CCV	QC Passed
93	11	QC	CCB	QC Passed
94	22		WG872918-5 T	Analyzed
95	23		WG872918-6 T	Analyzed
96	24		L1606782-01 T	Analyzed
97	25		L1606782-02 T	Analyzed
98	26		L1606782-03 T	Analyzed
99	27		L1606782-04 T	Analyzed
100	28		L1606782-06 T	Analyzed
101	29		L1606782-07 T	Analyzed
102	30		L1606782-08 T	Analyzed
103	31		L1606782-10 T	Analyzed
104	10	QC	CCV	QC Passed
105	11	QC	CCB	QC Passed
106	32		WG873556-1 T	Analyzed
107	33		WG873556-2 T	Analyzed
108	34		L1607060-05 T	Analyzed
109	35		WG873556-3 T	Analyzed
110	36		WG873556-4 T	Analyzed
111	37		L1607060-06 T	Analyzed
112	38		L1607073-02 T	Analyzed
113	39		L1607142-01 T	Analyzed
114	40		L1607142-02 T	Analyzed
115	41		L1607142-03 T	Analyzed
116	10	QC	CCV	QC Passed
117	11	QC	CCB	QC Passed
118	42		L1607142-04 T	Analyzed
119	43		L1607142-05 T	Analyzed
120	44		L1607142-06 T	Analyzed
121	45		L1607142-07 T	Analyzed
122	46		L1607142-08 T	Analyzed
123	47		L1607142-09 T	Analyzed
124	48		L1607142-10 T	Analyzed

Analytical Sequence

Method : 0.2-20ppb AQ

Seq.	Loc.		Sample ID	Status
125	49		L1607142-11 T	Analyzed
126	50		L1607142-12 T	Analyzed
127	51		L1607142-13 T	Analyzed
128	10	QC	CCV	QC Passed
129	11	QC	CCB	QC Passed
130	52		WG873580-1 S	Analyzed
131	53		WG873580-2 S	Analyzed
132	54		L1607142-01 S	Analyzed
133	55		WG873580-3 S	Analyzed
134	56		WG873580-4 S	Analyzed
135	57		L1607142-02 S	Analyzed
136	58		L1607142-03 S	Analyzed
137	59		L1607142-04 S	Analyzed
138	60		L1607142-05 S	Analyzed
139	61		L1607142-06 S	Analyzed
140	10	QC	CCV	QC Passed
141	11	QC	CCB	QC Passed
142	62		L1607142-07 S	Analyzed
143	1		L1607142-08 S	Analyzed
144	2		L1607142-09 S	Analyzed
145	3		L1607142-10 S	Analyzed
146	4		L1607142-11 S	Analyzed
147	5		L1607142-12 S	Analyzed
148	6		WG873012-2 U	Analyzed
149	12		L1606724-05 U 5X	Analyzed
150	13		WG872918-3 T PS	Analyzed
151	10	QC	CCV	QC Passed
152	11	QC	CCB	QC Passed

METALS ELN REPORT

Workgroup: WG872887

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 7470A	HNO3	C577860	H2SO4	C584262	METALS	METSPIKE	HG16101006 37JH	METSPIKE	LCS1610090 636JH	171,211,213

Additional Reagent/Std	
	ICV1610090636JH
K2O8S2	PS1609021504RC
KMnO4	PP1610081105RB
NaCl-NH2OH.HCl	HH1610071920EA

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
WG872887-1 BLANK	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
WG872887-2 LCS	03/11/16 09:44	Raldi Cabral	25	.250	03/11/16 09:44	4	95.1	03/11/16 11:44	25	
WG872887-3 MS	03/11/16 09:44	Raldi Cabral	25	1.25	03/11/16 09:44	4	95.1	03/11/16 11:44	25	
WG872887-4 MSD	03/11/16 09:44	Raldi Cabral	25	1.25	03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-04 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-05 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-06 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-07 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-08 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	

Reported: 23-MAR-16 10:14 AM

METALS ELN REPORT

Workgroup: WG872887

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L1606590-09 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-11	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-12 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-13 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606590-14 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606592-13 SAMP	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606616-01 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606763-01 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606768-01 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606768-02 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606768-03 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	
L1606768-04 WATER	03/11/16 09:44	Raldi Cabral	25		03/11/16 09:44	4	95.1	03/11/16 11:44	25	

Reported: 23-MAR-16 10:14 AM

METALS ELN REPORT

Workgroup: WG872887

Reported: 23-MAR-16 10:14 AM

METALS ELN REPORT

Workgroup: WG873028

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 7470A	HNO3	C577860	H2SO4	C584262	METALS	METSPIKE	HG16101006 37JH	METSPIKE	LCS1610090 636JH	171,211,213

Additional Reagent/Std		
	ICV1610090636JH	
K2O8S2	PS1609021504RC	
KMnO4	PP1610081105RB	
NaCl-NH2OH.HCl	HH1610071920EA	

Sample/ Type	Digestion Date	Analyst	Lab Filtration Date	Sample Vol ml	Spike Amt	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
WG873028-1 BLANK	03/11/16 14:33	Raldi Cabral	NA	25		03/11/16 14:33	5	95.2	03/11/16 16:33	25	
WG873028-2 LCS	03/11/16 14:33	Raldi Cabral	NA	25	.250	03/11/16 14:33	5	95.2	03/11/16 16:33	25	
WG873028-3 DUP	03/11/16 14:33	Raldi Cabral	NA	25		03/11/16 14:33	5	95.2	03/11/16 16:33	25	
WG873028-4 MS	03/11/16 14:33	Raldi Cabral	NA	25	1.25	03/11/16 14:33	5	95.2	03/11/16 16:33	25	
L1606763-01 WATER	03/11/16 14:33	Raldi Cabral	NA	25		03/11/16 14:33	5	95.2	03/11/16 16:33	25	

Reported: 23-MAR-16 10:14 AM